State of New Mexico
ENVIRONMENT DEPARTMENT
Harold Runnels Building
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BRUCE KING
GOVERNOR

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY

HAZARDOUS WASTE FACILITY PERMIT

PERMITTEE: Department of Energy and Sandia National Laboratories, Albuquerque

IDENTIFICATION NUMBER: NM589011518

PERMIT NUMBER: NM589011518-1

LOCATION: 1515 Eubank, SE, Albuquerque, NM.

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6901, et seq.), and the New Mexico Hazardous Waste Act (section 74-4-1 et seq. NMSA 1978), a permit is issued to the Department of Energy and Sandia National Laboratories, Albuquerque, (hereafter called the Permittee) to operate a hazardous waste container storage facility at the location stated above.

The Permittee must comply with all the terms and conditions of this permit. This permit consists of the conditions contained herein including the attachments. Applicable provisions of regulations cited are those which are in effect on the effective date of this permit, New Mexico Hazardous Waste Management Regulations (HWMR-6, as amended 1990). This permit shall become effective 30 days after notice of the decision has been served on the applicant in accordance with HWMR-6 as amended 1990, Part IX, Section 902.A.10. and shall run for a period of ten years.

This permit is also based on the assumption that all information contained in the permit application is accurate and that the facility will be operated as specified in the application. The permit application consists of information submitted in Revision 5.0 of the Part B permit application, dated April 17, 1991, and numerous exchanges of technical comments.

Any inaccuracies found in the information submitted as the Part B application may be grounds for the termination or modification of this permit and/or potential enforcement action.

Signed this 6th day of August 1992

by Judith M. Espinosa
Judith M. Espinosa, Secretary
New Mexico Environment Department

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SNL 1252

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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 31, 1992

Nestor R. Ortiz
Director, Environment Safety and
Health, 3200
Sandia National Laboratories
Albuquerque, NM 87185

and

Kathleen A. Carlson
Area Manager
Kirtland Area Office
U.S. Department of Energy
PO Box 5400
Albuquerque, NM 87185-5400

RE: OPERATING PERMIT
NM5890110518-1

Dear Mr. Ortiz and Ms. Carlson,

Enclosed is the Operating Permit required by the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6901, et seq.) and the New Mexico Hazardous Waste Act (Sections 74-4-1 et seq. NMSA 1978) for the storage of hazardous waste in containers at the Hazardous Waste Management Facility, Sandia National Laboratories, Albuquerque. This Operating Permit will become effective 30 days after receipt of this letter in accordance with the New Mexico Hazardous Waste Regulations (HWMR-6), Part IX, Section 902.A.10. The U.S. Environmental Protection Agency (EPA), Region VI, will issue the permit for the Hazardous and Solid Waste Amendments of 1984.

The New Mexico Environment Department submitted the draft permit for public comment on July 12, 1991. In response to requests from citizens, the public comment period was extended to September 9, 1991. Comments were received from the applicant, U.S. EPA, U.S. Fish and Wildlife Service, The Pueblo of Isleta, and several citizen's groups. In response to a request for a public hearing made by the Southwest Organizing Project (SWOP) on September 8, 1991, an exchange of letters occurred documenting citizen's concerns about the proposed permit. Sandia National Laboratories,

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Albuquerque, responded to those comments to NMED on October 15, 1991. This response was forwarded to SWOP and other citizen's groups on October 21, 1991. An informal meeting was held to discuss these issues on December 11, 1991. Pursuant to the informal meeting, a Public Hearing was held on March 20, 1992. During the extended public comment period, which ended on April 21, 1992, comments were received from the Department of Energy, Sandia National Laboratories, Southwest Organizing Project, The East Manzano Alliance, Southwest Research and Information Center, and The Pueblo of Isleta. A copy of the NMED responses to comments is enclosed for your information.

You have the right to appeal this decision in accordance with the New Mexico Hazardous Waste Act, Section 74-4-4.2.G. which reads as follows: "Any person adversely affected by a decision of the Secretary concerning the issuance, modification, suspension, or revocation of a permit may appeal the decision by filing a notice of appeal with the court of appeals within thirty days after the date the decision is made. The appeal shall be on this record made at the hearing. The appellant shall certify in his notice of appeal that arrangements have been made with the Department for a sufficient number of transcripts of the record of the hearing on which the appeal (sic.) depends to support his appeal to the court, at the expense of the appellant, including one copy which he shall furnish to the Department."

If you have any questions on the technical content of the permit, please contact Benito Garcia, Chief of the Hazardous and Radioactive Materials Bureau, at (505) 827-4358.

Sincerely,

Judith M. Espinosa
Secretary
New Mexico Environment Department

Enclosures: Operating Permit
Response to Comments

xc: Mr. William H. Honker, EPA 6H-P, w/encls.
Mr. Garth Graves, NMED District I, w/out encls.

JME/HDG/hdg

Response to Comments Received Prior to Public Hearing.

(NOTE: The following comments were incorporated in the version of the draft permit subject to review in the Public Hearing. A Modified Draft Permit was placed into the hearing record on April 6, 1992, which incorporated additional comments from the public and the applicant.)

1. Respondent: Pueblo of Isleta, dated July 23, 1991.

1.1 Comment: An objection was raised to the operation of the hazardous waste storage facility because of the impact it may have on the environment and on groundwater.

NMED Response: The applicant has supplied all environmental, geologic and hydrologic information required in the Part B application by HWMR-6, Pt. IX, 40 CFR sections 270.14 and 270.15. The purpose of the SNLA Hazardous Waste Management Facility (HWMF) is to collect, separate, package and repackage, and ship hazardous waste generated at SNLA to permitted hazardous waste disposal facilities. NMED considers the proper management of these wastes to be protective of the environment. Through the permit conditions, SNLA is required to report to NMED and accidental spills, and clean up any spills to the ground. The permit does not allow SNLA to dispose of any hazardous wastes on or in the ground. The location, operation, and design of the HWMF is protective of the environment, and does not present any imminent threats to groundwater quality.

Permit Modification: None.

2. Respondent: U.S. Fish and Wildlife Service, dated August 29, 1991.

2.1 Comment: No trust resources would be affected by granting the hazardous waste permit.

NMED Response: None required.

Permit Modification: None.

3. Respondent: Department of Energy, Sandia National Laboratories, dated September 4, 1991.

Comments:

3.1. A general comment on the stringency of permit requirements and the regulatory authority of NMED defined by NM Hazardous Waste Act, 74-4-4 NMSA. This specifies that NMED may adopt hazardous waste management regulations that are

"equivalent to, and no more stringent than, federal regulations".

NMED Response: Reference to 74-4-4 NMSA is correct. NMED's position is to issue RCRA permits that are protective of human health and environment, comprehensive with regard to the regulations, technically sound, and enforceable. In this context, we have reviewed the draft permit and recommend the following changes in response to SNLA comment 1.

Permit Modifications:

Permit condition I.E.14 should be revised to reflect the requirement of HWMR-6, Pt. IX, section 270.30(l)(10) as follows - "as soon as the Permittee becomes aware of them." should be changed to read "at the time monitoring reports are submitted."

Permit condition II.E.5 should be revised to better reflect the requirement of HWMR-6, Pt. V, section 264.73(b)(5) as follows - "and by Module I, Permit Condition I.I." is dropped and replaced by an additional sentence to read "The records shall be kept for three years in the Operating Record, as required by HWMR-6, Pt. V, section 264.73(b)(5)."

Permit condition II.F. should be revised to reflect the requirement of HWMR-6, Pt. V, section 264.16(d) and (e) as follows - "follow the attached outline, Permit Attachment C (Personnel Training). The Permittee shall maintain training documents and records, as required by HWMR-6, Pt. V, section 264.16(d) and (e) and Permit Condition I.I.4." should be changed to read "shall include, at a minimum, the information presented in the attached outline, Permit Attachment C (Personnel Training). The Permittee shall maintain the documents and records required by HWMR-6, Pt. V, section 264.16(d) and (e) and Permit Condition II.L.1.c."

Permit condition II.H.1 should be revised to reflect the requirement of HWMR-6, Pt. V, section 264.35 as follows - "the equipment set forth" should be changed to read "the communication, spill control, decontamination, and fire control equipment set forth".

Permit condition II.I.4 should be revised to reflect the requirement of HWMR-6, Pt. V, section 264.35 as follows - "as required by HWMR-6, Pt. V, section 264.35 and Module III, Permit Condition III.B.5. and III.C.4." should be changed to read "to allow the unobstructed movement of personnel and equipment to any area of the facility operation in an emergency (HWMR-6, Pt. V, and 264.35)."

Permit condition II.I.4 should be revised to reflect the requirement of HWMR-6, Pt. V, section 264.56 as follows - a sentence should be added as follows "He must implement the requirements of HWMR-6, Pt. V, section 264.56."

3.2. A general comment on the use of the word "facility" throughout the permit, since the term is unclear in its reference to the Hazardous Waste Management Facility (HWMF) or contiguous land at SNL, Albuquerque. The comment includes a suggestion that the words "HWMF" or "SNL, Albuquerque" be substituted for "facility". As an alternative to HWMF, "active portion of the facility" as defined in HWMR-6, Pt. I, section 260.10 or "HWM facility" as defined in HWMR-6, Pt. IX, section 270.2 is also suggested.

NMED Response: Since the proposed permit is based on the regulations, and permit conditions often restate the regulations, the word "facility" should remain consistent with the regulations. "Facility" and "hazardous waste management facility" are defined in the regulations.

The authority for applying these definitions is found in section 260.10, which states that terms found in Parts 260 through 265 and 268 have specific definitions, and in section 270.2 which states that terms found in Parts 270, 271, and 124 have specific definitions. Since Module I is based on Part 270, the terms in this module are defined in section 270.2. Since Modules II and III are based on Part 264, the terms found in these modules are defined in section 260.10. The term "facility" is defined differently in section 260.10 than in 270.2. NMED would like to clarify that the term "Hazardous Waste Management Facility" (HWMF) is SNLA's name for the area containing the structures and equipment subject to the draft permit, and this name may or may not be consistent with the applicable regulatory definition.

The use of the term "active portion of the facility" instead of "hazardous waste management facility" is not appropriate since the term is defined in section 260.10 as a specific area(s) of the facility. "Active portion of the facility" is addressed in HWMR-6, Pt. V, section 264.14 and Permit Condition II.E. with security measure requirements for those specific areas of the facility.

Permit Modifications:

Permit condition I.D. should be modified to read as follows - "For purposes of this permit, terms used herein are defined for each module. Terms found in Module I shall have the meaning defined in HWMR-6, Pt. IX, section 270.2, unless this Permit specifically

provides otherwise. Terms found in Modules II and III shall have the meaning defined in HWMR-6, Pt. I, section 260.10, unless this Permit specifically provides otherwise. Where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference of the generally accepted scientific or industrial meaning of the term. "Secretary" means the Secretary of the New Mexico Environment Department (NMED), or his designee or authorized representative. "Regional Administrator" means the Regional Administrator of the U.S. Environmental Protection Agency, Region 6, or his designee or authorized representative. "Permittee" means Sandia National Laboratories, Albuquerque, New Mexico, EPA I.D. Number NM5890110518."

Permit condition I.E.12. should be modified to read "This Permit is not transferable to any person, except after notice to the Secretary. The Secretary may require modification or revocation and reissuance of the Permit pursuant to HWMR-6, Pt. IX, section 270.40 (HWMR-6, Pt. IX, section 270.30(1)(3). The Permittee shall comply with Permit Condition II.B Regarding additional notification requirements in the event of a transfer."

Permit condition II.B.1 and II.B.2 should be renumbered as II.C.1 and II.C.2, and subsequent sections renumbered, and a new condition II.B should be inserted to read "Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of HWMR-6, Pt. V and IX (HWMR-6, Pt. V, section 264.12(c))."

3.3. A general comment regarding permit attachments and the means by which these attachments would be modified. SNLA requests that any permit attachment of SNLA documentation be representative of the actual document used at SNLA at any given time, to allow for minor modifications.

<u>NMED Response</u>: The types of changes that SNLA refers to in this comment constitute Class I permit modifications as described in HWMR-6, Pt. IX, section 270.42. Any permit modification requires public notice and the opportunity for public comment. Rewording the SNLA permit in the manner suggested would preclude public participation in a broad class of changes in operational procedure constituting a breech of regulatory responsibility.

<u>Permit Modification</u>: None.

3.4. In Permit Condition I.B.1, insert "40 CFR" before "section 270.41".

NMED Response: The reference to "40 CFR" is given once in a document for purposes of clarification. The reference is included in Permit Condition I.A. and, therefore, is not repeated in the remainder of the permit.

Permit Modification: None.

3.5. In Permit Condition I.E.8., address national security requirements.

NMED Response: The NMED is not aware of any restrictions on permittable activities due to national security requirements. Permit Condition I.E.8. refers to Inspection and Entry requirements covered under HWMR-6, Pt. IX, section 270.30(i), which does not reference any national security variance options. HWMR-6, Pt. IX, section 270.12, however, does provide for identifying certain types of information as confidential. SNLA should review these regulations to determine if 270.12 may apply.

Permit Modification: None.

3.6. In Permit Condition I.E.8.D., add a clause that ensures duplicate or split samples are taken and one provided to the Permittee.

NMED Response: None.

Permit Modification: The following sentence should be added to Permit Condition I.E.8.D. - "The Permittee shall be provided the opportunity to obtain split or duplicate samples."

3.7. Revise Permit Condition I.E.10. to address the use of the term "facility".

NMED Response: The condition is identical to the referenced regulation. The condition refers to any aspect of the "facility", including land or appurtenances thereto that is subject to the permit as defined in HWMR-6, Pt. IX, section 270.2.

Permit Modification: None.

3.8. Permit Condition I.E.13.a. contains 24-hour and subsequent reporting requirements that are more stringent than the referenced regulation. The use of the term "facility" is ambiguous.

NMED Response: The draft permit condition intended to address ambiguities, such as "noncompliance", in the regulations by establishing a reporting requirement for a minimum quantity. Because the comment also states that the regulation does not require reporting of incidents that do not threaten human health of the environment, and do not leave the SNLA boundary, the NMED would like to clarify that the regulation states that any noncompliance which may endanger human health of the environment must be reported (HWMR-6, Pt. IX, section 270.30(1)(6).

Permit Modification: Permit condition I.E.13.a. should be modified and a new I.E.13.b inserted as follows -

I.E.13.a. The Permittee shall report to the Secretary any noncompliance which may endanger human health or the environment. This report must be made orally within twenty-four hours of the time the permittee becomes aware of the situation. It must be made even if the Contingency Plan (Attachment E) is not implemented. The report must include:

i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

ii. Any information of a release or discharge of hazardous waste or of a fire or explosion from the hazardous waste management facility, which could threaten the environment or human health outside the facility.

I.E.13.b. The description of the occurrence and its cause shall include:

i. Name, address, and telephone number of the owner or operator;

ii. Name, address, and telephone number of the facility;

iii. Date, time, and type of incident;

iv. Name and quantity of material(s) involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

3.9. Permit Condition I.I., requiring the maintenance of certain documents at the facility is more stringent than the regulations. A request was made to delete the statement "and this Permit" from all conditions. A request was also made that the location of the records should be any location at SNLA, rather than the HWMF.

NMED Response: The statement "and this Permit", appearing in the reporting requirements I.I.1 through I.I.8., is not necessary for enforcement purposes. Since the regulations which require the maintenance of the records are found in HWMR-6, Part V, the requirements were moved to Module II to address the definition of the term "facility" in section 260.10, and to place all record keeping requirements found elsewhere in the permit in one location. This rearrangement of Modules I and II resulted in a renumbering that is apparent in the attached proposed draft permit revision.

Permit Modification: Draft permit condition I.I.3. regarding inspection logs was removed since the maintenance requirements is addressed by Permit Condition II.E.5. (which is relabeled II.F.5.), and they are also part of the Operating Record which must be maintained pursuant to Permit Condition II.L.2. (which is relabeled II.K.2.) and HWMR-6, Pt. V, section 264.73. Permit Condition II.E.5. (relabeled II.F.5.) no longer contains a reference to draft Permit Condition I.I. and is revised to include an additional regulatory reference. Draft Permit Condition I.I.6. requiring the maintenance of an Operating Record was removed since the maintenance requirement is addressed by Permit Condition II.L.2. Draft Permit Conditions I.I.7. and I.I.8. were removed since the maintenance of those documents at the facility is not required by the referenced regulation. The remaining draft permit conditions were moved to Permit Condition II.L. The word "training" is removed from Permit Condition II.L.1.c since it does not appear in the referenced regulation. Permit Condition II.G. references Permit Condition II.L.1.c. Permit Condition II.L.2. reflects a rewording in order to parallel the referenced

regulation regarding the Operating Record. Module I and II were renumbered due to the movement of the requirements from Module I to Module II.

NOTE: The changes listed above are not delineated here. Specific wording changes may be found in Exhibit NMED-3, which presents the proposed changes to Modules I, II, and III.

3.10. Module II should be revised to insert "HWM" before the word "facility" except when it relates to the location for records storage.

NMED Response: The permit conditions will remain consistent with or will be revised consistent with the regulations.

3.11. Draft Permit Condition II.A. Insert "HWM" before the word "facility" each time it appears in this section. This change conforms to the apparent intent of the proposed permit and would conform the section to applicable law.

NMED Response: Permit Condition II.A. is revised and is now consistent with the referenced regulation. Use of the term "facility" is not subject to revision.

Permit Modification: Permit condition II.A. should be modified as follows - "hazardous waste constituents" should be modified to "hazardous waste or hazardous waste constituents".

3.12. Draft Permit Condition II.H.4 is more stringent than the regulations because it requires a minimum of 36 inches center aisle space.

NMED Response: Permit condition II.H.4. references III.B.6. and III.C.5. where the minimum center aisle spacing is specified. This requirement is based upon operating criteria taken from Part B revision 5.1, section 5.3.2. However, HWMR-6, Part V, section 264.35 requires only that unobstructed movement be provided. The permit should be modified to reflect the regulations, but the Permittee is reminded that 264.35 must be adhered to.

Permit Modification:
Permit condition II.H.4. (relabeled II.I.4.) should be reworded to read - "At a minimum, the Permittee shall maintain aisle space to allow the unobstructed movement of personnel and equipment to any area of the facility

operation in an emergency (HWMR-6, Pat. V, section 264.35).

Permit condition III.B.6. should be modified to read - "Aisle space shall be maintained in the building in compliance with HWMR-6, Pt. V, section 264.35."

Permit condition III.C.5. should be modified to read the same as III.B.6.

3.13. Draft Permit Condition II.H.6. is more stringent than the regulations since an inventory of hazardous materials in storage is not required. Also, it is unclear what the term "current" refers to and what is the scope of the inventory (SNL or the HWMF). Draft Permit Condition II.K.1. (relabelled II.L.2.) is adequate.

NMED Response: Permit Condition II.H.6. was placed in the permit to support preparedness and prevention activities. The requirements of HWMR-6, Pt. V, section 264.73 require that an operating record be maintained which includes the information requested. The permit should be modified to cite 264.73, with the stipulation that a copy of the current operating record be available at the HWMF in the event of an emergency.

Permit Modification: Permit Condition II.H.6. (relabelled II.I.6) should be modified to read - "Waste management records shall be maintained in the Operating Record in compliance with HWMR-6, Pt. V, 264.73. One copy of the records described by HWMR-6, Pt. V, 264.73(b)(2) shall be kept in a location at the Hazardous Waste Management Facility that is immediately accessible to emergency response personnel."

3.14. Draft Permit Condition II.K.1. should allow that the actual operating record be stored outside the HWMF so that the records are readily accessible in the event of an emergency at HWMF.

NMED Response: The requirement that the Operating Record is maintained at the "facility", as defined in HWMR-6, Pt. V, section 260.10, is required by HWMR-6, Pt. I, section 264.73.

Permit Modification: None.

3.15. Draft Permit Condition III.A.1, line 7. Insert "HWMF" before the word "facility".

NMED Response: The use of the term Hazardous Waste Management Facility (HWMF) should be limited in the permit for reasons described in other comments. However, Module III describes the specific unit(s) to be permitted, which allows the use of HWMF in appropriate references to the unit.

Permit Modification: Permit Condition III.A.1. should be modified with "HWMF" inserted before or in place of "facility".

3.16. Draft Permit Condition III.A.4. Because of sprinklers installed for fire protection in buildings 958 and 959, water reactive wastes are stored in the modular storage buildings. However, other wastes that meet the definition of "reactive" may be stored in buildings 958 and 959. The word "water" should precede "reactive wastes" in all references to storage in the modular buildings.

NMED Response: The requested change clarifies the intent of the permit.

Permit Modification: Permit Condition III.A.4. should be modified with the word "water" preceding "reactive".

3.17. Draft Permit Condition III.B.4. The condition for Extra Hazard Group I occupancy includes storage guidelines, therefore, it is redundant to include further requirements. We request that the last sentence of this section be deleted.

NMED Response: HWMR-6 does not provide regulatory authority for limiting the size of containers. HWMR-6, Pt. V, section 264.17 and 264.176 apply to ignitable wastes and should be referred to in this Permit Condition.

Permit Modification: Permit Condition III.B.4 should be modified as follows - Delete the last sentence and replace with "The Permittee shall comply with HWMR-6, Pt. V, sections 264.17 and 264.176."

3.18. Draft Permit Condition III.B.5. The word "water" should precede "reactive wastes" in all references to prohibited storage in Building 959.

Permit Modification: Permit Condition III.B.5. should be modified to read - "Waster reactive wastes".

3.19. Draft Permit Condition III.B.6. These sections require a minimum of 36 inches aisle space be maintained in the center aisle, which is more stringent than Federal regulations. We request that the requirement parallel Federal regulations.

NMED Response: See response and permit modification for comment 12.

3.20. Draft Permit Condition III.C.3. The conditions for Extra Hazard Group I occupancy includes storage guidelines, therefore, it is redundant to include further requirements. We request that the last sentence of this section be deleted.

NMED Response: See response to comment 17.

Permit Modification: Permit Condition III.C.3. should be modified as follows - delete the last sentence and replace with "The Permittee shall comply with HWMR-6, Pt. V, sections 264.17 and 264.176."

3.21. Draft Permit Condition III.C.4. The word "water" should precede "reactive wastes" in all references to storage in the modular buildings, or in reference to prohibited storage in Bldg. 958.

Permit Modification: Permit Condition III.C.4. should be modified to read - "Water reactive wastes".

3.22. Draft Permit Condition III.C.5. These sections require a minimum of 36 inches aisle space be maintained in the center aisle, which is a more stringent requirement than federal regulations. We request that the number 36 inches be deleted, and that the requirement parallel the federal regulations.

NMED Response: See response and permit modification with comment 12.

3.23. Draft Permit Condition III.D.3. The word "water" should precede "reactive wastes" in all references to storage in the modular buildings.

Permit Modification: Permit Condition III.D.3. should be modified to read - "Water reactive materials".

3.24. Draft Permit Condition III.E.1. The purpose of the

catchment pond is not to manager hazardous waste, but to provide emergency containment, therefore, the permit conditions requiring routine inspections and analysis exceed the authority of NMED, have no regulatory basis; and in our opinion are void. If an event occurred that was known or suspected to contaminate the pond, such as a fire or release of a hazardous waste that was channelled to the pond, then we would analyze, manage, and dispose of the contents as regulations require and as described in the Waste Analysis Plan and the Contingency Plan. Because the pond is not a permitted hazardous waste site and because conditions for analysis and disposal are described in the permit attachments, we request that this entire condition be deleted.

> NMED Response: HWMR-6, Pt. IX, section 270.32(b)(2) states that "Each permit issued under section 3005 of this act shall contain terms and conditions as the Administrator or State Director determines necessary to protect human health and the environment." The catchment pond located at the HWMF could pose a significant threat to human health and environment if it contained hazardous waste as a result of an accidental spill or other emergency situation. In order to insure that run-off present in the catchment pond is not hazardous waste, and therefore posing a threat to human health or environment, the composition of materials in the catchment pond must be known. Process knowledge may supplant chemical analysis under routine conditions. Direct sampling and chemical analysis will be required in the event that any spill occurs that could contaminate the materials in the catchment pond.
>
> Permit Modifications: Permit Condition III.E.1.c should be modified as follows - the term "waste" should be added after the term "hazardous" in the second line.

3.25. Draft Permit Condition III.E.4. We request that the word "flammable" be deleted to allow the storage of hazardous wastes as needed in the bermed area as a 90 day accumulation area.

> Permit Modification: The terms "flammable" and "liquids" should be deleted from Permit Condition III.E.4.

3.26. Draft Permit Condition III.F. The last sentence of this permit condition restricts the container size to 55 gallons. As long as SNL meets or exceeds DOT standards, the container size is not relevant. Moreover, this requirement is more stringent that applicable federal regulations; and, therefore is void. We request that the last sentence restricting the

container size be deleted.

NMED Response: NMED places size limitations in order to signify overpacked containers resulting from a breach in the integrity of the original container.

Permit Modification: Permit Condition III.F. should be modified as follows - delete the last sentence and replace with "Any container that must be overpacked due to a breach in its integrity shall be labeled accordingly."

3.27. Draft Permit Condition III.G.1-2. These section limit the annual quantity and types of wastes that may be stored at HWMF to those waste codes as given in the latest Part A Permit Application (Attachment G to Permit). According to 40 CFR 270.13(j) [actual comment cited 270.14(j), which does not exist], the Permittee is required to give only an estimated, not maximum, quantity of hazardous wastes to be stored annually; it appears that this permit condition exceeds the regulatory requirements. Proposed solutions: 1) Change the permit condition to read: 'The Permittee shall store at the HWMF only those waste codes generated during SNL, Albuquerque operations, either on or off site." We are also submitting a revised Part A Permit Application as discussed in the third comment above.

NMED Response: Permit Conditions III.G.1-2 do not limit the annual quantity of waste. These conditions require that the Part A must be revised in specific situations of an exceedance in the estimated annual quantity. The wastes that can be managed at the facility, and their estimated annual quantities, constitute essential information that NMED may use to determine if Permit modification or revocation is called for under HWMR-6, Pt. IX, section 270.41. The Permittee is required to supply such information according to Permit Condition I.E.7. and HWMR-6, Pt. IX, 270.30(h).

Permit Modification:
Permit Condition III.G.1. is corrected to read "wastes listed 'in' Permit Attachment G".

Permit Condition III.G.2. is corrected to refer to Attachment G in the last sentence.

3.28. Draft Permit Condition III.G.3. These permit conditions III.G.3.a-c refer to hazardous wastes subject to the land disposal restriction. The conditions restrict the storage of the waste to less than 1 year and require proof be furnished

to NMED if the storage period exceeds 1 year. The only federal regulations that impose such restrictions are those in HSWA, which NMED does not have the authority to regulate. The permit condition can not be applied to all hazardous waste, rather than only LDR waste, without exceeding federal regulations. Proposed solution: Delete this section, realizing that EPA will issue permit conditions for LDR wastes.

NMED Response: Permit Condition III.G.3. clearly references HWMR-6, Part VIII, sections 268.10, 268.11, and 268.12, which constitute state authority over hazardous waste subject to land disposal restrictions. By adopting 40 CFR 268 as HWMR-6, Part VIII, and through agreements with EPA, NMED shares enforcement authority with EPA over these wastes. Therefore, we are not exceeding our authority in proposing this Permit Condition.

Permit Modification: None.

3.29. Draft Permit Condition III.M. SNL, Albuquerque does not conduct trial tests to determine treatments; therefore, delete "and trial tests" as required records.

Permit Modification: Permit Condition III.M. should be modified such that "and trial tests" is removed, and the citation to regulations is modified to "264.73(b)(3)".

3.30. Draft Permit Condition III.N.2.a-c. These permit conditions are more stringent than federal regulations. The regulations do not require that procedures and concentration levels be certified, only that closure be certified per the approved closure plan. Also, it is not clear if decontamination procedures are required if spills were or were not encountered. Accordingly, we recommend that this requirement reflect the provisions of 40 CFR 264.115.

Permit Modification: Permit Condition III.N.2 should be modified as follows - replace "The certification" with "Documentation supporting the Closure Certification".

Permit Conditions III.N.2.a - c. should be modified to remove the wording "shall be certified".

4. Respondent: U.S. Environmental Protection Agency, dated September 6, 1991.

4.1 Comments: Permit Condition II.B. should include a condition requiring the permittee to notify the new owner or operator in writing of the requirements of Part 264 and Part 270 before transferring ownership or operators of a facility (40 CFR 264.12(c)).

NMED Response: This requirement was included in Permit Condition I.E.12. That portion of the condition was moved to Permit Condition II.B. in response to SNLA's comments regarding the use of the term "facility".

Permit Modification: Permit Condition II.B. should be inserted (and subsequent permit conditions relabelled) as follows - "Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of HWMR-6, Pt. V and IX (HWMR-6, Pt. V, section 264.12(c))."

Response to Comments Received in Pre-filed Testimony and During the Public Hearing.

1. Respondent: Southwest Organizing Project, dated March 16, 1992.

Comments:

1.1. Potential sources and volumes of hazardous waste generated off-site are not identified.

NMED Response: The draft permit specifies that the only off-site wastes allowed would be those generated by the Permittee. The regulations do not provide for requiring estimates of off-site waste volumes, but would require that such wastes be summarized in biennial reports and appropriate sections of the operating record.

Permit Modification: None.

1.2. Emergencies at the hazardous waste management facility or involving hazardous waste releases should be reported to the Secretary of the Environment Department immediately, rather than in the 24-hour time frame allowed in the draft permit.

NMED Response: The draft permit follows the regulations regarding reporting requirements. Since NMED has no emergency response capabilities, there is no clear justification for requiring the Permittee to respond to NMED with greater immediacy than allowed for in the regulations.

Permit Modification: None.

1.3. Concerns were raised regarding the ability of the Permittee to increase estimated annual waste volumes allowed by the permit with minimal review by NMED.

NMED Response: This comment references an amended Part A submitted to NMED during the Public Comment Period. This Part A added several waste codes and increased substantially the estimated annual volumes of several wastes that could be handled at the permitted facility. The draft permit and regulations require the Permittee to submit a revised Part A if the facility anticipates exceeding estimated annual waste volumes on a regular basis, but the regulations do not specify that estimated annual waste volumes are an enforceable quantity. However, changes in estimated annual waste volumes may indicate a change in operations at the facility that would be of direct concern of the NMED and subject to review and approval. In this context, NMED specified in testimony at the Public Hearing that the Permittee would be required to evaluate the effects of added waste codes and estimated annual waste volumes on their contingency plan and waste handling

procedures before NMED would agree to accept the modified Part A as submitted.

Permit Modification: None.

1.4. The issue of transportation routes for hazardous waste was expressed as a concern. It was felt that transportation routes and emergency response plans should be public and incorporated into the permit.

NMED Response: HWMR-6 does not regulate transportation routes, nor are there specific regulations regarding publication of emergency response plans pertaining to transportation accidents.

Permit Modification: None.

2. Respondent: Southwest Research and Information Center, dated March 20, 1992.

2.1. The draft permit allows for notice of emergency situations to NMED within 24 hours of an incident. This is considered too slow; a requirement for notice immediately or within one-half hour would be more acceptable.

NMED Response: The wording in the draft permit is consistent with HWMR-6, section 270.30(l)(6), which requires 24 hour notification. (see also response to comment 1.2. above)

Permit Modification: None.

2.2. Concern was expressed regarding operational procedures at the facility affecting recycling and reclamation of hazardous wastes. Reference is made in the draft permit to a 1983 document used as a management reference. The question was raised as to whether this document might be out of date and more current sources of information should be used as guidance for proper handling and segregation of wastes.

NMED Response: The concerns expressed in this comment address two issues - one to encourage waste minimization through recycling and other means, the second questioning whether the facility is following the most current management procedures. Waste minimization is addressed through the HSWA module of the draft permit, which is issued by EPA. The second concern deserves some clarification. The 1983 reference is used to determine compatibility of hazardous wastes for the purpose of separating them during storage or shipping; the draft permit does not intend for this document to be used to guide management practices with regard to recycling.

Permit Modification: None.

2.3. Potential off-site waste types or volumes are not addressed in the draft permit or application. Specific concerns were also expressed regarding transport of substantial quantities of wastes from other DOE facilities. A suggestion was made to identify the type and amount of wastes likely to originate from off-site locations and address these explicitly in the final permit.

NMED Response: Permit Condition I.D. was modified to define the "Permittee" as Sandia National Laboratories, Albuquerque. Permit Condition II.C.2. was also modified to specify that off-site wastes were not allowed unless the Permittee was also the generator. The intent of this modification was to preclude acceptance of off-site wastes from other DOE facilities that do not fit the definition of Permittee as generator. As modified, off-site waste acceptance would be limited to situations in which SNLA personnel generated wastes from projects taking place off-site. The kinds of activities fitting this condition, and the wastes they would generate, would be impossible to specify in the permit.

Permit Modifications: Permit Condition I.D. was modified to add " 'Permittee' means Sandia National Laboratories, Albuquerque, EPA I.D. Number NM5890110518." Permit Condition II.B.2. (relabeled as II.C.2.) was modified to read "This permit does not allow the Permittee to accept waste from an off-site generator. If the Permittee is to receive hazardous waste from an off-site generator, he shall apply for and receive a permit modification in accordance with HWMR-6, Pt. IX, section 270.42 prior to accepting such waste."

2.4. In reference to an amended Part A submitted by the applicant during the public comment period, this respondent expressed great concern for the new waste codes identified and the increased waste volumes documented. In pre-filed and testimony presented at the hearing, the respondent drew attention to a more than doubling in the estimated annual inventory as per the revised Part A.

NMED Response: Permit condition III.G.2 requires that if the estimated annual volumes of waste handled exceeds that listed in Attachment G (which consists of the Part A for the facility) for any waste code listed, then the facility is responsible for reporting the overage to NMED. If it is expected that this will occur again, then the facility is required to submit a revised Part A with the amended waste codes and/or modified estimated annual quantities for the affected waste codes. The facility, while under interim status, has found that the list of waste codes and associated estimated annual quantities submitted with the Part B

application are inadequate to remain in compliance with the draft permit. In testimony submitted at the public hearing, NMED requested that, before NMED will approve of changes in waste codes or estimated annual waste volumes in response to the facility's submission during the public comment period, the facility must confirm in writing that they have evaluated the potential impact these changes would have on operational procedures, their contingency plan, personnel training, and any other aspect of their permitted activities affected by the requested changes.

Permit Modification: None.

2.5. Concern was expressed for applicant's expressed intent to receive off-site wastes. Respondent noted that the draft permit was not clear in how to define "off-site", and that appropriate operating procedures did not appear to be in place to handle the quantities or kinds of wastes that could be shipped from other DOE facilities.

NMED Response: Permit condition II.C.2. expressly limits waste receipt at the permitted facility to wastes generated on-site, or those generated off-site where the generator is the permittee.

Permit Modification: None.

2.6. Respondent notes that the Thermal Treatment Facility is a permittable unit under RCRA, but has been left out of the current draft permit. The respondent requests that explicit guidance for implementation of the RCRA permit process for the Thermal Treatment facility be included in the current draft permit.

NMED Response: Delay in permitting of the Thermal Treatment Facility stems from an early management decision to complete the draft permit for the container storage unit first. There has not been any review of the Part B permit submitted for the Thermal Treatment Facility. Modification of the operating permit to include this unit will occur as other permitting priorities allow. There is no mechanism whereby "explicit guidance for implementation of the RCRA permit process" for this unit can be integrated into the existing draft permit.

Permit Modification: None.

3. Respondent: Department of Energy and Sandia National Laboratories, Albuquerque.

3.1. (Testimony of Boyd Hamilton) Permit condition I.E.8.d exceeds NMED authority because it references sampling or monitoring "as otherwise authorized by RCRA." This should be changed to read New Mexico Hazardous Waste Act. It is also recommended that language be inserted into this Permit condition that all sampling performed will be done in accordance with Section 74-4-4.3 of the New Mexico hazardous Waste Act.

NMED Response: The source of authority for this Permit is the New Mexico Hazardous Waste Act, which requires that the New Mexico Environmental Improvement Board adopt regulations for the management of hazardous waste equivalent to federal regulations pursuant to the Resource Conservation and Recovery Act (New Mexico Hazardous Waste Act Section 74-4-4.) Therefore, reference to RCRA in the context of this Permit condition does not constitute exceedance of authority. Addition of language to reference the New Mexico Hazardous Waste Act is not necessary.

Permit Modification: None.

3.2. (Testimony of Boyd Hamilton) Permit condition I.E.13. establishes reporting requirements based upon quantity of a spill that are not supported by HWMR-6.

NMED Response: The purpose of the stipulation for reporting a spill of greater than a certain quantity was to simplify the decision process for reporting requirements. NMED agrees that HWMR-6, Part IX, 40 CFR 270.30(l)(6) does not specify this requirement.

Permit Modification: This requirement has been deleted from the modified draft permit and language has been substituted that corresponds to HWMR-6, Part IX, 40 CFR 270.30(l)(6).

3.3. (Testimony of Boyd Hamilton) Permit condition I.E.14. requires notice of noncompliance at the time monitoring reports are submitted. It is suggested that this be changed to require oral notification as-soon-as-possible, with written submission no later than five (5) working days after the Permittee becomes aware of noncompliance.

NMED Response: Permit condition I.E.14. corresponds with HWMR-6, Part IX, section 270.30(l)(10). No provisions for the reporting procedures suggested are provided in the regulations.

Permit Modification: None

3.4. (Testimony of Boyd Hamilton) Permit condition II.H.6. (II.I.6. modified draft permit) requires DOE/SNLA to maintain a current inventory of all hazardous materials, which exceeds regulatory authority. The respondent recommends that this Permit condition be deleted.

NMED Response: This Permit condition should refer to hazardous wastes in accordance with HWMR-6, Part IX, section 264.73(b)(2).

Permit Modification: This Permit condition has been reworded to refer to requirements of HWMR-6, Part IX, section 264.73(b)(2).

3.5. (Testimony of Boyd Hamilton) Permit section III.E. refers to additional structures and equipment at the Hazardous Waste Management Facility that should not be subject to specific Permit conditions since they are already addressed as a condition of Permit condition I.A., "the Permittee is also required to comply with HWMR-6, Parts I, II, III, and IV to the extent the requirements of those parts are applicable."

NMED Response: It is the intent of the NMED to issue RCRA permits in keeping with EPA guidance requiring comprehensive, unambiguous, and enforceable permit conditions. Since this Permit will expressly deal with activities at the Hazardous Waste Management Facility, which include structures or activities that may involve hazardous or non-hazardous wastes, it is more protective to specify the conditions under which these activities may occur.

Permit Modification: None.

3.6. (Testimony of Boyd Hamilton) Permit condition III.F. requires storage of hazardous wastes in containers equivalent to those specified for the wastes in Department of Transportation regulations. This exceeds NMED's authority since no such requirements are present in HWMR-6, Pt. IX, Subpart I.

NMED Response: This Permit condition is consistent with requirements established in other permits issued by NMED, and is consistent with the container management protocol described in DOE/SNLA's Part B application.

Permit Modification: None.

3.7. (Testimony of Boyd Hamilton) Permit condition III.G.2. exceeds NMED authority by requiring DOE/SNLA to report to NMED when the annual quantity of a hazardous waste handled exceeds the estimated annual quantity on their Part A. This Permit condition does not have a regulatory basis.

NMED Response: Justification for this Permit condition lies in HWMR-6, Part IX, sections 270.30(h), 270.32(b)(2), and 270.41(a)(1). HWMR-6, Pt. IX, section 270.30(h) requires that the Permittee supply any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating a permit. Information on annual quantities and types of wastes handled has a direct influence on a range of operating procedures, such as storage configuration, emergency preparedness, or personnel training, that may require a permit modification. Such permit modifications may be requested by the Director under HWMR-6, Pt. IX, section 270.41(a)(1) in order to protect human health and environment under HWMR-6, Pt. IX, section 270.32(b)(2).

Permit Modification: None.

3.8. (Testimony of Boyd Hamilton) Permit condition III.G.3. exceeds state authority by imposing restrictions for activities associated with land disposal regulations for which NMED has not received authority from EPA. Also, the activities affected by this permit condition are regulated by the Permit through Module I, Permit condition I.A.

NMED Response: HWMR-6, Pt. VIII specifically adopts 40 CFR Part 268, which is the cite for Permit condition III.G.3. NMED exercises state authority in implementing these regulations. NMED also reserves the right to identify additional wastes as land disposal restricted according authority established in New Mexico Hazardous Waste Act 74-4-4.

Permit Modification: None.

Response to Comments Received After the Public Hearing.

1. Respondent: Sandia National Laboratories, dated April 2, 1992.

1.1. Comment: Letter advising NMED that DOE/SNLA have determined that the changes in volumes of hazardous wastes identified in the March 1992 revised Part A do not affect the application for a permit for the storage facility, nor the Contingency Plan, nor any other attachments to that permit application.

NMED Response: This letter was submitted in response to comments made during the Public Hearing on March 20, 1992, in which NMED stipulated that incorporation of the modified Part A, submitted by DOE/SNLA on December 9, 1992, into the draft Permit would be contingent upon the applicant's analysis of how the requested changes might impact operations described in the Part B and subsequent draft Permit.

Permit Modification: The December 9, 1992 revised Part A was incorporated into the modified draft Permit entered into the Public Hearing Record on April 6, 1992.

2. Respondent: Department of Energy, Kirtland Area Office, dated April 6, 1992.

2.1. Comment: Permit Modification, Page 8: Mr Grover has added the following definition to module I.D. DEFINITIONS "Permittee" means Sandia National Laboratories, Albuquerque, New Mexico, EPA I.D. Number NM5890110518.

As noted in our questions to Dr. Grover during the hearing on March 20, 1992, the permit application for the Hazardous Waste Storage Facility was signed by both officials of the U.S. department of Energy (DOE) and Sandia Corporation. We indicated that Sandia National Laboratories (SNL), Albuquerque is a facility owned by the DOE and is operated under contract to the DOE by Sandia Corporation.

Because Sandia officials and employees commonly use the designation "Sandia National Laboratories" (SNL) to identify their business, we may describe the situation as one in which Sandia Corporation does business as Sandia National Laboratories. For this reason, we can accept a definition in the permit that identifies the DOE and SNL as co-permittees. It is important, however, that the permit recognize the status of both the DOE and SNL as permittees, consistently with the provisions of 40 CFR Part 270.10(b). Parenthetically, we would point out that the provision contained in 40 CFR part 270.10(b), placing a duty on the operator to obtain the permit, is intended only to place explicitly on the operator

the burden for obtaining the permit, and it would be the operator to whom the EPA would look first for enforcement purposes in the event a facility were to operate illegally without a permit. This provision does not, in any way, affect the obligations or duties of the owner of the facility under the Solid Waste Disposal Act.

We, therefore, suggest the following language for the definition of permittee: "Permittee" means the Department of Energy and Sandia Corporation [or Sandia National Laboratories].

NMED Response: The definition incorporated into the modified draft permit put into the public hearing record is specific and concise and is consistent with the definition used by EPA in the HSWA Module of the Permit.

Permit Modification: None.

2.2. Comment: Draft Permit Condition I.E.8., Page 9: Mr Grover states "The NMED is not aware of any restrictions on permittable activities due to national security requirements. Permit Condition I.E.8. refers to Inspection and Entry requirements covered under HWMR-6, Pt. IX, section 270.30(i), which does not reference any national security variance options." He then stated no permit modifications would be made as we requested in our original comment package dated September 4, 1991.

In the hearing Dr. Grover indicated that the Permit could be modified to reflect provisions of Federal law that must be complied with in the operation of Sandia National Laboratories. We stated that certain requirements contained in the Atomic Energy Act of 1954, as amended (AEA), provide criminal penalties in cases of violations. Specifically, Section 141 (42 U.S.C. 2161) of the AEA requires the DOE to control the dissemination of restricted data as defined in the Act. In addition, Sections 224 through 227 (42 U.S.C. 2274-77) of the AEA provide for imposition of significant fines and/or terms of imprisonment for unlawfully disclosing or tampering with documents or materials involving or incorporating restricted data.

The DOE and SNL do not anticipate that inspection and entry should be hampered significantly as a result of the possibility that the Hazardous Waste Storage Facility may contain classified wastes. But the possibility of such a situation must be recognized in the permit. We, therefore, recommend that the following language be added to Section I.E.8. of the permit: "Pursuant to HWMR-6, Pt. IX, Sec. 270.30(i) and applicable provisions of the Atomic Energy Act of 1954, as amended, the Permittee shall allow..."

NMED Response: The New Mexico Hazardous Waste Act, 74-4-3.1 clearly states that "Nothing in the Hazardous Waste Act [this article] shall be construed to apply to any activity or substance

which is subject to the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq.), the Safe Drinking Water Act, as amended, (42 U.S.C. 300f et seq.), or the Atomic Energy Act of 1954, as amended, (42 U.S.C. 2011 et seq.) except to the extent that such application or regulation is not inconsistent with the requirements of such acts;..." This provision of the act provides the protection requested by DOE/SNLA.

Permit Modification: None.

2.3 Comment: Draft Permit Condition III.E.1, regarding the catchment pond. Dr Grover's prefiled testimony rejected our comment of 9/4/91 requesting that these conditions be deleted on the basis that the NMED may determine that the pond may pose a significant threat to human health and the environment and that the permit can be a vehicle for addressing this threat.

We wish to renew our objection to these provisions in the Permit because the pond is intended only as a means of preventing environmental contamination, and its use for that purpose is covered fully within other provisions in the permit. Normally, the pond contains only uncontaminated storm runoff. Moreover, the NMED has previously determined that the pond poses no significant threat to human health and/or the environment, as indicated in the attached letter, dated February 7, 1991.

NMED Response: The storm water catchment pond is described in the Part B application, along with a sampling protocol that corresponds with the requirements of Permit condition III.E.1.a. The purpose of these requirements is to insure that the intent of the applicant to insure no release of hazardous wastes to the environment is supported by enforceable conditions. This is consistent with NMED's approach to other facilities, whereby any activities involving hazardous wastes within an area subject to a permit are described as explicitly as possible.

Permit Modification: None.

2.4. Comment: Draft Permit Condition III.G.1-2, Page 17: During the hearing Mr Grover stated that SNL had not justified increased annual volumes of hazardous waste as estimated in the September 1991 Part A permit application and that an analysis of the effect of these increases must be justified in consideration of the Contingency Plan, Waste Analysis Plan, and other permit attachments, since the increase was substantial. The inference was that SNL must show that current procedures can "handle" the increased volumes.

Since this permit is for storage of a maximum quantity at any one time in the Hazardous Waste Storage Facility, which is the basis

of the Contingency Plan, Waste Analysis Plan, and other permit conditions, the annual volume of waste put through the facility does not affect any of these procedures and therefore, does not require justification for increases, no matter what the magnitude of the estimated annual increase. These documents are written to accommodate conditions at the storage facility if the maximum storage volume as specified in the permit was present in the facility at any point in time. The annual quantity of waste has nothing to do with this fixed volume at any point in time and is only an estimate, not a projection of actual waste volumes, as required per 40 CFR 270.14(j). No approval or justification is required unless the annual quantity would necessitate a change in the total volume capacity at any point in time. If such a determination was made by DOE and SNL, a formal permit modification would be required and would be submitted as necessary. We must object to any permit conditions which would place an unnecessary burden on the Permittee, such as justification of estimated annual waste volumes produced, that really do not relate to the purpose of the permit, which is maximum storage of hazardous waste at any point in time.

NMED Response: Direct justification for Permit condition III.G.1-2 is found in HWMR-6, Pt. IX, section 270.30(h), with supporting justification in HWMR-6, Pt. IX, sections 270.41(a)(1) and 270.32(b)(2). Section 270.30(h) establishes the duty of a facility to provide "...any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit..." Section 270.41(a)(1) discusses "...alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit." Section 270.32(b)(2) specifies that a State Director may establish conditions that he/she "determines necessary to protect human health and the environment". Finally, the requirements specified in these permit conditions are consistent with conditions placed in operating permits issued to other facilities in New Mexico.

Permit Modification: None.

3. Respondent: Sandia National Laboratories and Department of Energy, dated April 17, 1992.

3.1 Comment: (supplemental testimony of Boyd Hamilton) Module II, Permit Condition II.C.2., Hazardous Waste From Off-Site Generators, prohibits the Permittee (SNL and the Department of Energy) from receiving any hazardous waste from off-site until a permit modification has been requested and granted. However, Permit Condition II.C.3., Hazardous Waste Generated at Off-Site Locations and Dr. Grover's supplemental testimony, Comments 3 and 4, both

suggest that the Permittee can store hazardous waste generated at an off-site location.

To eliminate what seems to be a conflict, it is my recommendation that the language in Permit Condition II.C.2. be rewritten to read, "This permit does not allow the Permittee to accept waste from an off-site generator other than the Permittee." This language change would clarify NMED's intent as discussed by Dr. Grover in his supplemental testimony.

NMED Response: The clarification in wording for Permit Condition II.C.2. is acceptable to NMED.

Permit Modification: Permit condition II.C.2. has been changed to read-

> This permit does not allow the Permittee to accept hazardous waste from off-site unless the Permittee is also the generator of the waste. If the Permittee is to receive hazardous waste from off-site from a generator other than the Permittee, he shall apply for and receive a permit modification in accordance with HWMR-6, Pt. IX, section 270.42 prior to accepting such waste.

3.2 Comment: (supplemental testimony of Boyd Hamilton) By defining the Permittee as also being the generator the language in Permit Condition I.D. would then prohibit the acceptance of off-site waste. Permit Condition I.D. identifies the "Permittee" as being "Sandia National Laboratories, Albuquerque, New Mexico, and the Department of Energy, EPA I.D. Number NM 589011518." Identifying the Permittee be EPA I.D. number prohibits the receipt and storage of hazardous waste generated off-site because EPA I.D. numbers are site specific. Any waste generated at a site that is not located within the boundaries of SNL must apply for and receive an EPA I.D. number prior to the storage, treatment, disposal of, or transportation of the waste (New Mexico Hazardous Waste Management Regulations-6, Part V, 40 CFR 262.12).

It is my recommendation that Permit Condition I.D. be rewritten to delete "EPA I.D. Number NM 589011518". This Language change would be consistent with NMED's intent as discussed by Dr. Grover in Comment 3 of his supplemental testimony.

NMED Response: The definition of Permittee, as written, defines the administrative entity that could generate wastes off site which could be accepted by the permitted facility. Permit conditions II.C.3.a and b. cite the requirements that must be met in order for such wastes to be properly handled, manifested and transported. In this context, the Permittee is the organization that serves as the potential generator of wastes off-site that could be accepted by the permitted facility, but in order to accept these wastes, an

additional generator number must be obtained by the Permittee, specific to the location and activity producing the wastes, in order to properly manifest the wastes. Changing the definition of Permittee, as suggested by the respondent, would not change these regulatory requirements.

Permit Modification: None.

3.3. Comment: (supplemental testimony of Boyd Hamilton) Permit Attachment A, the Waste Analysis Plan, does not full address the requirements of HWMR-6, Part V, 40 CFR 264.13 for inspection and analysis of wastes that are to be received from off-site. Revision 5.3 introduced by Ms. Molley during the public hearing would have corrected this omission.

It is my recommendation that Revision 5.3 be incorporated into the modified permit, this permit as proposed does not meet the technical requirements of HWMR-6, Part V, 40 CFR 264.13 which must be met for issuance of a permit.

NMED Response: Our review of Revision 5.3 of the Waste Analysis Plan indicated minor changes; i.e. the addition of Figure 2-3. This figure has been added to the Permit and the text has been corrected to refer to this figure accordingly.

Permit Modification: Attachment A, Waste Analysis Plan has been modified with the addition of Figure 2-3 and corresponding changes in text referencing this figure.

3.4. Comment: (Supplemental testimony of Kylene Molley) My concern relates to apparent restrictions on the storage of off-site waste at the Sandia Hazardous Waste Management Facility. It appears that NMED has approved the storage of off-site waste at the HWMF if that waste is generated by Sandia or its contractors. (See Comments 3 & 4 of the NMED supplemental testimony which was submitted on April 6). However, the actual proposed permit language seems to prohibit the acceptance of such waste. Section II C.3. of the proposed draft permit attached to the April 6 NMED testimony limits the acceptance of off-site waste to those hazardous wastes generated by the permittee. The definition of the "permittee" in section I.D. includes E.P.A. ID. number NM5890110518 as an integral part of the descriptive language.

Since each E.P.A. ID. number is limited to a separately defined contiguous piece of land, Sandia activities away from the Albuquerque site are not included within the scope of the E.P.A. ID. Number NM5890110518. Thus, it is arguable that any Sandia off-site hazardous waste generation activities are excluded from the definitional scope of the permittee.

Furthermore, even small quantity generators, such as is likely to be the case for some off-site generated Sandia hazardous waste, must obtain a distinct E.P.A. ID. Number for each location in order to manifest such waste for transportation to a permitted treatment, storage, or disposal facility. Thus, this activity could not possibly be conducted under the E.P.A. ID. number assigned to the Albuquerque site.

Accordingly, I recommend that the reference to the E.P.A. ID. number be deleted from section I.D. of the final storage permit. I further recommend that the words "other than the Permittee" be added at the end of the first sentence in section II.C.2. in order to clarify the stated NMED intent to provide for Sandia to store its off-site waste at the HWMF.

NMED Response: This comment is essentially the same as comments 3.1, 3.2, and 3.3 above. To reiterate NMED response to those comments, the permit has been modified to clarify the ability of the Permittee to accept off-site wastes when the Permittee is also the generator. The Permittee is defined by its administrative organization and its E.P.A. ID. number for purposes of clarity. Generation of off-site wastes will require a separate E.P.A. ID. number, regardless of whether the E.P.A. ID. number is included in the definition of Permittee or not. Acquiring a separate E.P.A. ID. number for an off-site activity based upon the DOE/SNLA administrative relationship that defines "Permittee" would not negate the ability of the Permittee to receive those wastes.

Permit Modification: None.

3.5. Comment: (Supplemental testimony of DOE, referring to April 6, 1992 submittal by NMED) Item 2, Page 2. Addition of language concerning provisions of Atomic Energy Act of 1954. Mr. Grover's response to the joint DOE and SNL comments regarding the need to modify Permit Condition I.E.8. to allow for national security restrictions states the following: "NMED feels that the requested language is not necessary and we recommend that no addition to Permit Condition I.E.8. be made. As indicated int he testimony of Dr. Grover at the March 20, 1992, Public Hearing, there are no provisions in NMHWMR-6 to allow for language qualifying entry privileges. It is the concern of HRMB that such language may be used to limit access of properly qualified inspectors to the facility. Since facility inspections are now conducted without prior notification, any conditions on entry may limit our ability to conduct an effective inspection as required by law>"

DOE/SNL Response: The Atomic Energy Act of 1954, as amended (AEA) prohibits access to certain restricted or classified data by persons who do not have appropriate security clearances. The penal provisions apply not only to the person who achieves unauthorized access, but also to any person who allows that access.

Since it is possible that classified hazardous waste may be stored at SNL's Hazardous Waste Management Facility, NMED must understand and agree to limit unannounced access to such material by persons with the proper security authorizations. We do not believe that such a limitation will have any material effect on the ability of the State to discharge its duties under the Hazardous Waste Act.

We therefore, repeat our recommendation and request of April 3, 1992, that the following language be added to Section I.E.8. of the permit:

> "Pursuant to Hwmr-6, Pt. IX, Section 270.30(i) and applicable provisions of the Atomic Energy Act of 1954, as amended, the Permittee shall allow..."

NMED Response: Section 74-4-3.1. of the New Mexico Hazardous Waste Act states the conditions under which provisions of the Atomic Energy Act may supersede provisions of this Act. These conditions provide for the contingencies supposed by this comment.

Permit Modification: None.

3.6. Comment: (Supplemental testimony of DOE, referring to April 6, 1992 submittal of NMED) Item 3, page 2. Concerns on receipt of off-site wastes by the permittee. Mr. Grover's response to these concerns states "The Part B application submitted by Sandia National Laboratories, Albuquerque does not request the option of accepting off-site wastes that they do not generate... In written and oral testimony, NMED has expressed our position that Sandia National Laboratories, Albuquerque is not permitted to receive hazardous wastes generated by other Department of Energy facilities unless it can be clearly shown that the Permittee, as defined in Permit condition I.D., is the generator." That definition has been modified in the latest draft to read as follows:

> "Permittee" means Sandia National Laboratories, Albuquerque, New Mexico and the Department of Energy, EPA I.D. Number NM5890110518.

DOE Response: It has been clearly shown, during these proceedings, that the permit application for storage of hazardous waste at this facility was jointly filed by the Department of Energy and Sandia Corporation doing business as Sandia National Laboratories. Therefore, the request in the application for the option of accepting off-site wastes generated by the applicant (both SNL and DOE) does not intend to exclude other Department of Energy facilities. We know of no lawful basis upon which the NMED can deny the DOE the right to store hazardous wastes, subject to the storage permit conditions and limitations, in a facility it has built with DOE funds and co-operates with the DOE prime contractor

Sandia Corporation.

Furthermore, by using the EPA I.D. Number in the definition of permittee, NMED has not only excluded all other DOE facilities, but all other SNL operations as well (a practice they stated they would permit) from storing hazardous wastes at this facility, because the I.D. number is applicable only for wastes generated on the contiguous facility property (HWMR-6, Part IX, 40 CFR 270.2 defines a hazardous waste facility, which is required to have an EPA I.D. Number, as "...all contiguous land and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste..."). This means, by definition of the current draft permit, all other off-site SNL operations are excluded from storing wastes at the Hazardous Waste Management Facility.

We repeat our comment and suggestion of April 3, 1992 to revise the definition of permittee to read as follows:

> "Permittee" means the Department of Energy and Sandia Corporation [or Sandia National Laboratories].

NMED Response: With regard to the first part of this comment referencing the intent of DOE to not exclude receipt of wastes from other DOE facilities in the application, NMED refers the respondent to Chapter 2 of Rev. 5.0 of the Part B application. This Chapter repeatedly refers only to wastes generated by SNL, Albuquerque. In the preparation of the Permit, SNL, Albuquerque was construed to mean DOE/SNLA as the applicant. If this Part B application does not reflect the intent of both DOE and SNL, then the certification statement signed by both parties is brought into question and the legality of this application also comes under question.

With regard to the legal basis upon which NMED can deny DOE the right to utilize these facilities independent of the stated operational procedures set forth in the Part B application, the respondent is referred to Section 74-4-2. of the New Mexico Hazardous Waste Act. This is the statement of purpose for the New Mexico Hazardous Waste Act, which goes as follows:

> The purpose of the Hazardous Waste Act [this article] is to help ensure the maintenance of the quality of the state's environment; to confer optimum health, safety, comfort and economic and social well-being on its inhabitants; and to protect the proper utilization of its lands.

Section 74-4-4.2 of the Act further describes the nature of information required in the application for a permit to store, treat, or dispose of hazardous waste. This application is to include estimates of the composition, quantity, and concentration of any hazardous waste identified for management under the permit. This information is supplied in Chapter 2 of Rev. 5.0 of the Part

B application for DOE/SNLA. Based upon this information, NMED prepared a Permit that satisfies the purpose of the Act, as stated above, in accordance with guidelines and joint permitting agreements established with U.S.E.P.A. The respondent did not provide information in Chapter 2 of the Part B application regarding the composition, quantity, or concentration of hazardous wastes that they anticipated receiving from other DOE facilities. Such information would have been used by NMED to establish appropriate permit conditions. Again, the respondent implies that Chapter 2 of the Part B application is inaccurate and, if so, falsely certified.

Finally, the respondent refers again to the definition of the Permittee and recommends removal of the E.P.A. ID. number from this definition. NMED considers the inclusion the E.P.A. ID. number as important for clarification, and has worded the definition of Permittee so as to be consistent with the definition established by E.P.A. in the HSWA module of this permit.

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MODULE I - GENERAL PERMIT CONDITIONS

I.A. EFFECT OF PERMIT

The Permittee is allowed to store hazardous waste in accordance with the conditions of this Permit. Any storage of hazardous waste requiring a permit under the New Mexico Hazardous Waste Management Regulations (HWMR-6), Part V and not specifically authorized in this Permit is prohibited. Subject to HWMR-6, Pt. IX, 40 CFR 270.4, compliance with this Permit constitutes compliance, for purposes of enforcement, with the New Mexico Hazardous Waste Act (Sections 74-4-1 et seq. NMSA 1978) and HWMR-6, Pts. V, VII, and IX, only for those management practices specifically authorized by this Permit. The Permittee is also required to comply with HWMR-6, Pts. I, II, III, and IV to the extent the requirements of those Parts are applicable. The Permittee must also comply with all applicable self-implementing provisions imposed by the Resource Conservation and Recovery Act (RCRA) or HWMR-6, Pt. VIII. A complete (RCRA) permit consists of this Permit and a U.S. EPA Permit issued under the provisions of the Hazardous and Solid Waste Amendments of 1984 (HSWA) which addresses the portion of the RCRA program for which the State is not authorized. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3013, or 7003 of RCRA; Sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA), or any other law providing for protection of public health or the environment (HWMR-6, Pt. IX, §§ 270.4, 270.30(g)).

I.B. PERMIT ACTIONS

I.B.1. Permit Modification, Revocation and Reissuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in HWMR-6, Pt. IX, § 270.41, 270.42, and 270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition (HWMR-6, Pt. IX, § 270.4(a) and 270.30(f)).

I.B.2. Permit Renewal

This Permit may be renewed as specified in HWMR-6, Pt. IX, § 270.30(b) and Permit Condition I.E.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations (HWMR-6, Pt. IX, § 270.30(b)).

I.C. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby (HWMR-6, Pt. X, Section 1004).

I.D. DEFINITIONS

For purposes of this Permit, terms used herein are defined for each module. Terms found in Module I shall have the meaning defined in HWMR-6, Pt. IX, § 270.2, unless this Permit specifically provides otherwise. Terms found in Modules II and III shall have the meaning defined in HWMR-6, Pt. I, § 260.10, unless this Permit specifically provides otherwise. Where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. "Secretary" means the Secretary of the New Mexico Environment Department (NMED), or his designee or authorized representative. "Regional Administrator" means the Regional Administrator of the U.S. Environmental Protection Agency, Region 6, or his designee or authorized representative. "Permittee" means Sandia National Laboratories, Albuquerque, New Mexico and the Department of Energy, EPA I.D. Number NM5890110518.

I.E. DUTIES AND REQUIREMENTS

I.E.1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of RCRA and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal

application (HWMR-6, Pt. IX, § 270.30(a)).

I.E.2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days prior to Permit expiration (HWMR-6, Pt. IX, §§ 270.10(h), 270.30(b)).

I.E.3. Permit Expiration

Pursuant to HWMR-6, Pt. IX, § 270.50, this Permit shall be effective for a fixed term of ten years from its effective date. As long as NMED is the Permit-issuing authority, this Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete application (see HWMR-6, Pt. IX, § 270.10, 270.13 through 270.29) and, through no fault of the Permittee, the Secretary has not issued a new Permit, as set forth in HWMR-6, Pt. IX, § 270.51.

I.E.4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee, in an enforcement action that it would have been necessary, to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit (HWMR-6, Pt. IX, § 270.30(c)).

I.E.5. Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures, as are reasonable, to prevent significant adverse impacts on human health or the environment (HWMR-6, Pt. IX, § 270.30(d)).

I.E.6. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to

achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit (HWMR-6, Pt. IX, § 270.30(e)).

I.E.7. Duty to Provide Information

The Permittee shall furnish to the Secretary, within a reasonable time, any relevant information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Secretary, upon request, copies of records required to be kept by this Permit (HWMR-6, Pt. V, § 264.74(a); Pt. IX, § 270.30(h)).

I.E.8. Inspection and Entry

Pursuant to HWMR-6, Pt. IX, § 270.30(i), the Permittee shall allow the Secretary, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, inspection and entry privileges authorized by Permit Conditions I.E.8.a. through I.E.8.d.

I.E.8.a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit.

I.E.8.b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit.

I.E.8.c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit.

I.E.8.d. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or

as otherwise authorized by RCRA, any substances or parameters at any location. The Permittee shall be provided the opportunity to obtain split or duplicate samples.

I.E.9. Monitoring and Records

I.E.9.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be described in Permit Attachment A (the Waste Analysis Plan), or be approved by the Secretary. Analytical methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, Standard Methods of Wastewater Analysis, or an equivalent method, as specified in Permit Attachment A or approved by the Secretary (HWMR-6, Pt. IX, § 270.30(j)(1)).

I.E.9.b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification (concerning waste minimization) required by HWMR-6, Pt. V, § 264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Secretary at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility (HWMR-6, Pt. IX, § 270.30(j)(2)).

I.E.9.c. Pursuant to HWMR-6, Pt. IX, § 270.30(j)(3), records of monitoring information shall specify:

i. The dates, exact place, and times of sampling or measurements;

ii. The individuals who performed the sampling or measurements;

iii. The dates analyses were performed;

iv. The individuals who performed the analyses;

v. The analytical techniques or methods used; and

vi. The results of such analyses.

I.E.10. Reporting Planned Changes

The Permittee shall give notice to the Secretary, as soon as possible, of any planned physical alterations or additions to the permitted facility (HWMR-6, Pt. IX, § 270.30(l)(1)).

I.E.11. Reporting Anticipated Noncompliance

The Permittee shall give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements (HWMR-6, Pt. IX, § 270.30(l)(2)).

I.E.12. Transfer of Permits

This Permit is not transferable to any person, except after notice to the Secretary. The Secretary may require modification or revocation and reissuance of the Permit pursuant to HWMR-6, Pt. IX, § 270.40 (HWMR-6, Pt. IX, § 270.30 (l)(3)). The Permittee shall comply with Permit Condition II.B regarding additional notification requirements in the event of a transfer.

I.E.13. Twenty-Four Hour and Subsequent Reporting

I.E.13.a. The Permittee shall report to the Secretary any noncompliance which may endanger human health or the environment. This report must be made orally within twenty-four hours of the time the Permittee becomes aware of the situation. It must be made even if the Contingency Plan (Attachment E) is not implemented. The report must include:

i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

ii. Any information of a release or discharge of hazardous waste or of a fire or explosion from the hazardous waste management facility, which could threaten the environment or human health outside the facility.

I.E.13.b. The description of the occurrence and its cause shall include:

i. Name, address, and telephone number of the owner or operator;

ii. Name, address, and telephone number of the facility;

iii. Date, time, and type of incident;

iv. Name and quantity of material(s) involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

I.E.13.c. A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of the occurrence including exact dates and times; and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the compliance. The

Secretary may waive the five-day written notice requirement in favor of a written report within 15 days (HWMR-6, Pt. IX, § 270.30(l)(6)).

I.E.13.d. If the Contingency Plan is implemented, the Permittee must comply with the reporting requirements listed in Permit Attachment E, pages M - 24 and M - 25.

I.E.14. Other Noncompliance

The Permittee shall report all other instances of noncompliance, not otherwise required to be reported by Permit Conditions I.E.1. and I.E.13., at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition I.E.13.b. (HWMR-6, Pt. IX, § 270.30(l)(10)).

I.E.15. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Secretary, the Permittee shall promptly submit such facts or information (HWMR-6, Pt. IX, § 270.30(l)(11)).

I.F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Secretary, his designee, or authorized representative, shall be signed and certified in accordance with HWMR-6, Pt. IX, §§ 270.11 and 270.30(k).

I.G. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE SECRETARY

All reports, notifications, or other submissions which are required by this Permit to be sent or given to the Secretary should be sent by certified mail or given to:

Secretary
Environment Department
Harold Runnels Bldg. N2300
1190 St. Francis Dr.
P.O. Box 26110
Santa Fe, New Mexico 87502

I.H. CONFIDENTIAL INFORMATION

In accordance with HWMR-6, Pt. IX, § 270.12, the Permittee may

claim confidential any information required to be submitted by this Permit.

I.I. PERMIT CONSTRUCTION

I.I.1. Citations

Whenever paragraphs of this Permit or of the Hazardous Waste Management Regulations are cited, such citations include all subordinate sections of the cited paragraph. When subordinate sections are cited, such citations include all subsections of the cited subparagraphs. All such citations shall be considered an inclusion by reference to this Permit in accordance with HWMR-6, Pt. IX.

I.I.2. Gender

Whenever the pronoun "he" is used in reference to the Secretary of the New Mexico Environment Department or the Permittee, it is to be read as "she" in any instance where the person of reference is female.

MODULE II - GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

The Permittee shall construct, maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned, sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, as required by HWMR-6, Pt. V, § 264.31. The Permittee shall maintain the structures and equipment and follow the procedures described in Permit Attachments A through G.

II.B. REQUIRED NOTICES

Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of HWMR-6, Pt. V and IX (HWMR-6, Pt.V, § 264.12(c)).

II.C. OFF-SITE WASTES

II.C.1. Hazardous Waste Imports

This permit does not allow the Permittee to accept wastes from a foreign source. If the Permittee is to receive hazardous waste from a foreign source, he shall apply for and receive a permit modification in accordance with HWMR-6, Pt. IX, § 270.42 prior to accepting such waste.

II.C.2. Hazardous Waste from Off-Site Generators

This permit does not allow the Permittee to accept waste from off-site unless the Permittee is also the generator. Waste or contaminated residuals of waste associated with off-site treatment of hazardous or mixed waste streams originally generated by the Permittee and subsequently managed or treated by the off-site facilities listed in Module II, Table II-1, may be accepted for storage or treatment if all such waste is properly characterized and manifested in accordance with Permit Conditions II.C.3.a. and b. If the Permittee is to receive any other hazardous or mixed waste from off-site, apart from that waste specified above, he shall apply for and receive a permit modification in accordance with 20 NMAC 4.1, Subpart IX, 40 CFR 270.42 prior to accepting such waste.

II.C.3. Hazardous Waste Generated at Off-Site Locations

The Permittee shall comply with Permit Conditions II.C.3.a. and II.C.3.b. for hazardous waste generated by the Permittee at off-site locations and managed at the facility.

TABLE II-1
Off-Site Waste Management Facilities From Which SNL/NM May Receive
Returned Treatment-Derived Waste or Waste Residuals

Off-Site Facility	EPA Identificatio Number
Argonne National Laboratory, IL	IL38900089
Catholic University, Washington, D.C.	DCD980204879
Consolidated Incineration Facility, Savannah River Site, SC	SC1890008989
Diversified Scientific Services, Inc., Kingston, TN	TND982109142
Envirocare, Clive, UT	UTI982598898
Waste Experimental Reduction Facility, Idaho National Engineering Laboratory, Idaho Falls, ID	ID4890008952
M4 Environmental Management, Inc., Oak Ridge, TN	RD&D Permit
Nuclear Fuel Services, Erwin, TN	TND003095635
Nuclear Sources & Services, Inc., Houston, TX	TXD982560294
Toxic Substance Control Act Incinerator, Oak Ridge National Laboratory, Oak Ridge, TN	TN0890090004
International Technology Corporation, Technology Center, Knoxville, TN	TND000770479
International Technology Corporation, Biotech Applications Center, Knoxville, TN	TND987782521
International Technology Corporation, Environmental Technology Development Center, Oak Ridge, TN	TND981933120
Perma-Fix, Albuquerque, NM	NM0000182121
Perma-Fix, Gainesville, FL	FLG980711071
EG&G Mound Applied Technologies, Miamisburg, OH	OH6890008984

II.C.3.a. The Permittee shall comply with requirements of generators (HWMR-6, Pt. III).

II.C.3.b. The Permittee shall comply with the manifest requirements of HWMR-6, Pt. V, §§ 264.71, 264.72, and 264.76, regarding the receipt of waste.

II.D. GENERAL WASTE ANALYSIS

The Permittee shall follow the waste analysis procedures required by HWMR-6, Pt. V, § 264.13, as described in the attached Waste Analysis Plan, Permit Attachment A.

The Permittee shall verify the analysis of each waste stream according to the schedule set out in Permit Attachment A. Any sampling, testing, or analytical methods not specifically described in Permit Attachment A must be in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Secretary. At a minimum, the Permittee shall maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to perform analyses, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this Permit.

II.E. SECURITY

In compliance with HWMR-6, Pt. V, § 264.14(a), the Permittee shall prevent the unknowing entry, and minimize the possibility of unauthorized entry onto the active portion of the facility with the security measure described in Permit Condition II.E.1. and with either the security measure described in Permit Condition II.E.2. or the security measure described in Permit Condition II.E.3.

II.E.1. Warning signs in English and Spanish in compliance with HWMR-6, Pt. V, § 264.14(c).

II.E.2. A 24-hour surveillance system in compliance with HWMR-6, Pt. V, § 264.14(b)(1).

II.E.3. A fence with a means to control entry in compliance with HWMR-6, Pt. V, § 264.14(b)(2)(i) and (ii).

II.F. GENERAL INSPECTION REQUIREMENTS

II.F.1. The Permittee shall inspect the facility in accordance with an Inspection Log that includes, at a minimum, the information contained in Permit Attachment B, to detect deterioration, malfunction, operator errors, and discharges in accordance with HWMR-6, Pt. V, § 264.15(a).

II.F.2. The facility shall be inspected weekly in accordance with HWMR-6, Pt. V, § 264.15(b)(4) as determined by the Permittee in the permit application.

II.F.3. Areas subject to spills, such as loading and unloading areas, shall be inspected daily when in use.

II.F.4. The Permittee shall remedy any nonconformance which the inspection reveals in accordance with HWMR-6, Pt. V, § 264.15(c).

II.F.5. Records of inspection shall be kept, as required by HWMR-6, Pt. V, § 264.15(d). The records shall be kept for three years in the Operating Record, as required by HWMR-6, Pt. V, § 264.73(b)(5).

II.G. PERSONNEL TRAINING

The Permittee shall conduct personnel training, as required by HWMR-6, Pt. V, § 264.16. This training program shall include, at a minimum, the information presented in the attached outline, Permit Attachment C (Personnel Training). The Permittee shall maintain the documents and records required by HWMR-6, Pt. V, § 264.16(d) and (e) and Permit Condition II.L.1.c.

II.H. GENERAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of HWMR-6, Pt. V, § 264.17(a). The Permittee shall follow the procedures for managing ignitable, reactive, and incompatible wastes set forth in Permit Attachment D (Waste Handling Practices) and Module III, Permit Condition III.B, III.C, III.D, III.O, and III.P.

II.I. PREPAREDNESS AND PREVENTION

II.I.1. Required Equipment

At a minimum, the Permittee shall maintain at the facility the communication, spill control,

decontamination, and fire control equipment set forth in Permit Attachment D (Waste Handling Practices) and Permit Attachment E (Contingency Plan) as required by HWMR-6, Pt. V, § 264.32.

II.I.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition II.I.1, as necessary, to assure its proper operation in time of emergency, as required by HWMR-6, Pt. V, § 264.33.

II.I.3. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system, as required by HWMR-6, Pt. V, § 264.34.

II.I.4. Required Aisle Space

At a minimum, the Permittee shall maintain aisle space to allow the unobstructed movement of personnel and equipment to any area of the facility operation in an emergency (HWMR-6, Pt. V, § 264.35).

II.I.5. Arrangements with Local Authorities

The Permittee shall maintain preparedness and prevention arrangements with state and local authorities, as required by HWMR-6, Pt. V, § 264.37. If state or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the Operating Record.

II.I.6. Material and Waste Management Records

Waste management records shall be maintained in the Operating Record in compliance with HWMR-6, Pt. V, 264.73(b)(2). One copy of the records described by HWMR-6, Pt. V, 264.73(b)(2) shall be kept in a location at the Hazardous Waste Management Facility that is immediately accessible to emergency response personnel.

II.J. CONTINGENCY PLAN

II.J.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the Contingency Plan, Permit

Attachment E, whenever there is a fire, explosion, or release of hazardous waste or constituents which could threaten human health or the environment (HWMR-6, Pt. V, § 264.51(b)).

II.J.2. Copies of Plan

The Permittee shall maintain and distribute copies of the Contingency Plan in accordance with the requirements of HWMR-6, Pt. V, § 264.53.

II.J.3. Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by HWMR-6, Pt. V, § 264.54.

II.J.4. Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency, as required by HWMR-6, Pt. V, § 264.55. He must implement the requirements of HWMR-6, Pt. V, § 264.56.

II.L. RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittee shall comply with the requirements specified in Permit Conditions II.L.1 through II.L.3.

II.L.1. Documents to be Maintained at the Facility

The Permittee shall maintain at the facility the documents specified in Permit Conditions II.L.1.a. through II.L.1.d.

II.L.1.a. Waste Analysis Plan, as required by HWMR-6, Pt. V, § 264.13.

II.L.1.b. Inspection schedule, as required by HWMR-6, Pt. V, § 264.15(b)(2)

II.L.1.c. Personnel documents and records, as required by HWMR-6, Pt. V, § 264.16(d).

II.L.1.d. Contingency Plan, as required by HWMR-6, Pt. V, § 264.53(a).

II.L.2. Operating Record

An operating record containing the information required by HWMR-6, Pt. V, § 264.73 shall be maintained at the facility.

II.L.3. Biennial Report

The biennial report shall be prepared and submitted, in compliance with HWMR-6, Pt. V, § 264.75.

II.M. GENERAL CLOSURE REQUIREMENTS

II.M.1. Performance Standard

The Permittee shall close the facility, as required by HWMR-6, Pt. V, § 264.111 and in accordance with the Closure Plan, Permit Attachment F.

II.M.2. Amendment to Closure Plan

The Permittee shall amend the Closure Plan, in accordance with HWMR-6, Pt. V, § 264.112(c), whenever necessary.

II.M.3. Notification of Closure

The Permittee shall notify the Secretary in writing at least 45 days prior to the date on which he expects to begin final closure of the facility in accordance with HWMR-6, Pt. V, § 264.112 (d).

II.M.4. Time Allowed For Closure

After receiving the final volume of hazardous waste, the Permittee shall treat, remove from the unit or facility, or dispose of on site all hazardous waste and shall complete closure activities, in accordance with HWMR-6, Pt. V, § 264.113 and the schedules that are specified in the Closure Plan, Permit Attachment F, or are amended as required by Permit Condition II.M.2.

II.M.5. Disposal or Decontamination of Equipment, Structures, and Soils

The Permittee shall decontaminate or dispose of all contaminated equipment, structures, and soils, as required by HWMR-6, Pt. V, § 264.114 and the Closure

Plan, Permit Attachment F.

II.M.6. Certification of Closure

The Permittee shall certify that the facility has been closed in accordance with the specifications in the Closure Plan, as required by HWMR-6, Pt. V, § 264.115. Certification shall include the information required by Permit Condition III.N.2.

II.N. REQUIREMENT FOR RELEASES

II.N.1. Releases from the Container Storage Area

If, based on information contained in reports required by Module I, Permit Conditions I.E.13.a. and b., the Secretary determines that a release from the container storage area is of such a quantity, duration or repeated occurrence that further assessment is required, he may direct the Permittee to conduct the sampling and analysis required pursuant to HWMR-6, Pt. IX, § 270.14(d).

II.N.2. Releases from Newly Identified Solid Waste Management Units (SWMUs)

For newly identified SWMUs, the Permittee shall fulfill the requirements of HWMR-6, Pt. V, § 264.10 (a) and (b).

MODULE III - CONTAINERS

III.A. DESCRIPTION OF UNITS

III.A.1. This permit authorizes storage of containers in the Waste Packaging Building (Building 959), the Waste Storage Building (Building 958) and two modular storage buildings. These buildings are located at the Hazardous Waste Management Facility (HWMF) that is part of Sandia National Laboratories, Albuquerque. The HWMF also consists of a waste oil storage area, a catchment pond, an empty drum crusher, and an elementary neutralization unit. The wastes managed at the HWMF are produced during research and development activities at the laboratory. The waste management areas are equipped with secondary containment and provide for the separation of incompatible wastes.

III.A.2. The Waste Packaging Building consists of 1800 square feet of enclosed floor space. In this building, small containers of waste are emptied and the contents are bulked into larger containers. Lab packs are also prepared by placing small containers into larger containers filled with absorbent material. Eight (8) recessed waste-holding cells and a recessed waste packaging area are located in the building. The floors of the cells and packaging area are constructed of reinforced concrete and metal grating. Waste containers are placed above metal grating over the secondary containment areas. The load-bearing capacities of the reinforced concrete floor and the metal grating are 450 and 2000 pounds per square foot, respectively. The floor and lower wall surface of each recessed area is coated with a chemical resistant coating. The building also contains restrooms, a general use area, an office area, a mechanical room and storage areas. The building is equipped with a telephone, fire alarm systems, emergency power back-up, portable fire extinguishers, and a sprinkler system. The building is also provided with intrusion alarms and lightning protection.

III.A.3. The Waste Storage Building consists of 3520 square feet of enclosed floor space. Eight separate and recessed waste storage compartments for segregation of waste groups are contained in the building. The floors of cells 1, 2, 3, 4, 6, 7, and 8 are constructed of reinforced concrete and metal grating. The floor of cell 5 is constructed of reinforced concrete. The waste containers are placed above metal grating over the secondary containment area, or on pallets on the reinforced concrete floor in Cell 5. The load-bearing capacity of the reinforced concrete and metal grating are 450 and 2000 pounds per square foot, respectively. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency. The storage compartments vary in size, secondary containment capacity, and the waste container capacity. The building is equipped with a telephone, a fire alarm system, intrusion alarms, lightning protection, emergency lighting, and portable fire extinguishers, and a sprinkler system.

III.A.4. The modular storage buildings are used for the storage of water reactive wastes, lithium batteries, and flammable solids. Each building is equipped with subfloor secondary containment. The floor of the storage areas has a load-bearing capacity of 250 pounds per square foot. The buildings are equipped with an automatic alarm-dialing system and a dry chemical fire suppression system that is compatible with reactive materials.

III.B. WASTE PACKAGING BUILDING OPERATION REQUIREMENTS

III.B.1. Based on the secondary containment capacity, each of the eight holding cells shall hold a maximum of 13 55-gallon drums, or an equivalent volume.

III.B.2. The packaging area shall hold a maximum of 34 55-gallon drums, or an equivalent volume.

III.B.3. The stacking configuration of waste containers shall not exceed the load-bearing capacity of the reinforced concrete or metal grating described in Permit Condition III.A.2.

III.B.4. The fire protection system shall be maintained for Extra Hazard Group 1 occupancy. The Permittee shall comply with HWMR-6, Pt. V. section 264.17 and 264.176.

III.B.5. Water reactive wastes shall not be stored in the building.

III.B.6. Aisle space shall be maintained in the building in compliance with HWMR-6, Pt. V, § 264.35.

III.C. WASTE STORAGE BUILDING OPERATION REQUIREMENTS

III.C.1. Based on the secondary containment capacity, the storage compartments shall be limited to the following maximum storage capacity of 55-gallon drums, or equivalent volume:

Bay No.	Maximum Number of 55-gallon Drums
1	98
2	79
3	79
4	79
5	518 *
6	79
7	79
8	79

* A portion of the secondary containment capacity is taken up by pallets.

III.C.2. The stacking configuration of waste containers shall not exceed the load-bearing capacity of the reinforced concrete floor or the metal grating described in Permit Condition III.A.3.

III.C.3. The fire protection system shall be maintained for Extra Hazard Group 1 occupancy. The Permittee shall comply with HWMR-6, Pt. V, section 264.17 and 264.176.

III.C.4. Water reactive wastes shall not be managed in the building.

III.C.5. Aisle space shall be maintained in the building in compliance with HWMR-6, Pt. V, § 264.35.

III.D. MODULAR STORAGE BUILDINGS OPERATION REQUIREMENTS

III.D.1. Each building shall be equipped with subfloor secondary containment.

III.D.2. Based on the secondary containment capacity, each building shall hold a maximum of 91 55-gallon drums of liquid, or an equivalent volume.

III.D.3. The buildings shall be equipped with a fire suppression system that is compatible with water reactive materials.

III.D.4. The stacking configuration of waste containers shall not exceed the load-bearing capacity of the floor described in Permit Condition III.A.4.

III.E. ADDITIONAL STRUCTURES OR EQUIPMENT

III.E.1. A lined pond is located on the northwest side of the Hazardous Waste Management Facility. The pond is capable of holding 10,000 cubic feet of liquid and is designed to receive run-off from the Hazardous Waste Management Facility. The pond shall be operated and inspected according to Permit Conditions III.E.1.a. through e.

III.E.1.a. Run-off collected in the pond shall be subject to waste analysis. If the run-off is not known to be hazardous waste, waste analysis shall consist of direct sampling if any portion of the run-off present in the pond resulted from any incident which requires reporting to the Secretary as stipulated by Permit Condition I.E.13.a.

III.E.1.b. The waste analysis shall occur within 5 days of the incident. The results of the waste analysis, if available, shall be included in the report of the incident required by Permit Condition I.E.13.b. and c.

III.E.1.c. If the run-off present in the pond is determined to be hazardous waste, the liquid shall be removed within 5 working days of the determination and managed through the HWMF.

III.E.1.d. The quantity of hazardous waste present in the pond at each incident, the date of the event, and the date of removal shall be recorded in the Operating Record.

III.E.1.e. The pond shall be inspected to detect nonconformances at least after each incident which resulted in its use to manage hazardous waste. Inspection results and any remediation shall be recorded as required by HWMR-6, Pt. V, § 264.15(d).

III.E.2. An empty drum crusher is located within an outdoor, covered, bermed area. Only drums that meet the definition of empty under HWMR-6, Pt. II, § 261.7(b)(1) shall be crushed in the drum crusher.

III.E.3. An acid/base elementary neutralization unit is located within the outdoor, covered, bermed area next to the drum crusher. This unit is used for the neutralization of those wastes that only are identified by the characteristic of corrosivity defined in HWMR-6, Pt. II, § 261.22. The unit and its operation shall meet the definition of an elementary neutralization unit in HWMR-6, Pt. I, § 260.10.

III.E.4. Within the Hazardous Waste Management Facility is a covered, bermed, concrete-lined storage area for the storage of nonhazardous waste oil prior to shipment offsite for recycling and waste packaging supplies. The structure is also used as an accumulation area for hazardous waste. Compliance with HWMR-6, Pt. III, § 262.34(a) shall be maintained regarding the accumulation of hazardous waste.

III.F. CONTAINER REQUIREMENTS

The Permittee shall store waste in containers equivalent to

containers specified for each waste by the U.S. Department of Transportation (DOT) regulations, set forth in Title 49 of the Code of Federal Regulations, Part 173 (49 CFR 173). These containers shall meet or exceed the requirements for strength and integrity specified by DOT at 49 CFR 178 for each class of container. Any container that must be overpacked due to a breach in its integrity shall be labeled accordingly.

III.G. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

III.G.1. The Permittee shall store only the hazardous wastes listed in Permit Attachment G (Part A of the Permit Application), subject to the terms of this Permit.

III.G.2. If the amount of any waste code handled in a calendar year exceeds the amount listed for that waste code in Permit Attachment G (Part A of the permit application), the Permittee shall submit a report explaining the situation to NMED and, if the increase in annual quantity is expected to be repeated, shall submit a revised Part A form by March 1 of the following year. The revised Part A will replace Attachment G and become part of this Permit.

III.G.3. The Permittee shall comply with the following conditions (Permit Conditions III.G.3.a. through c below) regarding storage of wastes identified in HWMR-6, Part VIII, § 268.10, 268.11, and 268.12 as being subject to the restrictions on land disposal set forth in HWMR-6, Part VIII, Subpart C. The same conditions shall be imposed on the storage of any wastes that may become prohibited or restricted from land disposal by the New Mexico Hazardous Waste Management Regulations during the life of this Permit.

III.G.3.a. Waste shall be stored for no longer than one year from the date of its first receipt by the Permittee, unless the Permittee furnishes proof to the Secretary that such storage for period in excess of one year is solely for the purpose of accumulation of such quantities as are necessary to facilitate proper recovery, treatment, or disposal.

III.G.3.b. Each container shall be clearly marked

as to its contents and the date each period of accumulation begins.

III.G.3.c. Hazardous wastes meeting the treatment standards in HWMR-6, Part VIII, §§ 268.41, 268.42, and 268.43 are not subject to the storage prohibition in Permit Condition III.G.3.a. above.

III.H. CONDITION OF CONTAINERS

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this Permit (HWMR-6, Pt. V, § 264.171).

III.I. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee shall assure that the ability of the container to contain the waste is not impaired by any incompatibility with its contents, as required by HWMR-6, Pt. V, § 264.172.

III.J. MANAGEMENT OF CONTAINERS

The Permittee shall keep all containers closed during storage, except when it is necessary to add or remove waste, and shall not open, handle, or store containers in a manner which may rupture the container or cause it to leak, as required by HWMR-6, Pt. V, § 264.173.

III.K. CONTAINMENT SYSTEMS

The Permittee shall maintain the containment system in a leakproof and fully operable condition in accordance with the plans and specifications contained in Permit Attachment H (HWMR-6, Pt. V, § 264.175).

III.L. INSPECTION SCHEDULES AND PROCEDURES

Each container storage area shall be inspected weekly to detect leaking containers and deterioration of containers and the containment system in accordance with HWMR-6, Pt. V, § 264.174 and Permit Conditions II.F.1. and II.F.2.

III.M. RECORDKEEPING

The Permittee shall place the results of all waste analyses in the Operating Record in accordance with HWMR-6, Pt. V,

§ 264.73(b)(3).

III.N. CLOSURE

III.N.1. At closure of the Waste Packaging Building, the Waste Storage Building, or the modular storage buildings, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment system, in accordance with the procedures in the Closure Plan, Permit Attachment F (HWMR-6, Pt. V, § 264.178).

III.N.2 The Permittee shall certify that the Hazardous Waste Management Facility has been closed in accordance with the specifications in the Closure Plan, Permit Attachment F (HWMR-6, Pt. V, § 264.115). Documentation supporting the Closure Certification shall include the information described in Permit Conditions III.N.2.a. through III.N.2.c.

III.N.2.a. Procedures for the definition of potentially contaminated areas that underwent further inspection and sampling.

III.N.2.b. Decontamination procedures that occurred, if spilled material was encountered during closure.

III.N.2.c. Concentration levels of constituents that were used to determine if contaminated areas warranted additional decontamination and were used to determine the final disposition of washwater generated during. These levels shall be based on current regulated or health-based levels at the time of closure.

III.O. SPECIAL CONTAINER PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

III.O.1. The Permittee shall not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line (HWMR-6, Pt. V, § 264.176).

III.O.2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or

reactive waste.

III.P. SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTE

III.P.1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container (HWMR-6, Pt. V, § 264.177 (a)).

III.P.2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material (HWMR-6, Pt. V, § 264.177(b)).

III.P.3. The Permittee shall separate containers of incompatible wastes in compliance with Permit Attachment D, as required by HWMR-6, Pt. V, § 264.177(c).

Permit Attachment A

Waste Analysis Plan

2.2 WASTE ANALYSIS PLAN

To ensure that the chemical wastes generated by Sandia operations are characterized sufficiently to permit proper handling, packaging, storage, segregation, and disposal, a waste analysis plan in accordance with NMHWMR-6/40 CFR §264.13 and §270.14(b)(3) has been developed and implemented. This plan describes the processes used to characterize a waste, including analytical parameters, test methods, sampling techniques, frequency of testing, and procedures used to ensure compliance with storage and disposal requirements. Flow charts summarizing SNL waste analysis procedures are presented in Figures 2-1, 2-2, and 2-3.

2.2.1 Analytical Parameters and Test Methods

Four levels of analysis are used to characterize wastes, depending on the nature of the waste:

- Knowledge of process (KOP) and published information
- Fingerprint checks
- Hazard Categorization (HazCat) procedures
- Detailed chemical analysis

2.2.1.1 Laboratory Chemical Wastes

By volume, approximately 50 percent of the hazardous waste processed through the HWMF are laboratory chemical wastes, which can be categorized into several types:

- Excess or residual reagent chemicals
- Off-specification or expired chemicals, such as paints or photographic chemicals
- Chemical solutions or mixtures of known composition prepared by chemists for various research projects
- Solid waste laboratory material, such as laboratory wipes contaminated with solvent or lead solder.

This type of waste is produced during various research, development and testing operations by the majority of SNL and Sandia off-site waste generators. Although a number of

generators may discard the same kind of wastes, each generator usually submits to the HWMF small volumes of waste at infrequent intervals.

Because of the nature of Sandia operations, laboratory personnel know the composition and hazardous properties of the wastes generated in the course of conducting the experiments. In most cases, this knowledge of process is sufficient to determine both the hazards associated with the handling and storage of the waste and the requirements and restrictions for its disposal; therefore, analytical testing is not usually conducted on these wastes. The waste generator's knowledge of the waste or the process used to produce the waste is documented on the Chemical Waste Disposal Request (CWDR). After receiving the CWDR but before transporting the waste to the HWMF, the HWMF personnel review the CWDR and determine the characteristics of the waste (i.e., the DOT hazard class, pH, flammability, reactivity, or presence of metals or listed hazardous wastes) based on published information, such as Material Safety Data Sheets (MSDS), The Condensed Chemical Dictionary (Hawley, 1989), or the Sigma Aldrich Library of Chemical Safety Data (Lenga, 1988). Recharacterization by analytical testing is not conducted on this type of waste; however, the process of using KOP to determine waste characteristics is conducted on each container received at the HWMF.

The characteristics of the waste, as determined by KOP, are used to determine the proper packaging, storage, segregation, and disposal of the laboratory wastes. In particular, the DOT hazard class and compatibility charts are used to ensure that incompatible wastes are segregated and stored properly (Section 3.1.3); the hazardous characteristics and composition of the waste are used to ensure that the waste is packaged in a compatible container and is disposed of properly, including waste restricted from land disposal.

2.2.1.2 Process Chemical Wastes

Process chemical wastes are wastes that are generated from on-going, well-defined and predictable processes. Table 2-2 shows some typical process waste streams that are received regularly by the HWMF. The primary sources of process chemical wastes are the plating, circuit, and semiconductor operations; two motor pools; glass and plastic fabrication;

and various photodeveloping operations. These sources consistently produce known waste streams throughout the year, usually in relatively large volumes.

There are two levels of analysis to determine the chemical and physical characteristics of these waste streams. The preliminary analysis is based on the generator's knowledge of process and on fingerprint chemical checks. Information from the generator about the waste and/or the process that produced the waste is documented on the CWDR. After receiving the CWDR but before transporting the waste to the HWMF, the HWMF personnel review the CWDR and determine the minimum characteristics of the waste, such as the DOT hazard class and pH, that will ensure proper handling and storage of the waste at the HWMF. This review is based on a previous waste profile for the waste stream or other published information from similar processes. When the material is picked up, the HWMF personnel will conduct a fingerprint check on each container (30 gallons or larger) to verify that the characteristics of the waste stream are consistent with the information given by the generator and with the profile for that waste stream. The fingerprint parameters that are tested may include the following:

- Physical state (solid, liquid, gas, sludge)
- pH and oxidation potential (for inorganic liquids)
- Color
- Specific gravity

The test methods for the fingerprint check are given in Table 2-3.

The preliminary analysis is used to determine the DOT hazard class, which will ensure that the waste is packaged in compatible containers and that the waste is stored properly, especially for reactive, ignitable, or incompatible materials. If necessary, a more detailed analysis is conducted to determine the proper disposal method for the waste. For example, analytical testing of process waste streams is usually required by treatment, storage, or disposal (TSD) facilities before they will accept the waste for disposal, in order to determine if the waste is restricted from land disposal or to supplement knowledge of process information. Also, analytical testing is done to reconcile any inconsistencies discovered during the preliminary analysis.

Testing parameters, such as Polychlorinated Biphenyls (PCBs), flash point, volatile organics, or metals, are chosen based on the knowledge of process from which the waste was produced. For example, a typical process waste from the motor pools is degreasing solvents that may be contaminated with metals; therefore, the parameters that will be analyzed are flash point, lead and metals from the Toxicity Characteristic Leaching Procedure (TCLP) and the presence of volatile organics. Table 2-2 summarizes typical process waste streams, corresponding analytical parameters and the analytical rationale for the parameters. If information from generators is inadequate for choosing analytical parameters, the waste would be subject to a full spectrum of analytical testing. All analytical testing is normally conducted by certified laboratories. Testing methods used are presented in Table 2-3.

This detailed analytical testing is conducted initially, when a waste is received that does not meet any previously defined waste stream profiles. The waste stream profile is reviewed annually with the waste generator to determine if the process or waste characteristics may have changed. Analytical testing is repeated whenever HWMF personnel are informed or have reason to believe that the process has changed, and annually on 5 percent of the defined, regularly received process waste streams.

2.2.1.3 Unknown Wastes

Occasionally, a chemical may become an unknown waste because it can not be positively identified by the generator or from labeling information. Often, the generator of the waste has some knowledge of the chemical, but cannot give a positive identification. Chemicals become unknowns when a label becomes detached or illegible, when chemicals are transferred to other containers without proper labeling, or when an unlabeled chemical is discovered which was not placed into the SNL disposal system. The majority of unknowns are small quantity containers (less than 1 gallon or 1 pound) and relate to research projects, but occasionally an unlabeled drum is discovered. Because of the R&D environment of SNL the total number and rate of unknowns generated per year can not be predicted and are not tracked; however, SNL estimates that less than 50 containers per year are generated. Waste analysis is conducted on every container of unknowns.

Unknown chemicals undergo extensive characterization to determine proper handling, segregation, storage, and disposal methods. Several methods are used by SNL to evaluate the hazards associated with the unknown and to identify a substance for disposal. A flowchart describing the process of identifying unknowns is given as Figure 2-2.

The first method used to identify an unknown is on-site visual investigation of the chemical. After an unknown chemical is discovered, a HazCat team consisting of at least two people will examine the chemical for various properties, such as the following:

- Radioactivity
- Physical state
- Color
- Age
- Storage and container conditions
- Changes in substance
- Phase separations
- Quantity of chemical
- Any labeling
- Type of operations in the nearby area
- Personnel associated with the laboratory or area.

Any information is noted on a CWDR. Often, the HazCat team can identify the material and/or the hazard class by this investigation. If a positive identification is made, the CWDR is submitted to the HWMF and processed under normal procedures.

If the unknown can not be identified after this investigation, the HazCat team must make a determination if the material is safe to handle or transport. If the unknown is deemed unstable or unsafe, the procedures described in Section 5.6 will be followed. If the material can be safely handled, the HazCat team may conduct HazCat tests under a fume hood to determine the hazard class. The HazCat team will follow the process and tests described in "HAZCAT(TM) CHEMICAL IDENTIFICATION SYSTEM" (Turkington, 1988) or a comparable method. Typical parameters and test methods are given in Table 2-3. Once the hazard class is determined and the material is safe to transport, the information is recorded on a CWDR and submitted to the HWMF for pickup.

The HWMF will store the chemical according to hazard class until more detailed analytical tests can be completed which are usually required to meet TSD facility requirements for disposal and to determine if the material is restricted from land disposal. Testing parameters are chosen based on the results of HazCat tests. Analytical testing methods are presented in Table 2-3.

2.2.1.4 Accumulated Liquid Wastes

2.2.1.4.1 Precipitation Control

Paved areas south and east of the buildings are sloped to a 10,000 cubic-foot-catchment pond located at the northwest corner of the facility. A key-controlled pump is located at the catchment pond. During normal operations, the catchment pond collects only storm water. The catchment pond does not provide a secondary containment function. Since RCRA-regulated hazardous materials are not stored outside the buildings, and spills are promptly contained and cleaned up, the catchment pond storm water will not normally contain listed or characteristic hazardous waste. Only in the event of a fire or an uncontrolled spill at the HWMF is the catchment pond be expected to contain regulated waste.

When the catchment pond accumulated liquid needs to be removed, a grab sample will be taken. Target points for analysis will be determined. Typical target points will be organics and metals, but may change. If the analysis indicates the presence of regulated wastes in concentrations that exceed water discharge standards, the liquid will be disposed of as regulated waste.

2.2.1.4.2 Secondary Containment

Secondary containment systems are located throughout the HWMF where chemicals are packaged, processed, or stored. When spills occur, they are contained and cleaned up immediately. KOP of the spill material is usually sufficient for identification of a spill which occurred during processing. If an unattended spill is discovered in secondary containment, wherein wastes are stored segregated by hazard class, the leaking labeled container and hazard classification will provide adequate KOP. In the unlikely event of several leaking

drums in one contained area, the waste will be collected, sampled, and analyzed as described in this chapter.

2.2.1.5 Off-Site Waste

Some Sandia activities are conducted away from Sandia, Albuquerque, property and some of these activities generate hazardous wastes. Most of the off-site waste can be categorized as laboratory chemical waste, and is usually generated in small quantities.

A flow chart summarizing the procedures to be followed for receipt of off-site waste is presented in Figure 2-3. First, the generator is required to contact the Chemical Waste Management Division so that the waste can be characterized sufficiently for shipment and storage at the HWMF. This initial characterization will be conducted as described in Section 2.2.1.1 if the waste is a laboratory chemical waste, Section 2.2.1.2 if the waste is a process chemical waste, or Section 2.2.1.3 if the waste is an unknown chemical waste. The generator is also required to arrange for proper shipment according to applicable regulations, with the help of environmental professionals.

Second, when received at the HWMF, each container will be inspected by HWMF personnel to determine whether the waste matches the identity of the waste specified on the accompanying shipping document. Laboratory chemical wastes that are in their original, sealed containers, will not be opened for inspection. The inspection will involve a fingerprint check, as described in Section 2.2.1.2. If the waste does not match the description on the shipping document, the generator will be contacted and the waste will be treated as an unknown waste and analyzed as described in Section 2.2.1.3. Once the waste description is verified, the waste will be prepared for shipment to an appropriate recycling or TSD facility.

2.2.2 Sampling Techniques

The objective of the sampling program is to obtain an aliquot of material which is representative of the total container. The methods specified in NMHWMR-6/40 CFR Part 261, Appendix I will be followed. As appropriate, the waste is classified depending on uniformity

and homogeneity of the contaminant distribution, i.e., whether there is sludge, aqueous or nonaqueous layers.

Because drums are the most commonly sampled containers, the drum sampling method is described here. A composite sample is collected by extracting an aliquot from each layer (e.g., at four different elevations in a drum). The sampler is typically a pipette which is inserted into the drum. Material is aspirated into the sample collecting container. If four layers are to be composited, 25 percent is aspirated from each layer as the tube is withdrawn from the drum. A new sample tube is used for each container. Coliwasa sample tubes may also be used to obtain representative samples. Small containers (5 gallons or less) are agitated to evenly distribute any contaminants before an aliquot is collected. Waste samples are typically collected in polyethylene or glass, one-liter, wide-mouth containers, depending on the required analyses. Table 2-4 describes sampling methods for hazardous wastes to be analyzed.

Waste samples are individually numbered and labeled. The samples are submitted to the testing laboratory as soon as possible. Preservation, transport, storage, documentation, chain-of-custody, and quality assurance procedures are followed as specified in the "Test Methods for Evaluating Solid Wastes" SW-846 3rd Edition (EPA, 1990).

2.2.3 Documentation and Quality Assurance Program

Since important decisions regarding the storage and disposal of hazardous waste generated at SNL are based on the results of waste sample analyses, a program to ensure the reliability of analytical data is essential. The two major facets of the SNL program to ensure data reliability are documentation to ensure that analyses are traceable to the contents of specific waste containers, and a quality assurance program that mandates documentation of the precision and accuracy of laboratory analyses. These two facets are described below.

Documentation begins with the waste generator who documents knowledge of the waste and/or the process that generated the waste on the CWDR. After the containers are received by the HWMF, the wastes are usually repackaged in lab packs or bulked in 55-gallon drums.

When the wastes are repackaged, the known composition of each waste is recorded on a Drum Inventory and Content Form. Information on the form includes the chemical composition, physical form, and the EPA hazardous waste code of each waste item packaged in the larger container. A unique drum number is assigned and the information from the drum content form is entered into a computerized data management system. To dispose of the waste, a waste profile must be developed and approved by the TSD facility.

If analytical testing is conducted, documentation is maintained for all samples, such as a Sample Collection Log, chain-of-custody form, and analytical results. All documentation is maintained at SNL. The analytical laboratory also maintains records of the chain-of-custody and results.

The SNL procedures for hazardous waste samples ensure that analytical results can be attributed to specific containers of waste or specific sampling sites. The procedures used by SNL are equivalent to those provided in SW-846, 3rd Edition. After a sample of hazardous waste is collected, the sample container is affixed with a label providing the following information:

- Sample number
- Name and SNL division number of sample collector
- Date and time of collection
- Place of collection
- Type of sample.

Sample numbers are unique to the sample. The number is also recorded on a Sample Collection Log, which includes the following information on each hazardous waste sample:

- Purpose of sample collection
- Sampling location
- Name and division number of sample collector
- Type of waste (e.g., sludge, liquid, etc.)
- Number and volume of samples
- Description of sampling point and sampling method
- Date and time of sampling collection
- Assigned sample number
- Sample description

- Any results of field observations or measurements
- Signature of sample collector.

To ensure that the sample is traced from the time of collection to the time of analysis, a chain-of-custody form is completed and maintained for each sample. The chain-of-custody form includes the following information:

- Sample number
- Signature and organization of the sample collector
- Date and time of sample collection
- Location at which sample was collected
- Type of waste (sludge, liquid, etc.)
- Signatures of persons involved in the chain of possession
- Dates of possession.

The SNL quality control/quality assurance (QC/QA) program for laboratory analyses of hazardous waste is designed to maintain high standards for the accuracy and precision of waste sample analyses. In addition, adherence to the QC/QA program provides the information needed to document the quality of performance of the analytical systems, procedures and personnel in the laboratory.

Most of the QC/QA procedures necessary for hazardous waste sample analyses are presented in SW-846, 3rd Edition, for each test method to be utilized. These procedures will be followed for analysis of all waste samples. Documentation that demonstrates QA/QC procedures (e.g., tabulation of results of blank analyses, calibration curves, etc.) are prepared and permanently maintained in the analytical laboratory's files. All hazardous waste analytical results (including accuracy and precision data) are reported and signed by the analytical laboratory's chemist or his supervisor.

QC/QA procedures not related to specific test methods in SW-846 will follow good laboratory practices for quantitative analyses. These practices include proper maintenance and calibration of laboratory instrumentation, analyses of reference standards and quality control samples, proper tracking of each sample through the laboratory during analysis and maintenance and storage of all analytical records such as control charts, sample logs, etc.

TABLE 2-3

WASTE ANALYSIS PARAMETERS AND TEST METHOD

PARAMETER	TEST METHOD	REFERENCE[1]
Analytical Testing		
Arsenic	Atomic Absorption	7060, 7061
Barium	Atomic Absorption	7080, 7081
Cadmium	Atomic Absorption	7130, 7131
Chromium	Atomic Absorption	7190, 7191
Lead	Atomic Absorption	7420, 7421
Selenium	Atomic Absorption	7740, 7741
Silver	Atomic Absorption	7760, 7761
$Chromium^{+6}$	Coprecipitation	7195
	Colorimetric	7196
	Chelation/Extraction	7197
	Differential Pulse Polarography	7198
Mercury	Manual Cold-Vapor Technique	7470[2],7471[3]
Ignitability	Pensky-Martino Closed-Cup	1010
	Setaflash Closed-Cup	1020
Reactivity	Numerous Tests, Mil Hydrogen Cyanide and Hydrogen Sulfide	Sec. 7.3
Corrosivity	Towards Steel	1110
	pH Paper	9041
	pH Electrometric	9040[2], 9045[3]
Toxicity	Extraction Procedure	1310
	Toxicity Characteristic Leaching Procedure (TCLP)	1311
Cyanide	Colorimetric	9010, 9012
Beryllium	Atomic Absorption	7090, 7091
Total Organic Halides (TOX)	Carbon Absorption	9020
	Neutron Activation	9022
Halogenated Volatile Organics	Gas Chromatography (GC)	8010, 8021
Nonhalogenated Volatile Organics	GC	8015
Volatile Organics	GC/Mass Spectrometry (MS)	8240, 8260
Semivolatile Organics	GC/MS	8250, 8270
PCB	GS	8080
Physical State	Paint Filter Liquids Test	9095
	Liquid Release Test	9096
Fingerprint Checks		
Color	Visual	--
Physical State	Visual	--
pH	pH paper	9041
Oxidizer	Oxidizer Paper	--
Specific Gravity	Hydrometer	--

These laboratory practices are part of the standard operating procedures of the in-house and commercial analytical laboratories responsible for hazardous waste sample analysis.

2.2.4 HWMF Personnel Qualifications

HWMF personnel are qualified to operate within this waste analysis plan because of their knowledge of chemistry, DOT hazard classes, EPA waste codes, and familiarity with regulations and SNL procedures. HazCat members are required to complete 24 hours of health and safety training and a HazCat training course. The training plan for HWMF personnel discusses the minimum qualifications, training requirements, and job descriptions of the personnel. Section 7.4 outlines the training plan.

TABLE 2-2

TESTING PARAMETERS FROM PROCESS WASTES

Process Waste Stream	Analytical Parameter(s)	Rationale
PCB Waste	PCBs	Oils from transformers are analyzed for PCBs because of the wide spread use of PCBs before 1978.
Plating Wastes	pH, metals	Plating wastes typically produced are concentrated and dilute acids or caustics containing dissolved or precipitated metals.
Circuit Wastes	Organics, metals, pH, ignitability	Wastes include rinse and cleaning solvents, such as degreasing solvents, and wastes containing metal contaminants from solders. Concentrated and dilute acids or caustics containing dissolved or precipitated metals are also produced.
Vehicle Maintenance Wastes	Organics, metals, ignitability	Wastes are predominantly oils, coolants, and degreasing solvents, possibly contaminated w/lead or other metals, resultant from routine vehicle maintenance.
TTF	Silver	Metals in the ash result from the incineration of explosive wastes.

TABLE 2-2

TESTING PARAMETERS FROM PROCESS WASTES
(CONTINUED)

Process Waste Stream	Analytical Parameter(s)	Rationale
Photo Developing Wastes	Silver, pH, ignitability	Photo developing chemical, such as fixers, developers, and replenishers are usually, acidic or basic, and may be contaminated with silver.
Semiconductor Wastes	Organics, pH, ignitability	Acids and solvents are used for cleaning and during fabrication process.

TABLE 2-3

WASTE ANALYSIS PARAMETERS AND TEST METHOD (CONTINUED)

PARAMETER	TEST METHOD	REFERENCE
HazCat Tests		
Peroxide	Peroxide Paper	HAZCAT[4]
Oxidizer	Oxidizer Paper	HAZCAT[4]
pH	pH Paper	HAZCAT[4]
Chlorine	Hot Wire (flame test)	HAZCAT[4]
Presence of Metals	Various Methods	HAZCAT[4]
Ignitability	Ignition Test	HAZCAT[4]

(1) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, Rev. 1, EPA, November 1990.
(2) For liquid samples only.
(3) For solid samples only.
(4) These procedures are identified in HAZCAT(TM) CHEMICAL IDENTIFICATION SYSTEM by R. Turkington, HAZTECH SYSTEMS, INC., Mountain View, CA, January 1988.

TABLE 2-4

SAMPLING METHODS FOR HAZARDOUS WASTES TO BE ANALYZED

HAZARDOUS WASTE	SAMPLING METHOD[1]	DESCRIPTION OF SAMPLING
Container Laboratory Waste (Liquids)	Coliwasa, glass bottle, hollow glass tube	Samples of unknown wastes in larger containers (e.g., 5-gallon cans) are collected with a coliwasa; smaller containers serve as their own samples or may be sampled by pouring a small quantity of the fluid into a glass bottle.
Container Laboratory Waste (Solids)	Thief, trier	Thief or trier used for unknown wastes based on waste physical consistency; in some cases (e.g., contaminated rags) obtaining a representative sample may be impracticable.

[1]Sampling methods are adopted from: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, EPA, November 1990

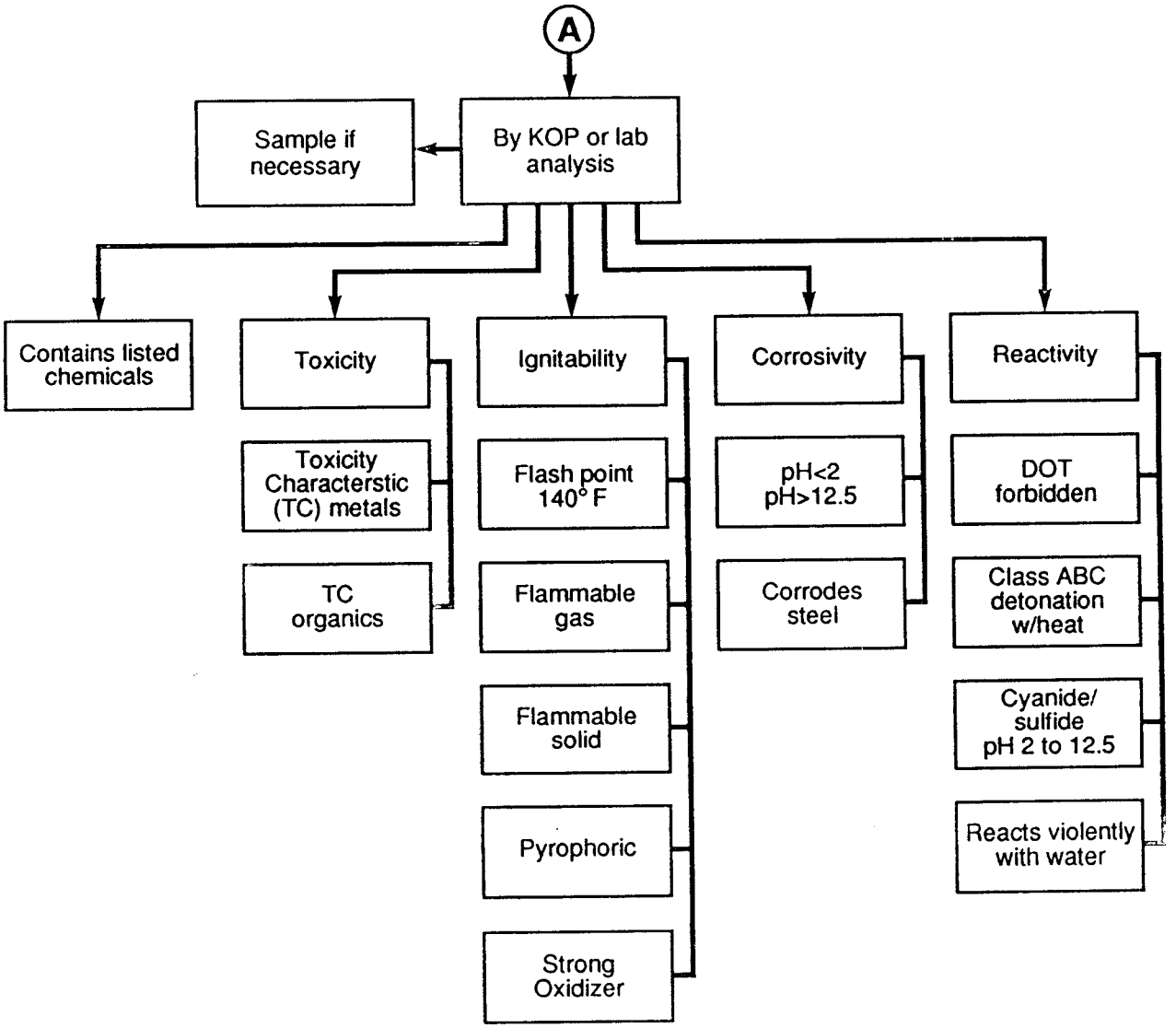

FIGURE 2-1 SNL, ALBUQUERQUE, WASTE ANALYSIS DECISION CHART
(continued)

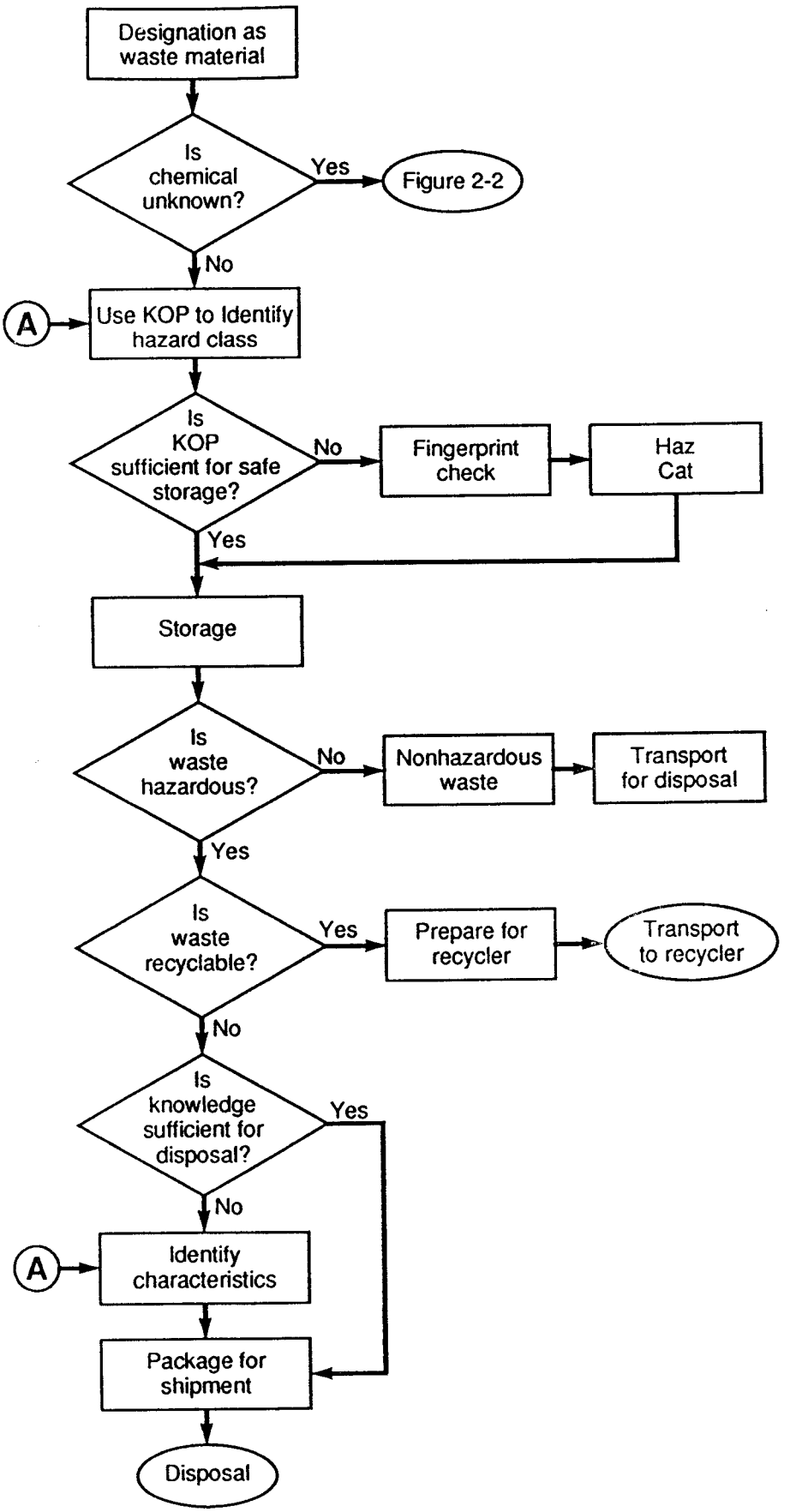

FIGURE 2-1 SNL, ALBUQUERQUE, WASTE ANALYSIS DECISION CHART

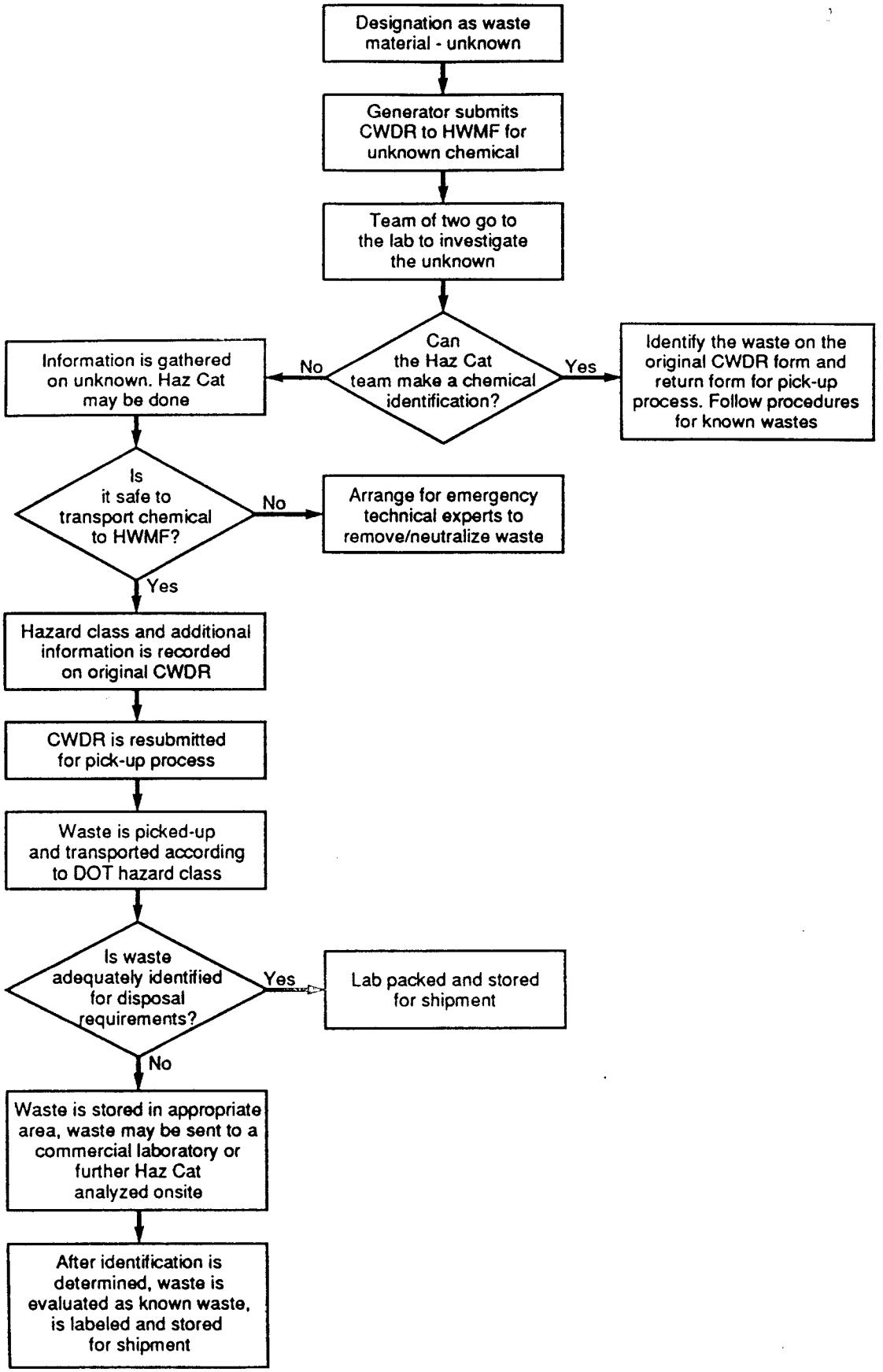

FIGURE 2-2 SNL, ALBUQUERQUE, UNKNOWN WASTE ANALYSIS DECISION CHART

47.01 A3

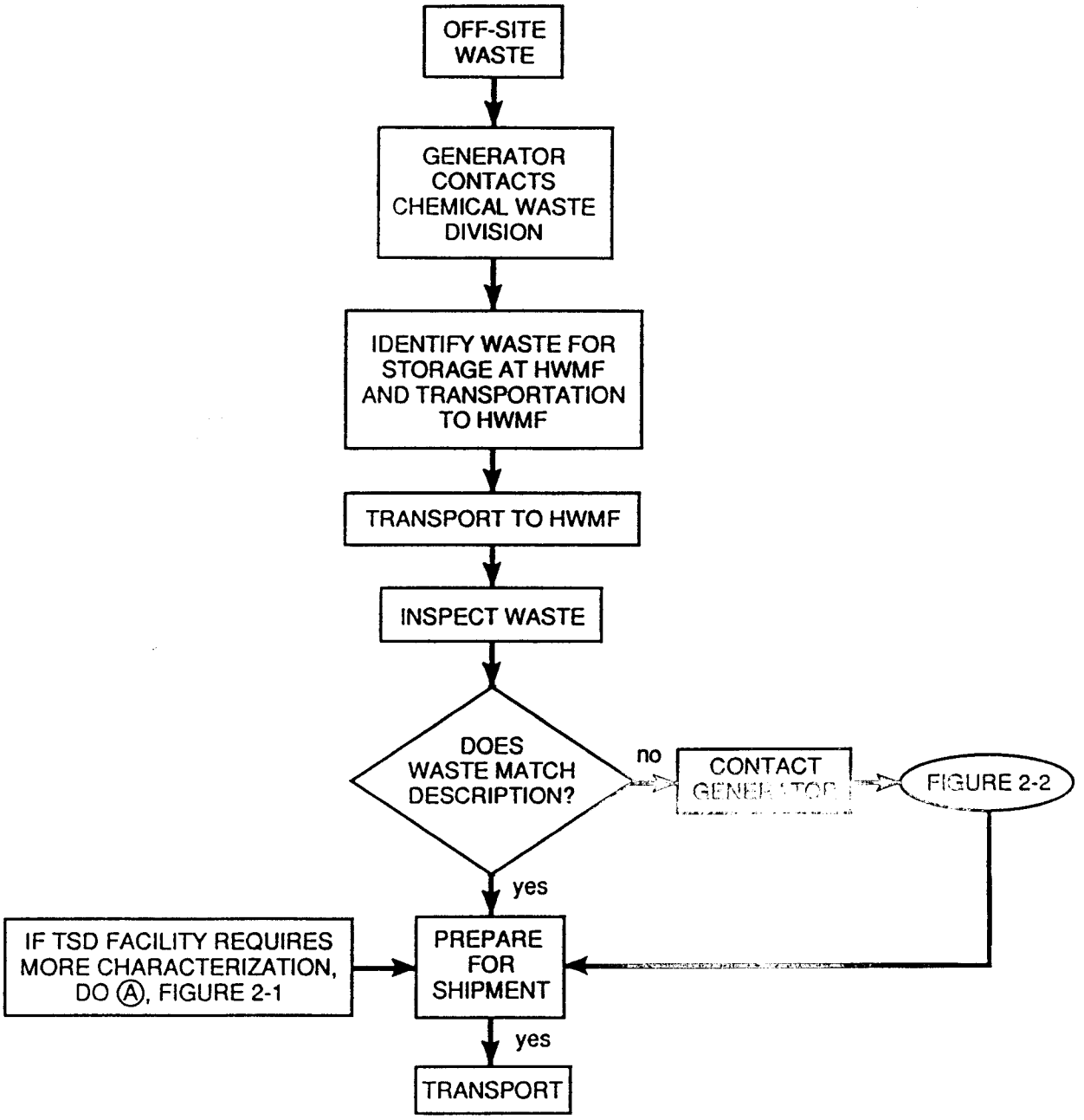

Figure 2-3
SNL, Albuquerque, Waste Analysis Decision Chart for Off-Site Waste

Sandia National Laboratories
Division 3202

SAMPLE # _____
TYPE _____
LOCATION _____
DATE _____ TIME _____
PRESERVATIVES _____
COLLECTOR _____

FIGURE 2-4

SNL, Albuquerque, Sample Label

Permit Attachment B

Inspection Log

TABLE 5-1

HAZARDOUS WASTE MANAGEMENT FACILITY WEEKLY INSPECTION LOG

Inspector's name/organization _____

Date of Inspection (month/day/year) _____

Time of Inspection _____ am / pm

A. SITE INSPECTION

INSPECTION ITEM	INSPECTED FOR	CONDITION OK	CONDITION NOT OK	REMARKS (ADDITIONAL SPACE ON LAST PAGE FOR FURTHER INFORMATION)	CORRECTIVE ACTION (INCLUDE DATE AND NATURE OF REPAIR)
1. Fence	Damage, absence integrity	___	___	_____	_____
2. Trash, debris	Presence	___	___	_____	_____
3. External locks	Damage, absence	___	___	_____	_____
4. Warning signs	Missing, damage, legible	___	___	_____	_____
5. Loading/unloading areas	Cracks, spills	___	___	_____	_____
6. Operator error	Smoking, unsafe work practices	___	___	_____	_____
7. Walking hand carts	Condition, operational	___	___	_____	_____
8. Empty drums	Quantity, condition	___	___	_____	_____

TABLE 5-1

HAZARDOUS WASTE MANAGEMENT FACILITY WEEKLY INSPECTION LOG (CONTINUED)

B. PACKAGING BUILDING INSPECTION

INSPECTION ITEM	INSPECTED FOR	CONDITION OK	CONDITION NOT OK	REMARKS (ADDITIONAL SPACE ON LAST PAGE FOR FURTHER INFORMATION)	CORRECTIVE ACTION (INCLUDE DATE AND NATURE OF REPAIR)
1. Emergency alarm	Functional	___	___	___	___
2. External locks	Damage, absence	___	___	___	___
3. Warning signs	Missing, damage, legible	___	___	___	___
4. Operator error	Smoking, unsafe work practices	___	___	___	___
5. Floor	Cracks, spills, damage	___	___	___	___
6. Floor coating	Wear, attack by chemicals	___	___	___	___
7. Walls and roof	Cracks, damage, spalling	___	___	___	___
8. Separation walls & berms	Cracks, damage, spalling	___	___	___	___
9. Sumps	Spills, clean, damage	___	___	___	___
10. Ventilation system	Operable	___	___	___	___
11. Aisles	Passable, clean	___	___	___	___

TABLE 5-1

HAZARDOUS WASTE MANAGEMENT FACILITY WEEKLY INSPECTION LOG (CONTINUED)

B. PACKAGING BUILDING INSPECTION

INSPECTION ITEM	INSPECTED FOR	CONDITION OK	CONDITION NOT OK	REMARKS (ADDITIONAL SPACE ON LAST PAGE FOR FURTHER INFORMATION)	CORRECTIVE ACTION (INCLUDE DATE AND NATURE OF REPAIR)
12. Containers	Placement	___	___	___	___
	Stacking	___	___	___	___
	Compatibility	___	___	___	___
	Open lids, bungs	___	___	___	___
	Proper labels	___	___	___	___
	Leaks, corrosion	___	___	___	___
	Bulges, dents	___	___	___	___
13. First aid kits	Present, complete	___	___	___	___
14. Decontamination equipment	Condition, complete	___	___	___	___
15. Showers/ eyewashes	Low flow, leaks	___	___	___	___
16. Solvent spill kits	At least 2 kits	___	___	___	___
17. Acid & caustic spill kits	At least 2 kits	___	___	___	___
18. Fire alarm	Working	___	___	___	___

TABLE 5-1

HAZARDOUS WASTE MANAGEMENT FACILITY WEEKLY INSPECTION LOG (CONTINUED)

B. PACKAGING BUILDING INSPECTION

INSPECTION ITEM	INSPECTED FOR	CONDITION OK	CONDITION NOT OK	REMARKS (ADDITIONAL SPACE ON LAST PAGE FOR FURTHER INFORMATION)	CORRECTIVE ACTION (INCLUDE DATE AND NATURE OF REPAIR)
19. Fire suppression	Corrosion, condition	___	___	___	___
20. Fire extinguisher	Charged	___	___	___	___
21. Telephone	Working	___	___	___	___
22. Portable pumps	Clogging, corrosion	___	___	___	___
23. Portable pump lines	Clogging, corrosion	___	___	___	___
24. Respirators, purifying	Quality, quantity, condition	___	___	___	___
25. Cartridges, canisters	Quantity, condition	___	___	___	___
26. SCBAs	Low pressure, damage, current inspection	___	___	___	___
27. Absorbent materials	Greater than 250 lbs.	___	___	___	___
	Greater than that required for 55 gal of 10N caustic solution	___	___	___	___

TABLE 5-1

HAZARDOUS WASTE MANAGEMENT FACILITY WEEKLY INSPECTION LOG (CONTINUED)

B. PACKAGING BUILDING INSPECTION

INSPECTION ITEM	INSPECTED FOR	CONDITION OK	CONDITION NOT OK	REMARKS (ADDITIONAL SPACE ON LAST PAGE FOR FURTHER INFORMATION)	CORRECTIVE ACTION (INCLUDE DATE AND NATURE OF REPAIR)
28. Goggles/face shield	Presence, condition	___	___	_____	_____
29. Gloves/boots	Presence, condition	___	___	_____	_____
30. Emergency lighting	Functional	___	___	_____	_____

TABLE 5-1

HAZARDOUS WASTE MANAGEMENT FACILITY WEEKLY INSPECTION LOG (CONTINUED)

C. STORAGE BUILDING INSPECTION

INSPECTION ITEM	INSPECTED FOR	CONDITION OK	CONDITION NOT OK	REMARKS (ADDITIONAL SPACE ON LAST PAGE FOR FURTHER INFORMATION)	CORRECTIVE ACTION (INCLUDE DATE AND NATURE OF REPAIR)
1. Emergency alarm	Functional	___	___	___	___
2. Emergency lighting	Functional	___	___	___	___
3. External locks	Damage, absence	___	___	___	___
4. Warning signs	Missing, damage, legible	___	___	___	___
5. Operator error	Smoking, unsafe work practices	___	___	___	___
6. Floor	Cracks, spills, damage	___	___	___	___
7. Floor coating	Wear, attack by chemicals	___	___	___	___
8. Walls and roof	Cracks, damage, spalling	___	___	___	___
9. Overhead crane	Operational, damage	___	___	___	___
10. Sumps	Spills, clean, damage	___	___	___	___
11. Ventilation system	Operable	___	___	___	___

TABLE 5-1

HAZARDOUS WASTE MANAGEMENT FACILITY WEEKLY INSPECTION LOG (CONTINUED)

C. STORAGE BUILDING INSPECTION

INSPECTION ITEM	INSPECTED FOR	CONDITION OK	CONDITION NOT OK	REMARKS (ADDITIONAL SPACE ON LAST PAGE FOR FURTHER INFORMATION)	CORRECTIVE ACTION (INCLUDE DATE AND NATURE OF REPAIR)
12. Aisles	Passable, clean	___	___	___	___
13. Containers	Placement	___	___	___	___
	Stacking	___	___	___	___
	Compatibility	___	___	___	___
	Open lids, bungs	___	___	___	___
	Proper labels	___	___	___	___
	Leaks, corrosion	___	___	___	___
	Bulges, dents	___	___	___	___
14. Showers/ Eyewashes	Low flow, leaks	___	___	___	___
15. Fire alarm	Working	___	___	___	___
16. Fire suppression	Corrosion, condition	___	___	___	___
17. Fire extinguisher	Charged	___	___	___	___
18. Telephone	Working	___	___	___	___

TABLE 5-1

HAZARDOUS WASTE MANAGEMENT FACILITY WEEKLY INSPECTION LOG (CONTINUED)

D. PREFABRICATED STORAGE BUILDINGS INSPECTION

INSPECTION ITEM	INSPECTED FOR	CONDITION OK	CONDITION NOT OK	REMARKS (ADDITIONAL SPACE ON LAST PAGE FOR FURTHER INFORMATION)	CORRECTIVE ACTION (INCLUDE DATE AND NATURE OF REPAIR)
1. External locks	Damage, absence	___	___	___	___
2. Warning signs	Missing, damage, legible	___	___	___	___
3. Operator error	Smoking, unsafe work practices	___	___	___	___
4. Floor	Cracks, spills, damage	___	___	___	___
5. Floor coating	Wear, attack by chemicals	___	___	___	___
6. Walls and roof	Cracks, damage, spalling	___	___	___	___
7. Sumps	Spills, clean, damage	___	___	___	___
8. Ventilation system	Operable	___	___	___	___
9. Aisles	Passable, clean	___	___	___	___
10. Containers	Placement	___	___	___	___
	Stacking	___	___	___	___
	Compatibility	___	___	___	___
	Open lids, bungs	___	___	___	___

TABLE 5-1

HAZARDOUS WASTE MANAGEMENT FACILITY WEEKLY INSPECTION LOG (CONTINUED)

D. PREFABRICATED STORAGE BUILDINGS INSPECTION

INSPECTION ITEM	INSPECTED FOR	CONDITION OK	CONDITION NOT OK	REMARKS (ADDITIONAL SPACE ON LAST PAGE FOR FURTHER INFORMATION)	CORRECTIVE ACTION (INCLUDE DATE AND NATURE OF REPAIR)
10. Containers, continued	Proper labels	___	___	___	___
	Leaks, corrosion	___	___	___	___
	Bulges, dents	___	___	___	___
11. Fire alarm	Working	___	___	___	___
12. Fire suppression	Corrosion, condition	___	___	___	___
13. Exterior coating	Integrity	___	___	___	___

Further remarks: _____

Inspector's initials: _____

Permit Attachment C

Personnel Training Outline

7.0 PERSONNEL TRAINING

This section describes the personnel training program for personnel assigned at the HWMF in accordance with the regulatory requirements of NMHWMR-6/40 CFR §264.16 and 29 CFR §1910.120(p). These requirements are submitted with the Part B Permit Application, as specified in NMHWMR-6/40 CFR §270.14(b)(12). A written training plan that describes the personnel training programs is maintained at the HWMF. The primary objective of the program is to prepare persons to safely operate and maintain those areas containing hazardous wastes.

7.1 PERSONNEL RESPONSIBILITIES

SNL, Albuquerque, utilizes its employees and contractor personnel in managing and conducting hazardous waste activities. Individuals who are directly involved with the handling of hazardous wastes are primarily assigned to Hazardous Waste and Waste Water Division 7721. Contractors provide trained personnel to assist Division 7721 in waste management activities. The responsibilities of personnel involved in hazardous waste handling at SNL, Albuquerque, are summarized in Table 7-1.

7.2 TRAINING PROGRAM REQUIREMENTS

HWMF personnel are required to complete a training program that teaches them how to perform their duties safely and in compliance with applicable regulations. The complete training program totals at least 24 hours in length and consists of a series of courses. The courses may be conducted by SNL, Albuquerque, governmental agencies such as EPA or DOE, contractor's company, or by outside training consultants, and may be in the form of classroom instruction or on-the-job training.

All new employees complete the initial training courses within six months of their date of hire or transfer of job assignment. Personnel will not work in unsupervised positions until they have completed the training program. All HWMF personnel must participate in a minimum of eight hours of annual reviews of the initial training program.

The supervisor of the Hazardous Waste and Waste Water Division 7721, who is knowledgeable about regulatory requirements, hazardous waste management procedures at the HWMF, and emergency procedures at the HWMF and SNL, Albuquerque, directs the

overall training program for HWMF personnel; however, the instruction of each course may be provided by other qualified personnel.

7.3 RELEVANCE OF TRAINING TO JOB POSITION

The HWMF training program provides employees with training relevant to their positions within the organization. Personnel who are directly involved with waste handling participate in a training course where they are taught the potential hazards of the materials with which they work, procedures for safe handling of chemicals, and emergency response procedures. Because managers must be familiar with all aspects of hazardous waste management, they participate in a training program that emphasizes compliance issues.

7.4 TRAINING CONTENT

Training for all personnel involved in hazardous waste operations meets the requirements of 29 CFR §1910.120(p) and NMHWMR-6/40 CFR §264.16. The training program emphasizes the following topics:

- Identification of hazardous waste
- Regulatory requirements for hazardous waste generators and transporters
- Regulatory requirements for treatment, storage, and disposal facilities
- Potential hazards of waste handling and personnel protective equipment
- Emergency procedures and the SNL, Albuquerque, emergency response organization.

Provisions are made for updating or revising the program, as necessary, to ensure EPA and OSHA compliance. A table showing the required training for the HWMF personnel is given in Table 7-2. Course outlines for each required course are given in Table 7-3. Besides the required training, some personnel receive supplemental training for certain job duties.

Waste handling personnel provided by outside contractors are required to complete the training requirements of 29 CFR §1910.120(p) and NMHWMR-6/40 CFR §264.16; however, they may also receive additional training through their employer, such as training in chemical hazards, cardio-pulmonary resuscitation (CPR), and first aid.

7.5 TRAINING RECORDS

Records of each individual's formal training are maintained at the HWMF or other location at SNL, Albuquerque. Training records of current employees are kept until closure of the

HWMF. Records of former employees are kept for at least three years from the date the employee last worked at the HWMF.

A training plan is on file at the HWMF and the Department 7720 Records Center and is available for review by all hazardous waste management and handling personnel, emergency response personnel, and all regulatory agencies.

Provisions are made for updating and reviewing courses, as necessary, to ensure compliance with EPA and NMED requirements.

TABLE 7-1

RESPONSIBILITIES AND QUALIFICATIONS OF SNL, ALBUQUERQUE HAZARDOUS WASTE MANAGEMENT PERSONNEL

POSITION	JOB DESCRIPTION	QUALIFICATIONS
Division Supervisor - Hazardous Waste	• Performs supervisory functions for staff members, reviews implementation plans and design criteria, reviews reports and regulatory applications, supervises overall operations, maintains familiarity with regulations and programs, directs training of staff, alternates as Emergency Response coordinator for the Hazardous Waste Management Facility (HWMF).	• Bachelor's degree in Chemistry, Biology, Physical Science, Environmental Science, Industrial Hygiene, or related field or four years of experience in environmental compliance; knowledgeable of regulations, such as Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Clean Water Act (CWA), Clean Air Act (CAA), Toxic Substances Control Act (TSCA); meets Occupational Safety and Health Act (OSHA) 29 CFR §1910.120(p).
Project Manager, Site Manager	• Directs daily activities of HWMF operations, conducts facility inspections; determines Health and Safety (H&S) pre-cautions; conducts Safety Briefings; coordinates waste collections; receives approval of disposal facilities for waste shipments; coordinates off-site transfer of waste; determines waste sampling/analysis requirements; maintains project records; coordinates HWMF Emergency Response activities.	• Bachelor's degree in Chemistry, Biology, Physical Science, Environmental Science, Industrial Hygiene, or related field or two years of hazardous waste management experience; completion of training requirements of OSHA 29 CFR §1910.120(p); knowledge in preparation of waste manifests, of disposal facilities, of land disposal restrictions, in sample collection, and in hazard assessment.

TABLE 7-1

RESPONSIBILITIES AND QUALIFICATIONS OF SNL, ALBUQUERQUE HAZARDOUS WASTE MANAGEMENT PERSONNEL (CONTINUED)

POSITION	JOB DESCRIPTION	QUALIFICATIONS
Hazardous Waste Technical Liaisons	• Assists project and site manager; conducts facility inspections; determines H&S precautions; conducts Safety Briefings; reviews chemical waste disposal requests; coordinates waste collections; receives approval of disposal facilities for waste shipments; coordinates off-site transfer of waste; prepares waste manifests; determines waste sampling/analysis requirements.	• Bachelor's degree in Chemistry, Biology, Physical Science, Environmental Science, Industrial Hygiene, or related field or one year of hazardous waste management experience; completion of training requirements of OSHA 29 CFR §1910.120(p); knowledge in preparation of waste manifests, of disposal facilities, of land disposal restrictions, and in hazard assessment.
Field Chemist	• Assists in determining proper hazard class/compatibility of chemicals or packaging; assists in preparation of waste shipment approvals and manifests; updates chemical database for new waste stream; directs sampling and analysis operations; performs field chemical analyses; conducts field analyses and hazard analysis during emergency response operations; provides input on waste minimization plans; reviews chemical waste disposal requests; prepares waste manifests.	• Associates's degree in Chemistry, Chemical Engineering, Chemical Technology, or related field or equivalent experience; completion of training requirements of OSHA 29 CFR §1910.120(p); knowledge of organic chemistry and RCRA regulations including land disposal restrictions and emergency response training.
Technician	• Collects, segregates and packages assorted chemicals into bulk or lab-pack containers; samples unknown wastes; conducts hazard categorization analyses; transports chemicals from generators to the HWMF; operates forklift, drum compactor, pumps, and other required equipment; cleans spills and spill residues; maintains HWMF equipment; labels packages, containers; completes drum inventory paperwork.	• Completion of training requirements of OSHA 29 CFR §1910.120(p); meets motor-carrier safety regulation requirements; classroom training in handling and sampling hazardous chemicals, hazard categorization, first aid, and emergency response.

TABLE 7-2

HWMF PERSONNEL REQUIRED TRAINING

NMHWMR-6/40 CFR §261.16 and 29 CFR 1910.120(p) Required Training:

JOB TITLE	24/40-HOUR TRAINING[1]	8-HOUR REFRESHER[2]	8-HOUR SUPERVISOR[3]	HWMF ORIENTATION[4]
SUPERVISOR	X	X	X	
PROJECT MANAGER	X	X	X	X
SITE MANAGERS	X	X	X	X
HAZ WASTE TECHNICAL LIAISON	X	X	X	
TECHNICIAN	X	X		X
FIELD CHEMIST	X	X		X

[1]24/40-Hour Basic Health and Safety Training
[2]8-Hour Refresher Health and Safety Training
[3]8-Hour Supervisor Health and Safety Training
[4]HWMF Initial Orientation

TABLE 7-3

EXAMPLE OF COURSE CONTENTS OF REQUIRED TRAINING

24/40-HOUR HEALTH AND SAFETY TRAINING PROGRAM FOR HAZARDOUS WASTE OPERATIONS [NMHWMR-6/40 CFR §264.16 AND 29 CFR 1910.120(p)]

A INTRODUCTION TO CHEMICALS AND GOVERNMENT REGULATIONS

B. PACKAGING AND LABELING OF HAZARDOUS CHEMICAL WASTE FOR SHIPMENT

C. HAZARDOUS WASTE MANAGEMENT AND REGULATIONS

D. COMMUNITY RIGHT-TO-KNOW REQUIREMENTS [SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA)]

SECTION 1

Hazardous Substances and Properties

1.1 Hazardous substances
1.2 Principles of toxicology
1.3 Exposure guidelines
1.4 Behavior of chemicals in the environment

SECTION 2

Sources of Information

2.1 Chemical information source
2.2 Hazardous substance identification system
2.3 Use of the hazardous substance data sheet

SECTION 3

3.1 Compatibility of hazardous wastes

SECTION 4

Personnel Protection

4.1 Introduction to respiratory protection
4.2 Respiratory protection decision logic
4.3 Air-purifying respirators

TABLE 7-3

EXAMPLE OF COURSE CONTENTS OF REQUIRED TRAINING (CONTINUED)

4.4 Self-contained breathing apparatus
4.5 Chemical protective clothing

SECTION 5

Standard Operating Safety Guidelines

5.1 Environmental incidents
5.2 Standard procedures
5.3 Site entry--general measures and requirements
5.4 Site entry--survey and reconnaissance
5.5 Site entry--levels of protection
5.6 Site control--work zones
5.7 Site control--decontamination
5.8 Air surveillance
5.9 Site safety plan

SECTION 6

Air Monitoring

6.1 Air monitoring instruments
6.2 Atmospheric sampling instruments
6.3 Radiation monitoring

SECTION 7

Sampling

7.1 Hazardous materials sampling
7.2 Sampling equipment and procedures (Overview)

SECTION 8

Safety Procedures

8.1 Principles of safety
8.2 Emergency procedures

TABLE 7-3

EXAMPLE OF COURSE CONTENTS OF REQUIRED TRAINING (CONTINUED)

8-HOUR ANNUAL REFRESHER COURSE FOR HAZARDOUS WASTE OPERATIONS [NMHWMR-6/40 CFR §264.16 AND 29 CFR 1910.120(p)]

A. HAZARDOUS WASTE MANAGEMENT AND REGULATIONS

B. PACKAGING AND LABELING OF HAZARDOUS CHEMICAL WASTE FOR SHIPMENT

C. COMMUNITY RIGHT-TO-KNOW REQUIREMENTS (SARA)

D. SOURCES OF INFORMATION

E. COMPATIBILITY OF HAZARDOUS WASTES

F. PERSONNEL PROTECTION

G. PRINCIPLES OF SAFETY

H. EMERGENCY PROCEDURES

TABLE 7-3

EXAMPLE OF COURSE CONTENTS OF REQUIRED TRAINING (CONTINUED)

8-HOUR BIENNIAL COURSE FOR SUPERVISORS OF HAZARDOUS WASTE OPERATIONS [NMHWMR-6/40 CFR §264.16 AND 29 CFR 1910.120(p)]

A. HAZARDOUS WASTE MANAGEMENT AND REGULATIONS

B. PACKAGING AND LABELING OF HAZARDOUS CHEMICAL WASTE FOR SHIPMENT

C. COMMUNITY RIGHT-TO-KNOW REQUIREMENTS (SARA)

D. SOURCES OF INFORMATION

E. COMPATIBILITY OF HAZARDOUS WASTES

F. PERSONNEL PROTECTION

G. PRINCIPLES OF SAFETY

H. EMERGENCY PROCEDURES

TABLE 7-3

EXAMPLE OF COURSE CONTENTS OF REQUIRED TRAINING (CONTINUED)

FACILITY INITIAL ORIENTATION

A. DISCUSSION OF EMERGENCY PREPAREDNESS PLAN FOR SNL, ALBUQUERQUE, HWMF

1. Purpose and scope
2. Sector plan
3. Hazard identification and discussion
4. Hazard reduction
5. Contingency Plan and Emergency Procedures
   a. Procedures for using emergency equipment
   b. Procedures for shutdown of operations
   c. Response to emergencies (fires, explosions)

B. FACILITY TOUR

1. Identify safety features
2. Identify communications and alarm systems
3. Discuss evacuation routes

C. STANDARD OPERATING PROCEDURES

1. Review of procedures to perform operations at HWMF (i.e., drum crusher operations, loading and unloading procedures)
2. Safety practices (i.e., drum handling practices)

Permit Attachment D

Waste Handing Practices

3.0 WASTE PROCESSING INFORMATION

3.1 CONTAINER MANAGEMENT

All hazardous wastes generated at SNL, Albuquerque, except for waste explosives, mixed radioactive and hazardous wastes, and unstable wastes, is sent to the HWMF for packaging, segregation, and storage prior to transportation off-site for recycling, treatment, or disposal at a permitted facility. This section describes the container handling procedures in accordance with NMHWMR-6/40 CFR §§264.170 through 173 and §264.175.

3.1.1 Generator Container Management

Personnel at each laboratory or waste-producing operation are responsible for collecting their waste near the point of generation and for requesting pickup of their wastes for storage at the HWMF. The generators collect their wastes in the original product containers, equivalent compatible containers, or in DOT-approved containers that are compatible with the waste. The generators are responsible for ensuring that any container holding waste is in good condition, is closed at all times except when emptying or filling the container, and is labeled with the contents in the container. Incompatible wastes, based on NMHWMR-6/40 CFR Part 264, Appendix V, or equivalent information, are not placed in the same containers. To request pickup of waste, a generator must submit a CWDR to the Hazardous Waste and Waste Water Division 7721. Division 7721 is responsible for collection of hazardous waste from the generators and develops a pickup schedule.

3.1.2 HWMF Container Handling

Wastes are placed onto the hazardous waste collection truck by hand. HWMF technicians segregate the wastes according to hazard classes by placing the containers in separate areas of the truck bed and by placing smaller containers of waste into DOT-approved containers for on-site transportation. The hazard class of the waste is determined by HWMF personnel prior to pickup based on information submitted on the CWDR. Vehicle routes vary with pickup sites; any road on KAFB or SNL, Albuquerque, may be used.

All wastes are delivered to the Waste Packaging Building. All waste arriving at the HWMF is identified and segregated in accordance with 49 CFR §177.848, unloaded manually, and placed in the waste holding cells designated for that hazard class. The containers are then repackaged in DOT-approved containers. Packaging waste may involve putting small waste

containers into larger containers or transferring waste from one container to another. The wastes are stored either in the original containers or in new DOT-approved containers that are defined as appropriate for that hazard class by DOT regulations. Liner/waste compatibility is assured in all cases by meeting the DOT regulations.

A number of container types are used for storage, depending on the type of waste and the ultimate destination. Bulk liquids for incineration or recycling are stored in DOT-approved containers. Bulk solid hazardous wastes are either in DOT-approved containers or, occasionally, in bins. Generally, corrosives and oxidizers are stored in 30- or 55-gallon polyethylene drums, although steel drums with 4- or 6-mil polyethylene liners are also used. For lab packs, the material is packed in either 55-gallon steel drums or smaller fiber or polyethylene containers (5-, 10-, or 20-gallon containers), depending on the requirements of the disposal facility. Liners are used in 55-gallon steel drums containing corrosive lab-packed wastes. All containers meet DOT specifications for shipment of the material they contain.

Waste handling equipment in place at the HWMF includes the following:

- Overhead crane
- Ace model 77 Diaphragm pump
- Lutz model SL-55 pump and B-40 motor (explosion proof)
- Lutz model 4AL motor and pump (pneumatic)
- Tokheim diaphragm dual action hand pumps
- Drum handling hand truck - (two wheel) No. 2647T3
- Hydraulic Drum Handler - 800 pound capacity No. 3692712
- Vehicles, forklift, stake-bed truck
- Drum vacuum hoods
- Fume hood for HazCat bench.

All equipment at the HWMF is maintained and operated in accordance with manufacturers' guidance. Specific waste handling equipment will change with time as equipment are replaced or discarded and new equipment are added to the inventory.

The only times hazardous waste containers are opened are when the waste must be sampled or transferred to another container. These activities are only done in the Waste Packaging Building. Both a fume hood and drum vacuum hoods are available if there is a need to open a vapor-generating waste container. Only one category of waste is present in a ventilation system at a time.

Each bulk liquid drum or overpack drum for lab packs is assigned a unique drum number. The drum number and complete listing of the contents are recorded on the drum inventory sheet. The drum number, drum type, and the date the drum is placed in storage are written on the side of the drum. In addition, each drum is labeled with a completed EPA hazardous waste label (Figure 3-1), DOT hazard labels, and other required shipping markings and labels prior to shipment. The drum number, contents, date shipped, and manifest number for shipping are permanently maintained on a computerized data system.

When repacking, lab packing, labeling, and documenting operations are complete, the container is sealed and transferred to the Waste Storage Building by forklift. The container is moved to the appropriate waste storage bay using the forklift or overhead crane.

3.1.3 Segregation

Incompatible, reactive, and ignitable wastes are handled and segregated safely at the HWMF in accordance with NMHWMR-6/40 CFR §270.15. Waste types are segregated in accordance with recommendations in "Prudent Practices for Disposal of Chemicals from Laboratories" (National Research Council, 1983), a copy of which is available in the Waste Packaging Building. Table 3-1 provides a summary of waste material types currently managed at SNL, Albuquerque. Nonrecyclable liquids in small containers are left in their original containers, provided they are not leaking, and the containers are put in the appropriate lab pack with five volumes of absorbent for each volume of hazardous waste (see Section 3.3). Nonrecyclable materials may be stored as received, overpacked, or repackaged.

Acetone, 1,1,1-Trichloroethane (TCE), and Freon TF are usually handled as recyclable materials. Other relatively clean hydrocarbon solvents may also be handled as recyclable material. Recyclable materials are usually transferred from their original containers (unless it is a 55-gallon drum) into a new 55-gallon drum of compatible materials. Some contaminated solvents are also poured or pumped into 55-gallon drums. Transfer occurs under the drum vacuum hoods in the Waste Packaging Building. The drums are placed in the appropriate storage area to await transportation to the recycling facility.

Incompatible wastes are not packed in the same drum. Compatibility is determined in accordance with National Research Council (1983), NMHWMR-6/40 CFR Part 264,

Appendix V, or equivalent information. After packaging, incompatible wastes remain segregated in different storage areas. Reactive wastes are stored in the modular buildings only. Ignitable wastes are segregated from other wastes in the storage area. Figure 5 of the Part A Permit Application gives a typical segregation layout.

3.3 PACKAGING WASTES IN LAB PACKS

Much of the waste generated at SNL, Albuquerque, is laboratory waste in small volumes. Five, 14-, 20-, 30- and 55-gallon drums are used to containerize laboratory wastes and are referred to as lab packs. Absorbent is added to provide significant cushioning of lab-packed containers during transportation. Either the waste is kept within the original product container, which meets the size and type requirements of DOT, or containers are substituted which meet DOT regulations (49 CFR Parts 173, 178 and 179) for compatibility with the material within each container. The lab pack drums also meet DOT container specifications for the materials they contain. When required, waste is packaged to meet compatibility specifications of the disposal facility; however, compliance with DOT shipping regulations is maintained. Damaged 55-gallon drums are repackaged or placed in 85-gallon overpacks and absorbent is placed in the annular space.

As lab packs are prepared, waste containers are checked for signs of leakage and the container lid or top is checked for tightness. Loose lids or tops are tightened. If a leak is detected and simple lid tightening is not sufficient to correct it, the material is transferred to a nonleaking container made of the same material as the original container and is placed in the lab pack.

Chemical wastes in lab packs are generally segregated according to Table 3-1 into the following basic categories:

- Solvent wastes, such as toluene, carbon disulfide, etc., which are received in less than recyclable quantities
- Toxic wastes
- Hazardous solid wastes (waste laboratory supplies such as gloves, glassware, and lab coats)
- Reactive wastes
- Corrosive wastes

- Wastes containing heavy metals
- Wastes containing cyanides, sulfides.

A volume of absorbent sufficient to absorb the entire aggregate liquid contents of the inside containers is added to the drum before and as the inside containers are placed into the drum. Addition of the absorbent in this manner assures that voids between containers are filled. After placing the final container in the drum, the remaining drum volume is filled with absorbent. The required ratio of the volume of liquid waste to that of absorbent in the lab pack depends on the type of waste to be placed in the drum. However, minimizing absorbent usage by adding only the required volume to each lab pack would unnecessarily complicate the packing procedure. Therefore, a ratio of about five volumes of absorbent to one volume of liquid is maintained in all lab packs. This worst case ratio ensures that sufficient absorbent volume is present in all lab packs (see Table 3-3).

TABLE 3-1
SNL, ALBUQUERQUE, WASTE CODE AND MATERIAL TYPES

SNL, ALBUQUERQUE	WASTE TYPE	MATERIAL TYPE
ACIDL	Acid Liquid (pH<2.0)	Sulfuric, Phosphoric, Acetic Acids, Ferric Chloride Solutions
ACIDS	Acid Solid	Zinc Chloride, Titanium Trichloride
BASEL	Basic Liquid (pH>12)	Ammonium Hydroxide, Sodium Hydroxide Solutions, Ethanolamine
BASES	Basic Solid	Sodium Hydroxide, Potassium Hydroxide
COMBL	Combustible Liquid	Diesel Fuel, Dimethyl Sulfoxide, Cellosolve
COMPG	Nonflammable Gas	Carbon Dioxide, Freon 12, Argon
FLAML	Flammable Liquid	Acetone, Methanol, Methyl Ethyl Ketone
FLAMG	Flammable Gas	Acetylene, Hydrogen, Methane
FLAMS	Flammable Solid	Metal Powders or Dust, Tribenzylamine, Hafnium
NCRL	Nonregulated Liquid	Soap Solutions, Liq w/FP>200 F, Aqueous Solutions w/pH>4, <9
NCRS	Nonregulated Solid	Copper Metal, Lab Trash, Empty Containers
ORGPRL	Organic Peroxide Liquid	Benzoyl Peroxide, MEK Peroxide Solution
ORMAL	ORMA Liquid	Methylene Chloride, Trichloroethane, Ammonium Hydrogen Sulfide Solutions
ORMAS	ORMA Solid	Maleic Anhydride, Naphthalene, Hexachloroethane
ORMBL	ORMB Liquid	Mercury Metallic, Gallium Metallic

TABLE 3-1
SNL, ALBUQUERQUE, WASTE CODE AND MATERIAL TYPES
(CONTINUED)

SNL, ALBUQUERQUE	WASTE TYPE	MATERIAL TYPE
ORMBS	ORMB Solid	Barium Oxide, Copper, Copper Chloride, Ferric Chloride
ORMC	ORMC Solid	Asbestos, Ammonium Sulfate Citrate, Lithium Batteries
ORMEL	ORME Liquid	RCRA Heavy Metal Contaminated Solutions
ORMES	ORME Solid	Barium Chloride, Cadmium Sulfate, Lead Iodide
OXIDL	Oxidizer Liquid	Nitric Acid >40%, Nitrate/Nitrite Solutions
OXIDS	Oxidizer Solid	Nickel Nitrate, Potassium Iodate, Potassium Permanganate
PAG	Poison A Gas	Arsine, Nitrogen Dioxide, Phosgene
PBL	Poison B Liquid	Methyl Bromide, Anilene, Solutions of Cyanide Salts, i.e., Mercuric Cyanide, Copper Cyanide
PBS	Poison B Solid	Potassium Cyanide, Arsenic Oxide, Mercuric Chloride, Thallium Iodide
REACS	Water Reactive Solid	Sodium Metal, Lithium Metal, Ammonium Sulfide

TABLE 3-2

CONTAINMENT AND STORAGE CAPACITY AT THE HAZARDOUS WASTE MANAGEMENT FACILITY[1]

WASTE STORAGE BUILDING
(Building 958): 3,250 Square Feet

BAY NO.	CONTAINMENT DIMENSIONS	SPILL CONTAINMENT VOLUME[2] (gallons)	MAX STORAGE CAPACITY[3] (55-gallon drums)
1	11.75' x 14.67' x 0.42'	542	98
2	9.5' x 14.67' x 0.42'	438	79
3	9.5' x 14.67' x 0.42'	438	79
4	9.5' x 14.67' x 0.42'	438	79
5[4]	2 (45.25' x 14.67' x 0.25')(0.80) + (43.25' x 10.67' x 0.25')-center aisle	2,849	518
6	9.5' x 14.67' x 0.42'	438	79
7	9.5' x 14.67' x 0.42'	438	79
8	9.5' x 14.67' x 0.42'	438	79

WASTE PACKAGING BUILDING
(Building 959): 1,800 Square Feet

	8 Identical Holding Cells		
	5' x 4.5' x 0.42'	71	13
	Packaging Area		
	5' x 12' x 0.42'	188	34
EACH PREFABRICATED BUILDING			
	22' x 8' x 0.42'	500	91

[1]See Figure 5 of the Part A Permit Application.
[2]Spill Containment Volume (gallons) = (Length x width x height) x 7.4806 gallons/ft^3.
[3]Max. Storage Capacity (55-gallon drums) = [Spill containment volume (gallons) ÷ 0.1] ÷ 55 gallons/drum.
[4]In Bay 5, a maximum of 20 percent of the spill containment volume would be used by the pallets on the floor space.

TABLE 3-3

ABSORPTION CAPABILITIES OF VERMICULITE AND PERLITE

Chemical	Absorption Per 10 Pints of Vermiculite (pints)
Perchloroethylene	2.3
Sulfuric acid, 98%	2.1
Sodium hydroxide, 50%	4.7

Absorbate	Vermiculite	Perlite
Water, % wt.	110	200-600
Kerosene, % wt.	90	NA
Light machine oil, % wt.	130	NA
S.A.E. No. 40 Motor Oil, % wt.	165	NA
Oil absorption, gms oil/gm	NA	50-100
Apparent density, kg/m^3	NA	40-170
Wet density, kg/m^3	NA	80-320

NA = Not available.

HAZARDOUS WASTE

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL

IF FOUND, CONTACT THE NEAREST POLICE, OR
PUBLIC SAFETY AUTHORITY, OR THE
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROPER D.O.T.
SHIPPING NAME_____ UN OR NA#_____

GENERATOR INFORMATION:

NAME_____

ADDRESS_____

CITY_____ STATE_____ ZIP_____

EPA
ID NO._____

EPA
WASTE NO._____

ACCUMULATION
START DATE_____

MANIFEST
DOCUMENT NO._____

HANDLE WITH CARE!

CONTAINS HAZARDOUS OR TOXIC WASTES

STYLE WM-6

© LABELMASTER, CHICAGO, IL 60646

FIGURE 3-1

EPA HAZARDOUS WASTE LABEL

SANDIA NATIONAL LABORATORIES
ALBUQUERQUE, NEW MEXICO

Permit Attachment E

Contingency Plan

CONTINGENCY PLAN
FOR THE
HAZARDOUS WASTE MANAGEMENT FACILITY

Sandia National Laboratories
Albuquerque, New Mexico

September 12, 2013

Recommended by:

David Castillo, Hazardous Waste Facility Site Manager — 7/8/13 Date

Approved by:

Jeffrey F. Jarry, Department Manager, 4144 — 7/9/13 Date

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ATTACHMENT 1 – HWMF EVACUATION ROUTES

1.0 INTRODUCTION

Sandia National Laboratories/New Mexico (SNL/NM) has prepared this Resource Conservation and Recovery Act (RCRA) Contingency Plan for the Hazardous Waste Management Facility (HWMF) in compliance with New Mexico Administrative Code, Title 20, Chapter 4, Part 1 (20 NMAC 4.1), Subpart IX, 40 Code of Federal Regulations (CFR) 270.14(b)(7) and 20 NMAC 4.1, Subpart V, 40 CFR 264.50 through 264.56, as applicable. This plan consists of descriptions and emergency procedures specific to the Hazardous Waste Management Facility (HWMF). This Contingency Plan supersedes all previous revisions.

Independent from this Plan, SNL personnel have also prepared SNL Emergency Plans and Procedures. The SNL Emergency Plan, incorporated in this Plan by reference, describes the corporate emergency response for all SNL/NM facilities. The SNL Emergency Plan also describes all of the written agreements between SNL/NM and local emergency response teams such as the Kirtland Air Force Base (KAFB) Fire Department, City of Albuquerque, and nearby hospitals. The SNL Emergency Plan is maintained and implemented by SNL/NM emergency management personnel.

1.1 DISTRIBUTION

To assure proper implementation in the event of any emergency, this Contingency Plan must be studied and understood by all personnel involved in the handling, storage, or treatment of hazardous waste at the HWMF and by personnel required to respond to emergency situations involving hazardous waste.

Copies of this RCRA Contingency Plan will be on file at the following locations:

- Hazardous Waste Management Facility, SNL/NM
- Emergency Operations Center, SNL/NM
- Waste Management and Pollution Prevention Department, SNL/NM
- New Mexico Environment Department
- Department of Energy, National Nuclear Security Administration, Sandia Field Office

1.2 PURPOSE

The purpose of this document is to define responsibilities, provide guidance for coordination of activities, and minimize hazards to human health or to the environment from fires, explosions, or any unplanned sudden or nonsudden release of hazardous waste. The provisions of this plan will be carried out immediately whenever there is a fire, explosion, spill, or release of hazardous waste constituents that could threaten human health or the environment outside the facility.

Minor accidents, those that can be controlled with HWMF resources and do not threaten human health, or the environment outside the HWMF boundaries, will be managed by trained HWMF personnel. After control of the situation, the Waste Management and Pollution Prevention Department Manager will be notified by the Facility Emergency Coordinator (FEC) (Section 2.0). Response to minor incidents is not considered activation of this Contingency Plan. In the case of emergencies (e.g., large spills, fire, explosion, aircraft incidents, or natural disasters) that threaten hazardous waste management activities at the HWMF, the FEC will activate this Contingency Plan and notify the SNL/NM Emergency Operations Center at 911 or 844-0911. The SNL/NM Emergency Operations Center assumes primary responsibility for response coordination.

1.3 FACILITY DESCRIPTION

SNL/NM is a multidisciplinary laboratory engaged in the research and development of weapons and alternative energy sources. SNL/NM is managed by Lockheed Martin for the U.S. Department of Energy (DOE). SNL/NM falls under Standard Industrial Classification Code Numbers 9711 (national defense organizations) and 7391 (research and development).

SNL/NM is located in Bernalillo County, New Mexico, adjacent to the southeastern boundary of Albuquerque. SNL/NM occupies an area of about 2,810 acres located in the eastern portion of the 52,233-acre KAFB. SNL/NM consists of five technical areas, designated Tech Area I through V, as well as remote test areas.

Hazardous Waste Management Facility

The HWMF is located in Tech Area II, approximately 1,000 feet north of the entrance to Tech Area II. The HWMF consists of two separate permanent buildings, the Waste Packaging Building (Building 959) and the Waste Storage Building (Building 958), located within a single 8-foot fenced enclosure. Additionally, the following structures are located at the facility within the fenced area:

- Six supply sheds (Buildings 959A, C, D, E, F, and G)
- Two identical self-contained, relocatable, prefabricated storage structures for water-reactive waste and other reactive waste (Building 958B and Building 958C)
- A waste oil storage area
- Catchment pond
- Two office trailers (Trailer Nos. 1 and 2)

The Waste Packaging Building is the easternmost building and provides 1,800 square feet of enclosed floor space. The building is of precast concrete construction with an eave height of 12 feet. Eight recessed waste holding cells and a recessed repackaging area are located in the building. The floor and lower wall surface of each recessed area is coated with an epoxy finish. A restroom, a general use area, an office area, and an area for packing materials are also present.

A deluge-type system provides fire protection throughout the building. The system is designed for Extra Hazard Group 1 occupancy and complies with the provisions of the National Fire

Protection Association Standard No. 13, 1985 edition. No water-reactive waste is stored in areas protected by wet sprinkler fire suppression.

The building is also provided with intrusion alarms, lightning protection, emergency lighting, and a telephone. A 1,200-square-foot covered outdoor area extends immediately to the west of the Waste Packaging Building.

The Waste Storage Building is located west of the Waste Packaging Building. The Waste Storage Building is a 3,520-square-foot precast concrete building with an eave height of 14 feet. The building includes eight separate and recessed waste storage compartments for segregation of waste groups. The floor and lower wall surface of each storage compartment is coated with an epoxy finish. The sprinkler system is this building is a deluge-type and is also designed for Extra Hazard Group 1 occupancy. The building is equipped with a telephone, a fire alarm system, intrusion alarms, emergency lighting, and lightning protection.

Two relocatable, prefabricated safety storage structures (Buildings 958B and 958C) are designed and constructed to comply with regulatory standards applicable to the safe storage of hazardous materials. The safety storage structures are used for the storage of reactive wastes and lithium batteries and waste poison and flammable gases. They are constructed of welded 10- and 12-gauge steel with supporting structural steel sections. Each structure has three doors, each with a three-point locking system to provide access and security. The 500-gallon containment reservoirs within each building, the walls, and the ceilings are covered with two coats of chemical-resistant epoxy. The reservoirs are lined with polypropylene, which is compatible with reactive wastes. The floors are 1-inch-thick vinyl ester fiberglass grating. The buildings are equipped with a dry chemical fire suppression system and an automatic alarm-dialing system. Both the security and fire departments are notified that the dry chemical fire suppression has been released by a panel box light. The dry fire suppression system is compatible with the storage of reactive materials. Other safety features in each of the buildings include a spill-containment subfloor constructed of continuously welded, epoxy-coated, 10-gauge steel; blow-out panels for pressure relief under explosive conditions; and a static grounding connection to protect against ignition of flammable materials by electrical discharge.

An outdoor area is located immediately west of the HWMF Waste Packaging Building and is covered by a steel-framed roof. A drum compactor is located within the concrete bermed area.

The Office Trailers are for business operations of the HWMF. Two 1960-square-foot moveable trailers are located along the south fence.

The Bermed Storage area is an approximately 3,700-square-foot concrete bermed area covered by a steel frame and roof. It is located at the northeast corner of the fenced area.

Five 160-square-foot moveable sheds (Buildings 959A, C, E, F, and G) and one 120-square-foot permanent storage shed (Building 959D) are used for equipment storage.

The HWMF is enclosed in an 8-foot, single chain-link and barbed wire fence. Offset space of at least 70 feet is provided between the permanent buildings and the fence line. The safe handling, treatment, and/or storage of hazardous waste is the responsibility of the Waste Management and Pollution Prevention Department. Hazardous chemical waste is generated at all five of the SNL/NM Tech Areas and is transported to the HWMF on a routine basis. All hazardous waste is sent to the HWMF for packaging, and storage prior to transportation off site for recycling, treatment or disposal at a permitted facility. Some waste streams are also sampled at the HWMF.

Hazardous chemical waste generated at SNL/NM that requires packaging is transported to the Waste Packaging Building. There, waste is segregated into compatible types, based on U.S. Department of Transportation (DOT) regulations (49 CFR 177.848) and placed into the appropriate holding cell. The waste is assembled into lab-packs or bulk transferred into 55-gallon drums. Completed lab-packs and full waste drums are moved to the appropriate storage area to await transport off site for treatment, recycling, or disposal. Incompatible waste is segregated and stored in different holding cells.

Any necessary overpacking of drums or repacking of material in damaged or leaking drums occurs within the Waste Packaging Building. Waste that does not require repackaging is transported directly to the Waste Storage Building to await transport off site to disposal, treatment or recycling locations.

Waste handling equipment currently in place at the HWMF includes the following:

- Diaphragm pump
- Pneumatic pumps
- Dual-action hand pumps
- Drum-handling hand truck (two-wheel)
- Hydraulic drum handler – 800 pound capacity
- Empty drum compactor
- Forklift drum carriers

1.4 TYPES OF WASTE

Overall responsibility for hazardous waste management at SNL/NM is with the Waste Management and Pollution Prevention Department. Generators of hazardous waste throughout SNL/NM are responsible for properly identifying and packaging their waste before it is transported to the HWMF.

The chemical waste at SNL/NM is generated by laboratory research activities, process operations, and environmental restoration activities. Typical laboratory research waste includes bottles of excess or residual chemical mixtures and solutions and solid laboratory waste such as contaminated rags or nickel-cadmium batteries. This type of waste is primarily stored in the bays of the Waste Packaging Building or in lab-packs in the Waste Storage Building. Typical process waste includes large volumes (5- to 55-gallon containers) of solvents, oils, photochemicals and corrosive solutions. This type of waste is primarily stored in the Waste Storage Building. Typical environmental restoration activity waste includes contaminated soil cuttings, personal protective equipment, and decontamination fluids. This type of waste is primarily stored in the Waste Storage Building.

Because of the changing efforts at SNL/NM, the volumes and waste streams stored at the HWMF continually vary from day to day. The location of each hazardous waste and the approximate quantity of hazardous waste at each location is available at the HWMF.

1.5 HWMF SCHEDULE

SNL/NM HWMF is manned from 0800 to 1630, Monday through Thursday, and 0700 to 1530 on Friday. The Safeguards and Security Center inspects the facility every eight hours during the time the facility is closed. If an emergency is discovered during these inspections, the SNL/NM Emergency Operations Center and the FEC (Section 2.0) will be notified immediately.

2.0 FACILITY EMERGENCY COORDINATORS

2.1 FEC ASSIGNMENTS

At all times a FEC must be on site or on call (20 NMAC 4.1, Subpart V, 40 CFR 264.55). In the event that the primary FEC is not on site or available, an alternate FEC must be contacted.

FACILITY EMERGENCY COORDINATOR		OFFICE PHONE	HOME PHONE	PAGER
Primary:	David Castillo P.O. Box 5800 MS-1117 Albuquerque, New Mexico 87185-1117	284-4192	269-1705	269-1705
Alternate:	Chris Dean P.O. Box 5800 MS-1117 Albuquerque, New Mexico 87185-1117	284-8083	350-4982	350-4982
Alternate:	Mary Ann Krauss P.O. Box 5800 MS-1117 Albuquerque, New Mexico 87185-1117	845-9997	299-0793	250-2422
Alternate:	Therese Martinez-Loner P.O. Box 5800 MS-1117 Albuquerque, New Mexico 87185-1117	284-5028	401-0381	401-0381
Alternate:	Angel Ripoll P.O. Box 5800 MS-1117 Albuquerque, New Mexico 87185-1117	284-5334	573-0562	573-0562
Alternate:	Tony Mocadlo P.O. Box 5800 MS-1117 Albuquerque, New Mexico 87185-1117	844-0564	332-9168	283-1947

2.2 FEC RESPONSIBILITIES

When the FEC is notified of an incident, he must first determine if procedures for minor incidents or for emergencies should be implemented. In the case of minor incidents, the FEC will coordinate the response. In the case of emergencies, the FEC will relinquish control to the Incident Commander (IC) (assigned by the Emergency Operations Center Emergency Response Director) when he or she arrives to handle the emergency; however, the FEC will remain on hand to provide technical guidance and relevant information about the HWMF.

The FEC will ensure that personnel assigned to the HWMF are trained in the location and use of safety showers/eyewash, fire extinguishers, and emergency protective clothing; in emergency procedures; and in evacuation procedures.

During minor incidents at the HWMF, or until the IC arrives, the FEC has three primary responsibilities:

1. Assess the Situation. By observing the scene, interviewing personnel, and/or reviewing records, the FEC must gather information relevant to the response, such as the type of event, quantity and type of released material, and actual or potential hazards to human health or the environment.

2. Protect Personnel. The FEC should take any reasonable measures to ensure the safety of personnel, such as activating the fire alarm, accounting for HWMF personnel, attending to injuries, or coordinating the evacuation of HWMF personnel, if necessary. If evacuation is indicated for other personnel, the IC must be informed.

3. Contain or Mitigate the Hazards. The FEC should take reasonable measures to ensure that fires, explosions, or releases do not occur, recur, or spread. For example, released water-reactive material should be kept dry.

After both minor incidents and emergencies, the FEC must ensure that the facility and equipment are cleaned, waste is properly handled and disposed, and the HWMF is safe to resume operation. Before operations are resumed, the FEC must contact the Waste Management and Pollution Prevention Department, who will inform the appropriate agencies, if necessary. See Emergency Recovery Procedures, Section 5.0.

3.0 HWMF RESPONSE PROCEDURES

During normal working hours, the first person to become aware of an incident shall contact the FEC. Note that any person is authorized to implement the evacuation procedures and notify the SNL/NM Emergency Operations Center in the unlikely event that the FEC and all alternate FECs cannot be contacted or respond in a timely manner.

Only personnel trained in incident response activities will approach or handle unplanned situations. All other personnel will leave the vicinity of the unplanned conditions.

The FEC will assess the situation and determine the scale of the incident. If the FEC determines that an emergency situation exists at the HWMF (i.e., large spills, fire, explosion, aircraft incidents, or natural disasters) that threatens human health or the environment outside the HWMF, he will immediately notify the SNL/NM Emergency Operations Center at 911 or 844-0911 and activate this Contingency Plan. The SNL/NM Emergency Operations Center then assumes primary responsibility for emergency response coordination. The SNL/NM Emergency Operations Center will notify the National Response Center (1-800-424-8802) with the details of the emergency, if necessary.

The SNL/NM Emergency Operations Center operates within the SNL/NM Incident Command System (ICS) – a management system used to coordinate the efforts of all SNL/NM response teams and capabilities and other response teams, such as KAFB Fire Department, as needed. The ICS is a system that is implemented at the time an incident occurs, expanded to control the incident as needs arise, and which remains in effect until the need for management no longer exists. The SNL/NM Emergency Operations Center, when activated, is manned by the Emergency Response Director and a staff consisting of DOE personnel, SNL/NM management, KAFB staff, and representatives from various response groups. Under the SNL/NM Emergency Operations Center, the IC is responsible for management of operations at the emergency site. The IC coordinates operations with the four SNL/NM Emergency Operations Center sections: Operations, Logistics, Safety, and Planning. The Operations Section identifies and carries out the actions necessary at the site to contain the emergency.

The Logistics Section identifies, acquires, deploys, and mobilizes the supplies, material, and equipment needed to deal with an emergency. Under the Logistics Section, Facilities Engineering has teams capable of responding to incidents that require knowledge of buildings and utilities; use of heavy equipment; and transportation of material, equipment, or personnel.

The Safety Section is responsible for ensuring that Medical and ES&H resources are available as needed. The Medical organization has established a Medical emergency response team that responds to all medical emergencies during operational hours. The type of response to each emergency is determined through information received about the emergency. ES&H is primarily responsible for responding to releases of hazardous or toxic materials at facilities located within SNL/NM and for providing consulting services associated with personnel safety and health.

The Planning Section is responsible for collection of data (resources available, weather, field observations, etc.)

3.1 MINOR INCIDENTS

In the event that the FEC determines an incident to be minor, a person will be assigned to standby at a safely located telephone. At the first indication of incident escalation, the standby person will be instructed to notify SNL/NM Emergency Operations Center at 911 or 844-0911. If the incident can be easily handled by the on-hand equipment, supplies, and labor, then it is a minor incident. Minor incidents do not require activation of this Contingency Plan.

Note: In no instance will a fire be considered a minor incident.

3.1.1 Controlled Spills

Since the HWMF usually handles hazardous waste in containers equal to or less than an 85-gallon drum, hazardous waste spills generally would be expected to be of 85 gallons or less.

- The first priority in a spill is personnel protection – do not attempt to do anything to a spill until proper personal protective equipment has been donned. Stay clear of the spill area, then assess the type of material spilled so proper cleanup procedures can be followed. Great caution in handling a spill must be exercised.

- The second priority in a spill is containment – if the spill is not in a contained area, use absorbent material to contain the spread of the spill before attempting sampling or cleanup.

A. <u>If a spill occurs while working with a material:</u>

1. Evacuate the immediate area, notify the FEC, and don appropriate personal protective equipment for exposure to the material.

2. If possible, secure the source of the release (i.e., tip the drum to stop the leak).

3. Use a portable hand-pump to transfer the spill to a new receiving drum if the material spilled is sufficient to form a pumpable pool.

4. After pumping or if the spill is small, spread absorbent over the area of the spill and transfer the contaminated absorbent to the new receiving drum.

5. Stabilize flammable solvent spills with the organic solvent spill kit.

6. Stabilize other chemical spills using the SNL/NM acid and caustic spill kits or by the addition of absorbent.

7. Handle the stabilized material as a hazardous waste. Sweep, shovel, or pump it back into the drums.

8. Remove contaminated soil, if any, and transfer to new receiving drums.

9. Remove any contamination from floors, walls, and other containers with a solvent appropriate to the spilled material and transfer all solvent and cleaning materials to the new receiving drum.

10. Properly identify the new receiving drum.

11. Promptly complete a weekly inspection log and include the details of the spill and cleanup in the log.

12. Handle the original spill container in the same manner as a bulging or leaking drum.

13. Decontaminate all reusable spill cleanup equipment.

B. <u>If an unattended spill is discovered:</u>

1. Leave the immediate area of the spill, notify the FEC, and don complete personal protective equipment including a Self-Contained Breathing Apparatus (SCBA).

2. Cautiously approach the area of the spill and attempt to ascertain the source of the spill.

3. If the spill material can be identified from the source container, handle the spill as in A above.

4. If the spill material cannot be identified, collect a sample of the material.

5. Obtain a rush analysis of the sample from an SNL/NM or commercial laboratory.

6. Once the material has been identified, proceed as in A above.

3.1.2 Leaking or Punctured Drums

1. Leave the immediate area and notify the FEC.

2. Identify the material inside the drum, based on drum log or inventory records.

3. Based upon the hazardous characteristics of the material in the drum, select appropriate personal protective equipment.

4. After donning personal protective equipment and securing emergency equipment, spread absorbent material around the drum to absorb the leak.

5. If the spill material can be identified from the source container, handle the spill as in A above.

6. Be certain that the contents of the leaking drum have been emptied into the new receiving drum.

7. Crush the leaking drum and handle as determined by the HWMF Disposal/Request (DR) chemist.

3.1.3 Bulging Drums

1. Notify the FEC.

2. Identify the material inside the drum, based on log or inventory records.

3. Based upon the hazardous characteristics of the material in the drum, select appropriate personal protective emergency equipment and a new receiving drum.

4. After donning personal protective equipment and securing emergency equipment, carefully and slowly open a bung to relieve the internal pressure.

5. Use a portable pump to transfer the material from the bulging drum to the new receiving drum. Properly mark new receiving drum.

6. Be certain that the contents of the bulging drum have been emptied into the new receiving drum.

7. Crush the drum and dispose of it as determined by the HWMF DR chemist.

8. Clean up any material that spilled during the transfer.

9. Record event summary in facility operating record.

3.1.4 Personal Exposure

In the event of chemical material in the eye or on the skin:

1. Notify the FEC.
2. Wash the eye(s) or skin using the permanent shower/eyewash station for at least 15 minutes.
3. Hold the eyelids open during washing.
4. Call 911 or 844-0911 to arrange for transport of the injured person to the SNL/NM Medical Clinic for evaluation.
5. If possible, the FEC should ascertain what chemical material was involved in the injury and give the information to the SNL/NM Medical Clinic.

In the event of:

- Irritation of the eyes, breathing passages or skin
- Difficulty in breathing
- Nausea, light-headedness, vertigo, or blurred vision

Personnel will:

1. Notify the FEC.
2. Evacuate and barricade the area to prevent unauthorized entry.
3. Call 911 or 844-0911 to arrange for transport of the injured person to the SNL/NM Medical Clinic for evaluation.
4. The FEC should attempt to ascertain what, if any, chemical exposure occurred and what corrective measures are appropriate.

3.1.5 Power Failure

The only equipment at the HWMF that would be affected by a power failure are the building lights, alarm system, ventilation exhaust fan, and electrical pumps. All other equipment is either self-powered or manually operated. The HWMF is equipped with an emergency power source in the event of utility failure. However, should total power failure occur, battery-operated lights will automatically turn on. Manually operated drum carts and pumps may be utilized. In the event of a power failure, secure any work in progress within the HWMF until power is restored.

3.1.6 Equipment Failure at the HWMF

1. Lights: Fixed battery-operated lights will operate.
2. Alarms: Emergency power supply will operate alarm devices.
3. Pumps: Use portable manually or pneumatically operated pumps.
4. Drum-handling equipment: Call the Transportation Team and secure forklifts and drum-handling equipment.
5. Personal Protective Equipment: Replace, as needed, with supplies in the HWMF equipment storage areas.
6. Vehicles: Call the Transportation Team and secure replacements for vehicle.
7. Telephone: Use cellular telephones.
8. Fire sprinklers: Use portable fire extinguishers.

3.2 EMERGENCIES

In the event of an emergency, the FEC or an assignee will immediately telephone the SNL/NM Emergency Operations Center (911 or 844-0911). Emergencies require the activation of this Contingency Plan and SNL/NM emergency response resources. Upon arrival at the scene, the IC will determine the extent of the emergency, cordon off the area, and notify appropriate response personnel. All personnel not involved in combating the emergency will be directed to evacuate the area and assemble in a convenient location upwind and away from the involved area.

If the FEC and IC determine that the emergency could threaten human health or the environment outside of KAFB, the IC or assignee will then notify the National Response Center (1-800-424-8802) and the New Mexico Spill Response (505-827-9329) to provide the following information:

1. Name and telephone number of reporter
2. Name and address of facility
3. Time and type of incident (e.g., fire, release, explosion)
4. Name and quantity of materials involved to the extent known
5. Extent of injuries, if any, and
6. The possible hazards to human health or the environment outside of KAFB.

The Waste Management and Pollution Prevention Department will report the same information to the Secretary, New Mexico Environment Department (NMED).

The FEC must be especially cognizant of the potential release of hazardous materials and take every available measure to minimize the magnitude of that release.

3.2.1 Fire

Any fire in the HWMF vicinity is defined as an emergency. This includes any fire involving hazardous waste or hazardous material, or any building, vegetation, or nonhazardous waste fire that threatens to ignite hazardous waste.

1. Prior to any fire fighting, the KAFB fire department will be notified by activation of a manual pull alarm, activation of an automatic fire alarm, or by dialing the SNL/NM Emergency Operations Center at 911 or 844-0911.

2. Fire-fighting personnel must wear appropriate personal protective equipment.

3. If the fire is small and the fuel source is small, portable fire extinguishers may be used to put out the fire.

Note: Use only Lith-X fire extinguishers for water-reactive waste.

4. Whenever possible, remove flammable material from the area of fire.

5. If the fire spreads or increases in intensity, all personnel should evacuate to an upwind point at least 100 yards away from the fire.

6. The FEC should remain near the site, but at a safe distance, so he can advise the personnel responding to the fire of the known hazards.

7. Ensure that storm drains and/or sewers do not receive potentially hazardous runoff. Build dikes around storm drains or close any valves controlling discharge.

8. Upon arrival at a fire, the KAFB fire department officer-in-charge will be in command of fire fighting. He will accept and evaluate the advice of SNL/NM personnel and emergency response organization members, but he retains the responsibility to select the fire-fighting methods and tactics.

9. The IC will be in overall control of SNL/NM emergency response efforts until the emergency is terminated.

10. Materials involved in a fire can be identified in the following ways:

    - The location of the drum may indicate the contents of the drum (e.g., drums in the caustic storage bay contain caustics).

    - If the location of the drum does not indicate its contents, the label number can be used to identify the material. Records on the contents of each drum are kept in database that can be accessed from off site or in the HWMF office.

    - If the label has been burned, the number painted on the drum can be used to identify the material.

    - If the label and number are destroyed by fire, the material will be treated as an unknown and analyzed according to methods in the SNL/NM Waste Analysis Plan and U.S. EPA "Test Methods for Evaluating Solid Waste Physical Chemical Methods," SW-846, Third Edition.

11. An absorbent will be poured over all chemical residues resulting from a hazardous waste fire. Once the liquid is absorbed, the waste will be swept or shoveled back into the drums, and the surface will be cleaned using cleaners appropriate to the chemicals.

12. Fire-fighting waters collected in the catchment pond at the HWMF are analyzed to determine an appropriate disposal method.

3.2.2 Explosion

The following procedures will be implemented in the event that an unplanned explosion of hazardous waste occurs or the danger exists that an explosion is imminent.

1. Immediately evacuate the area.

2. The FEC will contact the SNL/NM Emergency Operations Center (911 or 844-0911), who will in turn immediately notify the KAFB fire department and appropriate response personnel.

3. Immediately transport any injured personnel to the SNL/NM Medical Clinic for treatment.

4. The FEC will remain near the site, but at a safe distance, so he can advise the personnel responding to the explosion of the known hazards involved and the degree and location of the explosion and associated fires.

5. Upon arrival at the site, the KAFB fire department officer-in-charge will be in command of fire fighting. He will accept and evaluate the advice of SNL/NM personnel and emergency response organization members, but he retains the responsibility to select the fire-fighting methods and tactics.

6. The IC will be in overall control of SNL/NM emergency response efforts until the emergency is terminated.

7. An absorbent will be poured over all chemical residues resulting from a hazardous waste explosion. Once the liquid is absorbed, the waste will be swept or shoveled back into new receiving drums and the surface cleaned using cleaners appropriate to the chemicals.

8. The FEC will secure all operational units (e.g., process equipment, ventilation equipment) that may be affected directly or indirectly by the explosion once the areas needed to be entered have been determined safe by the IC or a safety officer.

3.2.3 Uncontrolled Releases

The FEC will implement the following procedures in the event that a hazardous waste or hazardous material spill causes an immediate health hazard, cannot be contained with secondary containment or application of absorbents, or a threat exists for spilled material to move out of the HWMF boundaries:

1. Evacuate the immediate area.

2. The FEC and Waste Management and Pollution Prevention Department personnel will review facility records (e.g., waste inventory database) to determine the identity and chemical nature of released material. The waste inventory database may be accessed from off site or in the HWMF office.

3. Don appropriate personal protective equipment for exposure to the material.

4. If possible, secure the source of the release.

5. Build a dike to contain runoff.

6. Ensure that storm drains and/or sewers do not receive potentially hazardous runoff or spill material. Build dikes around storm drains or close any valves controlling discharge.

7. Released wastes may be collected and contained by stabilizing or neutralizing the spilled material, as appropriate; pouring an absorbent over the spilled material; and sweeping or shoveling the absorbed material into drums or other appropriate containers.

8. No waste that may be incompatible with the released material will be treated, stored or disposed of until cleanup procedures are complete.

9. After collection of a released material, the release site will be sampled and evaluated. If contamination is found to exist, contaminated materials may be collected, drummed (if appropriate), and removed from the site for disposal at a permitted disposal facility. Depending on the specific conditions, however, SNL/NM may choose to implement an alternative decontamination method such as surface cleaning or in situ neutralization or stabilization. Any such alternative will be discussed with the NMED prior to implementation.

3.2.4. Natural Emergencies

After any natural emergency (earthquake, flood, lightning strike, etc.) the FEC shall:

1. Inspect all containers and containment for signs of leakage or damage.

2. Inspect all operational units for proper operating mode and manually check to ensure all automatic and alarmed features on the unit are working.

3. Inspect all piping, valves, and fixed pumping units for damage.

4. Inspect electrical boards, overhead electrical lines, and poles for damage.

5. Check drum storage area for signs of leakage or damage to storage drums, containers, or carboys.

6. Check all buildings and fencing for damage.

7. Conduct a general survey of the site looking for signs of land movement, etc.

8. Take any necessary corrective measures, however temporary, to rectify potential or real problems.

9. Record all inspection results.

3.2.5 Aircraft Emergencies

The close proximity of the KAFB landing strip to the HWMF make the possibility of an aircraft emergency plausible. Any associated HWMF emergency involving aircraft will be handled as an explosion (Section 3.2.2).

3.3 EVACUATION

The FEC will initially make the determination to evacuate the HWMF. The facility will be evacuated upon the voice command of "evacuate the area" or upon the sounding of the evacuation/fire alarm.

3.3.1 Evacuation Procedures

The following procedures will allow for a safe, coordinated evacuation:

1. When an evacuation is announced, stop work.
2. Shut down predesignated operations that could contribute to further hazards unless an "immediate" building evacuation is announced.
3. Proceed to the closest building exit unless blocked by hazards.
4. Do not remain in affected area except to assist injured personnel.
5. Exit building and proceed to the east or west gate upwind of the fenced HWMF area.
6. Report to designated assembly area for roll call (taken by HWMF Site Manager or his assignee).
7. Be continually cognizant of wind directions (stay upwind) and emergency equipment.
8. Do not re-enter fenced area until the FEC (minor incidents), the IC, or a safety officer (emergencies) determines that all is safe and secure.

3.3.2 Evacuation Routes

Maps of the evacuation route are posted at the entrances to both of the permanent buildings and the office trailers. The HWMF Site Manager is responsible for ensuring that all new employees and site visitors are familiar with evacuation procedures and routes of evacuation. A map showing the evacuation routes at the HWMF is provided in Attachment 1.

4.0 EMERGENCY EQUIPMENT

4.1 HAZARDOUS WASTE MANAGEMENT FACILITY

The following is a list of dedicated emergency equipment located at the HWMF.

Showers and eyewashes: Fixed, equipped with eyecups and overhead shower, one in the HWMF Waste Storage Building, one in the HWMF Waste Packaging, and one in the Drum Crushing Area.

Fire extinguishers:

- Portable ABC – One at both the north and south entrances of the HWMF Waste Storage Building, one at both the north and south entrances of the HWMF Waste Packaging Building, one at each entrance to the HWMF Office Trailer No. 1, one near the door of the permanent storage shed (Building 959D), one at the southwest corner of the Bermed Storage Area, and one near the east entrance to the mechanical room of the HWMF Waste Packaging Building.

- Lith-X – One in the general-use area of the HWMF Waste Packaging Building and one in the office of the HWMF Waste Packaging Building.

Fire alarm system: Alarm signal sent to KAFB fire station. The fire-extinguishing system in the relocatable water-reactive chemical storage sheds is linked to the alarm system as well.

Fire alarm pull boxes:

- One on the interior walls near the north and south entrances of the HWMF Waste Storage Building (Building 958)

- One on the exterior walls near the north and south entrances of the HWMF Waste Packaging Building (Building 959)

- One in the office area of the HWMF Waste Packaging Building (Building 959)

- One on the east wall of the mechanical room in the HWMF Waste Packaging Building (Building 959)

- One on the east wall of the records room in the HWMF Waste Packaging Building (Building 959)

Telephone: One on the interior walls near the north and south from the HWMF Waste Storage Building, one in the HWMF Waste Packaging Building office, and one in each occupied office in each office trailer.

Fire sprinkler system:

- Water, deluge type, in the HWMF Waste Packaging Building
- Water, deluge type, in the HWMF Waste Storage Building
- Ansul dry system, in the relocatable water-reactive storage structures

Portable pump: Compressed-air-driven

First-aid kit: Standard first aid kit: One in both the packing room and the bathroom of the HWMF Waste Packaging Building

SCBA: At least six, two each at the perimeter fence (south of entrance gate), two each in the HWMF Waste Packaging Building office area, two each inside the HWMF Waste Storage Building (South end) and two each inside Trailer 2.

Goggles/face-shields: Chemical splash goggles/chemical-resistant face-shield, at least two each

Gloves/boots/coveralls: Latex, leather, pylox, nitrile and neoprene gloves; cotton, saranex, and Tyvek coveralls; rubber boots, at least five each

Respirators, purifying: Full-face

Cartridges: Organic vapors and acid gas; high-efficiency filter; ammonia and methylamine; dust, fumes, and mist; at least 10 each

Miscellaneous safety equipment: Hardhats, hearing protection, and safety glasses.

Miscellaneous response equipment: Absorbent materials, decontamination equipment, and salvage drums.

4.2 SNL/NM EMERGENCY EQUIPMENT

Equipment available for use at SNL/NM and the locations of this equipment are provided below:

ITEM OR EQUIPMENT	LOCATION/TELEPHONE
Emergency Vehicles	
Emergency Response Vehicle: Mobile Command Post equipped with communications equipment and SCBA.	SNL/NM Emergency Operations Center – Call 911 or 844-0911
Ambulances	SNL/NM Emergency Operations Center – Call 911 or 844-0911
Security Vehicles: Vans and trucks equipped with communications equipment and utilized for transportation of personnel and equipment.	SNL/NM Emergency Operations Center – Call 911 or 844-0911
Fire Trucks: Fire-fighting vehicles outfitted with equipment for fighting fires.	SNL/NM Emergency Operations Center – Call 911 or 844-0911
Helicopter: Rotary-wing aircraft for transportation of personnel to or from site.	SNL/NM Emergency Operations Center – Call 911 or 844-0911
Medical Supplies	
Stretchers/Stokes Litter: Equipment for movement of Injured personnel. Stokes Litter will immobilize Personnel so they may be moved vertically.	SNL/NM Emergency Operations Center – Call 911 or 844-0911
Blankets: Normal Blankets.	SNL/NM Emergency Operations Center – Call 911 or 844-0911
Medical Kits: Emergency first-aid supplies.	SNL/NM Emergency Operations Center – Call 911 or 844-0911
Oxygen: Medical grade oxygen in compressed cylinders equipped for personnel use.	SNL/NM Emergency Operations Center – Call 911 or 844-0911
Safety Supplies	
Air Packs: Self-contained breathing apparatus equipped with positive pressure mode for use by personnel entering hazardous atmospheres.	SNL/NM Emergency Operations Center – Call 911 or 844-0911
Cylinders contain sufficient air for 60 minutes. No fewer than six air-packs are available.	
Monitoring Instruments	Personal Monitoring and Laboratory Services – Call 844-2310

Transportation

Tractor-trailer combinations, 18 wheelers, 40-foot trailers, 40,000-pound capacity (7)	SNL/NM Emergency Operations Center – Call 911 or 844-0911
2-ton flat-bed trucks with sideboards (6)	
1-ton flat-bed trucks with sideboards (7)	
1.5-ton enclosed panel vans (4)	
Passenger vehicles including sedans and vans (10)	
Passenger buses (4)	

5.0 EMERGENCY RECOVERY PROCEDURES

5.1 POST-EMERGENCY INSPECTIONS

The following post-incident inspections will be done after minor incidents or emergencies:

1. After any incident, the FEC will inspect the premises for leaks or ruptures of equipment. The FEC will ensure that all spill-related material is handled or disposed of properly. The results of the inspection will be recorded on an inspection log.

2. Emergency response equipment must be carefully inspected and the equipment decontaminated, replaced, or refurbished if needed. Fire extinguishers must be checked for adequate charge. Personal protective equipment must be checked for contamination. Remedial equipment must be inspected for contamination and proper operation. Emergency showers/eyewashes must be checked for proper operation and portable showers/eyewashes checked for proper pressure.

   Within 24 hours of any incident, fire extinguishers should be replaced; personal protective equipment decontaminated, repaired or replaced; and portable showers/eyewashes refilled and pressurized.

   Within three days of an incident, other equipment and facilities should be decontaminated by cleaning with a solvent appropriate to the waste contamination. The spent solvent should be collected and treated as hazardous waste. All appropriate personal protective equipment must be worn during decontamination procedures.

   Within 30 days of an incident, other equipment should be repaired or replaced.

5.2 POST-EMERGENCY REPORTS

The following post-emergency reports will be made after emergencies:

1. A verbal report of any incident must be promptly reported to the FEC or to the Manager of the Waste Management and Pollution Prevention Department, if he was not informed of the incident during its occurrence. The SNL/NM Emergency Operations Center will also be notified of any incident. Verbal reports must also be made within 24 hours of the emergency to the National Response Center (see Section 3.2) and the Secretary, NMED.

2. For every incident that involves Contingency Plan implementation, a written emergency incident report will be prepared by the Waste Management and Pollution Prevention Department and forwarded to the DOE within three working days. The written report will include at a minimum:

   - Name, address, and telephone number of the owner of SNL/NM
   - Name, address, and telephone number of the HWMF

- Date, time, and type of emergency
- Name and quantity of materials involved
- Extent of injuries
- Assessment of actual or potential hazards to human health or the environment
- Estimated quantity and disposition of recovered material

The DOE will send the incident Report to the U.S. Environmental Protection Agency or the NMED within 15 days of the occurrence.

3. Before operations are resumed at the HWMF, the NMED will be notified that the HWMF is in compliance with 40 CFR 264.56(h).

5.3 EMERGENCY RESPONSE EVALUATION

SNL/NM emergency management personnel are responsible for annual evaluations of the SNL/NM Emergency Plan and for the evaluation of the response to each emergency. If these evaluations reveal that changes to the Emergency Plan are necessary, they will be amended by the SNL/NM emergency management personnel and distributed to the appropriate organizations.

This Contingency Plan will be reviewed and, if necessary, amended by HWMF personnel and the Waste Management and Pollution Prevention Department whenever:

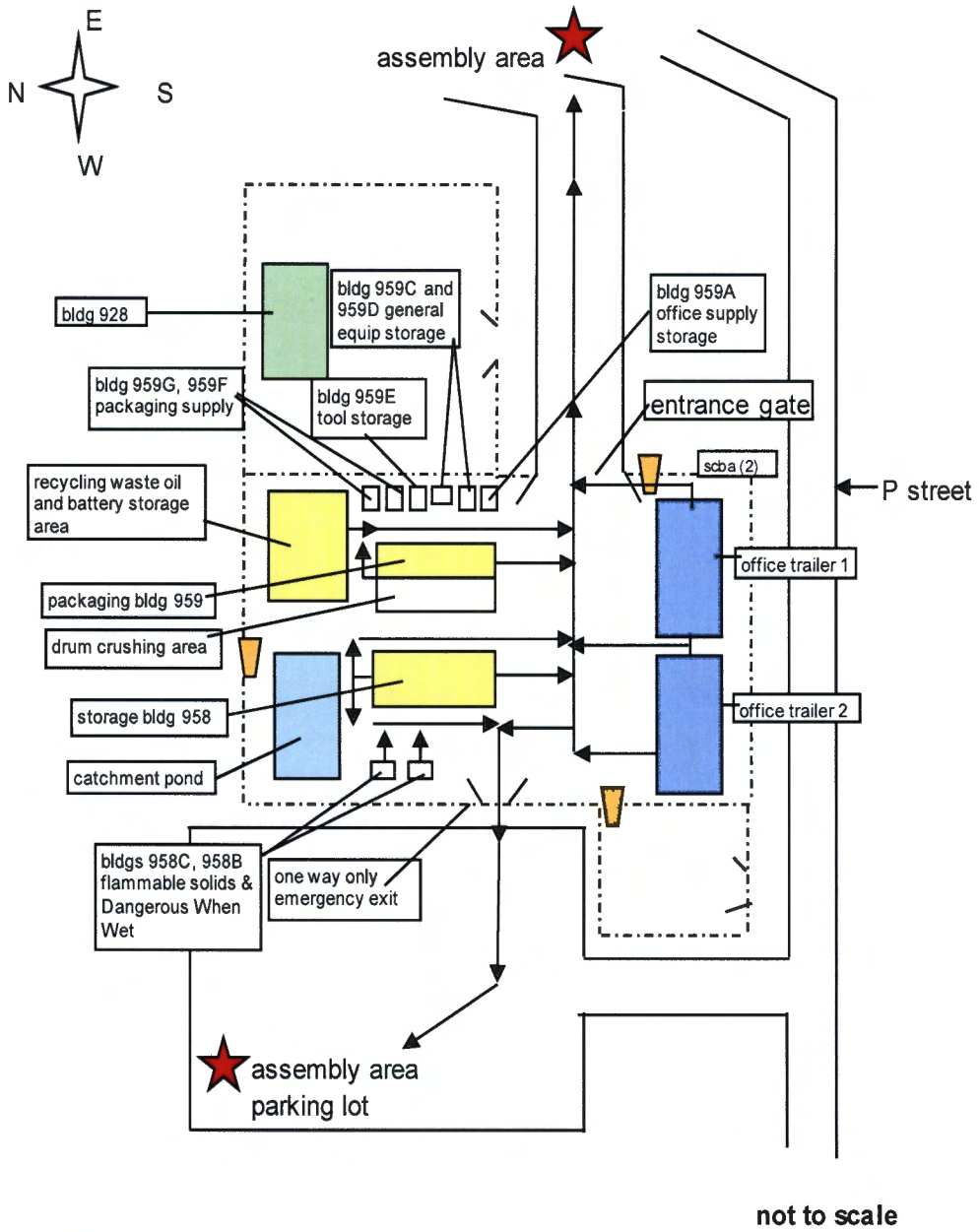
1. The facility permit or applicable regulations are revised.

2. The plan fails in an emergency.

3. The facility design, construction, operation, maintenance, or other circumstances change to increase the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.

4. The list of FECs and/or phone number changes.

5. The list of emergency equipment changes.



not to scale

windsocks

evacuation route

Hazardous Waste Management Facility Evacuation Routes

Permit Attachment F

Closure Plan

8.0 CLOSURE PLAN, POSTCLOSURE PLAN, AND FINANCIAL REQUIREMENTS

8.1 INTRODUCTION

8.1.1 Introduction

This section is submitted in accordance with the requirements of NMHWMR-6/40 CFR §§264.110 through 115, §264.178, and §270.14(b)(13). This closure plan identifies all steps that will be necessary to close the HWMF at the end of its operating life.

The closure plan has been designed to meet the following performance standards as required by NMHWMR-6/40 CFR §264.111:

- Minimize future maintenance
- Protect human health and the environment
- Prevent the escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground or surface waters or atmosphere.

At this time, no plans exist for permanent closure of the SNL, Albuquerque. Thus, the closure plan presented herein represents partial closure or closure of a contingency nature necessary to meet the intent of RCRA regulations. If any changes occur in the operating plans or facility design that affect the closure plans, such as facility size/capacity, types of wastes on-site at closure, maximum closure inventory, or schedules for partial and final closure, DOE will submit an amendment of the closure plan to NMED. Also, the plan will be amended if there are changes in technical considerations such as application of new technology, changes in monitoring requirements, operating contingencies, or land-use patterns around the facility.

Copies of the closure plans will be maintained at SNL, Albuquerque, at the Hazardous Waste and Waste Water Division 7721, SNL, Albuquerque, and at:

Kirtland Area Office
Albuquerque Operations Office
Department of Energy
P.O. Box 5400
Albuquerque, NM 87115

The supervisor of Division 3221 has been designated as the person responsible for the storage and updating of the facility copies of the closure plan, and for updating all other copies.

8.1.2 Environmental Monitoring

SNL, Albuquerque, conducts an on-going routine environmental monitoring program which is designed to detect the presence of chemical parameters in soil, water, air, and biotic media. Samples are collected at monitoring locations and analyzed to establish background conditions, detect potential releases, and accommodate facility changes or discontinuance of operations. Additional samples are collected to gain information about particular events such as major precipitation and run-off events, and nonroutine releases of chemical substances. Data gathered in environmental monitoring activities are compared to regulatory standards, background levels, and calculations of acceptable exposure for implementation of any necessary corrective actions. The results of such monitoring is reported annually in the Environmental Monitoring Report for SNL, Albuquerque.

8.2 CLOSURE PLAN FOR THE HAZARDOUS WASTE MANAGEMENT FACILITY

8.2.1 Estimate of Maximum Inventory of Wastes in Storage

The maximum inventory of wastes which are expected to be in storage at any time during the life of the HWMF is 76,070 gallons of liquids and/or solids in container storage (including lab packs which contain substantial quantities of absorbent).

8.2.2 Closure Timetable

The HWMF is expected to be in operation until SNL, Albuquerque, is closed. The anticipated year of closure is 2100.

8.2.3 Closure Procedures

All waste and containers will be removed and the buildings will be decontaminated at the time of closure. Containerized waste will be transported to commercial off-site disposal or recycling facilities.

Appropriate health and safety practices will be followed during all phases of closure to protect employees from exposure.

Closure activities specified in this plan assume the following conditions are met during the operational life of the HWMF:

- All waste handling activities at the HWMF are confined to the interior of Buildings 958 and 959, the covered and bermed work area outside Building 959, and the two relocatable structures. Any contamination will be confined to these areas.
- The interior walls and floors of all identified waste handling areas are maintained to retain their integrity by following established maintenance and inspection procedures; breaches of the protective coatings will not occur.
- The Environmental Monitoring Program conducted at SNL, Albuquerque, in compliance with DOE Order 5400.1 (DOE, 1988) includes the area surrounding the HWMF.

All areas of the buildings will be inspected by SNL, Albuquerque, personnel for evidence of leaks or spills. Should any leaked or spilled materials be discovered, they will be removed according to the procedures given in Section 3.2 (Attachment H). After removal of any spilled material, the affected interior of the HWMF buildings, including the walls and floor, will be cleaned using a hot-water pressure washer. Spent cleaning fluids will collect in the washed area and will remain segregated from potentially incompatible wastes stored in other areas of the building. These fluids will be sampled and analyzed in accordance with the procedures presented in the Waste Analysis Plan (Attachment A). If it is determined that the cleaning fluids are contaminated, the fluid will be pumped into drums or tank trucks and will be transported off-site to commercial disposal, treatment, or recycling facilities.

After the cleaning fluids are removed, the potentially contaminated areas will be carefully inspected for signs of residual contamination such as discoloration of epoxy coating, etching of cement, visible stains, etc. Inspections will be made using visual observation supplemented with field screening techniques (e.g., use of portable organic vapor analyzers) where appropriate. Potentially contaminated areas will be sampled by wipe sampling or chipping, coring, or drilling solid materials such as cement or other building structures. These samples will be collected and analyzed in accordance with the methods defined in the Waste Analysis Plan. If the analyses indicate unacceptable levels of residual contamination, additional cleaning of the facility will be performed using chemicals, hydroblasting, or other cleaning methods. Spent cleaning solutions will be collected and handled in the same manner as the initial cleaning fluids.

The future uses of the facility will be evaluated and the condition of the structures will be assessed. If no future use is anticipated, the structures will be torn down and disposed of.

During and after closure activities, the facilities will be inspected by a registered professional engineer to ensure that all closure requirements are met. If any deficiencies are found by the engineer, additional closure actions will be executed as required.

8.2.4 Schedule

Since all wastes are characterized prior to packaging in containers, transportation of the wastes will commence shortly after closure is initiated. Transportation to off-site facilities will require 90 days, including awarding a contract, approval of waste profiles, and scheduling the contractor to load containers at SNL, Albuquerque.

Decontamination of the buildings is expected to be minimal since all wastes will be containerized and any spills will be cleaned up as they occur, following the procedures in the contingency plan (Section 6.0). Decontamination and analysis of the buildings will be accomplished in 90 days. No decontamination of equipment is anticipated during the closure since all wastes will be inside containers and no contact is expected between wastes and equipment. Total closure time is expected to require 180 days. Any extension to the closure time necessitated by special circumstances prior to or during closure will be sought pursuant to the procedures set forth in NMHWMR-6/40 CFR §264.113.

8.2.5 Certification of Closure

When closure of the HWMF has been performed, a certificate attested to by a registered professional engineer will be submitted stating that the unit has been closed in accordance with the approved closure plan.

8.3 POSTCLOSURE

RCRA postclosure regulations found in NMHWMR-6/40 CFR §§264.116 through 120 apply to owners and operators of disposal facilities, waste piles, surface impoundments, and tank systems. Therefore, these regulations do not apply to the HWMF.

8.4 FINANCIAL REQUIREMENTS

Cost estimates and financial assurance for closure and postclosure activities are not included. Federal facilities are exempt from these requirements in accordance with NMHWMR-6/40 CFR §264.140(c).

Permit Attachment G

Part A of Permit Application

ENTERED

NEW MEXICO ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.nmenv.state.nm.us

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

DAVE MARTIN
Secretary

BUTCH TONGATE
Deputy Secretary

JAMES H. DAVIS, Ph.D.
Director
Resource Protection Division

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 18, 2012

Geoff Beausoleil
Manager
Sandia Site Office/NNSA
U. S. Department of Energy
P.O. Box 5400, MS 0184
Albuquerque, NM 87185-5400

Michael Hazen
Vice President
Department 10000
Sandia National Laboratories
P.O. Box 5800, MS 0143
Albuquerque, NM 87185-5800

RE: APPROVAL OF CLASS 1 PERMIT MODIFICATION
HAZARDOUS WASTE OPERATING PERMIT
SANDIA NATIONAL LABORATORIES/NEW MEXICO
EPA ID NM5890110518-1
HWB-SNL-12-004

Dear Mr. Beausoleil and Mr. Hazen:

The New Mexico Environment Department (NMED, the Department) has reviewed the "*Request for Class 1 Modification to Hazardous Waste Operating Permit NM5890110518-1, Sandia National Laboratories/New Mexico*" submitted by the U. S. Department of Energy (DOE) on behalf of DOE/Sandia Corporation (collectively the Permittees), dated February 24, 2012. In the submittal the Permittees requested the addition of the amine compound U404 to the list of wastes in Permit Part A to maintain compliance with requirements of the current operating Permit. The Permittees explained that the rationale for addition of triethylamine, a liquid amine compound with ignitability and corrosivity characteristics is a type of waste that has been received and managed in containers at the Hazardous Waste Handling Unit in the past and is likely to generate small quantities of U404 in the future. Additionally, the Permittees also requested the incorporation of changes in annual quantities of hazardous wastes D008, D019, and D022 that are managed at the hazardous Waste Handling Unit, since these waste codes are not explicitly listed in New Mexico Hazardous Waste Management Regulations 20.4.1.900 NMAC, incorporating 40 CFR 270.42, Appendix I.

NMED hereby approves the Class 1 Permit Modification (with Prior Approval) for addition of the amine compound U404 to the list of wastes in Permit Part A, in compliance with the requirements in the current operating Permit. A clean copy of the modified pages (See Enclosures A, B, and Appendix A) is enclosed for the Permittees to incorporate into the current operating Permit.

Further, the Permittees must send a notice of the Permit modification to all persons on the Facility mailing list maintained by the Department. The Department will send you the list concurrently with this letter of approval. This notification must be made within 90 calendar days after the Permittees receive this approval letter, as required by 40 CFR § 270.42(a)(ii), incorporated by 20.4.1.900 NMAC.

If you have any questions regarding this letter, please contact Cornelius Amindyas of my staff at (505) 222-9543.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

cc: W. Moats, NMED HWB
C. Amindyas, NMED HWB
D. Rast, DOE/NNSA, SSO, MS 0184
L. King, EPA Region 6 (6PD-N)
File: SNL 2012 and Reading
HWB-SNL-12-004

Enclosure A
Summary of Hazardous Wastes Managed at Sandia National Laboratories
Hazardous Waste Management Facility (HWMF)
Calendar Year 2011

Total quantity of hazardous waste managed at HWMF during 2011: 46,826.99 kg

Waste exceeding Part A limit during 2011: **D008**
Line in Part A form: 31
Quantity in Part A: 17,000 kg
Total quantity managed during 2011: 29,923.41 kg
2011 quantity resulting from one-time activity: 14,605.92 kg
Activity generating waste: Renovation of a building
Description of waste: Paint and plaster containing lead
Waste exceeding Part A limit during 2011: **D019**
Line in Part A form: 43
Quantity in Part A: 200 kg
Total quantity managed during 2011: 467.50 kg
Waste exceeding Part A limit during 2011: **D022**
Line in Part A form: 46
Quantity in Part A: 2,000 kg
Total quantity managed during 2011: 2,940.40 kg

Enclosure B. Summary of Proposed Changes
HWMF Permit NM5890110518-1
Permit Attachment G, Part A of Permit Application

Location	Current Language	Proposed Language	Explanation of Change	Modification Class Rationale
Attachment G, RCRA Subtitle C Site Identification Form, page 1, Item 8	**Email:** drast@doeal.gov	**Email:** david.rast@nnsa.doe.gov	Update email address for site contact person.	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, RCRA Subtitle C Site Identification Form, page 1, Item 9.B	**Operator Type:** ☐ **Private** ☒ **Other**	**Operator Type:** ☒ **Private** ☐ **Other**	Revise operator type to reflect Sandia Corporation as sole operator of Sandia National Laboratories with respect to RCRA Subtitle C operations.	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, RCRA Subtitle C Site Identification Form, page 2, Item 10.A	Y☐ N☒ 3. **Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste permit is required for these activities.	Y☒ N☐ 3. **Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste permit is required for these activities.	Correct typographic error made in transferring information to current form	*Class 1 modification.* Correction of typographic errors. Modification A.2.
Attachment G, RCRA Subtitle C Site Identification Form, page 2, Item 10.A	Y☒ N☐ 4. **Recycler of Hazardous Waste**	Y☐ N☒ 4. **Recycler of Hazardous Waste**	Correct typographic error made in transferring information to current form	*Class 1 modification.* Correction of typographic errors. Modification A.2.

Enclosure B. Summary of Proposed Changes
HWMF Permit NM5890110518-1
Permit Attachment G, Part A of Permit Application

Location	Current Language	Proposed Language	Explanation of Change	Modification Class Rationale
Attachment G, RCRA Subtitle C Site Identification Form, page 3, Items 11, 11.A, and 11.B	**11. Description of Hazardous Wastes** *(n/a per instructions)* **A. Waste Codes for Federally Regulated Hazardous Wastes.** **B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes.**	**11. Description of Hazardous Wastes** **A. Waste Codes for Federally Regulated Hazardous Wastes.** *(see Item 13)* **B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes.** *None*	Revise notes to clarify that waste codes are explained in the notes section in Item 13.	*Class 1 modification.* Informational and administrative changes. Modification A.1.

Enclosure B. Summary of Proposed Changes
HWMF Permit NM5890110518-1
Permit Attachment G, Part A of Permit Application

Location	Current Language	Proposed Language	Explanation of Change	Modification Class Rationale
Attachment G, RCRA Subtitle C Site Identification Form, page 4, Item 13	*Facility latitude: 35 degrees, 01 minutes, 45 seconds North* *Facility longitude: 106 degrees, 32 minutes, 30 seconds West*	*Item 4 Facility latitude: 35 degrees, 01 minutes, 45 seconds North* *Item 4 Facility longitude: 106 degrees, 32 minutes, 30 seconds West* *Item 9b Sandia Corporation is a wholly-owned subsidiary of Lockheed Martin Corporation. Sandia Corporation manages and operates Sandia National Laboratories for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.* *Item 11 See Item 9 in Hazardous Waste Permit Information Form for complete list of waste codes for federally regulated hazardous wastes.*	Number the notes, and add notes to clarify the Facility operator (Item 9), and to explain the location of the hazardous waste codes (Item 11).	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, RCRA Subtitle C Site Identification Form, page 4, Item 14	*Owner: Patty Wagner, Manager, US DOE, Sandia Site Office*	*Owner: Richard F. Sena, Acting Manager, US DOE, Sandia Site Office*	Update name and title of facility owner	*Class 1 modification.* Informational and administrative changes. Modification A.1.

Enclosure B. Summary of Proposed Changes
HWMF Permit NM5890110518-1
Permit Attachment G, Part A of Permit Application

Location	Current Language	Proposed Language	Explanation of Change	Modification Class Rationale
Attachment G, Hazardous Waste Permit information Form, page 1, Item 1	**Email:** drast@doeal.gov	**Email:** david.rast@nnsa.doe.gov	Update email address for site contact person.	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, Hazardous Waste Permit information Form, page 1, Item 3	**Street or P.O. Box:** *P.O. Box 5800, Department 4100*	**Street or P.O. Box:** *P.O. Box 5800, Sandia National Laboratories, Environment, Safety and Health*	Update organization information to include descriptive title instead of number	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, Hazardous Waste Permit information Form, page 4, Item 7, Line 2	T04 100.0 V	X01 20.8 G	Correct errors in process code and design capacity information for thermal treatment at the Thermal Treatment Facility (TTF) at Sandia National Laboratories. This change only affects the information provided in this form; the change does not affect operation of the TTF.	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, Hazardous Waste Permit information Form, page 4, Item 8, Line 2	T04 100.0 V 001 Thermal treatment, liters per day		Delete incorrect information regarding process code and design capacity provided for the TTF. This change does not affect operation of the TTF.	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, Hazardous Waste Permit Information Form, page 5b of 5m, Item 9, Line 20	D003 5,000 K S01 T04 Hazardous Waste	D003 5,000 K S01 X01 Hazardous Waste	Correct error in process code for thermal treatment at the Thermal Treatment Facility (TTF) at Sandia National Laboratories. This change only affects the information provided in this form; the change does not affect operation of the TTF.	*Class 1 modification.* Informational and administrative changes. Modification A.1.

Enclosure B. Summary of Proposed Changes
HWMF Permit NM5890110518-1
Permit Attachment G, Part A of Permit Application

Location	Current Language	Proposed Language	Explanation of Change	Modification Class Rationale
Attachment G, Hazardous Waste Permit Information Form, page 5b of 5m, Item 9, Line 31	D008 17,000 K S01 Hazardous Waste	D008 25,000 K S01 Hazardous Waste	Quantity of this waste exceeded Part A quantity during 2011 due to one-time activities. Similar one-time activities in the future may lead to increased generation of this type of waste. The Part A revision with the increased waste volume is submitted in compliance with Permit Condition III.G.2 and does not substantially alter the permit conditions or affect DOE/Sandia's capacity to protect human health or the environment.	*Class 1 modification.* As noted in 20.4.1.900 NMAC, 40 CFR 270.42(d)(2)(i), "...minor changes that keep the permit current with routine changes to the facility or its operation."
Attachment G, Hazardous Waste Permit Information Form, page 5c of 5m, Item 9, Line 43	D019 200 K S01 Hazardous Waste	D019 600 K S01 Hazardous Waste	Quantity of this waste exceeded Part A quantity during 2011 due to process and production changes. DOE and Sandia expect to continue generating this type of waste in the future. The Part A revision with the increased waste volume is submitted in compliance with Permit Condition III.G.2 and does not substantially alter the permit conditions or affect DOE/Sandia's capacity to protect human health or the environment.	*Class 1 modification.* As noted in 20.4.1.900 NMAC, 40 CFR 270.42(d)(2)(i), "...minor changes that keep the permit current with routine changes to the facility or its operation."
Attachment G, Hazardous Waste Permit Information Form, page 5c of 5m, Item 9, Line 46	D022 2,000 K S01 Hazardous Waste	D022 3,000 K S01 Hazardous Waste	Quantity of this waste exceeded Part A quantity during 2011 due to process and production changes. DOE and Sandia expect to continue generating this type of waste in the future. The Part A revision with the increased waste volume is submitted in compliance with Permit Condition III.G.2 and does not substantially alter the permit conditions or affect DOE/Sandia's capacity to protect human health or the environment.	*Class 1 modification.* As noted in 20.4.1.900 NMAC, 40 CFR 270.42(d)(2)(i), "...minor changes that keep the permit current with routine changes to the facility or its operation."
Attachment G, Hazardous Waste Permit Information Form, page 5m of 5m, Item 9, Line 440		U404 10 K S01 Hazardous Waste	When the Permit was issued (August 6, 1992) it included all U- and P-coded hazardous wastes that were listed at the time. The research activities at SNL/NM generate small quantities of a wide variety of wastes, including many on the lists of U- and P-coded hazardous wastes; thus the entire list was incorporated into the	*Class 1 modification.* Storage or treatment of different wastes in containers that do not require the addition of units or a change in

Enclosure B. Summary of Proposed Changes
HWMF Permit NM5890110518-1
Permit Attachment G, Part A of Permit Application

Location	Current Language	Proposed Language	Explanation of Change	Modification Class Rationale
			Permit. EPA has listed additional U- and P-coded hazardous wastes since 1992. In particular, U404 was listed as a hazardous waste in 1995 (Federal Register, Volume 60, page 7823, February 9, 1995). Triethylamine (U404)) was among several chemicals that were listed because they are constituents in production of carbamate pesticides. DOE and Sandia do not produce carbamate pesticides, and did not request a modification of the Part A in Attachment G to incorporate any of these U- and P-coded wastes. DOE and Sandia have identified triethylamine (U404) as a waste that has been generated in small quantities during recent research activities. DOE and Sandia expect to continue generating small quantities of this waste in the future. Triethylamine is a liquid amine compound with ignitability and corrosivity characteristics. Liquid amines with these characteristics are a type of waste that has been received and managed in containers at the Hazardous Waste Management Facility in the past. The Part A revision with the additional waste code is submitted to maintain compliance with Permit Condition III.G.1 and does not substantially alter the permit conditions or affect DOE/Sandia's capacity to protect human health or the environment.	the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g. incinerator scrubber water). Modification F.4.b.

Enclosure B. Summary of Proposed Changes
HWMF Permit NM5890110518-1
Permit Attachment G, Part A of Permit Application

Location	Current Language	Proposed Language	Explanation of Change	Modification Class Rationale
Attachment G, forms	Current Part A prepared using EPA forms: • OMB 2050-0024 "RCRA Subtitle C Site Identification Form," Expires 11/30/2011 • OMB 2050-0034 "Hazardous Waste Permit Information Form," Expires 7/31/2012	Proposed Part A prepared using updated EPA forms: • OMB 2050-0024 "RCRA Subtitle C Site Identification Form," Expires 12/31/2014 • OMB 2050-0034 "Hazardous Waste Permit Information Form," Expires 12/31/2014	Current forms are out of date and/or have been superseded. Use updated form to present information.	*Class 1 modification.* Administrative change. Modification A.1.
Attachment G, Part A, Appendix A "Active Environmental Permits"	List of Sandia National Laboratories/ New Mexico active environmental permits as of 2/1/2011	List of Sandia National Laboratories/ New Mexico active environmental permits as of 2/1/2012	Provide most recent list of active permits.	*Class 1 modification.* Informational change. Modification A.1

APPENDIX A

ACTIVE ENVIRONMENTAL PERMITS
Sandia National Laboratories/New Mexico
Active Environmental Permits as of 02/01/2012

Permit Type and/or Facility Name	Permit Number	Issue Date	Expiration Date	Regulatory Agency
SEWER WASTEWATER				
General	2069 A-7	07/17/08	02/28/13	COA
General	2069 F-7	06/17/10	03/31/14	COA
Microelectronics Development Laboratory	2069 G-7	05/05/10	02/28/15	COA
General	2069 I-6	06/15/10	08/31/14	COA
General	2069 K-6	05/25/10	10/31/14	COA
Center for Integrated Nanotechnology	2238 A	05/25/2011	04/30/2016	COA
SURFACE DISCHARGE				
Pulsed Power Development Facilities (Discharge Plan)	DP-530	09/12/07	09/12/12	NMED
UNDERGROUND STORAGE TANKS				
20,000 gal oil storage tank	—[a,d]	07/01/11	06/30/12	NMED UST Bur.
20,000 gal oil storage tank	—[a,d]	07/01/11	06/30/12	NMED UST Bur.
ABOVEGROUND STORAGE TANKS				
2,000 gal storage tank	2599 [c]	07/01/11	06/30/12	NMED
5,000 gal storage tank	2600 [c]	07/01/11	06/30/12	NMED
5,500 gal storage tank	2601 [c]	07/01/11	06/30/12	NMED
STORM WATER				
National Pollution Discharge Elimination System "Multi-sector General" Permit	NMR05A961	10/15/09	active until terminated	EPA
Mixed Waste Landfill Cover	R15EZ15	05/18/06	active until terminated	EPA
TA-III Concrete Recycle/Borrow	R15F015	05/31/06	active until terminated	EPA
Dynamic Explosive Test Site Thunder Range	R15G365	06/03/08	12/31/13	EPA
TA II Escarpment	R10G475	08/12/08	active until terminated	EPA
Large Scale Liquid Natural Gas Pool Fire Experiment	R10G703	10/24/08	active until terminated	EPA
9940 Complex	R10HC79	09/01/09	active until terminated	EPA
Technical Capabilities Revitalization Phase II – Mechanical Shock Tube Project	R10GY81	04/01/10	active until terminated	EPA
National Solar Thermal Test	R10H628	12/07/10	active until terminated	EPA
ECOLOGICAL				
New Mexico Department of Game and Fish, for Scientific/Educational Purposes, Authorization for Taking of Protected Wildlife	2931	pending	Pending	New Mexico Department of Game and Fish
US Fish and Wildlife Special Purpose - Salvage	MB02907A-0	02/12/10	03/31/13	U.S. Fish and Wildlife Service

See notes at end of table.

Sandia National Laboratories/New Mexico
Active Environmental Permits as of 02/01/2012 (Continued)

Permit Type and/or Facility Name	Permit Number	Issue Date	Expiration Date	Regulatory Agency
RCRA				
Operating Permitfor the Hazardous Waste Management Facility (HWMF) Modules I – III	NM5890110518-1	8/6/92	08/06/02 [a, b]	NMED
Operating Permit Module IV	NM5890110518-I	8/26/93	09/20/02 [a, b]	EPA/NMED
Operating Permit for the Thermal Treatment Facility (TTF) Modules I - III	NM5890110518-2	12/4/94	12/04/04 [a, b]	NMED
General Part A Permit Application Storage and/or treatment of the hazardous component of mixed waste at seven waste management Units.	NM5890110518	First submitted 8/90, Rev. 10, 03/22/07	Pending Review (No expiration date)	NMED
Class III Permit Modification for the Management of Hazardous Remediation Waste in the Corrective Action Management Unit (CAMU), Technical Area III	NM5890110518	09/25/97	09/20/02 [a, b, c]	NMED
Post-Closure Care Permit for Chemical Waste Landfill	NM5890110518	06/02/11	06/02/21	NMED
Open Burn Permits				
Large Burn Pool	10-0056	05/01/12	05/31/12	COA
Thermal Treatment Facility	12-0008	01/01/12	12/31/12	COA
Thunder Range	12-0007	01/01/12	12/31/12	COA
Burn Site (Wood Crib)	12-0011	01/01/12	12/31/12	COA
Burn Site (Igloo)	12-0010	01/01/12	12/31/12	COA
Terminal Ballistics Facility – Propellant Applications	12-0005	01/01/12	12/31/12	COA
Terminal Ballistics Facility – Explosive Applications	12-0004	01/01/12	12/31/12	COA
Burn Site/Thermal Test Complex	12-0003	01/01/12	12/31/12	COA
DETS Complex – 9940	12-0009	01/01/12	12/31/12	COA
Terminal Ballistics Facility – Thermite Applications	12-0006	01/01/12	12/31/12	COA
9920 Test Site	12-0001	01/01/12	12/31/12	COA
AIR (Fugitive Dust Control and Demolition)				
Moving Vehicle Test	P08-0004	12/11/07	12/11/12	COA
Borrow Site Cell 1	P08-0005	12/10/07	12/10/12	COA
Thunder Range – Range 6	P08-0061	07/18/08	07/18/13	COA
Thunder Range – Range 1	P08-0062	08/07/08	08/07/13	COA
Thunder Range – Range 5	P08-0063	08/07/08	08/07/13	COA
Thunder Range – Range 2	P08-0064	08/07/08	08/07/13	COA
DETS Complex – 9940	P09-0014	07/08/09	07/08/14	COA
DETS – West	P09-0015	07/09/09	07/09/14	COA
DETS – East	P09-0016	07/09/09	07/09/14	COA
Thunder Range – Range 8	P09-0018	08/14/09	08/14/14	COA
Thunder Range – Range 7	P09-0021	12/22/09	12/22/14	COA
Thunder Range – Range 4	P09-0022	12/22/09	12/22/14	COA
DETS – South	P10-0018	11/19/10	11/19/15	COA
Borrow Pit Cell 3	10-683-4160	05/01/09	04/28/14	COA
Mixed Waste Landfill Cover	10-683-4161	05/01/09	04/28/14	COA
Large Scale LNG Test	1009-626-3732	05/05/07	05/05/12	COA
ARRA Projects at the National Solar Thermal Test Facility	10-564-4405	10/20/10	10/20/15	COA
Building 894 Cooling Tower Construction	10-819-4546	11/01/11	11/01/12	COA

See notes at end of table.

Sandia National Laboratories/New Mexico
Active Environmental Permits as of 02/01/2012 (Continued)

Permit Type and/or Facility Name	Permit Number	Issue Date	Expiration Date	Regulatory Agency
AIR (Permits & Registrations)				
Document Disintegrator Facility	144-M1	09/28/06	[d]	COA
Fire Laboratory used for the Authentication of Modeling and Experiments (FLAME)	196[e]	05/19/88	[d]	COA
Neutron Generator Facility(NGF)	374-M2	12/06/10	[d]	COA
Standby diesel generators (four)	402	05/07/96	[d]	COA
Radioactive & Mixed Waste Management Facility	415-M2-RV1	09/23/11	[d]	COA
Explosive Component Facility	547-RV1[e]	09/27/11	[d]	COA
Advanced Manufacturing Processes Laboratory HAP Registration	1888-RV1[e]	05/11/11	[d]	COA
Advanced Manufacturing Prototype Facility	1406-M1[e]	05/28/08	[d]	COA
Emergency Generator	924	5/5/98	[d]	COA
Processing and Environmental Technology Laboratory	925-M1	03/05/01	[d]	COA
Processing and Environmental Technology Laboratory	936-M1[e]	05/28/08	[d]	COA
Thermal Test Complex	1712	04/09/04	[d]	COA
Center for Integrated Nanotechnology	1725	10/11/04	[d]	COA
Microsystems and Engineering Sciences	1820-M1	03/08/11	[d]	COA
Weapons Integration Facility Boilers	1823[e]	04/01/08	[d]	COA
TA-1 Emergency Generator	1828	09/28/06	[d]	COA
SDF Emergency Generator	1900	01/11/08	[d]	COA
Miscellaneous HAP Registration	1901-RV1[e]	10/24/11	[d]	COA
Building 865 HAP Registration	1902[e]	05/28/08	[d]	COA
National Thermal Solar Test Facility HAP Registration	1903[e]	05/28/08	[d]	COA
Sled Track HAP Registration	1904[e]	02/01/10	[d]	COA
Building 869 HAP Registration	1905[e]	05/28/08	[d]	COA
Strategic Defense Facility Emergency Generator	1930	04/08/09	[d]	COA
Building 833 Emergency Generator	2097	09/01/10	[d]	COA
Building 802 Source Registration	2109[e]	10/28/10	[d]	COA
Building 804 Source Registration	2110[e]	11/08/10	[d]	COA
Building 810 Source Registration	2111[e]	11/08/10	[d]	COA
Building 823 Source Registration	2112[e]	11/08/10	[d]	COA
Building 840 Source Registration	2113[e]	11/08/10	[d]	COA
Building 857 Source Registration	2114[e]	11/08/10	[d]	COA
Building 860 Source Registration	2115[e]	11/08/10	[d]	COA
Building 890 Source Registration	2117[e]	11/29/10	[d]	COA
Building 887 Source Registration	2118[e]	11/29/10	[d]	COA
Building 891 Source Registration	2119[e]	11/29/10	[d]	COA
Building 892 Source Registration	2120[e]	11/29/10	[d]	COA
Building 894 Source Registration	2121[e]	11/29/10	[d]	COA
Building 897 Source Registration	2122[e]	11/29/10	[d]	COA
Building 895 Source Registration	2170[e]	09/27/11	[d]	COA
Building 960 Source Registration	2169[e]	09/27/11	[d]	COA
Building 800 Source Registration	2171[e]	09/27/11	[d]	COA
Building 981 Source Registration	2175[e]	09/22/11	[d]	COA

NOTES:

a Applied for permit or registration renewal, not yet received.
b Current permit remains in effect while application is under review.
c Application for modification of CAMU operating permit for post-closure care submitted in 4/19/04, undergoing NMED review.
d No expiration date
e Registration, no permit required.
f Number not known

COA = City of Albuquerque
EPA = U.S. Environmental Protection Agency
NMED = New Mexico Environment Department
RCRA = Resource Conservation and Recovery Act
UST Bur. = Underground Storage Tank Bureau

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact	**First Name:** *David*	**MI:**	**Last Name:** *Rast*
	Contact Title: *Mr.*		
	Phone: *505-845-5349*	**Ext.:**	**Email:** *david.rast@nnsa.doe.gov*
2. Facility Permit Contact Mailing Address	**Street or P.O. Box:** *P.O. Box 5400, US Department of Energy, Sandia Site Office*		
	City, Town, or Village: *Albuquerque*		
	State: *New Mexico*		
	Country: *USA*	**Zip Code:** *87185-5400*	
3. Operator Mailing Address and Telephone Number	**Street or P.O. Box:** *P.O. Box 5800, Sandia National Laboratories, Environment, Safety and Health Org.*		
	City, Town, or Village: *Albuquerque*		
	State: *NM*	**Phone:** *505-845-0011*	
	Country: *USA*	**Zip Code:** *87185-5800*	
4. Facility Existence Date	**Facility Existence Date (mm/dd/yyyy):** *11/19/1980 (date that regulated hazardous waste operations began)*		

5. Other Environmental Permits See Appendix A

A. Facility Type *(Enter code)*	B. Permit Number	C. Description

6. Nature of Business:

Sandia National Laboratories/New Mexico is a multi-program research and development (R&D) laboratory of the U.S. Department of Energy. Missions include R&D related to nuclear weapons, energy, and other programs of national interest.

7. Process Codes and Design Capacities – Enter information in the Section on Form Page 3.

PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item 8.

PROCESS DESIGN CAPACITY- For each code entered in Item 7.A; enter the capacity of the process.

AMOUNT - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.

UNIT OF MEASURE - For each amount entered in Item 7.B(1), enter the code in Item 7.B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.

PROCESS TOTAL NUMBER OF UNITS - Enter the total number of units for each corresponding process code.

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity
	Disposal	
D79	Underground Injection Well Disposal	Gallons; Kiters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-Feet; Hectares-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure Listed Below
	Storage	
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards; or Cubic Meters
S04	Surface Impoundment	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards; or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
	Treatment	
T01	Tank Treatment	Gallons Per Day; Liters Per Day
T02	Surface Impoundment	Gallons Per Day; Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons per Hour; Liters Per Hour; BTUs Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Metric Tons Per Hour; or Million BTU per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Short Tons Per Day; BTUs Per Hour; Gallons Per Day; Liters Per Hour; or Million BTU Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; BTUs Per Hour; or Million BTU Per Hour

Process Code	Process	Appropriate Unit of Measure for Process Design Capacity (for T81-T94)
	Treatment (Continued)	
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; Liters Per Hour; Kilograms Per Hour; or Million BTU Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, or Refining Furnace	
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR 260.10	
T94	Containment Building Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; BTU Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million BTU Per Hour
	Miscellaneous (Subpart X)	
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds per hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; BTU Per Hour; or Million BTU Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters

	X99	Other Subpart X	Any Unit of Measure Listed Below

Unit of Measure	Unit of Measure Code	Unit of Measure	Unit of Measure Code	Unit of Measure	Unit of Measure Code
Gallons	G	Short Tons Per Hour	D	Cubic Yards	Y
Gallons Per Hour	E	Short Tons Per Day	N	Cubic Meters	C
Gallons Per Day	U	Metric Tons Per Hour	W	Acres	B
Liters	L	Metric Tons Per Day	S	Acre-feet	A
Liters Per Hour	H	Pounds Per Hour	J	Hectares	Q
Liters Per Day	V	Kilograms Per Hour	X	Hectare-meter	F
		Million BTU Per Hour	X	BTU Per Hour	I

7. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 7 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons

Line Number		A. Process Code (from list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	B. PROCESS DESIGN CAPACITY (2) Unit of Measure	C. Process Total Number of Units	For Official Use Only					
X	1	S	0	2	533.788	G	001						
	1	*S*	*0*	*1*	*264,978.0*	*L*	*001*						
	2	*X*	*0*	*1*	*20.8*	*G*	*001*						
	3												
	4												
	5												
	6												
	7												
	8												
	9												
	0												
1	1												
1	2												
1	3												

NOTE: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the line sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in Item 8.

8. Other Processes (Follow instructions from Item 7 for D99, S99, T04, and X99 process codes)

Line Number (Enter #s in sequence with Item 7)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	B. PROCESS DESIGN CAPACITY (2) Unit of Measure	C. Process Total Number of Units	Description of Process
X	*2*	*T*	*0*	*4*	100.000	*U*	*001*	

9. Description of Hazardous Wastes – Enter information in the Sections on Form Page 5.

A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in Item 9.A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Item 9.A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE - For each quantity entered in Item 9.B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all listed hazardous wastes.

For non-listed waste: For each characteristic or toxic contaminant entered in Item 9.A, select the code(s) from the list of process codes contained in Items 7.A and 8.A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. Enter the first two as described above.
2. Enter "000" in the extreme right box of Item 9.D(1).
3. Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 9.E.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in Item 9.D(2) or in Item 9.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in Item 9.A. On the same line complete Items 9.B, 9.C, and 9.D by estimating the total annual quantity of the waste and describing all the processes to be used to store, treat, and/or dispose of the waste.
2. In Item 9.A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Item 9.D.2 on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING Item 9 (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES	
				(1) PROCESS CODES (Enter Code)	(2) PROCESS DESCRIPTION (If code is not entered in 9.D(1))

X	1	K	0	5	4	900	P	T	0	3	D	8	0					
X	2	D	0	0	2	400	P	T	0	3	D	8	0					
X	3	D	0	0	1	100	P	T	0	3	D	8	0					
X	4	D	0	0	2													Included With Above

9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
1	D001	40,000	K	S01				Hazardous Waste
2	D001	6,000	K	S01				Hazardous Waste
	D002							Included in above
3	D001	1,000	K	S01				Hazardous Waste
	D002		K	S01				Included in above
	D003		K	S01				Included in above
4	D001	6,000	K	S01				Hazardous Waste
	D002			S01				Included in above
	D008							Included in above
5	D001	3,000	K	S01				Hazardous Waste
	D003							Included in above
6	D001	15,000	K	S01				Hazardous Waste
	D003							Included in above
	D005							Included in above
	D006							Included in above
	D007							Included in above
	D008							Included in above
7	D001	8,000	K	S01				Hazardous Waste
	D003							Included in above
	D005							Included in above
	D007							Included in above
	D008							Included in above
8	D001	1,000	K	S01				Hazardous Waste
	D006							Included in above
9	D001	5,000	K	S01				Hazardous Waste
	D007							Included in above
10	D001	1,000	K	S01				Hazardous Waste
	D008							Included in above
11	D001	4,000	K	S01				Hazardous Waste
	D008							Included in above
	D018							Included in above
12	D001	500	K	S01				Hazardous Waste
	D008							Included in above
	D035							Included in above
13	D001	8,000	K	S01				Hazardous Waste
	D018							Included in above
14	D001	1,000	K	S01				Hazardous Waste

Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

ine umber	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
	D035							Included in above
15	D001	500	K	S01				Hazardous Waste
	D004							Included in above
16	D002	30,000	K	S01				Hazardous Waste
17	D002	1,000	K	S01				Hazardous Waste
	D003							Included in above
18	D002	500	K	S01				Hazardous Waste
	D007							Included in above
19	D003	5,000	K	S01				Hazardous Waste
20	D003	5,000	K	S01	X01			Hazardous Waste
	D001							Potentially Included in Above
	D011							Potentially Included in Above
	F003							Potentially Included in Above
	F005							Potentially Included in Above
21	D004	10,000	K	S01				Hazardous Waste
22	D004	2,000	K	S01				Hazardous Waste
	D005							Included in above
	D006							Included in above
	D007							Included in above
	D008							Included in above
	D011							Included in above
23	D004	1,000	K	S01				Hazardous Waste
	D006							Included in above
	D007							Included in above
	D008							Included in above
24	D005	10,000	K	S01				Hazardous Waste
25	D005	500	K	S01				Hazardous Waste
	D006							Included in above
	D007							Included in above
	D008							Included in above
26	D005	4,000	K	S01				Hazardous Waste
	D008							Included in above
27	D006	10,000	K	S01				Hazardous Waste
28	D006	5,000	K	S01				Hazardous Waste
	D008							Included in above
29	D007	10,000	K	S01				Hazardous Waste
30	D007	2,000	K	S01				Hazardous Waste
	D008							Included in above
31	D008	25,000	K	S01				Hazardous Waste
32	D008	3,000	K	S01				Hazardous Waste
	D018							Included in above
33	D009	7,000	K	S01				Hazardous Waste

9. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
34	D010	10,000	K	S01				Hazardous Waste
35	D011	15,000	K	S01				Hazardous Waste
36	D012	50	K	S01				Hazardous Waste
37	D013	50	K	S01				Hazardous Waste
38	D014	50	K	S01				Hazardous Waste
39	D015	50	K	S01				Hazardous Waste
40	D016	50	K	S01				Hazardous Waste
41	D017	50	K	S01				Hazardous Waste
42	D018	7,000	K	S01				Hazardous Waste
43	D019	600	K	S01				Hazardous Waste
44	D020	50	K	S01				Hazardous Waste
45	D021	100	K	S01				Hazardous Waste
46	D022	3,000	K	S01				Hazardous Waste
47	D023	50	K	S01				Hazardous Waste
48	D024	50	K	S01				Hazardous Waste
49	D025	50	K	S01				Hazardous Waste
50	D026	100	K	S01				Hazardous Waste
51	D027	100	K	S01				Hazardous Waste
52	D028	1,000	K	S01				Hazardous Waste
53	D029	100	K	S01				Hazardous Waste
54	D030	500	K	S01				Hazardous Waste
55	D031	50	K	S01				Hazardous Waste
56	D032	100	K	S01				Hazardous Waste
57	D033	100	K	S01				Hazardous Waste
58	D034	500	K	S01				Hazardous Waste
59	D035	15,000	K	S01				Hazardous Waste
60	D036	100	K	S01				Hazardous Waste
61	D037	100	K	S01				Hazardous Waste
62	D038	500	K	S01				Hazardous Waste
63	D039	2,000	K	S01				Hazardous Waste
64	D040	5,000	K	S01				Hazardous Waste
65	D041	50	K	S01				Hazardous Waste
66	D042	50	K	S01				Hazardous Waste
67	D043	50	K	S01				Hazardous Waste
68	F001	10,000	K	S01				Hazardous Waste
69	F002	6,000	K	S01				Hazardous Waste
70	F002	8,000	K	S01				Hazardous Waste
	F003							Included in above
71	F002	1,000	K	S01				Hazardous Waste
	F003							Included in above
	D001							Included in above
72	F002	1,000	K	S01				Hazardous Waste

Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
	F003							Included in above
	F005							Included in above
	D001							Included in above
73	F002	50	K	S01				Hazardous Waste
	F003							Included in above
	D040							Included in above
74	F002	1,000	K	S01				Hazardous Waste
	D001							Included in above
75	F002	200	K	S01				Hazardous Waste
	D006							Included in above
	D007							Included in above
76	F002	300	K	S01				Hazardous Waste
	D008							Included in above
77	F002	400	K	S01				Hazardous Waste
	D019							Included in above
	D040							Included in above
78	F002	2,000	K	S01				Hazardous Waste
	D039							Included in above
79	F003	12,000	K	S01				Hazardous Waste
80	F003	10,000	K	S01				Hazardous Waste
	D001							Included in above
81	F003	10	K	S01				Hazardous Waste
	D009							Included in above
82	F004	1,000	K	S01				Hazardous Waste
83	F005	12,000	K	S01				Hazardous Waste
84	F005	1,000	K	S01				Hazardous Waste
	F003							Included in above
	D001							Included in above
	D007							Included in above
	D035							Included in above
85	F005	1,000	K	S01				Hazardous Waste
	F003							Included in above
	D001							Included in above
	D018							Included in above
	D035							Included in above
86	F005	5,000	K	S01				Hazardous Waste
	F003							Included in above
	D001							Included in above
87	F005	500	K	S01				Hazardous Waste
	F003							Included in above
	D001							Included in above
	D035							Included in above

Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
88	F006	100	K	S01				Hazardous Waste
89	F007	2,000	K	S01				Hazardous Waste
90	F007	2,000	K	S01				Hazardous Waste
	D002							Included in above
	D003							Included in above
	D006							Included in above
91	F007	1,000	K	S01				Hazardous Waste
	D002							Included in above
	D003							Included in above
	D011							Included in above
92	F007	1,000	K	S01				Hazardous Waste
93	F008	100	K	S01				Hazardous Waste
94	F009	100	K	S01				Hazardous Waste
95	F010	100	K	S01				Hazardous Waste
96	F011	100	K	S01				Hazardous Waste
97	F027	150	K	S01				Hazardous Waste
98	F039	200,000	K	S01				Hazardous Waste
99	P001	25	K	S01				Hazardous Waste
100	P002	10	K	S01				Hazardous Waste
101	P003	10	K	S01				Hazardous Waste
102	P004	10	K	S01				Hazardous Waste
103	P005	25	K	S01				Hazardous Waste
104	P006	10	K	S01				Hazardous Waste
105	P007	10	K	S01				Hazardous Waste
106	P008	10	K	S01				Hazardous Waste
107	P009	10	K	S01				Hazardous Waste
108	P010	10	K	S01				Hazardous Waste
109	P011	25	K	S01				Hazardous Waste
110	P012	10	K	S01				Hazardous Waste
111	P013	10	K	S01				Hazardous Waste
112	P014	10	K	S01				Hazardous Waste
113	P015	10	K	S01				Hazardous Waste
114	P016	10	K	S01				Hazardous Waste
115	P017	10	K	S01				Hazardous Waste
116	P018	10	K	S01				Hazardous Waste
117	P020	10	K	S01				Hazardous Waste
118	P021	10	K	S01				Hazardous Waste
119	P022	100	K	S01				Hazardous Waste
120	P023	10	K	S01				Hazardous Waste
121	P024	10	K	S01				Hazardous Waste
122	P026	10	K	S01				Hazardous Waste
123	P027	10	K	S01				Hazardous Waste

Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
124	P028	10	K	S01				Hazardous Waste
125	P029	1,500	K	S01				Hazardous Waste
126	P030	250	K	S01				Hazardous Waste
127	P031	10	K	S01				Hazardous Waste
128	P033	10	K	S01				Hazardous Waste
129	P034	10	K	S01				Hazardous Waste
130	P036	10	K	S01				Hazardous Waste
131	P037	10	K	S01				Hazardous Waste
132	P038	10	K	S01				Hazardous Waste
133	P039	10	K	S01				Hazardous Waste
134	P040	10	K	S01				Hazardous Waste
135	P041	10	K	S01				Hazardous Waste
136	P042	10	K	S01				Hazardous Waste
137	P043	10	K	S01				Hazardous Waste
138	P044	10	K	S01				Hazardous Waste
139	P045	10	K	S01				Hazardous Waste
140	P046	10	K	S01				Hazardous Waste
142	P048	10	K	S01				Hazardous Waste
143	P049	10	K	S01				Hazardous Waste
144	P050	10	K	S01				Hazardous Waste
145	P051	10	K	S01				Hazardous Waste
146	P054	10	K	01				Hazardous Waste
147	P056	10	K	S01				Hazardous Waste
148	P057	10	K	S01				Hazardous Waste
149	P058	10	K	S01				Hazardous Waste
150	P059	10	K	S01				Hazardous Waste
151	P060	10	K	S01				Hazardous Waste
152	P062	10	K	S01				Hazardous Waste
153	P063	10	K	S01				Hazardous Waste
154	P064	150	K	S01				Hazardous Waste
155	P065	10	K	S01				Hazardous Waste
156	P066	10	K	S01				Hazardous Waste
157	P067	10	K	S01				Hazardous Waste
158	P068	10	K	S01				Hazardous Waste
159	P069	10	K	S01				Hazardous Waste
160	P070	10	K	S01				Hazardous Waste
161	P071	10	K	S01				Hazardous Waste
162	P072	10	K	S01				Hazardous Waste
163	P073	10	K	S01				Hazardous Waste
164	P074	10	K	S01				Hazardous Waste
165	P075	10	K	S01				Hazardous Waste
166	P076	10	K	S01				Hazardous Waste

Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
167	P077	10	K	S01				Hazardous Waste
168	P078	30	K	S01				Hazardous Waste
169	P081	10	K	S01				Hazardous Waste
170	P082	10	K	S01				Hazardous Waste
171	P084	10	K	S01				Hazardous Waste
172	P085	10	K	S01				Hazardous Waste
173	P087	50	K	S01				Hazardous Waste
174	P088	10	K	S01				Hazardous Waste
175	P089	10	K	S01				Hazardous Waste
176	P092	10	K	S01				Hazardous Waste
177	P093	10	K	S01				Hazardous Waste
178	P094	10	K	S01				Hazardous Waste
179	P095	10	K	S01				Hazardous Waste
180	P096	10	K	S01				Hazardous Waste
181	P097	10	K	S01				Hazardous Waste
182	P098	50	K	S01				Hazardous Waste
183	P099	10	K	S01				Hazardous Waste
184	P101	10	K	S01				Hazardous Waste
185	P102	10	K	S01				Hazardous Waste
186	P103	10	K	S01				Hazardous Waste
187	P104	100	K	S01				Hazardous Waste
188	P105	10	K	S01				Hazardous Waste
189	P106	1,000	K	S01				Hazardous Waste
190	P108	10	K	S01				Hazardous Waste
191	P109	10	K	S01				Hazardous Waste
192	P110	10	K	S01				Hazardous Waste
193	P111	10	K	S01				Hazardous Waste
194	P112	10	K	S01				Hazardous Waste
195	P113	50	K	S01				Hazardous Waste
196	P114	10	K	S01				Hazardous Waste
197	P115	10	K	S01				Hazardous Waste
198	P116	10	K	S01				Hazardous Waste
199	P118	10	K	S01				Hazardous Waste
200	P119	10	K	S01				Hazardous Waste
201	P120	25	K	S01				Hazardous Waste
202	P121	10	K	S01				Hazardous Waste
203	P122	10	K	S01				Hazardous Waste
204	P123	10	K	S01				Hazardous Waste
205	U001	10	K	S01				Hazardous Waste
206	U002	1,000	K	S01				Hazardous Waste
207	U003	250	K	S01				Hazardous Waste
208	U004	10	K	S01				Hazardous Waste

Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
209	U005	10	K	S01				Hazardous Waste
210	U006	10	K	S01				Hazardous Waste
211	U007	10	K	S01				Hazardous Waste
212	U008	100	K	S01				Hazardous Waste
213	U009	10	K	S01				Hazardous Waste
214	U010	10	K	S01				Hazardous Waste
215	U011	10	K	S01				Hazardous Waste
216	U012	25	K	S01				Hazardous Waste
217	U014	10	K	S01				Hazardous Waste
218	U015	10	K	S01				Hazardous Waste
219	U016	10	K	S01				Hazardous Waste
220	U017	10	K	S01				Hazardous Waste
221	U018	10	K	S01				Hazardous Waste
222	U019	150	K	S01				Hazardous Waste
223	U020	10	K	S01				Hazardous Waste
224	U021	10	K	S01				Hazardous Waste
225	U022	10	K	S01				Hazardous Waste
226	U023	10	K	S01				Hazardous Waste
27	U024	10	K	S01				Hazardous Waste
228	U025	10	K	S01				Hazardous Waste
229	U026	10	K	S01				Hazardous Waste
230	U027	10	K	S01				Hazardous Waste
231	U028	5,000	K	S01				Hazardous Waste
232	U029	10	K	S01				Hazardous Waste
233	U030	10	K	S01				Hazardous Waste
234	U031	500	K	S01				Hazardous Waste
235	U032	500	K	S01				Hazardous Waste
236	U033	10	K	S01				Hazardous Waste
237	U034	10	K	S01				Hazardous Waste
238	U035	50	K	S01				Hazardous Waste
239	U036	500	K	S01				Hazardous Waste
240	U037	50	K	S01				Hazardous Waste
241	U038	10	K	S01				Hazardous Waste
242	U039	10	K	S01				Hazardous Waste
243	U041	10	K	S01				Hazardous Waste
244	U042	10	K	S01				Hazardous Waste
245	U043	10	K	S01				Hazardous Waste
246	U044	150	K	S01				Hazardous Waste
247	U045	25	K	S01				Hazardous Waste
48	U046	10	K	S01				Hazardous Waste
249	U047	10	K	S01				Hazardous Waste
250	U048	10	K	S01				Hazardous Waste

Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
251	U049	10	K	S01				Hazardous Waste
252	U050	10	K	S01				Hazardous Waste
253	U051	75	K	S01				Hazardous Waste
254	U052	25	K	S01				Hazardous Waste
255	U053	10	K	S01				Hazardous Waste
256	U055	25	K	S01				Hazardous Waste
257	U056	250	K	S01				Hazardous Waste
258	U057	25	K	S01				Hazardous Waste
259	U058	10	K	S01				Hazardous Waste
260	U059	10	K	S01				Hazardous Waste
261	U060	10	K	S01				Hazardous Waste
262	U061	10	K	S01				Hazardous Waste
263	U062	10	K	S01				Hazardous Waste
264	U063	10	K	S01				Hazardous Waste
265	U064	10	K	S01				Hazardous Waste
266	U066	10	K	S01				Hazardous Waste
267	U067	25	K	S01				Hazardous Waste
268	U068	10	K	S01				Hazardous Waste
269	U069	100	K	S01				Hazardous Waste
270	U070	50	K	S01				Hazardous Waste
271	U071	10	K	S01				Hazardous Waste
272	U072	10	K	S01				Hazardous Waste
273	U073	10	K	S01				Hazardous Waste
274	U074	10	K	S01				Hazardous Waste
275	U075	200	K	S01				Hazardous Waste
276	U076	10	K	S01				Hazardous Waste
277	U077	200	K	S01				Hazardous Waste
278	U078	50	K	S01				Hazardous Waste
279	U079	50	K	S01				Hazardous Waste
280	U080	1,000	K	S01				Hazardous Waste
281	U081	10	K	S01				Hazardous Waste
282	U082	10	K	S01				Hazardous Waste
283	U083	10	K	S01				Hazardous Waste
284	U084	10	K	S01				Hazardous Waste
285	U085	10	K	S01				Hazardous Waste
286	U086	10	K	S01				Hazardous Waste
287	U087	10	K	S01				Hazardous Waste
288	U088	10	K	S01				Hazardous Waste
289	U089	10	K	S01				Hazardous Waste
290	U090	10	K	S01				Hazardous Waste
291	U091	10	K	S01				Hazardous Waste
292	U092	10	K	S01				Hazardous Waste

Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
293	U093	10	K	S01				Hazardous Waste
294	U094	10	K	S01				Hazardous Waste
295	U095	10	K	S01				Hazardous Waste
296	U096	10	K	S01				Hazardous Waste
297	U097	10	K	S01				Hazardous Waste
298	U098	10	K	S01				Hazardous Waste
299	U099	10	K	S01				Hazardous Waste
300	U101	10	K	S01				Hazardous Waste
301	U102	20	K	S01				Hazardous Waste
302	U103	10	K	S01				Hazardous Waste
303	U105	10	K	S01				Hazardous Waste
304	U106	10	K	S01				Hazardous Waste
305	U107	50	K	S01				Hazardous Waste
306	U108	50	K	S01				Hazardous Waste
307	U109	10	K	S01				Hazardous Waste
308	U110	10	K	S01				Hazardous Waste
309	U111	10	K	S01				Hazardous Waste
310	U112	1,000	K	S01				Hazardous Waste
11	U113	10	K	S01				Hazardous Waste
312	U114	10	K	S01				Hazardous Waste
131	U115	10	K	S01				Hazardous Waste
314	U116	10	K	S01				Hazardous Waste
315	U117	30	K	S01				Hazardous Waste
316	U118	10	K	S01				Hazardous Waste
317	U119	10	K	S01				Hazardous Waste
318	U120	10	K	S01				Hazardous Waste
319	U121	200	K	S01				Hazardous Waste
320	U122	500	K	S01				Hazardous Waste
321	U123	35	K	S01				Hazardous Waste
322	U124	10	K	S01				Hazardous Waste
323	U125	10	K	S01				Hazardous Waste
324	U126	10	K	S01				Hazardous Waste
325	U127	10	K	S01				Hazardous Waste
326	U128	10	K	S01				Hazardous Waste
327	U129	10	K	S01				Hazardous Waste
328	U130	10	K	S01				Hazardous Waste
329	U131	50	K	S01				Hazardous Waste
330	U132	25	K	S01				Hazardous Waste
331	U133	250	K	S01				Hazardous Waste
32	U134	2,000	K	S01				Hazardous Waste
333	U134	100	K	S01				Hazardous Waste
334	D002							Included in above

8. Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
335	U135	75	K	S01				Hazardous Waste
336	U136	10	K	S01				Hazardous Waste
337	U137	10	K	S01				Hazardous Waste
338	U138	10	K	S01				Hazardous Waste
339	U140	50	K	S01				Hazardous Waste
340	U141	10	K	S01				Hazardous Waste
341	U142	10	K	S01				Hazardous Waste
342	U143	10	K	S01				Hazardous Waste
343	U144	300	K	S01				Hazardous Waste
344	U145	10	K	S01				Hazardous Waste
345	U146	10	K	S01				Hazardous Waste
346	U147	100	K	S01				Hazardous Waste
347	U148	10	K	S01				Hazardous Waste
348	U149	10	K	S01				Hazardous Waste
349	U150	10	K	S01				Hazardous Waste
350	U151	1,000	K	S01				Hazardous Waste
351	U151	300	K	S01				Hazardous Waste
	D002							Included in above
352	U151	100	K	S01				Hazardous Waste
	D009							Included in above
353	U152	10	K	S01				Hazardous Waste
354	U153	10	K	S01				Hazardous Waste
355	U154	500	K	S01				Hazardous Waste
356	U155	10	K	S01				Hazardous Waste
357	U156	10	K	S01				Hazardous Waste
358	U157	10	K	S01				Hazardous Waste
359	U158	25	K	S01				Hazardous Waste
360	U159	125	K	S01				Hazardous Waste
361	U160	50	K	S01				Hazardous Waste
362	U161	50	K	S01				Hazardous Waste
363	U162	100	K	S01				Hazardous Waste
364	U163	10	K	S01				Hazardous Waste
365	U164	10	K	S01				Hazardous Waste
366	U165	1,000	K	S01				Hazardous Waste
367	U166	10	K	S01				Hazardous Waste
368	U167	10	K	S01				Hazardous Waste
369	U168	10	K	S01				Hazardous Waste
370	U169	200	K	S01				Hazardous Waste
371	U170	10	K	S01				Hazardous Waste
372	U171	25	K	S01				Hazardous Waste
373	U172	10	K	S01				Hazardous Waste
374	U173	10	K	S01				Hazardous Waste

Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
375	U174	10	K	S01				Hazardous Waste
376	U176	10	K	S01				Hazardous Waste
377	U177	50	K	S01				Hazardous Waste
378	U178	50	K	S01				Hazardous Waste
379	U179	100	K	S01				Hazardous Waste
380	U180	100	K	S01				Hazardous Waste
381	U181	50	K	S01				Hazardous Waste
382	U182	25	K	S01				Hazardous Waste
383	U183	25	K	S01				Hazardous Waste
384	U184	25	K	S01				Hazardous Waste
385	U185	25	K	S01				Hazardous Waste
386	U186	50	K	S01				Hazardous Waste
387	U187	10	K	S01				Hazardous Waste
388	U188	25	K	S01				Hazardous Waste
389	U189	10	K	S01				Hazardous Waste
390	U190	10	K	S01				Hazardous Waste
391	U191	10	K	S01				Hazardous Waste
392	U192	10	K	S01				Hazardous Waste
393	U193	10	K	S01				Hazardous Waste
394	U194	10	K	S01				Hazardous Waste
395	U196	25	K	S01				Hazardous Waste
396	U197	10	K	S01				Hazardous Waste
397	U200	10	K	S01				Hazardous Waste
398	U201	25	K	S01				Hazardous Waste
399	U202	10	K	S01				Hazardous Waste
400	U203	10	K	S01				Hazardous Waste
401	U204	25	K	S01				Hazardous Waste
402	U205	10	K	S01				Hazardous Waste
403	U206	10	K	S01				Hazardous Waste
404	U207	10	K	S01				Hazardous Waste
405	U208	10	K	S01				Hazardous Waste
406	U209	20	K	S01				Hazardous Waste
407	U210	25	K	S01				Hazardous Waste
408	U211	100	K	S01				Hazardous Waste
409	U213	350	K	S01				Hazardous Waste
410	U214	10	K	S01				Hazardous Waste
411	U215	10	K	S01				Hazardous Waste
412	U216	10	K	S01				Hazardous Waste
413	U217	10	K	S01				Hazardous Waste
414	U218	10	K	S01				Hazardous Waste
415	U219	25	K	S01				Hazardous Waste
416	U220	500	K	S01				Hazardous Waste

Description of Hazardous Wastes *(Continued. Use additional sheet(s) as necessary; number pages as 5a, etc.)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Qty of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES				
				(1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
417	U221	10	K	S01				Hazardous Waste
418	U222	10	K	S01				Hazardous Waste
419	U223	1,000	K	S01				Hazardous Waste
420	U225	50	K	S01				Hazardous Waste
421	U226	4,000	K	S01				Hazardous Waste
422	U227	1,500	K	S01				Hazardous Waste
423	U228	1,000	K	S01				Hazardous Waste
424	U234	10	K	S01				Hazardous Waste
425	U235	10	K	S01				Hazardous Waste
426	U236	10	K	S01				Hazardous Waste
427	U237	10	K	S01				Hazardous Waste
428	U238	10	K	S01				Hazardous Waste
429	U239	250	K	S01				Hazardous Waste
430	U240	10	K	S01				Hazardous Waste
431	U243	10	K	S01				Hazardous Waste
432	U244	10	K	S01				Hazardous Waste
433	U246	10	K	S01				Hazardous Waste
434	U247	10	K	S01				Hazardous Waste
435	U248	10	K	S01				Hazardous Waste
436	U249	10	K	S01				Hazardous Waste
437	U328	10	K	S01				Hazardous Waste
438	U353	10	K	S01				Hazardous Waste
439	U359	100	K	S01				Hazardous Waste
141	P047	10	K	S01				Hazardous Waste
440	U404	10	K	S01				Hazardous Waste

10. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

11. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

12. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

3. Comments

Facility latitude: 35 degrees, 01 minutes, 45 seconds North

Facility longitude: 106 degrees, 32 minutes, 30 seconds West

RCRA
Hazardous Waste Part A
Permit Application
June, 1993

Sandia National Laboratories
Albuquerque, New Mexico

Prepared for:
Sandia National Laboratories
Department 7042
P.O. Box 5800
Albuquerque, New Mexico

Use only the shaded areas only

EPA Regional Use Only		For State Use Only
Date Received Month Day Year	United States Environmental Protection Agency Washington, DC 20460	

Hazardous Waste Permit Application Part A

(Read the Instructions before starting)

I. ID Number(s)

A. EPA ID Number	B. Secondary ID Number *(if applicable)*
NM5890110518	

II. Name of Facility

SANDIA NATIONAL LABORATORIES

III. Facility Location *(Physical address not P.O. Box or Route Number)*

A. Street	
1515 EUBANK SE	
Street *(continued)*	
City or Town	State / ZIP Code
ALBUQUERQUE	NM 87123 -
County Code *(if known)* / County Name	
BERNALILLO	

B. Land Type	C. Geographic Location		D. Facility Existence Date
(enter code)	*LATITUDE (degrees, minutes, & seconds)*	*LONGITUDE (degrees, minutes, & seconds)*	Month Day Year
F	350145N	1063230W	09 1945

IV. Facility Mailing Address

Street or P.O. Box	
PO BOX 5400 KAO	
City or Town	State / ZIP Code
ALBUQUERQUE	NM 87185 -

V. Facility Contact *(Person to be contacted regarding waste activities at facility)*

Name *(last)*	*(first)*
CARLSON	KATHLEEN
Job Title	Phone Number *(area code and number)*
MANAGER KAO	505-845-4094

VI. Facility Contact Address *(See instructions)*

A. Contact Address Location / Mailing	B. Street or P.O. Box
X	PO BOX 5400
City or Town	State / ZIP Code
ALBUQUERQUE	NM 87185 -

Site I.D. Number (enter from page 1): NM589011051 8

Secondary ID Number (enter from page 1):

VII. Operator Information (see instructions)

Name of Operator: SANDIA NATIONAL LABORATORIES

Street or P.O. Box: PO BOX 5800 DEPARTMENT 7042

City or Town: ALBUQUERQUE

State: NM

ZIP Code: 87185-

Phone Number (area code and number): 505-848-0491

B. Operator Type: O

C. Change of Operator Indicator: Yes [ ] No [X]

Date Changed: Month / Day / Year

VIII. Facility Owner (see instructions)

A. Name of Facility's Legal Owner: US DEPARTMENT OF ENERGY

Street or P.O. Box: PO BOX 5400 KAO

City or Town: ALBUQUERQUE

State: NM

ZIP Code: 87185-

Phone Number (area code and number): 505-845-6671

B. Owner Type: F

C. Change of Owner Indicator: Yes [ ] No [X]

Date Changed: Month / Day / Year

IX. SIC Codes (4-digit, in order of significance)

Primary	(description)	Secondary	(description)
9711	National Security	7391	Research and Development
Secondary	(description)	Secondary	(description)

X. Other Environmental Permits (see instructions)

A. Permit Type (enter code)	B. Permit Number	C. Description
E	2069A-2	Albuquerque Wastewater Discharge
E	2069C-3	Albuquerque Wastewater Discharge**
E	2069D-3	Albuquerque Wastewater Discharge
E	2069E-2	Albuquerque Wastewater Discharge**
E	2069F-2	Albuquerque Wastewater Discharge
E	2069G	Albuquerque Wastewater Discharge
E	2069H	Albuquerque Wastewater Discharge
E	2069I	Albuquerque Wastewater Discharge
E	2069K	Albuquerque Wastewater Discharge

** Inactive

Continued on additional sheet

Item X. Other Environmental Permits (Continued)

Permit Type	Permit Number	Description
E	DP-530	New Mexico Water Quality Act Discharge
E	DP-771	New Mexico Water Quality Act Discharge

[illegible] Number (enter from page 1)

N M 5 8 9 0 1 1 0 5 1 8

[illegible] ID Number (enter from page 1)

[illegible] of Business (provide a brief description)

Sandia National Laboratories administers energy- and weapons-related research and development programs for the U.S. Department of Energy (DOE). These programs involve applied research on various aspects of the material and physical phenomena associated with fossil energy conversion, weapon systems development, and nuclear power generation.

XII. Process - Codes and Design Capacities

A. PROCESS CODE – Enter the code from the list of process codes below [illegible] to be used at the facility. Twelve lines are provided for entering codes. If more lines are nee[illegible] paper with the additional information. If a process will be used that is not included in the list of co[illegible] process (including its design capacity) in the space provided in Item XIII.

B. PROCESS DESIGN CAPACITY – For each code entered in column A [illegible]

1. **AMOUNT** – Enter the amount. In a case where design capacity [illegible] closure/post-closure or enforcement action) enter the total amount of waste for that process [illegible]
2. **UNIT OF MEASURE** – For each amount entered in column B(1), [illegible] measure codes below that describes the unit of measure used. Only the units of measure [illegible]

C. PROCESS TOTAL NUMBER OF UNITS – Enter the total number of units [illegible] process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	DISPOSAL:	
D79	INJECTION WELL	GALLONS; LITERS; GALLONS PER DAY; OR LITERS PER DAY
D80	LANDFILL	ACRE-FEET OR HECTARE-METER
D81	LAND APPLICATION	ACRES OR HECTARES
D82	OCEAN DISPOSAL	GALLONS PER DAY OR LITERS PER DAY
D83	SURFACE IMPOUNDMENT	GALLONS OR LITERS
	STORAGE:	
S01	CONTAINER (barrel, drum, etc.)	GALLONS OR LITERS
S02	TANK	GALLONS OR LITERS
S03	WASTE PILE	CUBIC YARDS OR CUBIC METERS
S04	SURFACE IMPOUNDMENT	GALLONS OR LITERS
	TREATMENT:	
T01	TANK	GALLONS PER DAY OR LITERS PER DAY
T02	SURFACE IMPOUNDMENT	GALLONS PER DAY OR LITERS PER DAY
T03	INCINERATOR	SHORT TONS PER HOUR; METRIC TONS PER HOUR; GALLONS PER HOUR; LITERS PER HOUR; OR BTU'S PER HOUR
T04	OTHER TREATMENT (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundment or incinerators. Describe the processes in the space provided in Item XIII.)	GALLONS PER DAY; LITERS PER DAY; POUNDS PER HOUR; SHORT TONS PER HOUR; KILOGRAMS PER HOUR; METRIC TONS PER DAY; METRIC TONS PER HOUR; OR SHORT TONS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
GALLONS PER HOUR	E
GALLONS PER DAY	U
LITERS	L
LITERS PER HOUR	H
LITERS PER DAY	V
SHORT TONS PER HOUR	D
METRIC TONS PER HOUR	W
SHORT TONS PER DAY	N
METRIC TONS PER DAY	S
POUNDS PER HOUR	J
KILOGRAMS PER HOUR	R
CUBIC YARDS	Y
CUBIC METERS	C
ACRES	B
ACRE-FEET	A
HECTARES	Q
HECTARE-METER	F
BTU's PER HOUR	K

Please print or type in the UNSHADED areas only (12 characters per inch)

EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
N M 5 8 9 0 1 1 0 5 1 8	

XII. Process - Codes and Design Capacities (continued)

EXAMPLE FOR COMPLETING ITEM XII (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

Line Number		A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	C. PROCESS TOTAL NUMBER OF UNITS	FOR OFFICIAL USE ONLY
X	1	S 0 2	600	G	0 0 2	
X	2	T 0 3	20	E	0 0 1	
	1	S 0 1	264,978	L	0 0 1	
	2	T 0 4	100	V	0 0 1	
	3					
	4					
	5					
	6					
	7					
	8					
	9					
1	0					
1	1					
1	2					

NOTE: If you need to list more than 12 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for additional treatment processes in Item XIII.

XIII. Additional Treatment Processes (follow instructions from Item XII)

Line Number (enter numbers in sequence with Item XII)	A. PROCESS CODE	B. TREATMENT PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. TREATMENT PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	C. PROCESS TOTAL NUMBER OF UNITS	D. DESCRIPTION OF PROCESS
	T 0 4				
	T 0 4				
	T 0 4				
	T 0 4				

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only.

EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
X M 5 8 9 0 1 1 0 9 5 1 8	

XIV. Description of Hazardous Wastes

A. EPA HAZARDOUS WASTE NUMBER - *Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.*

B. ESTIMATED ANNUAL QUANTITY - *For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.*

C. UNIT OF MEASURE - *For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:*

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that processes that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. *Enter the first two as described above.*
2. *Enter "000" in the extreme right box of Item XIV-D(1).*
3. *Enter in the space provided on page 7, Item XIV-E, the line number and the additional code(s).*

2. PROCESS DESCRIPTION : *If a code is not listed for a process that will be used, describe the process in the space provided on the form (D.(2)).*

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. *Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.*
2. *In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.*
3. *Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.*

EXAMPLE FOR COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA HAZARD WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESS (1) PROCESS CODES (enter)									D. PROCESS (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

EPA I.D. Number (enter from Page 1) N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1)

V. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
1	D001	40,000	K	S01			Hazardous Waste
2	D001	6,000	K	S01			Hazardous Waste
3	D002						Included in above
4	D001	1,000	K	S01			Hazardous Waste
5	D002		K	S01			Included in above
6	D003		K	S01			Included in above
7	D001	6,000	K	S01			Hazardous Waste
8	D002						Included in above
9	D008						Included in above
10	D001	3,000	K	S01			Hazardous Waste
11	D003						Included in above
12	D001	1,000	K	S01			Hazardous Waste
13	D003						Included in above
14	D005						Included in above
15	D006						Included in above
16	D007						Included in above
17	D008						Included in above
18	D001	8,000	K	S01			Hazardous Waste
19	D003						Included in above
20	D005						Included in above
21	D007						Included in above
22	D008						Included in above
23	D001	1,000	K	S01			Hazardous Waste
24	D006						Included in above
25	D001	5,000	K	S01			Hazardous Waste
26	D007						Included in above
27	D001	1,000	K	S01			Hazardous Waste
28	D008						Included in above
29	D001	4,000	K	S01			Hazardous Waste
30	D008						Included in above
31	D018						Included in above
32	D001	500	K	S01			Hazardous Waste
33	D008						Included in above
34	D035						Included in above

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

IV. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
35	D001	8,000	K	S01			Hazardous Waste
36	D018						Included in above
37	D001	1,000	K	S01			Hazardous Waste
38	D035						Included in above
39	D001	100	K	S01			Hazardous Waste
40	D004						Included in above
41	D002	30,000	K	S01			Hazardous Waste
42	D002	1,000	K	S01			Hazardous Waste
43	D003						Included in above
44	D002	500	K	S01			Hazardous Waste
45	D007						Included in above
46	D003	5,000	K	S01			Hazardous Waste
47	D003	5,000	K	S01	T04		Hazardous Waste
48	D001						Potentially Included in Above
49	D011						Potentially Included in Above
50	F003						Potentially Included in Above
51	F005						Potentially Included in Above
52	D004	10,000	K	S01			Hazardous Waste
53	D004	2,000	K	S01			Hazardous Waste
54	D005						Included in above
55	D006						Included in above
56	D007						Included in above
57	D008						Included in above
58	D011						Included in above
59	D004	1,000	K	S01			Hazardous Waste
60	D006						Included in above
61	D007						Included in above
62	D008						Included in above
63	D005	10,000	K	S01			Hazardous Waste
64	D005	500	K	S01			Hazardous Waste
65	D006						Included in above

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

V. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D(1))
66	D007						Included in above
67	D008						Included in above
68	D005	4,000	K	S01			Hazardous Waste
69	D008						Included in above
70	D006	10,000	K	S01			Hazardous Waste
71	D006	5,000	K	S01			Hazardous Waste
72	D008						Included in above
73	D007	10,000	K	S01			Hazardous Waste
74	D007	2,000	K	S01			Hazardous Waste
75	D008						Included in above
76	D008	17,000	K	S01			Hazardous Waste
77	D008	3,000	K	S01			Hazardous Waste
78	D018						Included in above
79	D009	7,000	K	S01			Hazardous Waste
80	D010	1,000	K	S01			Hazardous Waste
81	D011	10,000	K	S01			Hazardous Waste
82	D012	50	K	S01			Hazardous Waste
83	D013	50	K	S01			Hazardous Waste
84	D014	50	K	S01			Hazardous Waste
85	D015	50	K	S01			Hazardous Waste
86	D016	50	K	S01			Hazardous Waste
87	D017	50	K	S01			Hazardous Waste
88	D018	7,000	K	S01			Hazardous Waste
89	D019	200	K	S01			Hazardous Waste
90	D020	50	K	S01			Hazardous Waste
91	D021	100	K	S01			Hazardous Waste
92	D022	1,000	K	S01			Hazardous Waste
93	D023	50	K	S01			Hazardous Waste
94	D024	50	K	S01			Hazardous Waste
95	D025	50	K	S01			Hazardous Waste
96	D026	100	K	S01			Hazardous Waste
97	D027	100	K	S01			Hazardous Waste
98	D028	1,000	K	S01			Hazardous Waste
99	D029	100	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1): [ ]

IV. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D(1))
100	D030	500	K	S01			Hazardous Waste
101	D031	50	K	S01			Hazardous Waste
102	D032	100	K	S01			Hazardous Waste
103	D033	100	K	S01			Hazardous Waste
104	D034	500	K	S01			Hazardous Waste
105	D035	15,000	K	S01			Hazardous Waste
106	D036	100	K	S01			Hazardous Waste
107	D037	100	K	S01			Hazardous Waste
108	D038	100	K	S01			Hazardous Waste
109	D039	2,000	K	S01			Hazardous Waste
110	D040	1,000	K	S01			Hazardous Waste
111	D041	50	K	S01			Hazardous Waste
112	D042	50	K	S01			Hazardous Waste
113	D043	50	K	S01			Hazardous Waste
114	F001	10,000	K	S01			Hazardous Waste
115	F002	6,000	K	S01			Hazardous Waste
116	F002	8,000	K	S01			Hazardous Waste
117	F003						Included in above
118	F002	1,000	K	S01			Hazardous Waste
119	F003						Included in above
120	D001						Included in above
121	F002	1,000	K	S01			Hazardous Waste
122	F003						Included in above
123	F005						Included in above
124	D001						Included in above
125	F002	50	K	S01			Hazardous Waste
126	F003						Included in above
127	D040						Included in above
128	F002	1,000	K	S01			Hazardous Waste
129	D001						Included in above
130	F002	200	K	S01			Hazardous Waste
131	D006						Included in above
132	D007						Included in above
133	F002	300	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1)

V. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D(1))
134	D008						Included in above
135	F002	400	K	S01			Hazardous Waste
136	D019						Included in above
137	D040						Included in above
138	F002	2,000	K	S01			Hazardous Waste
139	D039						Included in above
140	F003	12,000	K	S01			Hazardous Waste
141	F003	10,000	K	S01			Hazardous Waste
142	D001						Included in above
143	F003	10	K	S01			Hazardous Waste
144	D009						Included in above
145	F004	1,000	K	S01			Hazardous Waste
146	F005	12,000	K	S01			Hazardous Waste
147	F005	1,000	K	S01			Hazardous Waste
148	F003						Included in above
149	D001						Included in above
150	D007						Included in above
151	D035						Included in above
152	F005	1,000	K	S01			Hazardous Waste
153	F003						Included in above
154	D001						Included in above
155	D018						Included in above
156	D035						Included in above
157	F005	5,000	K	S01			Hazardous Waste
158	F003						Included in above
159	D001						Included in above
160	F005	500	K	S01			Hazardous Waste
161	F003						Included in above
162	D001						Included in above
163	D035						Included in above
164	F006	100	K	S01			Hazardous Waste
165	F007	2,000	K	S01			Hazardous Waste
166	F007	2,000	K	S01			Hazardous Waste
167	D002						Included in above

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

V. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D(1))
168	D003						Included in above
169	D006						Included in above
170	F007	1,000	K	S01			Hazardous Waste
171	D002						Included in above
172	D003						Included in above
173	D011						Included in above
174	F007	1,000	K	S01			Hazardous Waste
175	F008	100	K	S01			Hazardous Waste
176	F009	100	K	S01			Hazardous Waste
177	F010	100	K	S01			Hazardous Waste
178	F011	100	K	S01			Hazardous Waste
179	F027	150	K	S01			Hazardous Waste
180	F039	200,000	K	S01			Hazardous Waste
181	P001	25	K	S01			Hazardous Waste
182	P002	10	K	S01			Hazardous Waste
183	P003	10	K	S01			Hazardous Waste
184	P004	10	K	S01			Hazardous Waste
185	P005	25	K	S01			Hazardous Waste
186	P006	10	K	S01			Hazardous Waste
187	P007	10	K	S01			Hazardous Waste
188	P008	10	K	S01			Hazardous Waste
189	P009	10	K	S01			Hazardous Waste
190	P010	10	K	S01			Hazardous Waste
191	P011	25	K	S01			Hazardous Waste
192	P012	10	K	S01			Hazardous Waste
193	P013	10	K	S01			Hazardous Waste
194	P014	10	K	S01			Hazardous Waste
195	P015	10	K	S01			Hazardous Waste
196	P016	10	K	S01			Hazardous Waste
197	P017	10	K	S01			Hazardous Waste
198	P018	10	K	S01			Hazardous Waste
199	P020	10	K	S01			Hazardous Waste
200	P021	10	K	S01			Hazardous Waste
201	P022	100	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1): ☐☐☐☐☐☐☐☐☐☐☐☐

IV. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D(1))
202	P023	10	K	S01			Hazardous Waste
203	P024	10	K	S01			Hazardous Waste
204	P026	10	K	S01			Hazardous Waste
205	P027	10	K	S01			Hazardous Waste
206	P028	10	K	S01			Hazardous Waste
207	P029	1,500	K	S01			Hazardous Waste
208	P030	250	K	S01			Hazardous Waste
209	P031	10	K	S01			Hazardous Waste
210	P033	10	K	S01			Hazardous Waste
211	P034	10	K	S01			Hazardous Waste
212	P036	10	K	S01			Hazardous Waste
213	P037	10	K	S01			Hazardous Waste
214	P038	10	K	S01			Hazardous Waste
215	P039	10	K	S01			Hazardous Waste
216	P040	10	K	S01			Hazardous Waste
217	P041	10	K	S01			Hazardous Waste
218	P042	10	K	S01			Hazardous Waste
219	P043	10	K	S01			Hazardous Waste
220	P044	10	K	S01			Hazardous Waste
221	P045	10	K	S01			Hazardous Waste
222	P046	10	K	S01			Hazardous Waste
223	P047	10	K	S01			Hazardous Waste
224	P048	10	K	S01			Hazardous Waste
225	P049	10	K	S01			Hazardous Waste
226	P050	10	K	S01			Hazardous Waste
227	P051	10	K	S01			Hazardous Waste
228	P054	10	K	S01			Hazardous Waste
229	P056	10	K	S01			Hazardous Waste
230	P057	10	K	S01			Hazardous Waste
231	P058	10	K	S01			Hazardous Waste
232	P059	10	K	S01			Hazardous Waste
233	P060	10	K	S01			Hazardous Waste
234	P062	10	K	S01			Hazardous Waste
235	P063	10	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1) N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1)

V. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
236	P064	150	K	S01			Hazardous Waste
237	P065	10	K	S01			Hazardous Waste
238	P066	10	K	S01			Hazardous Waste
239	P067	10	K	S01			Hazardous Waste
240	P068	10	K	S01			Hazardous Waste
241	P069	10	K	S01			Hazardous Waste
242	P070	10	K	S01			Hazardous Waste
243	P071	10	K	S01			Hazardous Waste
244	P072	10	K	S01			Hazardous Waste
245	P073	10	K	S01			Hazardous Waste
246	P074	10	K	S01			Hazardous Waste
247	P075	10	K	S01			Hazardous Waste
248	P076	10	K	S01			Hazardous Waste
249	P077	10	K	S01			Hazardous Waste
250	P078	30	K	S01			Hazardous Waste
251	P081	10	K	S01			Hazardous Waste
252	P082	10	K	S01			Hazardous Waste
253	P084	10	K	S01			Hazardous Waste
254	P085	10	K	S01			Hazardous Waste
255	P087	50	K	S01			Hazardous Waste
256	P088	10	K	S01			Hazardous Waste
257	P089	10	K	S01			Hazardous Waste
258	P092	10	K	S01			Hazardous Waste
259	P093	10	K	S01			Hazardous Waste
260	P094	10	K	S01			Hazardous Waste
261	P095	10	K	S01			Hazardous Waste
262	P096	10	K	S01			Hazardous Waste
263	P097	10	K	S01			Hazardous Waste
264	P098	50	K	S01			Hazardous Waste
265	P099	10	K	S01			Hazardous Waste
266	P101	10	K	S01			Hazardous Waste
267	P102	10	K	S01			Hazardous Waste
268	P103	10	K	S01			Hazardous Waste
269	P104	100	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1) N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1)

V. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D(1))
270	P105	10	K	S01			Hazardous Waste
271	P106	1,000	K	S01			Hazardous Waste
272	P108	10	K	S01			Hazardous Waste
273	P109	10	K	S01			Hazardous Waste
274	P110	10	K	S01			Hazardous Waste
275	P111	10	K	S01			Hazardous Waste
276	P112	10	K	S01			Hazardous Waste
277	P113	50	K	S01			Hazardous Waste
278	P114	10	K	S01			Hazardous Waste
279	P115	10	K	S01			Hazardous Waste
280	P116	10	K	S01			Hazardous Waste
281	P118	10	K	S01			Hazardous Waste
282	P119	10	K	S01			Hazardous Waste
283	P120	25	K	S01			Hazardous Waste
284	P121	10	K	S01			Hazardous Waste
285	P122	10	K	S01			Hazardous Waste
286	P123	10	K	S01			Hazardous Waste
287	U001	10	K	S01			Hazardous Waste
288	U002	1,000	K	S01			Hazardous Waste
289	U003	250	K	S01			Hazardous Waste
290	U004	10	K	S01			Hazardous Waste
291	U005	10	K	S01			Hazardous Waste
292	U006	10	K	S01			Hazardous Waste
293	U007	10	K	S01			Hazardous Waste
294	U008	100	K	S01			Hazardous Waste
295	U009	10	K	S01			Hazardous Waste
296	U010	10	K	S01			Hazardous Waste
297	U011	10	K	S01			Hazardous Waste
298	U012	25	K	S01			Hazardous Waste
299	U014	10	K	S01			Hazardous Waste
300	U015	10	K	S01			Hazardous Waste
301	U016	10	K	S01			Hazardous Waste
302	U017	10	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

IV. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
303	U018	10	K	S01			Hazardous Waste
304	U019	150	K	S01			Hazardous Waste
305	U020	10	K	S01			Hazardous Waste
306	U021	10	K	S01			Hazardous Waste
307	U022	10	K	S01			Hazardous Waste
308	U023	10	K	S01			Hazardous Waste
309	U024	10	K	S01			Hazardous Waste
310	U025	10	K	S01			Hazardous Waste
311	U026	10	K	S01			Hazardous Waste
312	U027	10	K	S01			Hazardous Waste
313	U028	5,000	K	S01			Hazardous Waste
314	U029	10	K	S01			Hazardous Waste
315	U030	10	K	S01			Hazardous Waste
316	U031	500	K	S01			Hazardous Waste
317	U032	500	K	S01			Hazardous Waste
318	U033	10	K	S01			Hazardous Waste
319	U034	10	K	S01			Hazardous Waste
320	U035	50	K	S01			Hazardous Waste
321	U036	500	K	S01			Hazardous Waste
322	U037	50	K	S01			Hazardous Waste
323	U038	10	K	S01			Hazardous Waste
324	U039	10	K	S01			Hazardous Waste
325	U041	10	K	S01			Hazardous Waste
326	U042	10	K	S01			Hazardous Waste
327	U043	10	K	S01			Hazardous Waste
328	U044	150	K	S01			Hazardous Waste
329	U045	25	K	S01			Hazardous Waste
330	U046	10	K	S01			Hazardous Waste
331	U047	10	K	S01			Hazardous Waste
332	U048	10	K	S01			Hazardous Waste
333	U049	10	K	S01			Hazardous Waste
334	U050	10	K	S01			Hazardous Waste
335	U051	75	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1) N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1)

V. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D(1))
336	U052	25	K	S01			Hazardous Waste
337	U053	10	K	S01			Hazardous Waste
338	U055	25	K	S01			Hazardous Waste
339	U056	250	K	S01			Hazardous Waste
340	U057	25	K	S01			Hazardous Waste
341	U058	10	K	S01			Hazardous Waste
342	U059	10	K	S01			Hazardous Waste
343	U060	10	K	S01			Hazardous Waste
344	U061	10	K	S01			Hazardous Waste
345	U062	10	K	S01			Hazardous Waste
346	U063	10	K	S01			Hazardous Waste
347	U064	10	K	S01			Hazardous Waste
348	U066	10	K	S01			Hazardous Waste
349	U067	25	K	S01			Hazardous Waste
350	U068	10	K	S01			Hazardous Waste
351	U069	100	K	S01			Hazardous Waste
352	U070	50	K	S01			Hazardous Waste
353	U071	10	K	S01			Hazardous Waste
354	U072	10	K	S01			Hazardous Waste
355	U073	10	K	S01			Hazardous Waste
356	U074	10	K	S01			Hazardous Waste
357	U075	200	K	S01			Hazardous Waste
358	U076	10	K	S01			Hazardous Waste
359	U077	200	K	S01			Hazardous Waste
360	U078	50	K	S01			Hazardous Waste
361	U079	50	K	S01			Hazardous Waste
362	U080	1,000	K	S01			Hazardous Waste
363	U081	10	K	S01			Hazardous Waste
364	U082	10	K	S01			Hazardous Waste
365	U083	10	K	S01			Hazardous Waste4
366	U084	10	K	S01			Hazardous Waste
367	U085	10	K	S01			Hazardous Waste
368	U086	10	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

IV. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
369	U087	10	K	S01			Hazardous Waste
370	U088	10	K	S01			Hazardous Waste
371	U089	10	K	S01			Hazardous Waste
372	U090	10	K	S01			Hazardous Waste
373	U091	10	K	S01			Hazardous Waste
374	U092	10	K	S01			Hazardous Waste
375	U093	10	K	S01			Hazardous Waste
376	U094	10	K	S01			Hazardous Waste
377	U095	10	K	S01			Hazardous Waste
378	U096	10	K	S01			Hazardous Waste
379	U097	10	K	S01			Hazardous Waste
380	U098	10	K	S01			Hazardous Waste
381	U099	10	K	S01			Hazardous Waste
382	U101	10	K	S01			Hazardous Waste
383	U102	20	K	S01			Hazardous Waste
384	U103	10	K	S01			Hazardous Waste
385	U105	10	K	S01			Hazardous Waste
386	U106	10	K	S01			Hazardous Waste
387	U107	50	K	S01			Hazardous Waste
388	U108	50	K	S01			Hazardous Waste
389	U109	10	K	S01			Hazardous Waste
390	U110	10	K	S01			Hazardous Waste
391	U111	10	K	S01			Hazardous Waste
392	U112	1,000	K	S01			Hazardous Waste
393	U113	10	K	S01			Hazardous Waste
394	U114	10	K	S01			Hazardous Waste
395	U115	10	K	S01			Hazardous Waste
396	U116	10	K	S01			Hazardous Waste
397	U117	30	K	S01			Hazardous Waste
398	U118	10	K	S01			Hazardous Waste
399	U119	10	K	S01			Hazardous Waste
400	U120	10	K	S01			Hazardous Waste
401	U121	200	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1): ☐☐☐☐☐☐☐☐☐☐☐☐

IV. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
402	U122	500	K	S01			Hazardous Waste
403	U123	35	K	S01			Hazardous Waste
404	U124	10	K	S01			Hazardous Waste
405	U125	10	K	S01			Hazardous Waste
406	U126	10	K	S01			Hazardous Waste
407	U127	10	K	S01			Hazardous Waste
408	U128	10	K	S01			Hazardous Waste
409	U129	10	K	S01			Hazardous Waste
410	U130	10	K	S01			Hazardous Waste
411	U131	50	K	S01			Hazardous Waste
412	U132	25	K	S01			Hazardous Waste
413	U133	250	K	S01			Hazardous Waste
414	U134	2,000	K	S01			Hazardous Waste
415	U134	100	K	S01			Hazardous Waste
416	D002						Included in above
417	U135	75	K	S01			Hazardous Waste
418	U136	10	K	S01			Hazardous Waste
419	U137	10	K	S01			Hazardous Waste
420	U138	10	K	S01			Hazardous Waste
421	U140	50	K	S01			Hazardous Waste
422	U141	10	K	S01			Hazardous Waste
423	U142	10	K	S01			Hazardous Waste
424	U143	10	K	S01			Hazardous Waste
425	U144	300	K	S01			Hazardous Waste
426	U145	10	K	S01			Hazardous Waste
427	U146	10	K	S01			Hazardous Waste
428	U147	100	K	S01			Hazardous Waste
429	U148	10	K	S01			Hazardous Waste
430	U149	10	K	S01			Hazardous Waste
431	U150	10	K	S01			Hazardous Waste
432	U151	1,000	K	S01			Hazardous Waste
433	U151	300	K	S01			Hazardous Waste
434	D002						Included in above
435	U151	100	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1): [ ]

V. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
436	D009						Included in above
437	U152	10	K	S01			Hazardous Waste
438	U153	10	K	S01			Hazardous Waste
439	U154	500	K	S01			Hazardous Waste
440	U155	10	K	S01			Hazardous Waste
441	U156	10	K	S01			Hazardous Waste
442	U157	10	K	S01			Hazardous Waste
443	U158	25	K	S01			Hazardous Waste
444	U159	125	K	S01			Hazardous Waste
445	U160	50	K	S01			Hazardous Waste
446	U161	50	K	S01			Hazardous Waste
447	U162	100	K	S01			Hazardous Waste
448	U163	10	K	S01			Hazardous Waste
449	U164	10	K	S01			Hazardous Waste
450	U165	1,000	K	S01			Hazardous Waste
451	U166	10	K	S01			Hazardous Waste
452	U167	10	K	S01			Hazardous Waste
453	U168	10	K	S01			Hazardous Waste
454	U169	200	K	S01			Hazardous Waste
455	U170	10	K	S01			Hazardous Waste
456	U171	25	K	S01			Hazardous Waste
457	U172	10	K	S01			Hazardous Waste
458	U173	10	K	S01			Hazardous Waste
459	U174	10	K	S01			Hazardous Waste
460	U176	10	K	S01			Hazardous Waste
461	U177	50	K	S01			Hazardous Waste
462	U178	50	K	S01			Hazardous Waste
463	U179	100	K	S01			Hazardous Waste
464	U180	100	K	S01			Hazardous Waste
465	U181	50	K	S01			Hazardous Waste
466	U182	25	K	S01			Hazardous Waste
467	U183	25	K	S01			Hazardous Waste
468	U184	25	K	S01			Hazardous Waste
469	U185	25	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

IV. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
470	U186	50	K	S01			Hazardous Waste
471	U187	10	K	S01			Hazardous Waste
472	U188	25	K	S01			Hazardous Waste
473	U189	10	K	S01			Hazardous Waste
474	U190	10	K	S01			Hazardous Waste
475	U191	10	K	S01			Hazardous Waste
476	U192	10	K	S01			Hazardous Waste
477	U193	10	K	S01			Hazardous Waste
478	U194	10	K	S01			Hazardous Waste
479	U196	25	K	S01			Hazardous Waste
480	U197	10	K	S01			Hazardous Waste
481	U200	10	K	S01			Hazardous Waste
482	U201	25	K	S01			Hazardous Waste
483	U202	10	K	S01			Hazardous Waste
484	U203	10	K	S01			Hazardous Waste
485	U204	25	K	S01			Hazardous Waste
486	U205	10	K	S01			Hazardous Waste
487	U206	10	K	S01			Hazardous Waste
488	U207	10	K	S01			Hazardous Waste
489	U208	10	K	S01			Hazardous Waste
490	U209	20	K	S01			Hazardous Waste
491	U210	25	K	S01			Hazardous Waste
492	U211	100	K	S01			Hazardous Waste
493	U213	350	K	S01			Hazardous Waste
494	U214	10	K	S01			Hazardous Waste
495	U215	10	K	S01			Hazardous Waste
496	U216	10	K	S01			Hazardous Waste
497	U217	10	K	S01			Hazardous Waste
498	U218	10	K	S01			Hazardous Waste
499	U219	25	K	S01			Hazardous Waste
500	U220	500	K	S01			Hazardous Waste
501	U221	10	K	S01			Hazardous Waste
502	U222	10	K	S01			Hazardous Waste
503	U223	1,000	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

V. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D(1))
504	U225	50	K	S01			Hazardous Waste
505	U226	4,000	K	S01			Hazardous Waste
506	U227	1,500	K	S01			Hazardous Waste
507	U228	1,000	K	S01			Hazardous Waste
508	U234	10	K	S01			Hazardous Waste
509	U235	10	K	S01			Hazardous Waste
510	U236	10	K	S01			Hazardous Waste
511	U237	10	K	S01			Hazardous Waste
512	U238	10	K	S01			Hazardous Waste
513	U239	250	K	S01			Hazardous Waste
514	U240	10	K	S01			Hazardous Waste
515	U243	10	K	S01			Hazardous Waste
516	U244	10	K	S01			Hazardous Waste
517	U246	10	K	S01			Hazardous Waste
518	U247	10	K	S01			Hazardous Waste
519	U248	10	K	S01			Hazardous Waste
520	U249	10	K	S01			Hazardous Waste
521	U328	10	K	S01			Hazardous Waste
522	U353	10	K	S01			Hazardous Waste
523	U359	100	K	S01			Hazardous Waste

Use ink. Type with elite type (12 characters per inch) in the unshaded areas only

EPA I.D. Number (enter from page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from page 1)

XIV. Description of Hazardous Waste (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 6.

Line Number	Additional Process Codes (enter)

XV. Map

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

XVIII. Certification(s)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to be the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature: K A Carlson — Date Signed: 6/14/93

Name and Official Title (type or print): K.A. Carlson, Area Manager, Kirtland Area Office, DOE

Operator Signature: K A Carlson — A.N. Blackwell 6/10/93 — Date Signed: 6/14/93

Name and Official Title (type or print): K.A. Carlson, Kirtland Area Office, DOE — A.N. Blackwell, Acting Vice Pres., Internal Programs 7000, SNL/NM

XIX. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (refer to instructions for more information)

Attachment A

Summary of Changes

Sandia National Laboratories
Hazardous Waste Management Facility

Permit NM5890110518-1

Attachment A. Summary of Changes
HWMF Permit NM5890110518-1
Permit Attachment G, Part A of Permit Application

Location	Current Language	Proposed Language	Explanation of Change	Modification Class Rationale
Attachment G, Part A form, page 1, item IV "Facility Mailing Address"	PO Box 5400 Kirtland Area Off	PO Box 5400 Sandia Site Office	Update name of DOE office	*Class 1 modification.* 20.4.1.900 NMAC, 40 CFR 270.42 Appendix I, Modification A.1 (administrative and informational changes).
Attachment G, Part A form, page 1, Item V "Facility Contact"	Dobbs, Ronald Gen Engineer 505-845-4428	Rast, David Engineer 505-845-5349	Update name, title, and phone number for facility contact	*Class 1 modification.* Informational change. Modification A.1.
Attachment G, Part A form, page 2, Item VII "Operator Information"	Sandia National Laboratories PO Box 5400, MS 1035, Dept 7134 Albuquerque NM 87185-5400 505-845-4428	Sandia Corporation PO Box 5800 Department 6300 Albuquerque NM 87185 505-845-5349	Correct address, update organization number and phone number	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, Part A form, page 2, Item VIII "Facility Owner"	US Department of Energy PO Box 5400 KAO Albuquerque NM 87185-5400 505-845-4428	US Department of Energy PO Box 5400 SSO Albuquerque NM 87185-5400 505-845-5349	Update organization name and phone number	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, Part A form, page 6a of 7, Item XIV "Description of Hazardous Wastes", Line 11	D001 4,000 K S01 Hazardous Waste D008 Included in above D018 Hazardous Waste	D001 4,000 K S01 Hazardous Waste D008 Included in above D018 Included in above	Correct typographic error	*Class 1 modification.* Correction of typographic errors. Modification A.2.
Attachment G, Part A form, page 6c of 7, Item XIV "Description of Hazardous Wastes", Line 34	D010 4,000 K S01 Hazardous Waste	D010 10,000 K S01 Hazardous Waste	Quantity of this waste exceeded Part A quantity during 2004 due to process and production changes. DOE and Sandia expect to continue generating this type of waste in the future. The Part A revision with the increased waste volume is submitted in compliance with Permit Condition III.G.2 and does not substantially alter the permit conditions or affect DOE/Sandia's capacity to protect human health or the environment.	*Class 1 modification.* As noted in 20.4.1.900 NMAC, 40 CFR 270.42(d)(2)(i), "...minor changes that keep the permit current with routine changes to the facility or its operation."

Attachment A. Summary of Changes
HWMF Permit NM5890110518-1
Permit Attachment G, Part A of Permit Application

Location	Current Language	Proposed Language	Explanation of Change	Modification Class Rationale
Attachment G, Part A form, page 6q of 7, Item XIV "Description of Hazardous Wastes", Line 141	(Line 141 should be at the bottom of page 6g of 7 on the current Part A form. It is not included)	Line 141 added to the end of Section XIV: P047 10 K S01 Hazardous Waste	Line 141 was inadvertently deleted from the Part A form in March 2001. It was previously included on the form (June 1995 and earlier) with the quantity proposed here. DOE/Sandia have generated this type of waste in the past and may do so in the future.	*Class 1 modification.* Correction of typographic errors. Modification A.2.
Attachment G, Part A form, page 6q of 7, Item XVIII "Certifications"	Owner Name and Official Title: Michael Zamorski, Area Office Manager, DOE/KAO	Owner Name and Official Title: Patty Wagner, Manager, DOE/SSO	Update name and title for representative of owner	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, Part A form, page 6q of 7, Item XVIII "Certifications"	Operator Name and Official Title: Michael Zamorski, Area Office Manager, DOE/KAO	Operator Name and Official Title: Patty Wagner, Manager, DOE/SSO	Update name and title for representative of one of the two operators	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, Part A form, page 6q of 7, Item XVIII "Certifications"	Operator Name and Official Title: M. Lynn Jones, Vice President, SNL/NM	Operator Name and Official Title: Les E. Shephard, Vice President, Sandia Corporation	Update individual and corporate name for one of the two operators	*Class 1 modification.* Informational and administrative changes. Modification A.1.
Attachment G, Part A form	Current Part A prepared using Environmental Protection Agency (EPA) form OMB 2050-0034 "Hazardous Waste Permit Application, Part A"	Proposed Part A prepared using updated EPA forms: • OMB 2050-0175 "RCRA Subtitle C Site Identification Form" • OMB 2050-0034 "Hazardous Waste Permit Information Form"	Current form is out of date. Use updated form to present information.	*Class 1 modification.* Administrative change. Modification A.1.
Attachment G, Part A, Appendix A "Active Environmental Permits"	List of Sandia National Laboratories/ New Mexico active environmental permits as of 10/23/00	List of Sandia National Laboratories/ New Mexico active environmental permits as of 3/31/04	Provide most recent list of active permits.	*Class 1 modification.* Informational change. Modification A.1

APPENDIX A

ACTIVE ENVIRONMENTAL PERMITS

Sandia National Laboratories/New Mexico
Active Environmental Permits as of ~~10/23/00~~03/31/04

Permit Type and/or Facility Name	Permit Number	Issue Date	Expiration Date	Regulatory Agency
SEWER WASTEWATER				
General	2069 A-~~5~~6	7/1/~~3/00~~03	~~6/30/03~~12/31/07	COA
General	2069 F-~~5~~6	~~1/3/00~~08/01/03	~~6/30/03~~01/31/08	COA
Microelectronics Development Laboratory	2069 G-~~4~~5	~~7/1/98~~06/01/02	05/31/~~02~~05	COA
General	2069 I-4 Renewal Submitted	~~1/24/00~~10/14/03	~~1/31/04~~ extended	COA
General	2069 K-~~3~~4	~~7/1/98~~03/01/02	~~2/28/02~~10/31/04	COA
SURFACE DISCHARGE				
Pulsed Power Development Facilities (Discharge Plan)	DP-530	~~11/16/99~~09/21/01	~~2/24/00 (renewal application submitted 11/16/99~~09/21/06	NMED
UNDERGROUND STORAGE TANKS				
9,7~~3~~50 gal emergency generator fuel	6383	~~7/1/99~~07/01/03	~~6/30/01~~06/30/04	NMED, UST Bur.
20,000 gal oil storage tank	6384	07/01/03~~7/1/99~~	06/30/04~~6/30/01~~	NMED, UST Bur.
20,000 gal oil storage tank	6385	07/01/03~~7/1/99~~	06/30/04~~6/30/01~~	NMED, UST Bur.
STORM WATER				
National Pollution Discharge Elimination System ~~(NPDES)~~ "Multi-sector General" Permit	~~NMR05A181~~NMR05A961	~~8/97~~02/01	~~10/01/00~~09/30/05	EPA
Storm Drain, Sanitary Sewer, and Domestic Water System Modernization ~~(SSWM)~~	NMR10B507	06/29/99	~~6/31/03~~08/04	EPA
~~NPDES Construction Permit~~ NPDES construction permit for the Joint Computational Engineering Laboratory	~~NMR10B434~~NM0002377	~~Notice of Intent submitted 5/14/98~~04/20/02	~~Open~~03/04	EPA
MESA	NM0002376	01/28/02	07/31/09	EPA
Aerial Cable Facilities Renovations	[b]	3/04	2/05	EPA
Center for Integrated Nanotechnologies	[b]	10/03	6/06	EPA
SCA/CUB	[b]	9/02	8/03	EPA
ECOLOGICAL				
New Mexico Department of Game and Fish, for Scientific/Educational Purposes, Authorization for Taking of Protected Wildlife	2931	~~2/29/00~~01/01/02	12/31/~~00~~02[a]	New Mexico Department of Game and Fish
Fish and Wildlife Special Purpose Salvage Permit (for migratory birds)	MB040780-0	05/30/01	12/31/03	U.S. Fish and Wildlife Service

NOTE:

[a] Applied for permit renewal, not yet received.

[b] Permit number not issued yet.

COA = City of Albuquerque
NMED = New Mexico Environment Department
EPA = U.S. Environmental Protection Agency
UST Bur. = Underground Storage Tank Bureau

Sandia National Laboratories/New Mexico
Active Environmental Permits as of 03/31/04 (Continued)

ABOVEGROUND STORAGE TANKS				
1,024,000 gal storage tank	b	07/01/03	06/30/04	NMED
508,000 gal storage tank	b	07/01/03	06/30/04	NMED
213,898 gal storage tank	b	07/01/03	06/30/04	NMED
209,421 gal storage tank	b	07/01/03	06/30/04	NMED
45,490 gal storage tank	b	07/01/03	06/30/04	NMED
44,129 gal storage tank	b	07/01/03	06/30/04	NMED
10,000 gal storage tank	b	07/01/03	06/30/04	NMED
10,000 gal storage tank	b	07/01/03	06/30/04	NMED
10,000 gal storage tank	b	07/01/03	06/30/04	NMED
75,000 gal storage tank	b	07/01/03	06/30/04	NMED
75,000 gal storage tank	b	07/01/03	06/30/04	NMED
75,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
25,000 gal storage tank	b	07/01/03	06/30/04	NMED

NOTE:
b Permit number not issued yet.
NMED = New Mexico Environment Department

Sandia National Laboratories/New Mexico
Active Environmental Permits as of ~~10/23/00~~
03/31/04 (Continued)

Permit Type and/or Facility Name	Permit Number	Issue Date	Expiration Date	Regulatory Agency
RCRA				
"RCRA Part B Operating Permit" for the Hazardous Waste Management Facility (HWMF) Module I - General Permit Conditions Module II - General Facility Conditions Module III - Containers	NM5890110518-1	8/6/92	08/06/02 [c]	NMED
"RCRA Part B Operating Permit" Module IV - Hazardous and Solid Waste Amendments (HSWA) Portion for Solid Waste Management Units	NM5890110518-1	8/26/93	09/20/02 [c]	EPA/NMED
"Thermal Treatment Facility (TTF)" Module I - General Permit Conditions Module II - General Facility Conditions Module III - Containers	NM5890110518-2	12/4/94	12/4~~/04~~-/04 [c]	NMED
~~"RCRA Part A and B Permit Applications for Hazardous Waste Management Units" For the hazardous component in mixed waste (MW) stored at three radioactive waste storage areas. (Interim status in effect; State has not yet requested Part B for submittal due to time constraints reviewing other site applications.)~~ General Part A Permit Request Storage and/or treatment of the hazardous component of mixed waste at ten waste management Units.	NM5890110518	~~Interim status first submitted 8/90, Rev. 3, 11/96~~First submitted 8/90 Rev. 5, 04/16/03	~~Pending Review* (No expiration date; permit will be revised in 2001)~~Pending Review (No expiration date)	NMED
Class III Permit Modification for the Management of Hazardous Remediation Waste in the Corrective Action Management Unit (CAMU), Technical Area III	NM5890110518	~~9/97~~09/25/97	~~6/03~~09/20/02 [c] 4/19/04 [d]	NMED
Comprehensive Part B Permit Request Storage and/or treatment of RCRA-regulated waste at nine waste management Units.	NM5890110518	02/06/02 [c]		NMED
TSCA				
Risk-Based Approval Request under 40 CFR 761.61(c); Risk-Based Method for Management of PCB Materials; Chemical Waste Landfill and CAMU		06/26/02	No expiration date[d]	EPA

NOTE:

~~[a]~~ Applied for permit renewal; not yet received

[c] Submitted ~~and awaiting~~application for renewal on 02/06/2002, undergoing NMED review. Application has been revised in response to NMED comments.

[d] CAMU closure report submitted in 4/19/04, undergoing agency review.

EPA = U.S. Environmental Protection Agency
NMED = New Mexico Environment Department
RCRA = Resource Conservation and Recovery Act
TSCA = Toxic Substances Control Act

Sandia National Laboratories/New Mexico
Active Environmental Permits as of ~~10/23/00~~ 03/31/04 (Continued)

Permit Type and/or Facility Name	Permit Number	Issue Date	Expiration Date	Regulatory Agency
Open Burn Permits				
Thermal Treatment Facility (permit must be submitted to NMED within 30 days of receipt)	~~76-OB-1-2000~~5-2003	~~1/1/00~~03/18/04	~~12/31/00~~31/04	COA
Fire Extinguisher Fire Training	~~76-OB-2-2000~~	~~1/1/00~~[a]	~~12/31/01~~	COA
Burn Site (Large Pool Fire Tests)	~~76-OB-6-2000~~	~~3/21/00~~[a]	~~1/1/01~~	COA
Burn Site ~~(Building 9830)~~	~~76-OB-3-2000~~	~~2/17/00~~[a]	~~1/1/01~~	COA
~~Burn Site (Open Pool Fire Tests)~~	~~76-OB-5-2000~~	~~2/18/00~~	~~1/1/01~~	~~COA~~
Burn Site/Sled Track ~~(Wood Crib Fire Tests)~~	~~76-OB-4-2000~~	~~2/18/00~~[a]	~~1/1/01~~	COA
Explosive Testing ~~(Coyote Canyon)~~	~~76-OB-7-2000~~	~~5/1/00~~[a]	~~12/30/00~~	COA
~~Alternative Fuel Tanks (Building 6516)~~	~~76-OB-8-1999~~	~~7/24/00~~	~~12/31/01~~	~~COA~~
9920 and Sled Track		[a]		COA
AIR (Permits & Registrations)				
Hammermill Facility	144	08/28/85	Biennial update	COA
Fire Laboratory used for the Authentication of Modeling and Experiments (FLAME)	196	05/19/88	Registration†	COA
Neutron Generator Facility(NGF)	374- MI	07/17/98	Biennial update	COA
~~W76~~-Neutron Generator Recertification	396	05/07/96	Biennial update	COA
Standby diesel generators (four)	402 ~~(old 150)~~	05/07/96	Biennial update	COA
Radioactive & Mixed Waste Management Facility	415- M1	11/24/99	Biennial update	COA
Isotope Production Facility ~~(Hot Cell Facility)~~	428	07/08/96	Biennial update	COA
Title V Operating Permit	515 (pending)	Submitted [a] 03/1/96	Pending (5 yr renewal)	COA
Classified Waste Landfill	560	12/17/96	Biennial update	COA
Classified Waste Landfill	NESHAP	06/96	Approval ††	EPA~~, Region VI~~
Advanced Manufacturing Processes Laboratory	646	01/23/97	Biennial update	COA
Portable Burn Pools	647	05/05/97	Biennial update	COA
Chemical Waste Landfill ~~Voluntary Corrective Measure (VCM)~~ Excavation	~~648~~540	5/~~23/97~~19/99	Registration†	COA
~~Soil Washing / Soil Stabilization Unit, Corrective Action Management Unit (CAMU)~~High Energy Radiation Megavolt Electron Source-III	~~888~~NESHAP	~~4/20/98~~6/29/88	~~Biennial update~~Approval ††	~~COA~~EPA
Advanced Manufacturing Prototype Facility	1406	11/6/00	Registration†	COA
Microelectronics Development Laboratory	1678	12/23/02	Biennial update	COA
Emergency Generator	924	5/5/98	Biennial update	COA
Processing and Environmental Technology Laboratory	925-M1	~~5/5/98~~03/05/01	Biennial update	COA
Processing and Environmental Technology Laboratory	936	pending registration		COA

NOTE:

[a] Applied for permit renewal; not yet received

[c] COA issues open burn permits annually. Sandia/DOE applied for this permit for calendar year 2004.

† Registration = Certificate, no permit required.

†† Approval = EPA does not issue a permit.

~~Submitted and awaiting agency review.~~

~~COA = City of Albuquerque~~

EPA = U.S. Environmental Protection Agency

EPA ID Number (*Enter from page 1*)	Secondary ID Number (*Enter from page 1*)
N M 5 8 9 0 1 1 0 5 1 8	

XV. Map

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (See instructions for more detail).

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

XVIII. Certification(s)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the infomration, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature	Date Signed
Name and Official Title (Type or print) Patty Wagner~~Michael Zamorski~~, ~~Area Office~~ Manager, DOE/SSO~~KAO~~	
Owner Signature	Date Signed
Name and Official Title (Type or print)	
Operator Signature	Date Signed
Name and Official Title (Type or print) Patty Wagner~~Michael Zamorski~~, ~~Area Office~~ Manager, DOE/SSO~~KAO~~	
Operator Signature	Date Signed
Name and Official Title (Type or print) Les E. Shephard,~~M. Lynn Jones~~, Vice President, Sandia Corporation~~SNL/NM~~	

XIX. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (Refer to instructions for more information)

Attachment B

Sandia National Laboratories
Hazardous Waste Management Facility Part A (Attachment G)

Revised sections (redline/strikeout format) in current Part A (form and Appendix A)

Permit NM5890110518-1

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0034 Expires 10/31/02
GSA No. 0248-EPA-OT

For EPA Regional Use Only

Date Received
Month Day Year

EPA

United States Environmental Protection Agency
Washington, DC 20460

Hazardous Waste Permit Application Part A

(Read the Instructions before starting)

I. Facility's EPA ID Number ***(Mark 'X' in the appropriate box)***

☐ A. First Part A Submission

☒ B. Revised Part A Submission (Amendment #3)

C. Facility's EPA ID Number: NM589011051 8

D. Secondary ID Number *(if applicable)*:

II. Name of Facility

SANDIA NATIONAL LABORATORIES

III. Facility Location ***(Physical address not P.O. Box or Route Number)***

A. Street: 1515 EUBANK SE

Street *(Continued)*:

City or Town: ALBUQUERQUE

State: NM

Zip Code: 87123-

County Code *(If known)*:

County Name: BERNALILLO

B. Land Type (Enter code): F

C. Geographic Location
LATITUDE (Degrees, minutes, & seconds): 35 01 45 N
LONGITUDE (Degrees, minutes & seconds): 106 32 30 W

D. Facility Existence Date
Month Day Year: 09 1945

IV. Facility Mailing Address

Street or P.O. Box: PO BOX 5400 ~~SKAINRDTIL A N SD I TAER E OA F FOIFCF E~~

City or Town: ALBUQUERQUE

State: NM

Zip Code: 87185-5400

V. Facility Contact ***(Person to be contacted regarding waste activities at facility)***

Name *(Last)*: ~~RDAOSBTB S~~

(First): ~~DRAOVNIADL D~~

Job Title: ~~GEN~~ ENGINEER

Phone Number *(Area Code and Number)*: 505-845-~~54~~34~~42~~98

VI. Facility Contact Address ***(See Instructions)***

A. Contact Address
Location ☐ Mailing ☒ Other ☐

B. Street or P.O. Box:

City or Town:

State:

Zip Code: -

EPA ID Number *(Enter from page 1)*	Secondary ID Number *(Enter from page 1)*
NM589011051 8	

VII. Operator Information *(See Instructions)*

A. Name of Operator

SANDIA CORPORATION

Street or P.O. Box

PO BOX 5400 DMES P1A0R3T5 MEDNETP T 6 37 01 03 4

City or Town	State	Zip Code
ALBUQUERQUE	NM	87185-5400

Phone Number *(Area Code and Number)*	B. Operator Type	C. Change of Operator Indicator	Date Changed (Month Day Year)
505-845-5434 42 98	O	Yes: ☐ No: X	

VIII. Facility Owner *(See Instructions)*

A. Name of Facility's Legal Owner

US DEPARTMENT OF ENERGY

Street or P.O. Box

PO BOX 5400 SKSA O

City or Town	State	Zip Code
ALBUQUERQUE	NM	87185-5400

Phone Number *(Area Code and Number)*	B. Owner Type	C. Change of Owner Indicator	Date Changed (Month Day Year)
505-845-5430 49 94	F	Yes: ☐ No: X	

IX. NAICS Codes *(in order of significance; start in left box)*

First 92811	**Third**
(Description) NATIONAL SECURITY	*(Description)*
Second 54171	**Fourth**
(Description) RES. & DEV. IN THE PHYSICAL, ENG., & LIFE SCIENCES	*(Description)*

X. Other Environmental Permits *(See instructions)*

A. Permit Type *(Enter code)*	B. Permit Number	C. Description
		See Appendix A

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

GSA No. 0248-EPA-OT

EPA ID Number (*Enter from page 1*)												Secondary ID Number (*Enter from page 1*)											
N	M	5	8	9	0	1	1	0	5	1	8												

XI. Nature of Business (*Provide a brief description*)

Sandia National Laboratories/New Mexico is a multi-program Research and Development (R&D) laboratory of the U.S. Department of Energy. Missions include R&D related to nuclear weapons, energy, and other programs of national interest.

XII. Process Codes and Design Capacities

A. PROCESS CODE - *Enter the code from the list of process codes below that best describes each process to be used at the facility. Thirteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in item XIII.*

B. PROCESS DESIGN CAPACITY - *for each code entered in column A, enter the capacity of the process.*
1. AMOUNT - *Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.*
2. UNIT OF MEASURE – *For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.*

C. PROCESS TOTAL NUMBER OF UNITS - *Enter the total number of units used in the corresponding process code.*

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	Disposal:	
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectare-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Application	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Storage	Any Unit of Measure Listed Below
	Storage:	
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Acres; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Disposal	Any Unit Measure Listed Below
	Treatment:	
T01	Tank Treatment	Gallons Per Day; Liters Per Day; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; or Metric Tons Per Hour
T02	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; or Metric Tons Per Hour
T03	Incinerator	Short Tons Per Hour Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per \Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Liters Per Hour; Kilograms Per Hour; or Million Btu Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, Or Refining Furnace	
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	Gallons Per Day; Liters Per Day, Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day, Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour, Gallons Per Hour; Liters Per Hour; or Million Btu Per Hour
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR §260.10	
T94	Containment Building - Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day, Metric Tons Per Hour, or Million Btu Per Hour
	Miscellaneous (Subpart X):	
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; or Million Btu Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G	Short Tons Per Hour	D	Cubic Yards	Y
Gallons Per Hour	E	Metric Tons Per Hour	W	Cubic Meters	C
Gallons Per Day	U	Short Tons Per Day	N	Acres	B
Liters	L	Metric Tons Per Day	S	Acre-feet	A
Liters Per Hour	H	Pounds Per Hour	J	Hectares	Q
Liters Per Day	V	Kilograms Per Hour	R	Hectare-meter	F
		Million Btu Per Hour	X	Btu Per Hour	I

Form Approved, OMB No. 2050-0034 Expires XX/XX/02

EPA ID Number (*Enter from page 1*): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (*Enter from page 1*)

XII. Process Codes and Design Capabilities *(Continued)*

***EXAMPLE FOR COMPLETING ITEM XII** (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.*

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY 1. Amount (Specify)	B. 2. Unit Of Measure (Enter code)	C. Process Total Number Of Units	For Official Use Only
X	1	S	0	2	533.788	G	001	
	1	S	0	1	264,978 . 000	L	001	
	2	T	0	4	100 . 000	V	001	
	3							
	4							
	5							
	6							
	7							
	8							
	7							
	8							
	9							
1	0							

***NOTE:** If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in Item XIII.*

XIII. Other Processes (Follow instructions from Item XII for D99, S99, T04 and X99 process codes)

Line Number (Enter # in w/XII)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY 1. Amount (Specify)	B. 2. Unit Of Measure (Enter code)	C. Process Total Number Of Units	D. Description Of Process
X	1	T	0	4				In-situ Vitrification
	1							
	2							
	3							
	4							

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

GSA No. 0248-EPA-OT

EPA ID Number (*Enter from page 1*)												Secondary ID Number (*Enter from page 1*)											
N	M	5	8	9	0	1	1	0	5	1	8												

XIV. Description of Hazardous Wastes

A. **EPA HAZARDOUS WASTE NUMBER** - *Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.*

B. **ESTIMATED ANNUAL QUANTITY** - *For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. for each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.*

C. **UNIT OF MEASURE** - *For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:*

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. **PROCESSES**

1. **PROCESS CODES:**

For listed hazardous waste: for each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in item XII A. on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in item XII A. on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. *Enter the first two as described above.*
2. *Enter "000" in the extreme right box of item XIV-D(1).*
3. *Use additional sheet, enter line number from previous sheet, and enter additional code(s) in item XIV-E.*

2. **PROCESS DESCRIPTION:** *If a code is not listed for a process that will be used, describe the process in the space provided on the form (D.(2)).*

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. *Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.*
2. *In column A of the next line enter the other EPA Hazardous Waste Number that can be sued to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.*
3. *Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.*

EXAMPLE FOR COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA HAZARD WASTE NO. (Enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESS									
								(1) PROCESS CODES (Enter)									(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

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N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes *(Continued; use additional sheets as necessary)*

Line Number	A. EPA Hazardous Waste Number (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1). PROCESS CODES (Enter code)									(2). PROCESS DESCRIPTION (If a code is not entered in D(1))
1	D	0	0	1	40,000	K	S	0	1							Hazardous Waste
2	D	0	0	1	6,000	K	S	0	1							Hazardous Waste
	D	0	0	2												Included in above
3	D	0	0	1	1,000	K	S	0	1							Hazardous Waste
	D	0	0	2		K	S	0	1							Included in above
	D	0	0	3		K	S	0	1							Included in above
4	D	0	0	1	6,000	K	S	0	1							Hazardous Waste
	D	0	0	2			S	0	1							Included in above
	D	0	0	8												Included in above
5	D	0	0	1	3,000	K	S	0	1							Hazardous Waste
	D	0	0	3												Included in above
6	D	0	0	1	15,000	K	S	0	1							Hazardous Waste
	D	0	0	3												Included in above
	D	0	0	5												Included in above
	D	0	0	6												Included in above
	D	0	0	7												Included in above
	D	0	0	8												Included in above
7	D	0	0	1	8,000	K	S	0	1							Hazardous Waste
	D	0	0	3												Included in above
	D	0	0	5												Included in above
	D	0	0	7												Included in above
	D	0	0	8												Included in above
8	D	0	0	1	1,000	K	S	0	1							Hazardous Waste
	D	0	0	6												Included in above
9	D	0	0	1	5,000	K	S	0	1							Hazardous Waste
	D	0	0	7												Included in above
10	D	0	0	1	1,000	K	S	0	1							Hazardous Waste
	D	0	0	8												Included in above
11	D	0	0	1	4,000	K	S	0	1							Hazardous Waste
	D	0	0	8												Included in above
	D	0	1	8												~~Hazardous Waste~~Included in

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EPA I.D. Number (enter from page 1)												Secondary ID Number (enter from page 1)												
N	M	5	8	9	0	1	1	0	5	1	8													

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	*A. EPA Hazardous Waste Number (Enter code)*				*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*D. PROCESSES*									
							(1). PROCESS CODES (Enter code)									*(2). PROCESS DESCRIPTION (If a code is not entered in D(1))*
12	D	0	0	1	500	K	S	0	1							Hazardous Waste
	D	0	0	8												Included in above
	D	0	3	5												Included in above
13	D	0	0	1	8,000	K	S	0	1							Hazardous Waste
	D	0	1	8												Included in above
14	D	0	0	1	1,000	K	S	0	1							Hazardous Waste
	D	0	3	5												Included in above
15	D	0	0	1	500	K	S	0	1							Hazardous Waste
	D	0	0	4												Included in above
16	D	0	0	2	30,000	K	S	0	1							Hazardous Waste
17	D	0	0	2	1,000	K	S	0	1							Hazardous Waste
	D	0	0	3												Included in above
18	D	0	0	2	500	K	S	0	1							Hazardous Waste
	D	0	0	7												Included in above
19	D	0	0	3	5,000	K	S	0	1							Hazardous Waste
20	D	0	0	3	5,000	K	S	0	1	T	0	4				Hazardous Waste
	D	0	0	1												Potentially Included in Above
	D	0	1	1												Potentially Included in Above
	F	0	0	3												Potentially Included in Above
	F	0	0	5												Potentially Included in Above
21	D	0	0	4	10,000	K	S	0	1							Hazardous Waste
22	D	0	0	4	2,000	K	S	0	1							Hazardous Waste
	D	0	0	5												Included in above
	D	0	0	6												Included in above
	D	0	0	7												Included in above
	D	0	0	8												Included in above
	D	0	1	1												Included in above
23	D	0	0	4	1,000	K	S	0	1							Hazardous Waste
	D	0	0	6												Included in above
	D	0	0	7												Included in above
	D	0	0	8												Included in above
24	D	0	0	5	10,000	K	S	0	1							Hazardous Waste

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N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	A. EPA Hazardous Waste Number (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1). PROCESS CODES (Enter code)									(2). PROCESS DESCRIPTION (If a code is not entered in D(1))
25	D005	500	K	S	0	1							Hazardous Waste
	D006												Included in above
	D007												Included in above
	D008												Included in above
26	D005	4,000	K	S	0	1							Hazardous Waste
	D008												Included in above
27	D006	10,000	K	S	0	1							Hazardous Waste
28	D006	5,000	K	S	0	1							Hazardous Waste
	D008												Included in above
29	D007	10,000	K	S	0	1							Hazardous Waste
30	D007	2,000	K	S	0	1							Hazardous Waste
	D008												Included in above
31	D008	17,000	K	S	0	1							Hazardous Waste
32	D008	3,000	K	S	0	1							Hazardous Waste
	D018												Included in above
33	D009	7,000	K	S	0	1							Hazardous Waste
34	D010	104,000	K	S	0	1							Hazardous Waste
35	D011	15,000	K	S	0	1							Hazardous Waste
36	D012	50	K	S	0	1							Hazardous Waste
37	D013	50	K	S	0	1							Hazardous Waste
38	D014	50	K	S	0	1							Hazardous Waste
39	D015	50	K	S	0	1							Hazardous Waste
40	D016	50	K	S	0	1							Hazardous Waste
41	D017	50	K	S	0	1							Hazardous Waste
42	D018	7,000	K	S	0	1							Hazardous Waste
43	D019	200	K	S	0	1							Hazardous Waste
44	D020	50	K	S	0	1							Hazardous Waste
45	D021	100	K	S	0	1							Hazardous Waste
46	D022	1,000	K	S	0	1							Hazardous Waste
47	D023	50	K	S	0	1							Hazardous Waste
48	D024	50	K	S	0	1							Hazardous Waste
49	D025	50	K	S	0	1							Hazardous Waste

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EPA I.D. Number (enter from page 1)												Secondary ID Number (enter from page 1)												
N	M	5	8	9	0	1	1	0	5	1	8													

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	*A. EPA Hazardous Waste Number (Enter code)*				*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*D. PROCESSES*									
							(1). PROCESS CODES (Enter code)									*(2). PROCESS DESCRIPTION (If a code is not entered in D(1))*
50	D	0	2	6	100	K	S	0	1							Hazardous Waste
51	D	0	2	7	100	K	S	0	1							Hazardous Waste
52	D	0	2	8	1,000	K	S	0	1							Hazardous Waste
53	D	0	2	9	100	K	S	0	1							Hazardous Waste
54	D	0	3	0	500	K	S	0	1							Hazardous Waste
55	D	0	3	1	50	K	S	0	1							Hazardous Waste
56	D	0	3	2	100	K	S	0	1							Hazardous Waste
57	D	0	3	3	100	K	S	0	1							Hazardous Waste
58	D	0	3	4	500	K	S	0	1							Hazardous Waste
59	D	0	3	5	15,000	K	S	0	1							Hazardous Waste
60	D	0	3	6	100	K	S	0	1							Hazardous Waste
61	D	0	3	7	100	K	S	0	1							Hazardous Waste
62	D	0	3	8	100	K	S	0	1							Hazardous Waste
63	D	0	3	9	2,000	K	S	0	1							Hazardous Waste
64	D	0	4	0	5,000	K	S	0	1							Hazardous Waste
65	D	0	4	1	50	K	S	0	1							Hazardous Waste
66	D	0	4	2	50	K	S	0	1							Hazardous Waste
67	D	0	4	3	50	K	S	0	1							Hazardous Waste
68	F	0	0	1	10,000	K	S	0	1							Hazardous Waste
69	F	0	0	2	6,000	K	S	0	1							Hazardous Waste
70	F	0	0	2	8,000	K	S	0	1							Hazardous Waste
	F	0	0	3												Included in above
71	F	0	0	2	1,000	K	S	0	1							Hazardous Waste
	F	0	0	3												Included in above
	D	0	0	1												Included in above
72	F	0	0	2	1,000	K	S	0	1							Hazardous Waste
	F	0	0	3												Included in above
	F	0	0	5												Included in above
	D	0	0	1												Included in above
73	F	0	0	2	50	K	S	0	1							Hazardous Waste
	F	0	0	3												Included in above
	D	0	4	0												Included in above

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N	M	5	8	9	0	1	1	0	5	1	8													

XIV. Description of Hazardous Wastes *(Continued; use additional sheets as necessary)*

Line Number	*A. EPA Hazardous Waste Number (Enter code)*				*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*D. PROCESSES*									
							(1). PROCESS CODES (Enter code)									*(2). PROCESS DESCRIPTION (If a code is not entered in D(1))*
74	F	0	0	2	1,000	K	S	0	1							Hazardous Waste
	D	0	0	1												Included in above
75	F	0	0	2	200	K	S	0	1							Hazardous Waste
	D	0	0	6												Included in above
	D	0	0	7												Included in above
76	F	0	0	2	300	K	S	0	1							Hazardous Waste
	D	0	0	8												Included in above
77	F	0	0	2	400	K	S	0	1							Hazardous Waste
	D	0	1	9												Included in above
	D	0	4	0												Included in above
78	F	0	0	2	2,000	K	S	0	1							Hazardous Waste
	D	0	3	9												Included in above
79	F	0	0	3	12,000	K	S	0	1							Hazardous Waste
80	F	0	0	3	10,000	K	S	0	1							Hazardous Waste
	D	0	0	1												Included in above
81	F	0	0	3	10	K	S	0	1							Hazardous Waste
	D	0	0	9												Included in above
82	F	0	0	4	1,000	K	S	0	1							Hazardous Waste
83	F	0	0	5	12,000	K	S	0	1							Hazardous Waste
84	F	0	0	5	1,000	K	S	0	1							Hazardous Waste
	F	0	0	3												Included in above
	D	0	0	1												Included in above
	D	0	0	7												Included in above
	D	0	3	5												Included in above
85	F	0	0	5	1,000	K	S	0	1							Hazardous Waste
	F	0	0	3												Included in above
	D	0	0	1												Included in above
	D	0	1	8												Included in above
	D	0	3	5												Included in above
86	F	0	0	5	5,000	K	S	0	1							Hazardous Waste
	F	0	0	3												Included in above
	D	0	0	1												Included in above

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EPA I.D. Number (enter from page 1)												Secondary ID Number (enter from page 1)											
N	M	5	8	9	0	1	1	0	5	1	8												

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	*A. EPA Hazardous Waste Number (Enter code)*				*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*D. PROCESSES*									
							(1).PROCESS CODES (Enter code)									*(2).PROCESS DESCRIPTION (If a code is not entered in D(1))*
87	F	0	0	5	500	K	S	0	1							Hazardous Waste
	F	0	0	3												Included in above
	D	0	0	1												Included in above
	D	0	3	5												Included in above
88	F	0	0	6	100	K	S	0	1							Hazardous Waste
89	F	0	0	7	2,000	K	S	0	1							Hazardous Waste
90	F	0	0	7	2,000	K	S	0	1							Hazardous Waste
	D	0	0	2												Included in above
	D	0	0	3												Included in above
	D	0	0	6												Included in above
91	F	0	0	7	1,000	K	S	0	1							Hazardous Waste
	D	0	0	2												Included in above
	D	0	0	3												Included in above
	D	0	1	1												Included in above
92	F	0	0	7	1,000	K	S	0	1							Hazardous Waste
93	F	0	0	8	100	K	S	0	1							Hazardous Waste
94	F	0	0	9	100	K	S	0	1							Hazardous Waste
95	F	0	1	0	100	K	S	0	1							Hazardous Waste
96	F	0	1	1	100	K	S	0	1							Hazardous Waste
97	F	0	2	7	150	K	S	0	1							Hazardous Waste
98	F	0	3	9	200,000	K	S	0	1							Hazardous Waste
99	P	0	0	1	25	K	S	0	1							Hazardous Waste
100	P	0	0	2	10	K	S	0	1							Hazardous Waste
101	P	0	0	3	10	K	S	0	1							Hazardous Waste
102	P	0	0	4	10	K	S	0	1							Hazardous Waste
103	P	0	0	5	25	K	S	0	1							Hazardous Waste
104	P	0	0	6	10	K	S	0	1							Hazardous Waste
105	P	0	0	7	10	K	S	0	1							Hazardous Waste
106	P	0	0	8	10	K	S	0	1							Hazardous Waste
107	P	0	0	9	10	K	S	0	1							Hazardous Waste
108	P	0	1	0	10	K	S	0	1							Hazardous Waste
109	P	0	1	1	25	K	S	0	1							Hazardous Waste

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N	M	5	8	9	0	1	1	0	5	1	8

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	A. EPA Hazardous Waste Number (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
							(1). PROCESS CODES (Enter code)									(2). PROCESS DESCRIPTION (If a code is not entered in D(1))
110	P	0	1	2	10	K	S	0	1							Hazardous Waste
111	P	0	1	3	10	K	S	0	1							Hazardous Waste
112	P	0	1	4	10	K	S	0	1							Hazardous Waste
113	P	0	1	5	10	K	S	0	1							Hazardous Waste
114	P	0	1	6	10	K	S	0	1							Hazardous Waste
115	P	0	1	7	10	K	S	0	1							Hazardous Waste
116	P	0	1	8	10	K	S	0	1							Hazardous Waste
117	P	0	2	0	10	K	S	0	1							Hazardous Waste
118	P	0	2	1	10	K	S	0	1							Hazardous Waste
119	P	0	2	2	100	K	S	0	1							Hazardous Waste
120	P	0	2	3	10	K	S	0	1							Hazardous Waste
121	P	0	2	4	10	K	S	0	1							Hazardous Waste
122	P	0	2	6	10	K	S	0	1							Hazardous Waste
123	P	0	2	7	10	K	S	0	1							Hazardous Waste
124	P	0	2	8	10	K	S	0	1							Hazardous Waste
125	P	0	2	9	1,500	K	S	0	1							Hazardous Waste
126	P	0	3	0	250	K	S	0	1							Hazardous Waste
127	P	0	3	1	10	K	S	0	1							Hazardous Waste
128	P	0	3	3	10	K	S	0	1							Hazardous Waste
129	P	0	3	4	10	K	S	0	1							Hazardous Waste
130	P	0	3	6	10	K	S	0	1							Hazardous Waste
131	P	0	3	7	10	K	S	0	1							Hazardous Waste
132	P	0	3	8	10	K	S	0	1							Hazardous Waste
133	P	0	3	9	10	K	S	0	1							Hazardous Waste
134	P	0	4	0	10	K	S	0	1							Hazardous Waste
135	P	0	4	1	10	K	S	0	1							Hazardous Waste
136	P	0	4	2	10	K	S	0	1							Hazardous Waste
137	P	0	4	3	10	K	S	0	1							Hazardous Waste
138	P	0	4	4	10	K	S	0	1							Hazardous Waste
139	P	0	4	5	10	K	S	0	1							Hazardous Waste
140	P	0	4	6	10	K	S	0	1							Hazardous Waste

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N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes *(Continued; use additional sheets as necessary)*

Line Number	A. EPA Hazardous Waste Number (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
							(1). PROCESS CODES (Enter code)									(2). PROCESS DESCRIPTION (If a code is not entered in D(1))
142	P	0	4	8	10	K	S	0	1							Hazardous Waste
143	P	0	4	9	10	K	S	0	1							Hazardous Waste
144	P	0	5	0	10	K	S	0	1							Hazardous Waste
145	P	0	5	1	10	K	S	0	1							Hazardous Waste
146	P	0	5	4	10	K	S	0	1							Hazardous Waste
147	P	0	5	6	10	K	S	0	1							Hazardous Waste
148	P	0	5	7	10	K	S	0	1							Hazardous Waste
149	P	0	5	8	10	K	S	0	1							Hazardous Waste
150	P	0	5	9	10	K	S	0	1							Hazardous Waste
151	P	0	6	0	10	K	S	0	1							Hazardous Waste
152	P	0	6	2	10	K	S	0	1							Hazardous Waste
153	P	0	6	3	10	K	S	0	1							Hazardous Waste
154	P	0	6	4	150	K	S	0	1							Hazardous Waste
155	P	0	6	5	10	K	S	0	1							Hazardous Waste
156	P	0	6	6	10	K	S	0	1							Hazardous Waste
157	P	0	6	7	10	K	S	0	1							Hazardous Waste
158	P	0	6	8	10	K	S	0	1							Hazardous Waste
159	P	0	6	9	10	K	S	0	1							Hazardous Waste
160	P	0	7	0	10	K	S	0	1							Hazardous Waste
161	P	0	7	1	10	K	S	0	1							Hazardous Waste
162	P	0	7	2	10	K	S	0	1							Hazardous Waste
163	P	0	7	3	10	K	S	0	1							Hazardous Waste
164	P	0	7	4	10	K	S	0	1							Hazardous Waste
165	P	0	7	5	10	K	S	0	1							Hazardous Waste
166	P	0	7	6	10	K	S	0	1							Hazardous Waste
167	P	0	7	7	10	K	S	0	1							Hazardous Waste
168	P	0	7	8	30	K	S	0	1							Hazardous Waste
169	P	0	8	1	10	K	S	0	1							Hazardous Waste
170	P	0	8	2	10	K	S	0	1							Hazardous Waste
171	P	0	8	4	10	K	S	0	1							Hazardous Waste
172	P	0	8	5	10	K	S	0	1							Hazardous Waste
173	P	0	8	7	50	K	S	0	1							Hazardous Waste

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EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	*A. EPA Hazardous Waste Number (Enter code)*				*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*D. PROCESSES*									
							(1). PROCESS CODES (Enter code)									*(2). PROCESS DESCRIPTION (If a code is not entered in D(1))*
174	P	0	8	8	10	K	S	0	1							Hazardous Waste
175	P	0	8	9	10	K	S	0	1							Hazardous Waste
176	P	0	9	2	10	K	S	0	1							Hazardous Waste
177	P	0	9	3	10	K	S	0	1							Hazardous Waste
178	P	0	9	4	10	K	S	0	1							Hazardous Waste
179	P	0	9	5	10	K	S	0	1							Hazardous Waste
180	P	0	9	6	10	K	S	0	1							Hazardous Waste
181	P	0	9	7	10	K	S	0	1							Hazardous Waste
182	P	0	9	8	50	K	S	0	1							Hazardous Waste
183	P	0	9	9	10	K	S	0	1							Hazardous Waste
184	P	1	0	1	10	K	S	0	1							Hazardous Waste
185	P	1	0	2	10	K	S	0	1							Hazardous Waste
186	P	1	0	3	10	K	S	0	1							Hazardous Waste
187	P	1	0	4	100	K	S	0	1							Hazardous Waste
188	P	1	0	5	10	K	S	0	1							Hazardous Waste
189	P	1	0	6	1,000	K	S	0	1							Hazardous Waste
190	P	1	0	8	10	K	S	0	1							Hazardous Waste
191	P	1	0	9	10	K	S	0	1							Hazardous Waste
192	P	1	1	0	10	K	S	0	1							Hazardous Waste
193	P	1	1	1	10	K	S	0	1							Hazardous Waste
194	P	1	1	2	10	K	S	0	1							Hazardous Waste
195	P	1	1	3	50	K	S	0	1							Hazardous Waste
196	P	1	1	4	10	K	S	0	1							Hazardous Waste
197	P	1	1	5	10	K	S	0	1							Hazardous Waste
198	P	1	1	6	10	K	S	0	1							Hazardous Waste
199	P	1	1	8	10	K	S	0	1							Hazardous Waste
200	P	1	1	9	10	K	S	0	1							Hazardous Waste
201	P	1	2	0	25	K	S	0	1							Hazardous Waste
202	P	1	2	1	10	K	S	0	1							Hazardous Waste
203	P	1	2	2	10	K	S	0	1							Hazardous Waste
204	P	1	2	3	10	K	S	0	1							Hazardous Waste
205	U	0	0	1	10	K	S	0	1							Hazardous Waste

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GSA No. 0248-EPA-OT

EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	A. EPA Hazardous Waste Number (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
							(1). PROCESS CODES (Enter code)									(2). PROCESS DESCRIPTION (If a code is not entered in D(1))
206	U	0	0	2	1,000	K	S	0	1							Hazardous Waste
207	U	0	0	3	250	K	S	0	1							Hazardous Waste
208	U	0	0	4	10	K	S	0	1							Hazardous Waste
209	U	0	0	5	10	K	S	0	1							Hazardous Waste
210	U	0	0	6	10	K	S	0	1							Hazardous Waste
211	U	0	0	7	10	K	S	0	1							Hazardous Waste
212	U	0	0	8	100	K	S	0	1							Hazardous Waste
213	U	0	0	9	10	K	S	0	1							Hazardous Waste
214	U	0	1	0	10	K	S	0	1							Hazardous Waste
215	U	0	1	1	10	K	S	0	1							Hazardous Waste
216	U	0	1	2	25	K	S	0	1							Hazardous Waste
217	U	0	1	4	10	K	S	0	1							Hazardous Waste
218	U	0	1	5	10	K	S	0	1							Hazardous Waste
219	U	0	1	6	10	K	S	0	1							Hazardous Waste
220	U	0	1	7	10	K	S	0	1							Hazardous Waste
221	U	0	1	8	10	K	S	0	1							Hazardous Waste
222	U	0	1	9	150	K	S	0	1							Hazardous Waste
223	U	0	2	0	10	K	S	0	1							Hazardous Waste
224	U	0	2	1	10	K	S	0	1							Hazardous Waste
225	U	0	2	2	10	K	S	0	1							Hazardous Waste
226	U	0	2	3	10	K	S	0	1							Hazardous Waste
227	U	0	2	4	10	K	S	0	1							Hazardous Waste
228	U	0	2	5	10	K	S	0	1							Hazardous Waste
229	U	0	2	6	10	K	S	0	1							Hazardous Waste
230	U	0	2	7	10	K	S	0	1							Hazardous Waste
231	U	0	2	8	5,000	K	S	0	1							Hazardous Waste
232	U	0	2	9	10	K	S	0	1							Hazardous Waste
233	U	0	3	0	10	K	S	0	1							Hazardous Waste
234	U	0	3	1	500	K	S	0	1							Hazardous Waste
235	U	0	3	2	500	K	S	0	1							Hazardous Waste
236	U	0	3	3	10	K	S	0	1							Hazardous Waste
237	U	0	3	4	10	K	S	0	1							Hazardous Waste

EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	*A. EPA Hazardous Waste Number (Enter code)*	*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*D. PROCESSES*									
				(1). PROCESS CODES (Enter code)									*(2). PROCESS DESCRIPTION (If a code is not entered in D(1))*
238	U 0 3 5	50	K	S	0	1							Hazardous Waste
239	U 0 3 6	500	K	S	0	1							Hazardous Waste
240	U 0 3 7	50	K	S	0	1							Hazardous Waste
241	U 0 3 8	10	K	S	0	1							Hazardous Waste
242	U 0 3 9	10	K	S	0	1							Hazardous Waste
243	U 0 4 1	10	K	S	0	1							Hazardous Waste
244	U 0 4 2	10	K	S	0	1							Hazardous Waste
245	U 0 4 3	10	K	S	0	1							Hazardous Waste
246	U 0 4 4	150	K	S	0	1							Hazardous Waste
247	U 0 4 5	25	K	S	0	1							Hazardous Waste
248	U 0 4 6	10	K	S	0	1							Hazardous Waste
249	U 0 4 7	10	K	S	0	1							Hazardous Waste
250	U 0 4 8	10	K	S	0	1							Hazardous Waste
251	U 0 4 9	10	K	S	0	1							Hazardous Waste
252	U 0 5 0	10	K	S	0	1							Hazardous Waste
253	U 0 5 1	75	K	S	0	1							Hazardous Waste
254	U 0 5 2	25	K	S	0	1							Hazardous Waste
255	U 0 5 3	10	K	S	0	1							Hazardous Waste
256	U 0 5 5	25	K	S	0	1							Hazardous Waste
257	U 0 5 6	250	K	S	0	1							Hazardous Waste
258	U 0 5 7	25	K	S	0	1							Hazardous Waste
259	U 0 5 8	10	K	S	0	1							Hazardous Waste
260	U 0 5 9	10	K	S	0	1							Hazardous Waste
261	U 0 6 0	10	K	S	0	1							Hazardous Waste
262	U 0 6 1	10	K	S	0	1							Hazardous Waste
263	U 0 6 2	10	K	S	0	1							Hazardous Waste
264	U 0 6 3	10	K	S	0	1							Hazardous Waste
265	U 0 6 4	10	K	S	0	1							Hazardous Waste
266	U 0 6 6	10	K	S	0	1							Hazardous Waste
267	U 0 6 7	25	K	S	0	1							Hazardous Waste
268	U 0 6 8	10	K	S	0	1							Hazardous Waste
269	U 0 6 9	100	K	S	0	1							Hazardous Waste

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EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes *(Continued; use additional sheets as necessary)*

Line Number	A. EPA Hazardous Waste Number (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
							(1). PROCESS CODES (Enter code)									(2). PROCESS DESCRIPTION (If a code is not entered in D(1))
270	U	0	7	0	50	K	S	0	1							Hazardous Waste
271	U	0	7	1	10	K	S	0	1							Hazardous Waste
272	U	0	7	2	10	K	S	0	1							Hazardous Waste
273	U	0	7	3	10	K	S	0	1							Hazardous Waste
274	U	0	7	4	10	K	S	0	1							Hazardous Waste
275	U	0	7	5	200	K	S	0	1							Hazardous Waste
276	U	0	7	6	10	K	S	0	1							Hazardous Waste
277	U	0	7	7	200	K	S	0	1							Hazardous Waste
278	U	0	7	8	50	K	S	0	1							Hazardous Waste
289	U	0	7	9	50	K	S	0	1							Hazardous Waste
280	U	0	8	0	1,000	K	S	0	1							Hazardous Waste
281	U	0	8	1	10	K	S	0	1							Hazardous Waste
282	U	0	8	2	10	K	S	0	1							Hazardous Waste
283	U	0	8	3	10	K	S	0	1							Hazardous Waste
284	U	0	8	4	10	K	S	0	1							Hazardous Waste
285	U	0	8	5	10	K	S	0	1							Hazardous Waste
286	U	0	8	6	10	K	S	0	1							Hazardous Waste
287	U	0	8	7	10	K	S	0	1							Hazardous Waste
288	U	0	8	8	10	K	S	0	1							Hazardous Waste
289	U	0	8	9	10	K	S	0	1							Hazardous Waste
290	U	0	9	0	10	K	S	0	1							Hazardous Waste
291	U	0	9	1	10	K	S	0	1							Hazardous Waste
292	U	0	9	2	10	K	S	0	1							Hazardous Waste
293	U	0	9	3	10	K	S	0	1							Hazardous Waste
294	U	0	9	4	10	K	S	0	1							Hazardous Waste
295	U	0	9	5	10	K	S	0	1							Hazardous Waste
296	U	0	9	6	10	K	S	0	1							Hazardous Waste
297	U	0	9	7	10	K	S	0	1							Hazardous Waste
298	U	0	9	8	10	K	S	0	1							Hazardous Waste
299	U	0	9	9	10	K	S	0	1							Hazardous Waste
300	U	1	0	1	10	K	S	0	1							Hazardous Waste
301	U	1	0	2	20	K	S	0	1							Hazardous Waste

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EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	A. EPA Hazardous Waste Number (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
							(1). PROCESS CODES (Enter code)									(2). PROCESS DESCRIPTION (If a code is not entered in D(1))
302	U	1	0	3	10	K	S	0	1							Hazardous Waste
303	U	1	0	5	10	K	S	0	1							Hazardous Waste
304	U	1	0	6	10	K	S	0	1							Hazardous Waste
305	U	1	0	7	50	K	S	0	1							Hazardous Waste
306	U	1	0	8	50	K	S	0	1							Hazardous Waste
307	U	1	0	9	10	K	S	0	1							Hazardous Waste
308	U	1	1	0	10	K	S	0	1							Hazardous Waste
309	U	1	1	1	10	K	S	0	1							Hazardous Waste
310	U	1	1	2	1,000	K	S	0	1							Hazardous Waste
311	U	1	1	3	10	K	S	0	1							Hazardous Waste
312	U	1	1	4	10	K	S	0	1							Hazardous Waste
313	U	1	1	5	10	K	S	0	1							Hazardous Waste
314	U	1	1	6	10	K	S	0	1							Hazardous Waste
315	U	1	1	7	30	K	S	0	1							Hazardous Waste
316	U	1	1	8	10	K	S	0	1							Hazardous Waste
317	U	1	1	9	10	K	S	0	1							Hazardous Waste
318	U	1	2	0	10	K	S	0	1							Hazardous Waste
319	U	1	2	1	200	K	S	0	1							Hazardous Waste
320	U	1	2	2	500	K	S	0	1							Hazardous Waste
321	U	1	2	3	35	K	S	0	1							Hazardous Waste
322	U	1	2	4	10	K	S	0	1							Hazardous Waste
323	U	1	2	5	10	K	S	0	1							Hazardous Waste
324	U	1	2	6	10	K	S	0	1							Hazardous Waste
325	U	1	2	7	10	K	S	0	1							Hazardous Waste
326	U	1	2	8	10	K	S	0	1							Hazardous Waste
327	U	1	2	9	10	K	S	0	1							Hazardous Waste
328	U	1	3	0	10	K	S	0	1							Hazardous Waste
329	U	1	3	1	50	K	S	0	1							Hazardous Waste
330	U	1	3	2	25	K	S	0	1							Hazardous Waste
331	U	1	3	3	250	K	S	0	1							Hazardous Waste
332	U	1	3	4	2,000	K	S	0	1							Hazardous Waste
333	U	1	3	4	100	K	S	0	1							Hazardous Waste

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EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	*A. EPA Hazardous Waste Number (Enter code)*				*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*D. PROCESSES*									
							(1). PROCESS CODES (Enter code)									*(2). PROCESS DESCRIPTION (If a code is not entered in D(1))*
334	D	0	0	2												Included in above
335	U	1	3	5	75	K	S	0	1							Hazardous Waste
336	U	1	3	6	10	K	S	0	1							Hazardous Waste
337	U	1	3	7	10	K	S	0	1							Hazardous Waste
338	U	1	3	8	10	K	S	0	1							Hazardous Waste
339	U	1	4	0	50	K	S	0	1							Hazardous Waste
340	U	1	4	1	10	K	S	0	1							Hazardous Waste
341	U	1	4	2	10	K	S	0	1							Hazardous Waste
342	U	1	4	3	10	K	S	0	1							Hazardous Waste
343	U	1	4	4	300	K	S	0	1							Hazardous Waste
344	U	1	4	5	10	K	S	0	1							Hazardous Waste
345	U	1	4	6	10	K	S	0	1							Hazardous Waste
346	U	1	4	7	100	K	S	0	1							Hazardous Waste
347	U	1	4	8	10	K	S	0	1							Hazardous Waste
348	U	1	4	9	10	K	S	0	1							Hazardous Waste
349	U	1	5	0	10	K	S	0	1							Hazardous Waste
350	U	1	5	1	1,000	K	S	0	1							Hazardous Waste
351	U	1	5	1	300	K	S	0	1							Hazardous Waste
	D	0	0	2												Included in above
352	U	1	5	1	100	K	S	0	1							Hazardous Waste
	D	0	0	9												Included in above
353	U	1	5	2	10	K	S	0	1							Hazardous Waste
354	U	1	5	3	10	K	S	0	1							Hazardous Waste
355	U	1	5	4	500	K	S	0	1							Hazardous Waste
356	U	1	5	5	10	K	S	0	1							Hazardous Waste
357	U	1	5	6	10	K	S	0	1							Hazardous Waste
358	U	1	5	7	10	K	S	0	1							Hazardous Waste
359	U	1	5	8	25	K	S	0	1							Hazardous Waste
360	U	1	5	9	125	K	S	0	1							Hazardous Waste
361	U	1	6	0	50	K	S	0	1							Hazardous Waste
362	U	1	6	1	50	K	S	0	1							Hazardous Waste
363	U	1	6	2	100	K	S	0	1							Hazardous Waste

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EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes *(Continued; use additional sheets as necessary)*

Line Number	*A. EPA Hazardous Waste Number (Enter code)*				*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*D. PROCESSES*									
							(1). PROCESS CODES (Enter code)									*(2). PROCESS DESCRIPTION (If a code is not entered in D(1))*
364	U	1	6	3	10	K	S	0	1							Hazardous Waste
365	U	1	6	4	10	K	S	0	1							Hazardous Waste
366	U	1	6	5	1,000	K	S	0	1							Hazardous Waste
367	U	1	6	6	10	K	S	0	1							Hazardous Waste
368	U	1	6	7	10	K	S	0	1							Hazardous Waste
369	U	1	6	8	10	K	S	0	1							Hazardous Waste
370	U	1	6	9	200	K	S	0	1							Hazardous Waste
371	U	1	7	0	10	K	S	0	1							Hazardous Waste
372	U	1	7	1	25	K	S	0	1							Hazardous Waste
373	U	1	7	2	10	K	S	0	1							Hazardous Waste
374	U	1	7	3	10	K	S	0	1							Hazardous Waste
375	U	1	7	4	10	K	S	0	1							Hazardous Waste
376	U	1	7	6	10	K	S	0	1							Hazardous Waste
377	U	1	7	7	50	K	S	0	1							Hazardous Waste
378	U	1	7	8	50	K	S	0	1							Hazardous Waste
379	U	1	7	9	100	K	S	0	1							Hazardous Waste
380	U	1	8	0	100	K	S	0	1							Hazardous Waste
381	U	1	8	1	50	K	S	0	1							Hazardous Waste
382	U	1	8	2	25	K	S	0	1							Hazardous Waste
383	U	1	8	3	25	K	S	0	1							Hazardous Waste
384	U	1	8	4	25	K	S	0	1							Hazardous Waste
385	U	1	8	5	25	K	S	0	1							Hazardous Waste
386	U	1	8	6	50	K	S	0	1							Hazardous Waste
387	U	1	8	7	10	K	S	0	1							Hazardous Waste
388	U	1	8	8	25	K	S	0	1							Hazardous Waste
389	U	1	8	9	10	K	S	0	1							Hazardous Waste
390	U	1	9	0	10	K	S	0	1							Hazardous Waste
391	U	1	9	1	10	K	S	0	1							Hazardous Waste
392	U	1	9	2	10	K	S	0	1							Hazardous Waste
393	U	1	9	3	10	K	S	0	1							Hazardous Waste
394	U	1	9	4	10	K	S	0	1							Hazardous Waste
395	U	1	9	6	25	K	S	0	1							Hazardous Waste

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EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	A. EPA Hazardous Waste Number (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1). PROCESS CODES (Enter code)			(2). PROCESS DESCRIPTION (If a code is not entered in D(1))
396	U 1 9 7	10	K	S 0 1			Hazardous Waste
397	U 2 0 0	10	K	S 0 1			Hazardous Waste
398	U 2 0 1	25	K	S 0 1			Hazardous Waste
399	U 2 0 2	10	K	S 0 1			Hazardous Waste
400	U 2 0 3	10	K	S 0 1			Hazardous Waste
401	U 2 0 4	25	K	S 0 1			Hazardous Waste
402	U 2 0 5	10	K	S 0 1			Hazardous Waste
403	U 2 0 6	10	K	S 0 1			Hazardous Waste
404	U 2 0 7	10	K	S 0 1			Hazardous Waste
405	U 2 0 8	10	K	S 0 1			Hazardous Waste
406	U 2 0 9	20	K	S 0 1			Hazardous Waste
407	U 2 1 0	25	K	S 0 1			Hazardous Waste
408	U 2 1 1	100	K	S 0 1			Hazardous Waste
409	U 2 1 3	350	K	S 0 1			Hazardous Waste
410	U 2 1 4	10	K	S 0 1			Hazardous Waste
411	U 2 1 5	10	K	S 0 1			Hazardous Waste
412	U 2 1 6	10	K	S 0 1			Hazardous Waste
413	U 2 1 7	10	K	S 0 1			Hazardous Waste
414	U 2 1 8	10	K	S 0 1			Hazardous Waste
415	U 2 1 9	25	K	S 0 1			Hazardous Waste
416	U 2 2 0	500	K	S 0 1			Hazardous Waste
417	U 2 2 1	10	K	S 0 1			Hazardous Waste
418	U 2 2 2	10	K	S 0 1			Hazardous Waste
419	U 2 2 3	1,000	K	S 0 1			Hazardous Waste
420	U 2 2 5	50	K	S 0 1			Hazardous Waste
421	U 2 2 6	4,000	K	S 0 1			Hazardous Waste
422	U 2 2 7	1,500	K	S 0 1			Hazardous Waste
423	U 2 2 8	1,000	K	S 0 1			Hazardous Waste
424	U 2 3 4	10	K	S 0 1			Hazardous Waste
425	U 2 3 5	10	K	S 0 1			Hazardous Waste
426	U 2 3 6	10	K	S 0 1			Hazardous Waste
427	U 2 3 7	10	K	S 0 1			Hazardous Waste

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 10-31-02
GSA No. 0248-EPA-OT

EPA I.D. Number (enter from page 1)											Secondary ID Number (enter from page 1)												
N	M	5	8	9	0	1	1	0	5	1	8												

XIV. Description of Hazardous Wastes ***(Continued; use additional sheets as necessary)***

Line Number	*A. EPA Hazardous Waste Number (Enter code)*				*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*D. PROCESSES*									
							(1). PROCESS CODES (Enter code)									*(2). PROCESS DESCRIPTION (If a code is not entered in D(1))*
428	U	2	3	8	10	K	S	0	1							Hazardous Waste
429	U	2	3	9	250	K	S	0	1							Hazardous Waste
430	U	2	4	0	10	K	S	0	1							Hazardous Waste
431	U	2	4	3	10	K	S	0	1							Hazardous Waste
432	U	2	4	4	10	K	S	0	1							Hazardous Waste
433	U	2	4	6	10	K	S	0	1							Hazardous Waste
434	U	2	4	7	10	K	S	0	1							Hazardous Waste
435	U	2	4	8	10	K	S	0	1							Hazardous Waste
436	U	2	4	9	10	K	S	0	1							Hazardous Waste
437	U	3	2	8	10	K	S	0	1							Hazardous Waste
438	U	3	5	3	10	K	S	0	1							Hazardous Waste
439	U	3	5	9	100	K	S	0	1							Hazardous Waste
141	P	0	4	7	10	K	S	0	1							Hazardous Waste

Attachment C

Sandia National Laboratories
Hazardous Waste Management Facility Permit Attachment G

Revised Part A (forms and Appendix A) on new EPA forms

Permit NM5890110518-1

MAIL THE COMPLETED FORM TO: e Appropriate EPA Regional or State Office.	United States Environmental Protection Agency **RCRA SUBTITLE C SITE IDENTIFICATION FORM**	
1. Reason for Submittal (See instructions on page 25) CHECK CORRECT BOX(ES)	**Reason for Submittal:** ☐ To provide initial notification (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities). ☐ To provide subsequent notification (to update site identification information). ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application. ☒ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment #) ☐ As a component of the Hazardous Waste Report.	
2. Site EPA ID Number (See instructions on page 26)	**EPA ID Number:** *NM5 890 110 518*	
Site Name (See instructions on page 26)	**Name:** *Sandia National Laboratories*	
4. Site Location Information (See instructions on page 26)	**Street Address:** *1515 Eubank Blvd. SE*	
	City, Town, or Village: *Albuquerque*	**State:** *NM*
	County Name: *Bernalillo*	**Zip Code:** *87123*
5. Site Location (See instructions on page 26)	**Site Land Type :** ☐ Private ☐ County ☐ District ☒ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other	
6. North American Industry Classification System (NAICS) Code(s) for the Site (See instructions on page 26)	**A.** *92811*	**B.** *54171*
	C.	**D.**
7. Site Mailing Address (See instructions on page 27)	**Street or P.O. Box:** *P.O. Box 5400, Sandia Site Office*	
	City, Town, or Village: *Albuquerque*	
	State: *NM*	
	Country: *USA*	**Zip Code:** *87185-5400*
8. Site Contact Person (See instructions on page 27)	**First Name:** *David* **MI:**	**Last Name:** *Rast*
	Phone Number: *(505)-845-5349*	**Phone Number Extension:**
9. Legal Owner and Operator of the Site (See instructions on pages 27 and 28)	**A. Name of Site's Legal Owner:** *US Department of Energy*	**Date Became Owner (mm/dd/yyyy):** *09/1945*
	Owner Type: ☐ Private ☐ County ☐ District ☒ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other	
	B. Name of site's Operator: *Sandia Corporation*	**Date Became Operator (mm/dd/yyyy):** *11/01/1949*
	Operator Type: ☐ Private ☐ County ☐ District ☐ Federal ☐ Indian ☐ Municipal ☐ State ☒ Other	

EPA ID No.	N	M	5	8	9	0	1	1	0	5	1	8

10. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. See instructions on pages 28 to 32)

A. Hazardous Waste Activities

1. Generator of Hazardous Waste
(Choose only one of the following three categories)

[X] a. LQG: Greater than 1,000 kg/mo (2,200 lbs./mo) of non-acute hazardous waste; or

[ ] b. SQG: 100 to 1,000 kg/mo (220 – 2,200 lbs/mo.) of non-acute hazardous waste; or

[ ] c. CESQG: Less than 100 kg/mo (220 lbs./mo.) of non acute hazardous waste

In addition, indicate other generator activities (check all that apply)

[ ] d. United States Importer of Hazardous Waste

[X] e. Mixed Waste (hazardous and radioactive) Generator

For Items 2 through 6, check all that apply:

[ ] **2. Transporter of Hazardous Waste**

[X] **3. Treater, Storer, or Disposer of Hazardous Waste (at your site)** Note: A hazardous waste permit is required for this activity.

[ ] **4. Recycler of Hazardous Waste (at your site)** Note: A hazardous waste permit may be required for this activity.

5. Exempt Boiler and/or Industrial Furnace

[ ] a. Small Quantity On-site Burner Exemption

[ ] b. Smelting, Melting and Refining Furnace Exemption

[ ] **6. Underground Injection Control**

B. Universal Waste Activities *None*

1. Large Quantity Handler Of Universal Waste (accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste generated and/or accumulated at your site. (check all boxes that apply):

		Generated	Accumulated
a.	Batteries	[ ]	[ ]
b.	Pesticides	[ ]	[ ]
c.	Thermostats	[ ]	[ ]
d.	Lamps	[ ]	[ ]
e.	Other (specify) _____	[ ]	[ ]
f.	Other (specify) _____	[ ]	[ ]
g.	Other (specify) _____	[ ]	[ ]

[ ] **2. Destination Facility for Universal Waste:**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities *None*

1. Used Oil Transporter – Indicate Type(s) of Activity(ies)

[ ] a. Transporter

[ ] b. Transfer Facility

2. Used Oil Processor and/or Re-refiner – Indicate Type(s) of Activity(ies)

[ ] a. Processor

[ ] b. Re-refiner

[ ] **3. Off-Specification Used Oil Burner**

4. Used Oil Fuel Marketer – Indicate Type(s) of Activity

[ ] a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner

[ ] b. Marketer Who First Claims the Used Oil Meets the Specifications

11. Description of Hazardous Wastes (See instructions on page 33) *(n/a per instructions)*

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

EPA ID No.	N	M	5	8	9	0	1	1	0	5	1	8

B Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-regulated hazardous wastes tled at you site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed for waste codes.

12. Comments (See instructions on Page 33)

Facility latitude: 35 degrees, 01 minutes, 45 seconds North

Facility longitude: 106 degrees, 32 minutes, 30 seconds West

13. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. **(See instructions on page 33)**

Signature of owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
Patty Wagner	*Owner: Patty Wagner, Manager, DOE/SSO*	6-22-05
Patty Wagner	*Co-Operator: Patty Wagner, Manager, DOE/SSO*	6-22-05
L E Shephard	*Co-Operator: Les E. Shephard, Vice President, Sandia Corporation*	6/8/05

OMB#: 2050-0034 Expires 12/31/2003

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact (See instructions on page 35)	**First Name:** *David*	**MI:**	**Last Name:** *Rast*
	Phone Number: *505-845-5349*		**Phone Number Extension:**
2. Facility Permit Contact Mailing Address (See instructions on page 35)	**Street Address:** *P.O. Box 5400, US Department of Energy, Sandia Site Office*		
	City, Town, or Village: *Albuquerque*		**State:** *NM*
	County Name: *USA*		**Zip Code:** *87185-5400*
3. Legal Owner Mailing Address and Telephone Number (See instructions on page 36)	**Street or P.O. Box:** *P.O. Box 5400*		
	City, Town, or Village: *Albuquerque*		
	State: *NM*		
	Country: *USA*	**Zip Code:** *87185-5400*	**Phone Number:** *505-845-5349*
4. Operator Mailing Address and Telephone Number (See instructions on page 36)	**Street or P.O. Box:** *P.O. Box 5800, Department 6300*		
	City, Town, or Village: *Albuquerque*		
	State: *NM*		
	Country: *USA*	**Zip Code:** *87185-5400*	**Phone Number:** *505-845-5349*
5. Facility Existence Date (See instructions on page 36)	**Facility Existence Date (mm/dd/yyyy):** *11/19/1980 (date that regulated hazardous waste operations began)*		

6. Other Environmental Permits (See instructions on page 36) *See Appendix A*

A. Permit Type	B. Permit Number	C. Description

7. Nature of Business (Provide a brief description; see instructions on page 37)

Sandia National Laboratories/New Mexico is a multi-program research and Development (R&D) laboratory of the U.S. Department of Energy. Missions include R&D related to nuclear weapons, energy, and other programs of national interest.

8. Process Codes and Design Capacities (See instructions on page 37)

A. PROCESS CODE - ***Enter the code from the list of process codes below that best describes each process to be used at the facility. Thirteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item 9.***

B. PROCESS DESIGN CAPACITY- **For each code entered in column A, enter the capacity of the process.**

1. **AMOUNT - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.**
2. **UNIT OF MEASURE** - ***For each amount entered in column B(1), enter the code in column B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.***

C. PROCESS TOTAL NUMBER OF UNITS - ***Enter the total number of units for each corresponding process code.***

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	Disposal:	
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectare-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure Listed Below
	Storage:	
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Acres; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
	Treatment:	
T01	Tank Treatment	Gallons Per Day; Liters Per Day; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; or Metric Tons Per Hour
T02	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Pounds Per Hour; Short Tons per Day; Kilograms Per Hour; Metric Tons Per Day; or Metric Tons Per Hour
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour ; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Liters Per Hour; Kilograms Per Hour; or Million Btu Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, or Refining Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour ; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per H our; Liters Per Hour; or Million Btu Per Hour
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace Pulping Liquor Recovery Furnace	
T90	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid Halogen Acid Furnaces Other Industrial Furnaces	
T91		
T92	Listed In 40 CFR §260.10	
T93		
T94	Containment Building –Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
	Miscellaneous (Subpart X)	
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per H our; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour ; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; or Million Btu Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G	Short Tons Per Hour	D	Cubic Yards	Y
Gallons Per Hour	E	Metric Tons Per Hour	W	Cubic Meters	C
Gallons Per Day	U	Short Tons Per Day	N	Acres	B
Liters	L	Metric Tons Per Day	S	Acre-feet	A
Liters Per Hour	H	Pounds Per Hour	J	Hectares	Q
Liters Per Day	V	Kilograms Per Hour	R	Hectare-meter	F
		Million BTU Per Hour	X	BTU Per Hour	I

8. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 8 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons

Line Number	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	B. PROCESS DESIGN CAPACITY (2) Unit of Measure (Enter code)	C. Process Total Number of Units	For Official Use Only
1	S 0 1	264,978 . 0	L	001	
2	T 0 4	100 . 0	V	001	

NOTE: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in Item 9.

9. Other Processes (See instructions on page 37 and follow instructions from Item 8 for D99, S99, T04 and X99 process codes)

Line Number	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	B. PROCESS DESIGN CAPACITY (2) Unit of Measure (Enter code)	C. Process Total Number of Units	D. Description of Process
2	T 0 4	100	V	001	Thermal treatment, liters per day

10. Description of Hazardous Wastes (See instructions on page 37)

A. EPA HAZARDOUS WASTE NUMBER - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY - For each listed waste entered in column A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE - For each quantity entered in column B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	*CODE*	*METRIC UNIT OF MEASURE*	*CODE*
POUNDS	*P*	*KILOGRAMS*	*K*
TONS	*T*	*METRIC TONS*	*M*

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

a. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate the waste will be stored, treated, and/or disposed at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

i. Enter the first two as described above.
ii. Enter "000" in the extreme right box of Item 10.D(1).
iii. Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 10.E.

b. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in Item 10.D(2) or in Item 10.E(2).

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

c. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.

d. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.

e. Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING Item 10 (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		*A. EPA Hazardous Waste No. (Enter code)*				*B. Estimated Annual Quantity Of Waste*	*C. Unit of Measure (Enter Code)*	*D. PROCESSES*									
								(1) PROCESS CODES (Enter Code)									*(2) PROCESS DESCRIPTION (If a code is not entered in D(1))*
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Include With Above

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
1	D001	40,000	K	S01				Hazardous Waste
2	D001	6,000	K	S01				Hazardous Waste
	D002							Included in above
3	D001	1,000	K	S01				Hazardous Waste
	D002		K	S01				Included in above
	D003		K	S01				Included in above
4	D001	6,000	K	S01				Hazardous Waste
	D002			S01				Included in above
	D008							Included in above
5	D001	3,000	K	S01				Hazardous Waste
	D003							Included in above
6	D001	15,000	K	S01				Hazardous Waste
	D003							Included in above
	D005							Included in above
	D006							Included in above
	D007							Included in above
	D008							Included in above
7	D001	8,000	K	S01				Hazardous Waste
	D003							Included in above
	D005							Included in above
	D007							Included in above
	D008							Included in above
8	D001	1,000	K	S01				Hazardous Waste
	D006							Included in above
9	D001	5,000	K	S01				Hazardous Waste
	D007							Included in above
10	D001	1,000	K	S01				Hazardous Waste
	D008							Included in above
11	D001	4,000	K	S01				Hazardous Waste
	D008							Included in above
	D018							Included in above
12	D001	500	K	S01				Hazardous Waste
	D008							Included in above
	D035							Included in above
13	D001	8,000	K	S01				Hazardous Waste
	D018							Included in above
14	D001	1,000	K	S01				Hazardous Waste
	D035							Included in above
15	D001	500	K	S01				Hazardous Waste
	D004							Included in above
16	D002	30,000	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
17	D002	1,000	K	S01				Hazardous Waste
	D003							Included in above
18	D002	500	K	S01				Hazardous Waste
	D007							Included in above
19	D003	5,000	K	S01				Hazardous Waste
20	D003	5,000	K	S01	T04			Hazardous Waste
	D001							Potentially Included in Above
	D011							Potentially Included in Above
	F003							Potentially Included in Above
	F005							Potentially Included in Above
21	D004	10,000	K	S01				Hazardous Waste
22	D004	2,000	K	S01				Hazardous Waste
	D005							Included in above
	D006							Included in above
	D007							Included in above
	D008							Included in above
	D011							Included in above
23	D004	1,000	K	S01				Hazardous Waste
	D006							Included in above
	D007							Included in above
	D008							Included in above
24	D005	10,000	K	S01				Hazardous Waste
25	D005	500	K	S01				Hazardous Waste
	D006							Included in above
	D007							Included in above
	D008							Included in above
26	D005	4,000	K	S01				Hazardous Waste
	D008							Included in above
27	D006	10,000	K	S01				Hazardous Waste
28	D006	5,000	K	S01				Hazardous Waste
	D008							Included in above
29	D007	10,000	K	S01				Hazardous Waste
30	D007	2,000	K	S01				Hazardous Waste
	D008							Included in above
31	D008	17,000	K	S01				Hazardous Waste
32	D008	3,000	K	S01				Hazardous Waste
	D018							Included in above
33	D009	7,000	K	S01				Hazardous Waste
34	D010	10,000	K	S01				Hazardous Waste
35	D011	15,000	K	S01				Hazardous Waste
36	D012	50	K	S01				Hazardous Waste
37	D013	50	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
38	D014	50	K	S01				Hazardous Waste
39	D015	50	K	S01				Hazardous Waste
40	D016	50	K	S01				Hazardous Waste
41	D017	50	K	S01				Hazardous Waste
42	D018	7,000	K	S01				Hazardous Waste
43	D019	200	K	S01				Hazardous Waste
44	D020	50	K	S01				Hazardous Waste
45	D021	100	K	S01				Hazardous Waste
46	D022	1,000	K	S01				Hazardous Waste
47	D023	50	K	S01				Hazardous Waste
48	D024	50	K	S01				Hazardous Waste
49	D025	50	K	S01				Hazardous Waste
50	D026	100	K	S01				Hazardous Waste
51	D027	100	K	S01				Hazardous Waste
52	D028	1,000	K	S01				Hazardous Waste
53	D029	100	K	S01				Hazardous Waste
54	D030	500	K	S01				Hazardous Waste
55	D031	50	K	S01				Hazardous Waste
56	D032	100	K	S01				Hazardous Waste
57	D033	100	K	S01				Hazardous Waste
58	D034	500	K	S01				Hazardous Waste
59	D035	15,000	K	S01				Hazardous Waste
60	D036	100	K	S01				Hazardous Waste
61	D037	100	K	S01				Hazardous Waste
62	D038	100	K	S01				Hazardous Waste
63	D039	2,000	K	S01				Hazardous Waste
64	D040	5,000	K	S01				Hazardous Waste
65	D041	50	K	S01				Hazardous Waste
66	D042	50	K	S01				Hazardous Waste
67	D043	50	K	S01				Hazardous Waste
68	F001	10,000	K	S01				Hazardous Waste
69	F002	6,000	K	S01				Hazardous Waste
70	F002	8,000	K	S01				Hazardous Waste
	F003							Included in above
71	F002	1,000	K	S01				Hazardous Waste
	F003							Included in above
	D001							Included in above
72	F002	1,000	K	S01				Hazardous Waste
	F003							Included in above
	F005							Included in above
	D001							Included in above
73	F002	50	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
	F003							Included in above
	D040							Included in above
74	F002	1,000	K	S01				Hazardous Waste
	D001							Included in above
75	F002	200	K	S01				Hazardous Waste
	D006							Included in above
	D007							Included in above
76	F002	300	K	S01				Hazardous Waste
	D008							Included in above
77	F002	400	K	S01				Hazardous Waste
	D019							Included in above
	D040							Included in above
78	F002	2,000	K	S01				Hazardous Waste
	D039							Included in above
79	F003	12,000	K	S01				Hazardous Waste
80	F003	10,000	K	S01				Hazardous Waste
	D001							Included in above
81	F003	10	K	S01				Hazardous Waste
	D009							Included in above
82	F004	1,000	K	S01				Hazardous Waste
83	F005	12,000	K	S01				Hazardous Waste
84	F005	1,000	K	S01				Hazardous Waste
	F003							Included in above
	D001							Included in above
	D007							Included in above
	D035							Included in above
85	F005	1,000	K	S01				Hazardous Waste
	F003							Included in above
	D001							Included in above
	D018							Included in above
	D035							Included in above
86	F005	5,000	K	S01				Hazardous Waste
	F003							Included in above
	D001							Included in above
87	F005	500	K	S01				Hazardous Waste
	F003							Included in above
	D001							Included in above
	D035							Included in above
88	F006	100	K	S01				Hazardous Waste
89	F007	2,000	K	S01				Hazardous Waste
90	F007	2,000	K	S01				Hazardous Waste
	D002							Included in above

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
	D003							Included in above
	D006							Included in above
91	F007	1,000	K	S01				Hazardous Waste
	D002							Included in above
	D003							Included in above
	D011							Included in above
92	F007	1,000	K	S01				Hazardous Waste
93	F008	100	K	S01				Hazardous Waste
94	F009	100	K	S01				Hazardous Waste
95	F010	100	K	S01				Hazardous Waste
96	F011	100	K	S01				Hazardous Waste
97	F027	150	K	S01				Hazardous Waste
98	F039	200,000	K	S01				Hazardous Waste
99	P001	25	K	S01				Hazardous Waste
100	P002	10	K	S01				Hazardous Waste
101	P003	10	K	S01				Hazardous Waste
102	P004	10	K	S01				Hazardous Waste
103	P005	25	K	S01				Hazardous Waste
104	P006	10	K	S01				Hazardous Waste
105	P007	10	K	S01				Hazardous Waste
106	P008	10	K	S01				Hazardous Waste
107	P009	10	K	S01				Hazardous Waste
108	P010	10	K	S01				Hazardous Waste
109	P011	25	K	S01				Hazardous Waste
110	P012	10	K	S01				Hazardous Waste
111	P013	10	K	S01				Hazardous Waste
112	P014	10	K	S01				Hazardous Waste
113	P015	10	K	S01				Hazardous Waste
114	P016	10	K	S01				Hazardous Waste
115	P017	10	K	S01				Hazardous Waste
116	P018	10	K	S01				Hazardous Waste
117	P020	10	K	S01				Hazardous Waste
118	P021	10	K	S01				Hazardous Waste
119	P022	100	K	S01				Hazardous Waste
120	P023	10	K	S01				Hazardous Waste
121	P024	10	K	S01				Hazardous Waste
122	P026	10	K	S01				Hazardous Waste
123	P027	10	K	S01				Hazardous Waste
124	P028	10	K	S01				Hazardous Waste
125	P029	1,500	K	S01				Hazardous Waste
126	P030	250	K	S01				Hazardous Waste
127	P031	10	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
128	P033	10	K	S01				Hazardous Waste
129	P034	10	K	S01				Hazardous Waste
130	P036	10	K	S01				Hazardous Waste
131	P037	10	K	S01				Hazardous Waste
132	P038	10	K	S01				Hazardous Waste
133	P039	10	K	S01				Hazardous Waste
134	P040	10	K	S01				Hazardous Waste
135	P041	10	K	S01				Hazardous Waste
136	P042	10	K	S01				Hazardous Waste
137	P043	10	K	S01				Hazardous Waste
138	P044	10	K	S01				Hazardous Waste
139	P045	10	K	S01				Hazardous Waste
140	P046	10	K	S01				Hazardous Waste
142	P048	10	K	S01				Hazardous Waste
143	P049	10	K	S01				Hazardous Waste
144	P050	10	K	S01				Hazardous Waste
145	P051	10	K	S01				Hazardous Waste
146	P054	10	K	01				Hazardous Waste
147	P056	10	K	S01				Hazardous Waste
148	P057	10	K	S01				Hazardous Waste
149	P058	10	K	S01				Hazardous Waste
150	P059	10	K	S01				Hazardous Waste
151	P060	10	K	S01				Hazardous Waste
152	P062	10	K	S01				Hazardous Waste
153	P063	10	K	S01				Hazardous Waste
154	P064	150	K	S01				Hazardous Waste
155	P065	10	K	S01				Hazardous Waste
156	P066	10	K	S01				Hazardous Waste
157	P067	10	K	S01				Hazardous Waste
158	P068	10	K	S01				Hazardous Waste
159	P069	10	K	S01				Hazardous Waste
160	P070	10	K	S01				Hazardous Waste
161	P071	10	K	S01				Hazardous Waste
162	P072	10	K	S01				Hazardous Waste
163	P073	10	K	S01				Hazardous Waste
164	P074	10	K	S01				Hazardous Waste
165	P075	10	K	S01				Hazardous Waste
166	P076	10	K	S01				Hazardous Waste
167	P077	10	K	S01				Hazardous Waste
168	P078	30	K	S01				Hazardous Waste
169	P081	10	K	S01				Hazardous Waste
170	P082	10	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
171	P084	10	K	S01				Hazardous Waste
172	P085	10	K	S01				Hazardous Waste
173	P087	50	K	S01				Hazardous Waste
174	P088	10	K	S01				Hazardous Waste
175	P089	10	K	S01				Hazardous Waste
176	P092	10	K	S01				Hazardous Waste
177	P093	10	K	S01				Hazardous Waste
178	P094	10	K	S01				Hazardous Waste
179	P095	10	K	S01				Hazardous Waste
180	P096	10	K	S01				Hazardous Waste
181	P097	10	K	S01				Hazardous Waste
182	P098	50	K	S01				Hazardous Waste
183	P099	10	K	S01				Hazardous Waste
184	P101	10	K	S01				Hazardous Waste
185	P102	10	K	S01				Hazardous Waste
186	P103	10	K	S01				Hazardous Waste
187	P104	100	K	S01				Hazardous Waste
188	P105	10	K	S01				Hazardous Waste
189	P106	1,000	K	S01				Hazardous Waste
190	P108	10	K	S01				Hazardous Waste
191	P109	10	K	S01				Hazardous Waste
192	P110	10	K	S01				Hazardous Waste
193	P111	10	K	S01				Hazardous Waste
194	P112	10	K	S01				Hazardous Waste
195	P113	50	K	S01				Hazardous Waste
196	P114	10	K	S01				Hazardous Waste
197	P115	10	K	S01				Hazardous Waste
198	P116	10	K	S01				Hazardous Waste
199	P118	10	K	S01				Hazardous Waste
200	P119	10	K	S01				Hazardous Waste
201	P120	25	K	S01				Hazardous Waste
202	P121	10	K	S01				Hazardous Waste
203	P122	10	K	S01				Hazardous Waste
204	P123	10	K	S01				Hazardous Waste
205	U001	10	K	S01				Hazardous Waste
206	U002	1,000	K	S01				Hazardous Waste
207	U003	250	K	S01				Hazardous Waste
208	U004	10	K	S01				Hazardous Waste
209	U005	10	K	S01				Hazardous Waste
210	U006	10	K	S01				Hazardous Waste
211	U007	10	K	S01				Hazardous Waste
212	U008	100	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
213	U009	10	K	S01				Hazardous Waste
214	U010	10	K	S01				Hazardous Waste
215	U011	10	K	S01				Hazardous Waste
216	U012	25	K	S01				Hazardous Waste
217	U014	10	K	S01				Hazardous Waste
218	U015	10	K	S01				Hazardous Waste
219	U016	10	K	S01				Hazardous Waste
220	U017	10	K	S01				Hazardous Waste
221	U018	10	K	S01				Hazardous Waste
222	U019	150	K	S01				Hazardous Waste
223	U020	10	K	S01				Hazardous Waste
224	U021	10	K	S01				Hazardous Waste
225	U022	10	K	S01				Hazardous Waste
226	U023	10	K	S01				Hazardous Waste
227	U024	10	K	S01				Hazardous Waste
228	U025	10	K	S01				Hazardous Waste
229	U026	10	K	S01				Hazardous Waste
230	U027	10	K	S01				Hazardous Waste
231	U028	5,000	K	S01				Hazardous Waste
232	U029	10	K	S01				Hazardous Waste
233	U030	10	K	S01				Hazardous Waste
234	U031	500	K	S01				Hazardous Waste
235	U032	500	K	S01				Hazardous Waste
236	U033	10	K	S01				Hazardous Waste
237	U034	10	K	S01				Hazardous Waste
238	U035	50	K	S01				Hazardous Waste
239	U036	500	K	S01				Hazardous Waste
240	U037	50	K	S01				Hazardous Waste
241	U038	10	K	S01				Hazardous Waste
242	U039	10	K	S01				Hazardous Waste
243	U041	10	K	S01				Hazardous Waste
244	U042	10	K	S01				Hazardous Waste
245	U043	10	K	S01				Hazardous Waste
246	U044	150	K	S01				Hazardous Waste
247	U045	25	K	S01				Hazardous Waste
248	U046	10	K	S01				Hazardous Waste
249	U047	10	K	S01				Hazardous Waste
250	U048	10	K	S01				Hazardous Waste
251	U049	10	K	S01				Hazardous Waste
252	U050	10	K	S01				Hazardous Waste
253	U051	75	K	S01				Hazardous Waste
254	U052	25	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
255	U053	10	K	S01				Hazardous Waste
256	U055	25	K	S01				Hazardous Waste
257	U056	250	K	S01				Hazardous Waste
258	U057	25	K	S01				Hazardous Waste
259	U058	10	K	S01				Hazardous Waste
260	U059	10	K	S01				Hazardous Waste
261	U060	10	K	S01				Hazardous Waste
262	U061	10	K	S01				Hazardous Waste
263	U062	10	K	S01				Hazardous Waste
264	U063	10	K	S01				Hazardous Waste
265	U064	10	K	S01				Hazardous Waste
266	U066	10	K	S01				Hazardous Waste
267	U067	25	K	S01				Hazardous Waste
268	U068	10	K	S01				Hazardous Waste
269	U069	100	K	S01				Hazardous Waste
270	U070	50	K	S01				Hazardous Waste
271	U071	10	K	S01				Hazardous Waste
272	U072	10	K	S01				Hazardous Waste
273	U073	10	K	S01				Hazardous Waste
274	U074	10	K	S01				Hazardous Waste
275	U075	200	K	S01				Hazardous Waste
276	U076	10	K	S01				Hazardous Waste
277	U077	200	K	S01				Hazardous Waste
278	U078	50	K	S01				Hazardous Waste
279	U079	50	K	S01				Hazardous Waste
280	U080	1,000	K	S01				Hazardous Waste
281	U081	10	K	S01				Hazardous Waste
282	U082	10	K	S01				Hazardous Waste
283	U083	10	K	S01				Hazardous Waste
284	U084	10	K	S01				Hazardous Waste
285	U085	10	K	S01				Hazardous Waste
286	U086	10	K	S01				Hazardous Waste
287	U087	10	K	S01				Hazardous Waste
288	U088	10	K	S01				Hazardous Waste
289	U089	10	K	S01				Hazardous Waste
290	U090	10	K	S01				Hazardous Waste
291	U091	10	K	S01				Hazardous Waste
292	U092	10	K	S01				Hazardous Waste
293	U093	10	K	S01				Hazardous Waste
294	U094	10	K	S01				Hazardous Waste
295	U095	10	K	S01				Hazardous Waste
296	U096	10	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
297	U097	10	K	S01				Hazardous Waste
298	U098	10	K	S01				Hazardous Waste
299	U099	10	K	S01				Hazardous Waste
300	U101	10	K	S01				Hazardous Waste
301	U102	20	K	S01				Hazardous Waste
302	U103	10	K	S01				Hazardous Waste
303	U105	10	K	S01				Hazardous Waste
304	U106	10	K	S01				Hazardous Waste
305	U107	50	K	S01				Hazardous Waste
306	U108	50	K	S01				Hazardous Waste
307	U109	10	K	S01				Hazardous Waste
308	U110	10	K	S01				Hazardous Waste
309	U111	10	K	S01				Hazardous Waste
310	U112	1,000	K	S01				Hazardous Waste
311	U113	10	K	S01				Hazardous Waste
312	U114	10	K	S01				Hazardous Waste
131	U115	10	K	S01				Hazardous Waste
314	U116	10	K	S01				Hazardous Waste
315	U117	30	K	S01				Hazardous Waste
316	U118	10	K	S01				Hazardous Waste
317	U119	10	K	S01				Hazardous Waste
318	U120	10	K	S01				Hazardous Waste
319	U121	200	K	S01				Hazardous Waste
320	U122	500	K	S01				Hazardous Waste
321	U123	35	K	S01				Hazardous Waste
322	U124	10	K	S01				Hazardous Waste
323	U125	10	K	S01				Hazardous Waste
324	U126	10	K	S01				Hazardous Waste
325	U127	10	K	S01				Hazardous Waste
326	U128	10	K	S01				Hazardous Waste
327	U129	10	K	S01				Hazardous Waste
328	U130	10	K	S01				Hazardous Waste
329	U131	50	K	S01				Hazardous Waste
330	U132	25	K	S01				Hazardous Waste
331	U133	250	K	S01				Hazardous Waste
332	U134	2,000	K	S01				Hazardous Waste
333	U134	100	K	S01				Hazardous Waste
334	D002							Included in above
335	U135	75	K	S01				Hazardous Waste
336	U136	10	K	S01				Hazardous Waste
337	U137	10	K	S01				Hazardous Waste
338	U138	10	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
339	U140	50	K	S01				Hazardous Waste
340	U141	10	K	S01				Hazardous Waste
341	U142	10	K	S01				Hazardous Waste
342	U143	10	K	S01				Hazardous Waste
343	U144	300	K	S01				Hazardous Waste
344	U145	10	K	S01				Hazardous Waste
345	U146	10	K	S01				Hazardous Waste
346	U147	100	K	S01				Hazardous Waste
347	U148	10	K	S01				Hazardous Waste
348	U149	10	K	S01				Hazardous Waste
349	U150	10	K	S01				Hazardous Waste
350	U151	1,000	K	S01				Hazardous Waste
351	U151	300	K	S01				Hazardous Waste
	D002							Included in above
352	U151	100	K	S01				Hazardous Waste
	D009							Included in above
353	U152	10	K	S01				Hazardous Waste
354	U153	10	K	S01				Hazardous Waste
355	U154	500	K	S01				Hazardous Waste
356	U155	10	K	S01				Hazardous Waste
357	U156	10	K	S01				Hazardous Waste
358	U157	10	K	S01				Hazardous Waste
359	U158	25	K	S01				Hazardous Waste
360	U159	125	K	S01				Hazardous Waste
361	U160	50	K	S01				Hazardous Waste
362	U161	50	K	S01				Hazardous Waste
363	U162	100	K	S01				Hazardous Waste
364	U163	10	K	S01				Hazardous Waste
365	U164	10	K	S01				Hazardous Waste
366	U165	1,000	K	S01				Hazardous Waste
367	U166	10	K	S01				Hazardous Waste
368	U167	10	K	S01				Hazardous Waste
369	U168	10	K	S01				Hazardous Waste
370	U169	200	K	S01				Hazardous Waste
371	U170	10	K	S01				Hazardous Waste
372	U171	25	K	S01				Hazardous Waste
373	U172	10	K	S01				Hazardous Waste
374	U173	10	K	S01				Hazardous Waste
375	U174	10	K	S01				Hazardous Waste
376	U176	10	K	S01				Hazardous Waste
377	U177	50	K	S01				Hazardous Waste
378	U178	50	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
379	U179	100	K	S01				Hazardous Waste
380	U180	100	K	S01				Hazardous Waste
381	U181	50	K	S01				Hazardous Waste
382	U182	25	K	S01				Hazardous Waste
383	U183	25	K	S01				Hazardous Waste
384	U184	25	K	S01				Hazardous Waste
385	U185	25	K	S01				Hazardous Waste
386	U186	50	K	S01				Hazardous Waste
387	U187	10	K	S01				Hazardous Waste
388	U188	25	K	S01				Hazardous Waste
389	U189	10	K	S01				Hazardous Waste
390	U190	10	K	S01				Hazardous Waste
391	U191	10	K	S01				Hazardous Waste
392	U192	10	K	S01				Hazardous Waste
393	U193	10	K	S01				Hazardous Waste
394	U194	10	K	S01				Hazardous Waste
395	U196	25	K	S01				Hazardous Waste
396	U197	10	K	S01				Hazardous Waste
397	U200	10	K	S01				Hazardous Waste
398	U201	25	K	S01				Hazardous Waste
399	U202	10	K	S01				Hazardous Waste
400	U203	10	K	S01				Hazardous Waste
401	U204	25	K	S01				Hazardous Waste
402	U205	10	K	S01				Hazardous Waste
403	U206	10	K	S01				Hazardous Waste
404	U207	10	K	S01				Hazardous Waste
405	U208	10	K	S01				Hazardous Waste
406	U209	20	K	S01				Hazardous Waste
407	U210	25	K	S01				Hazardous Waste
408	U211	100	K	S01				Hazardous Waste
409	U213	350	K	S01				Hazardous Waste
410	U214	10	K	S01				Hazardous Waste
411	U215	10	K	S01				Hazardous Waste
412	U216	10	K	S01				Hazardous Waste
413	U217	10	K	S01				Hazardous Waste
414	U218	10	K	S01				Hazardous Waste
415	U219	25	K	S01				Hazardous Waste
416	U220	500	K	S01				Hazardous Waste
417	U221	10	K	S01				Hazardous Waste
418	U222	10	K	S01				Hazardous Waste
419	U223	1,000	K	S01				Hazardous Waste
420	U225	50	K	S01				Hazardous Waste

10. Description of Hazardous Wastes

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity Of Waste	C. Unit of Measure (Enter Code)	D. PROCESSES (1) PROCESS CODES (Enter Code)				(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
421	U226	4,000	K	S01				Hazardous Waste
422	U227	1,500	K	S01				Hazardous Waste
423	U228	1,000	K	S01				Hazardous Waste
424	U234	10	K	S01				Hazardous Waste
425	U235	10	K	S01				Hazardous Waste
426	U236	10	K	S01				Hazardous Waste
427	U237	10	K	S01				Hazardous Waste
428	U238	10	K	S01				Hazardous Waste
429	U239	250	K	S01				Hazardous Waste
430	U240	10	K	S01				Hazardous Waste
431	U243	10	K	S01				Hazardous Waste
432	U244	10	K	S01				Hazardous Waste
433	U246	10	K	S01				Hazardous Waste
434	U247	10	K	S01				Hazardous Waste
435	U248	10	K	S01				Hazardous Waste
436	U249	10	K	S01				Hazardous Waste
437	U328	10	K	S01				Hazardous Waste
438	U353	10	K	S01				Hazardous Waste
439	U359	100	K	S01				Hazardous Waste
141	P047	10	K	S01				Hazardous Waste

11. Map (See instructions on page 38 :

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

12. Facility Drawing (See instructions on Page 39:

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

13. Photographs (See instructions on page 39):

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

14. Comments (See instructions on page 39)

Facility latitude: 35 degrees, 01 minutes, 45 seconds North

Facility longitude: 106 degrees, 32 minutes, 30 seconds West

APPENDIX A

ACTIVE ENVIRONMENTAL PERMITS

Sandia National Laboratories/New Mexico
Active Environmental Permits as of 03/31/04

Permit Type and/or Facility Name	Permit Number	Issue Date	Expiration Date	Regulatory Agency
SEWER WASTEWATER				
General	2069 A-6	7/1/03	12/31/07	COA
General	2069 F-6	08/01/03	01/31/08	COA
Microelectronics Development Laboratory	2069 G-5	06/01/02	05/31/05	COA
General	2069 I-4 Renewal Submitted	10/14/03	extended	COA
General	2069 K-4	03/01/02	10/31/04	COA
SURFACE DISCHARGE				
Pulsed Power Development Facilities (Discharge Plan)	DP-530	09/21/01	09/21/06	NMED
UNDERGROUND STORAGE TANKS				
9,750 gal emergency generator fuel	6383	07/01/03	06/30/04	NMED, UST Bur.
20,000 gal oil storage tank	6384	07/01/03	06/30/04	NMED, UST Bur.
20,000 gal oil storage tank	6385	07/01/03	06/30/04	NMED, UST Bur.
STORM WATER				
National Pollution Discharge Elimination System "Multi-sector General" Permit	NMR05A961	02/01	09/30/05	EPA
Storm Drain, Sanitary Sewer, and Domestic Water System Modernization	NMR10B507	06/29/99	08/04	EPA
NPDES construction permit for the Joint Computational Engineering Laboratory	NM0002377	04/20/02	03/04	EPA
MESA	NM0002376	01/28/02	07/31/09	EPA
Aerial Cable Facilities Renovations	[b]	3/04	2/05	EPA
Center for Integrated Nanotechnologies	[b]	10/03	6/06	EPA
SCA/CUB	[b]	9/02	8/03	EPA
ECOLOGICAL				
New Mexico Department of Game and Fish, for Scientific/Educational Purposes, Authorization for Taking of Protected Wildlife	2931	01/01/02	12/31/02 [a]	New Mexico Department of Game and Fish
Fish and Wildlife Special Purpose Salvage Permit (for migratory birds)	MB040780-0	05/30/01	12/31/03	U.S. Fish and Wildlife Service

NOTE:

[a] Applied for permit renewal, not yet received.

[b] Permit number not issued yet.

COA = City of Albuquerque
NMED = New Mexico Environment Department
EPA = U.S. Environmental Protection Agency
UST Bur. = Underground Storage Tank Bureau

Sandia National Laboratories/New Mexico
Active Environmental Permits as of 03/31/04 (Continued)

Permit Type and/or Facility Name	Permit Number	Issue Date	Expiration Date	Regulatory Agency
ABOVEGROUND STORAGE TANKS				
1,024,000 gal storage tank	b	07/01/03	06/30/04	NMED
508,000 gal storage tank	b	07/01/03	06/30/04	NMED
213,898 gal storage tank	b	07/01/03	06/30/04	NMED
209,421 gal storage tank	b	07/01/03	06/30/04	NMED
45,490 gal storage tank	b	07/01/03	06/30/04	NMED
44,129 gal storage tank	b	07/01/03	06/30/04	NMED
10,000 gal storage tank	b	07/01/03	06/30/04	NMED
10,000 gal storage tank	b	07/01/03	06/30/04	NMED
10,000 gal storage tank	b	07/01/03	06/30/04	NMED
75,000 gal storage tank	b	07/01/03	06/30/04	NMED
75,000 gal storage tank	b	07/01/03	06/30/04	NMED
75,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
250,000 gal storage tank	b	07/01/03	06/30/04	NMED
25,000 gal storage tank	b	07/01/03	06/30/04	NMED

NOTE:

[b] Permit number not issued yet.

NMED = New Mexico Environment Department

Sandia National Laboratories/New Mexico
Active Environmental Permits as of 03/31/04 (Continued)

Permit Type and/or Facility Name	Permit Number	Issue Date	Expiration Date	Regulatory Agency
RCRA				
"RCRA Part B Operating Permit" for the Hazardous Waste Management Facility (HWMF) Module I - General Permit Conditions Module II - General Facility Conditions Module III - Containers	NM5890110518-1	8/6/92	08/06/02 [c]	NMED
"RCRA Part B Operating Permit" Module IV - Hazardous and Solid Waste Amendments (HSWA) Portion for Solid Waste Management Units	NM5890110518-1	8/26/93	09/20/02 [c]	EPA/NMED
"Thermal Treatment Facility (TTF)" Module I - General Permit Conditions Module II - General Facility Conditions Module III - Containers	NM5890110518-2	12/4/94	12/04/04 [c]	NMED
General Part A Permit Request Storage and/or treatment of the hazardous component of mixed waste at ten waste management Units.	NM5890110518	First submitted 8/90 Rev. 5, 04/16/03	Pending Review (No expiration date)	NMED
Class III Permit Modification for the Management of Hazardous Remediation Waste in the Corrective Action Management Unit (CAMU), Technical Area III	NM5890110518	09/25/97	09/20/02 [c] 4/19/04 [d]	NMED
Comprehensive Part B Permit Request Storage and/or treatment of RCRA-regulated waste at nine waste management Units.	NM5890110518	02/06/02 [c]		NMED
TSCA				
Risk-Based Approval Request under 40 CFR 761.61(c); Risk-Based Method for Management of PCB Materials; Chemical Waste Landfill and CAMU		06/26/02	No expiration date[d]	EPA

NOTE:

[a] Applied for permit renewal; not yet received

[c] Submitted application for renewal on 02/06/2002, undergoing NMED review. Application has been revised in response to NMED comments.

[d] CAMU closure report submitted in 4/19/04, undergoing agency review.

EPA = U.S. Environmental Protection Agency

NMED = New Mexico Environment Department

RCRA = Resource Conservation and Recovery Act

TSCA = Toxic Substances Control Act

Sandia National Laboratories/New Mexico
Active Environmental Permits as of 03/31/04 (Continued)

Permit Type and/or Facility Name	Permit Number	Issue Date	Expiration Date	Regulatory Agency
Open Burn Permits				
Thermal Treatment Facility (permit must be submitted to NMED within 30 days of receipt)	5-2003	03/18/04	31/04	COA
Fire Extinguisher Fire Training		e		COA
Burn Site (Large Pool Fire Tests)		e		COA
Burn Site (		e		COA
Burn Site/Sled Track		e		COA
Explosive Testing		e		COA
9920 and Sled Track		e		COA
AIR (Permits & Registrations)				
Hammermill Facility	144	08/28/85	Biennial update	COA
Fire Laboratory used for the Authentication of Modeling and Experiments (FLAME)	196	05/19/88	Registration†	COA
Neutron Generator Facility(NGF)	374- MI	07/17/98	Biennial update	COA
Neutron Generator Recertification	396	05/07/96	Biennial update	COA
Standby diesel generators (four)	402	05/07/96	Biennial update	COA
Radioactive & Mixed Waste Management Facility	415- M1	11/24/99	Biennial update	COA
Isotope Production Facility	428	07/08/96	Biennial update	COA
Title V Operating Permit	515 (pending)	Submitted [a] 03/1/96	Pending (5 yr renewal)	COA
Classified Waste Landfill	560	12/17/96	Biennial update	COA
Classified Waste Landfill	NESHAP	06/96	Approval ††	EPA
Advanced Manufacturing Processes Laboratory	646	01/23/97	Biennial update	COA
Portable Burn Pools	647	05/05/97	Biennial update	COA
Chemical Waste Landfill Excavation	540	5/19/99	Registration †	COA
High Energy Radiation Megavolt Electron Source-III	NESHAP	6/29/88	Approval ††	EPA
Advanced Manufacturing Prototype Facility	1406	11/6/00	Registration †	COA
Microelectronics Development Laboratory	1678	12/23/02	Biennial update	COA
Emergency Generator	924	5/5/98	Biennial update	COA
Processing and Environmental Technology Laboratory	925-M1	03/05/01	Biennial update	COA
Processing and Environmental Technology Laboratory	936	pending registration		COA

NOTE:

a Applied for permit renewal; not yet received

e COA issues open burn permits annually. Sandia/DOE applied for this permit for calendar year 2004.

† Registration = Certificate, no permit required.

†† Approval = EPA does not issue a permit.

EPA = U.S. Environmental Protection Agency

List of Figures:

1. Site Location Map, Albuquerque and Kirtland Air Force Base
2. Facility Location Map
3. Hazardous Waste Management Facility (HWMF) Contour Map
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5. Hazardous Waste Management Facility Building Plan
6. Detailed Site Plan - Thermal Treatment Facility
7. Hazardous Waste Management Facility Photograph
8. Hazardous Waste Management Facility Photograph
9. Waste Storage Building 958 Photograph
10. Waste Packaging Building 959 and Bermed Area Photograph
11. Modular Storage Building for Reactive Waste Photograph
12. Thermal Treatment Facility Photograph

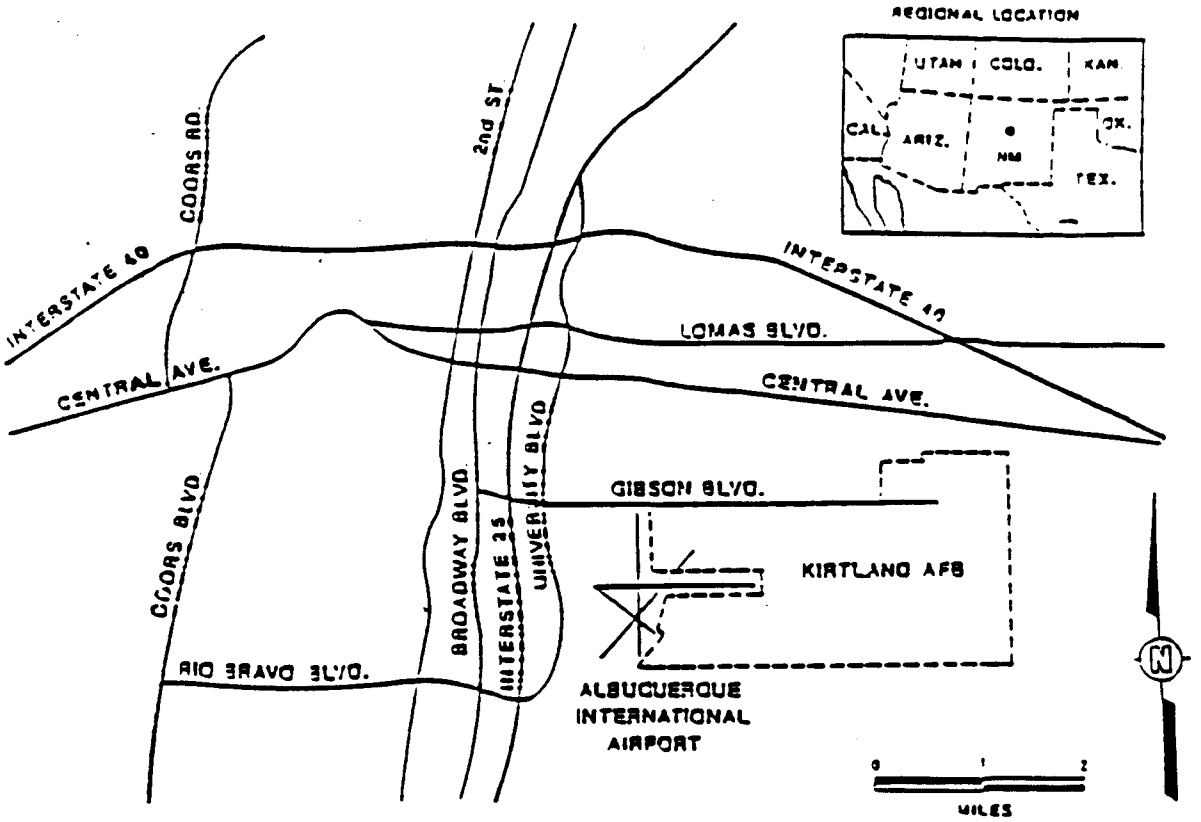
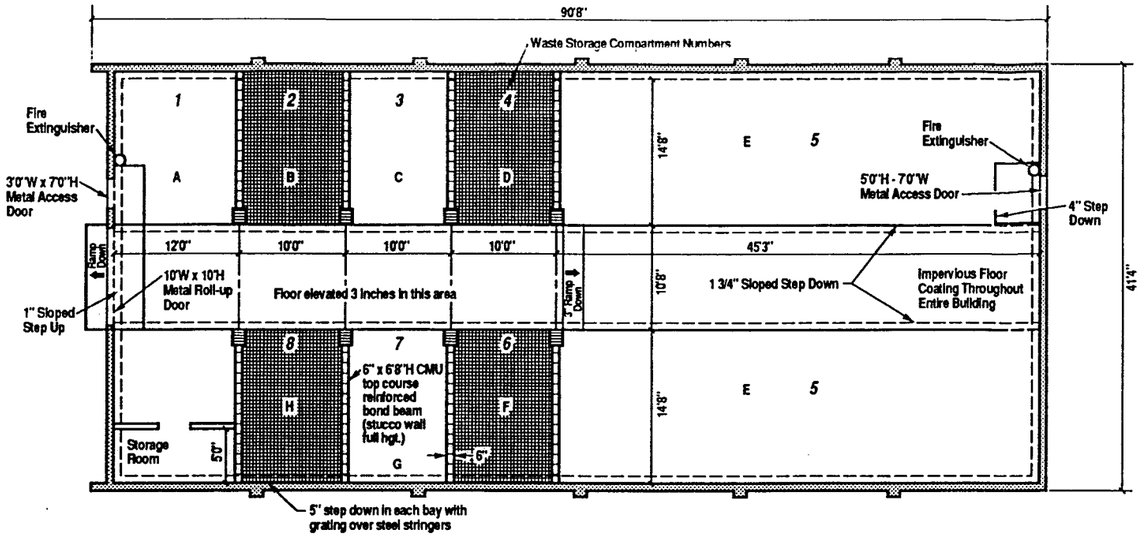


FIGURE 1 SITE LOCATION MAP, ALBUQUERQUE AND KIRTLAND AIR FORCE BASE

TO VIEW THE MAP AND/OR MAPS WITH THIS DOCUMENT, PLEASE CALL THE HAZARDOUS WASTE BUREAU AT 505-476-6000 TO MAKE AN APPOINTMENT

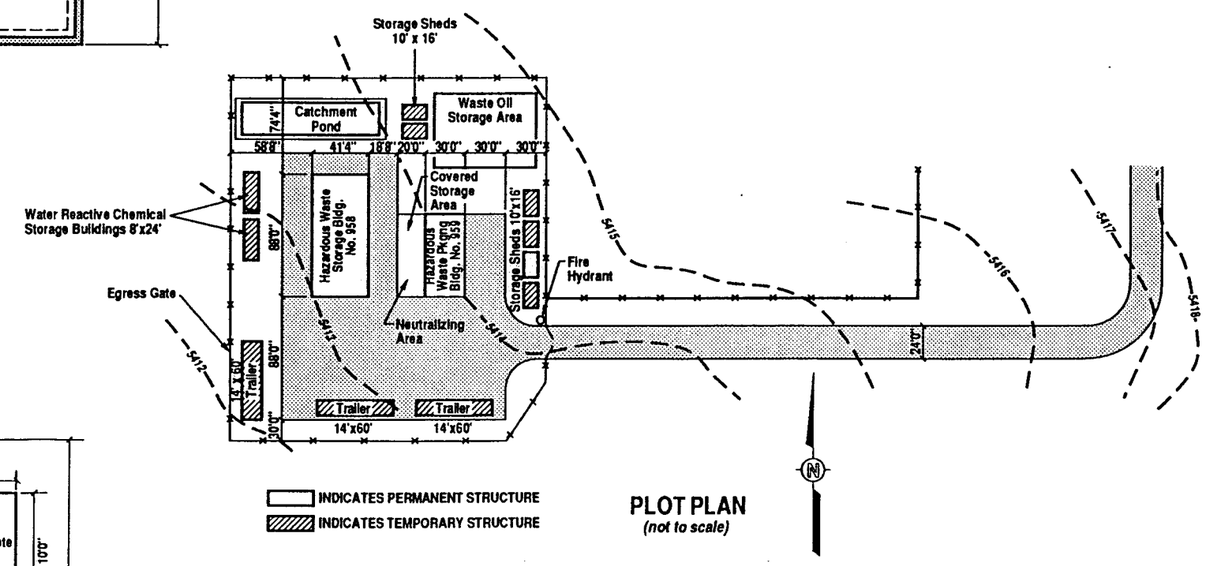


HAZARDOUS WASTE STORAGE BUILDING FLOOR PLAN

(not to scale)

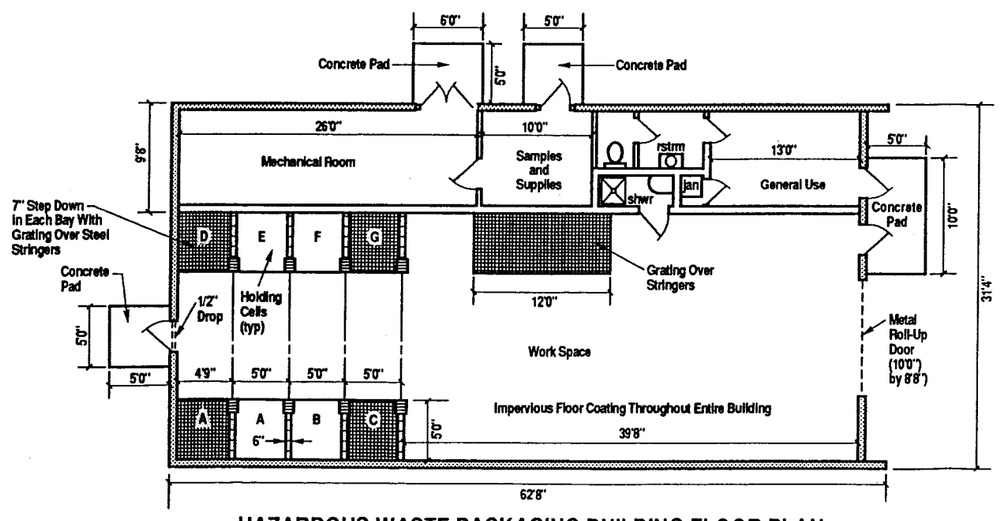
Typical Waste Segregation Groups

- A Holding Bay
- B Poisons
- C Poisons
- D Oxidizers
- E Hydrocarbons, organics, solvents, non-regulated wastes
- F Corrosives (caustics)
- G Corrosives (caustics)
- H Corrosives (acids)



PLOT PLAN

(not to scale)



HAZARDOUS WASTE PACKAGING BUILDING FLOOR PLAN

(not to scale)

Typical Waste Segregation Groups

- A Hydrocarbons, organics, and solvents
- B Chlorinated hydrocarbons, solvents
- C Mercury, poisons
- D Oxidizing mineral acids, non-acidic oxidizers
- E Non-regulated waste
- F Caustics
- G Organic acids, non-oxidizing mineral acids

FIGURE 5

HAZARDOUS WASTE MANAGEMENT FACILITY BUILDING PLAN

PREPARED FOR

SANDIA NATIONAL LABORATORIES (SEPTEMBER, 1991)

INTERNATIONAL TECHNOLOGY CORPORATION

DRAWN BY	M R 9/13/91	CHECKED BY	BAS 9-13-91
		APPROVED BY	9/13/91

DRAWING NUMBER 301112.05.01.04 B3

067963

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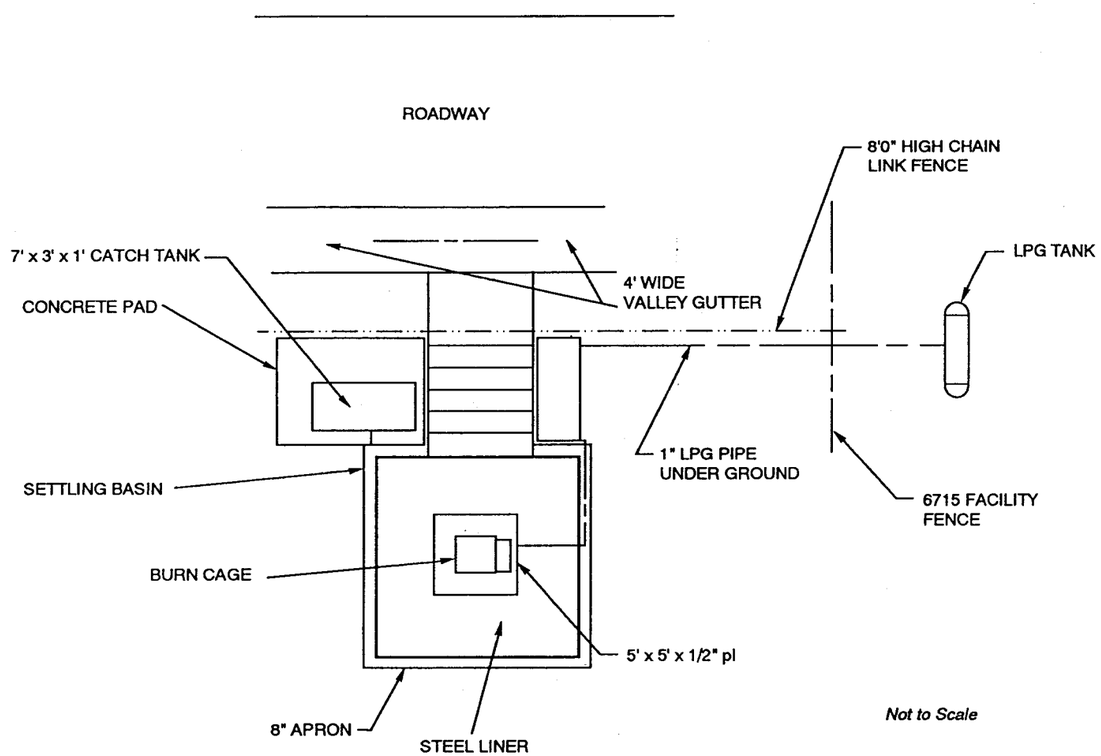
"Do Not Scale This Drawing"



Detail of Thermal Treatment Facility

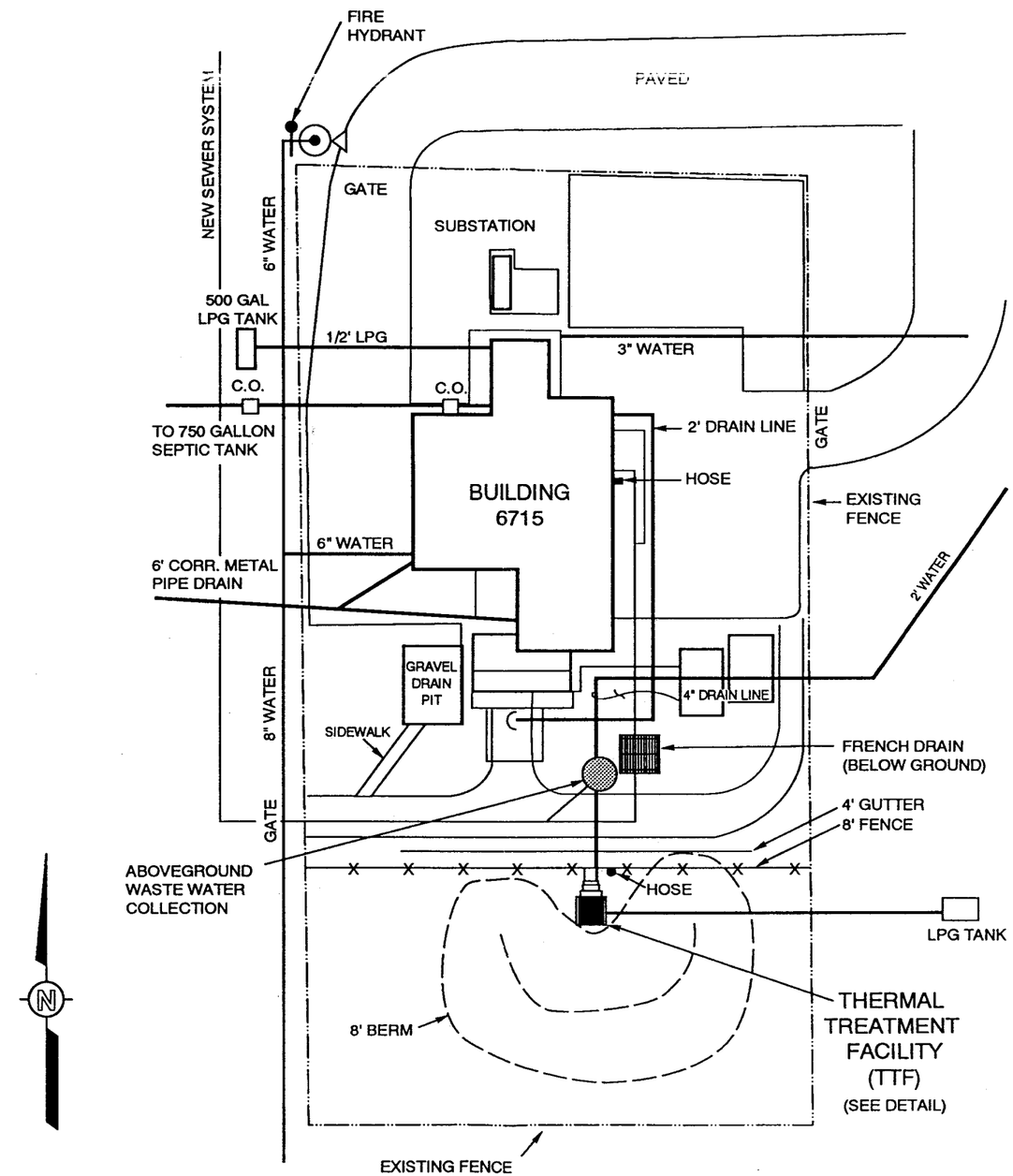
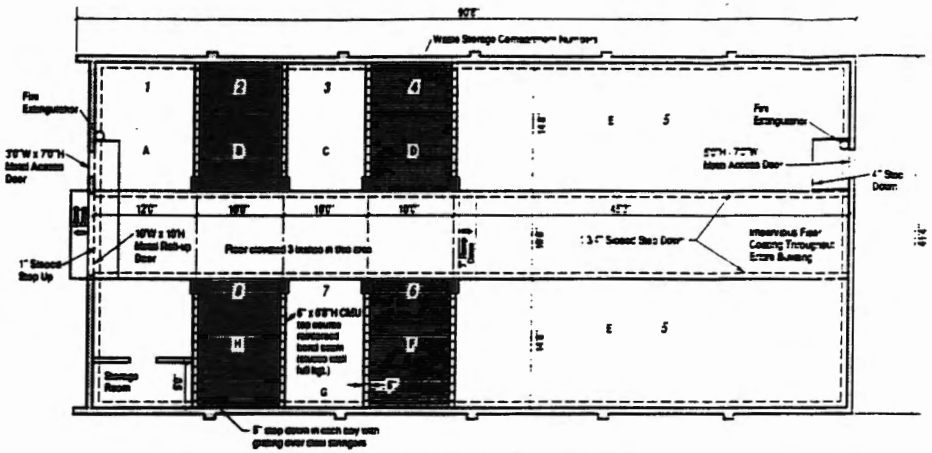


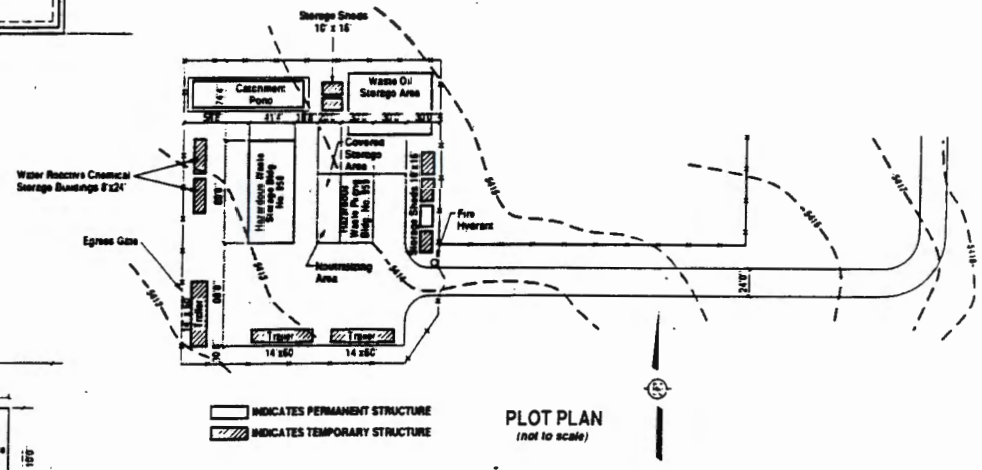
Figure 6
Detailed Site Plan–Thermal Treatment Facilit
Sandia National Laborotories,
Albuquerque, N.M. March, 1993



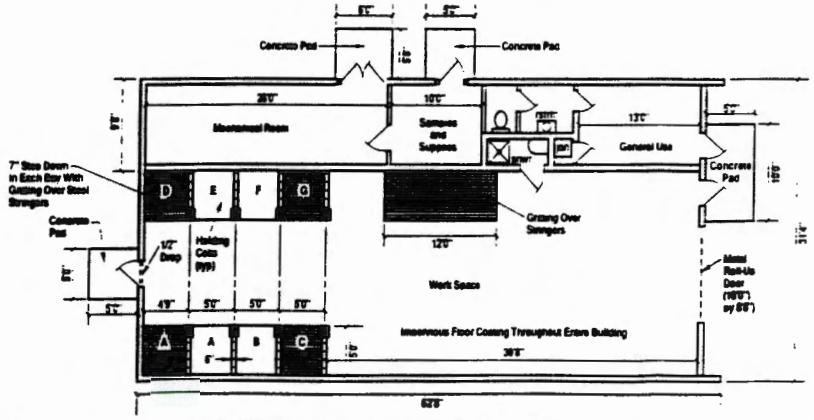
HAZARDOUS WASTE STORAGE BUILDING FLOOR PLAN
(not to scale)

Typical Waste Segregation Groups

- A Holding Bay
- B Poisons
- C Poisons
- D Oxidizers
- E Hydrocarbons, organics, solvents, non-regulated wastes
- F Corrosives (caustics)
- G Corrosives (caustics)
- H Corrosives (acids)



PLOT PLAN
(not to scale)



HAZARDOUS WASTE PACKAGING BUILDING FLOOR PLAN
(not to scale)

Typical Waste Segregation Groups

- A Hydrocarbons, organics, and solvents
- B Chlorinated hydrocarbons, solvents
- C Mercury, poisons
- D Oxidizing mineral acids, non-acidic oxidizers
- E Non-regulated waste
- F Caustics
- G Organic acids, non-oxidizing mineral acids

FIGURE 5

HAZARDOUS WASTE MANAGEMENT FACILITY BUILDING PLAN

PREPARED FOR

SANDIA NATIONAL LABORATORIES (SEPTEMBER 1

INTERNATIONAL TECHNOLOGY CORPORATION

DRAWN BY	M.R.	9/13/91	CHECKED BY		APPROVED BY		DRAWING NUMBER	701182 05 01 04 D3

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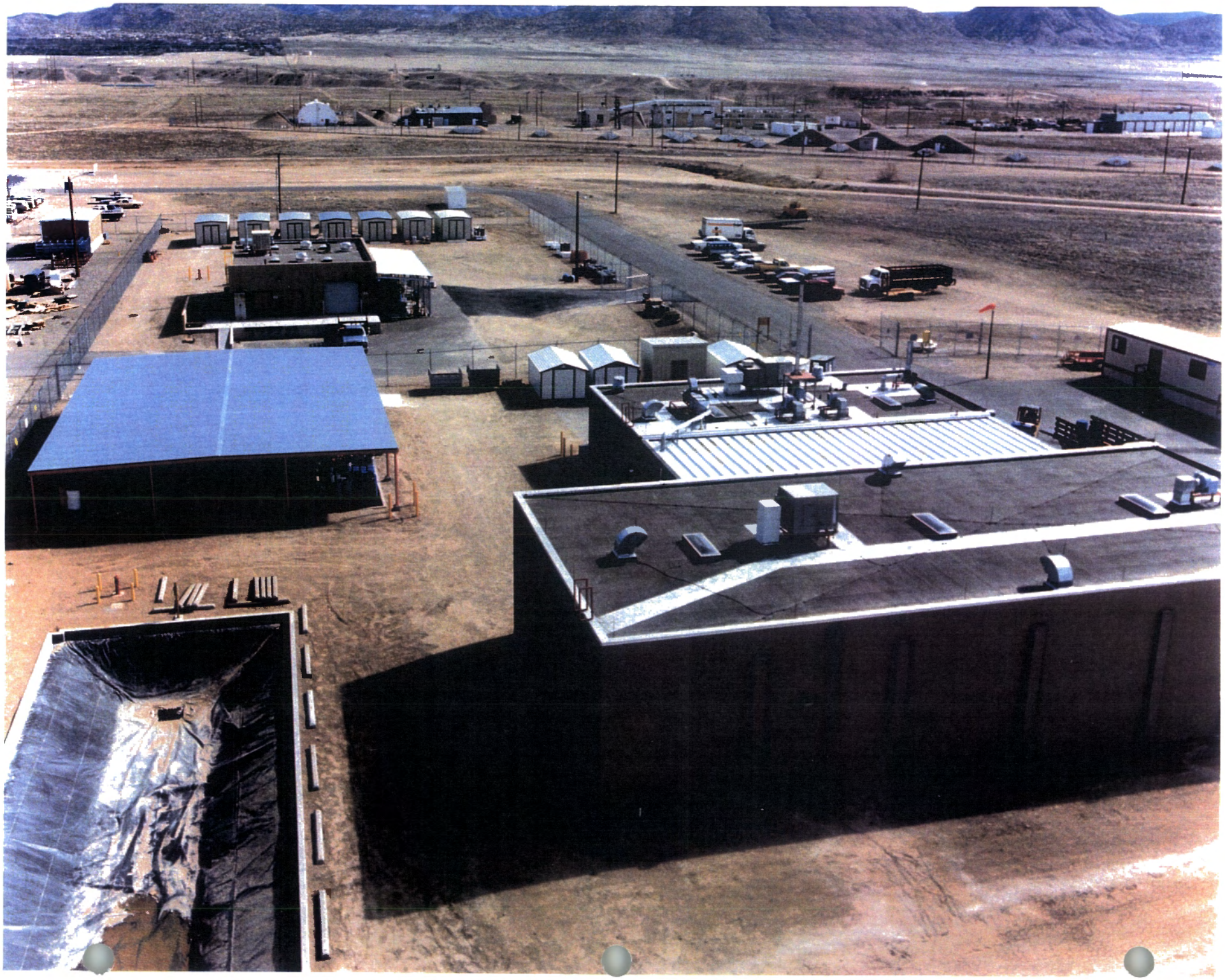


NO SMOKING
POISON
ACID
NOTICE
NO EATING
OR DRINKING
IN THIS AREA

DANGER
DANGER

Permit Attachment H

Secondary Containment Plans and Specifications

3.2 SECONDARY CONTAINMENT

3.2.1 Secondary Containment Design

Secondary containment areas are provided in the Waste Storage Building 958, the Waste Packaging Building 959, and the two prefabricated chemical storage buildings. Dimensions and containment capacities for all the secondary containment systems are given in Table 3-2. Figure 5 of the Part A Permit Application shows the location of the secondary containment systems in Building 958 and 959. A description of the prefabricated buildings, including the secondary containment system, is attached at the end of this section.

In Building 959, secondary containment is provided under the eight holding cells and under the packaging area. In Building 958, secondary containment is provided throughout the storage area in the eight bays. All the secondary containment systems are designed to prevent container contact with standing liquids. Containers in the eight holding cells in the Waste Package Building and Bays 1-4 and 6-8 in the Waste Storage Building are placed on metal grates over recessed floors (5 inches deep) (see Figure 5, Part A Permit Application). Containers in Bay 5 of the Waste Storage Building are placed on pallets. In addition, the floor of Cell 5 slopes to a low spot where liquids may accumulate away from palletized containers. A door to the outside, located at the north end of Cell 5, is elevated 4 inches above the floor surface to maintain secondary containment. In order to ensure that the base of the containment systems were sufficiently impervious to contain chemical spills, the floors and lower wall surfaces of each recessed area were coated with Overkote® Plus and Overkrete® V chemical-resistant coatings, respectively; specifications for these coatings are presented at the end of this section.

The secondary containment system of the prefabricated storage buildings is located under the floor. The containment area is constructed of 10-gauge steel with two coats of chemically resistant epoxy. The walls, floor, and ceiling are also coated by the manufacturer with the same epoxy coating. Containers are placed on a 1 1/8-inch thick epoxy-coated, and fire-resistant plywood flooring. Any accumulated liquids would drain to the subfloor containment system.

3.2.2 Secondary Containment Capacity

The spill containment volume is calculated for each holding cell or bay using the dimensions given in Table 3-2 and the following conversion factors and formulae:

1 gallon = 0.13368 ft^3

1 ft^3 = 7.4806 gallons

Spill containment volume (ft^3) = Length x width x height (containment dimensions)

Spill containment volume (gallons) = Spill containment volume (ft^3) x 7.4806 gallons/ft^3.

For example, the containment dimensions for Bay 1 in the Waste Storage Building are 11.75 ft. x 14.67 ft. x 0.42 ft. (see Table 3-2 or Figure 5 of the Part A Permit Application) so:

Spill containment volume (ft^3) = 11.75 ft. x 14.67 ft. x 0.42 ft. = 72.4 ft^3

Spill containment volume (gallons) = 72.4 ft^3 x 7.4806 gallons/ft^3 = 542 gallons.

Maximum storage capacity is determined for each holding cell or bay by assuming that spill containment volume equals 10 percent of the storage capacity. Maximum storage capacity is calculated using the spill containment volumes calculated for Table 3-2 and the following formulae:

Maximum storage capacity (gallons) = Spill containment volume (gallons) ÷ 0.1

Maximum storage capacity (number of 55-gallon drums) = Storage capacity (gallons) ÷ 55 gallons/drums.

For example, the spill containment volume for Bay 1 in the Waste Storage Building is 542 gallons (Table 3-2) so:

Maximum storage capacity (gallons) = 542 gallons ÷ 0.10 = 5420 gallons

Maximum storage capacity (number of 55-gallon drums) = 5420 gallons ÷ 55 gallons/drum = 98 drums.

Based on these calculations, the spill containment volumes and maximum storage capacities of cells and bays at the HWMF are given in Table 3-2.

3.2.3 Removal of Liquids from Containment Systems

Because all the containment systems are independent from each other and are located inside buildings, precipitation and run-on will not occur. Therefore, the only liquid that may accumulate in the systems will be from spills or leaking containers. During normal waste handling operations, the volume of spilled material is not expected to exceed 55 gallons (the volume of one drum).

Spills will be removed immediately upon discovery. When a spill is discovered, personnel will first determine the source to stop the leak and stabilize the container. Once the container is repackaged, the other containers in the cell or bay will be moved to remove the metal grate and access the containment system. Large volumes of spilled liquids will be pumped out of the containment system into drums. In the case of small spills, appropriate acid or solvent spill kits kept at the HWMF will be used or absorbent will be poured over the spilled liquid. Once the liquid is absorbed, the waste will be placed into a drum. Once free liquids and absorbents are removed from the surface of the containment area, the affected area will be cleaned using cleaners appropriate for the chemicals. All spent cleaning solutions and spilled materials will be drummed and disposed of as hazardous waste. Spill kit, absorbent, and spent cleaning solution waste will be characterized using analytical data and/or KOP for the original container(s). (See Waste Analysis Plan). Additional details for spill containment and removal procedures are contained in the Contingency Plan for the HWMF (Attachment E).

TABLE 3-2

CONTAINMENT AND STORAGE CAPACITY AT THE HAZARDOUS WASTE MANAGEMENT FACILITY[1]

WASTE STORAGE BUILDING
(Building 958): 3,250 Square Feet

BAY NO.	CONTAINMENT DIMENSIONS	SPILL CONTAINMENT VOLUME[2] (gallons)	MAX STORAGE CAPACITY[3] (55-gallon drums)
1	11.75' x 14.67' x 0.42'	542	98
2	9.5' x 14.67' x 0.42'	438	79
3	9.5' x 14.67' x 0.42'	438	79
4	9.5' x 14.67' x 0.42'	438	79
5[4]	2 (45.25' x 14.67' x 0.25')(0.80) + (43.25' x 10.67' x 0.25')-center aisle	2,849	518
6	9.5' x 14.67' x 0.42'	438	79
7	9.5' x 14.67' x 0.42'	438	79
8	9.5' x 14.67' x 0.42'	438	79

WASTE PACKAGING BUILDING
(Building 959): 1,800 Square Feet

	8 Identical Holding Cells		
	5' x 4.5' x 0.42'	71	13
	Packaging Area		
	5' x 12' x 0.42'	188	34
EACH PREFABRICATED BUILDING			
	22' x 8' x 0.42'	500	91

[1]See Figure 5 of the Part A Permit Application.
[2]Spill Containment Volume (gallons) = (Length x width x height) x 7.4806 gallons/ft^3.
[3]Max. Storage Capacity (55-gallon drums) = [Spill containment volume (gallons) ÷ 0.1] ÷ 55 gallons/drum.
[4]In Bay 5, a maximum of 20 percent of the spill containment volume would be used by the pallets on the floor space.

FLOOR COATING ANALYSIS

The floors of both the Waste Packaging Building (Building 959) and the Waste Storage Building (Building 958) are coated with Overkote® Plus. Also, the lower 6 inches of wall of both buildings are coated with Overkrete® V. According to the Material Safety Data Sheets for Overkote® Plus, Part A is an epoxy resin and Part B is the curing agent. Overkrete® V, used for vertical applications, also consists of a Part A epoxy resin and a Part B hardener or curing agent. Both coatings are designed for industrial applications to provide a durable, nonflammable, nonporous, and highly chemical-resistant coating which is permanently bonded to concrete. Because porosity is the most common reason for failure of floors and concrete, the nonporosity of the coatings prevents chemicals from permeating and degrading the floor and provides the greatest protection and chemical resistance.

The HWMF processes a variety of chemicals through the two buildings. There are two ways to ensure that the floor coatings will adequately protect the environment from chemical contamination: 1) determine which chemicals the floor coatings are resistant to based on manufacturer testing of certain chemicals and extrapolate the results to other chemicals with similar properties, and 2) determine the likelihood of the chemicals coming into contact with the floor and minimize this probability through administrative procedures.

Concrete Protection Systems, Inc. (CPS), the manufacturer of both Overkote® Plus and Overkrete® V, has conducted extensive laboratory tests to determine the chemical resistivity of the coatings. The tests are based on continuous immersion of the coating in the chemical for unlimited service lifetime. The most likely chemical exposure of the floor would be from leaking or spilled 30- or 55-gallon drums, which represent about half the total volume of hazardous waste processed through the HWMF. Twenty percent of these wastes consists of solvents and degreasers. CPS has determined that the floor coating is impervious to many common solvents such as acetone, methanol, and trichloroethylene; therefore, it is likely that the other solvents at the HWMF would not degrade the floor. Another 20 percent of the hazardous waste consists of corrosive solutions. Again, CPS has tested many corrosive materials including plating solutions, nitric acid, sulfuric acid, and ammonium hydroxide. It can be concluded that the floor coating would be impervious to other corrosive solutions, such as photodevelopers and cleaners. Five percent of the material at the HWMF consists of flammable wastes, such as kerosene, diesel fuel, and alcohols, which also do not degrade the floor coatings. Lastly, 5 percent of the hazardous waste consists of liquid and solid waste

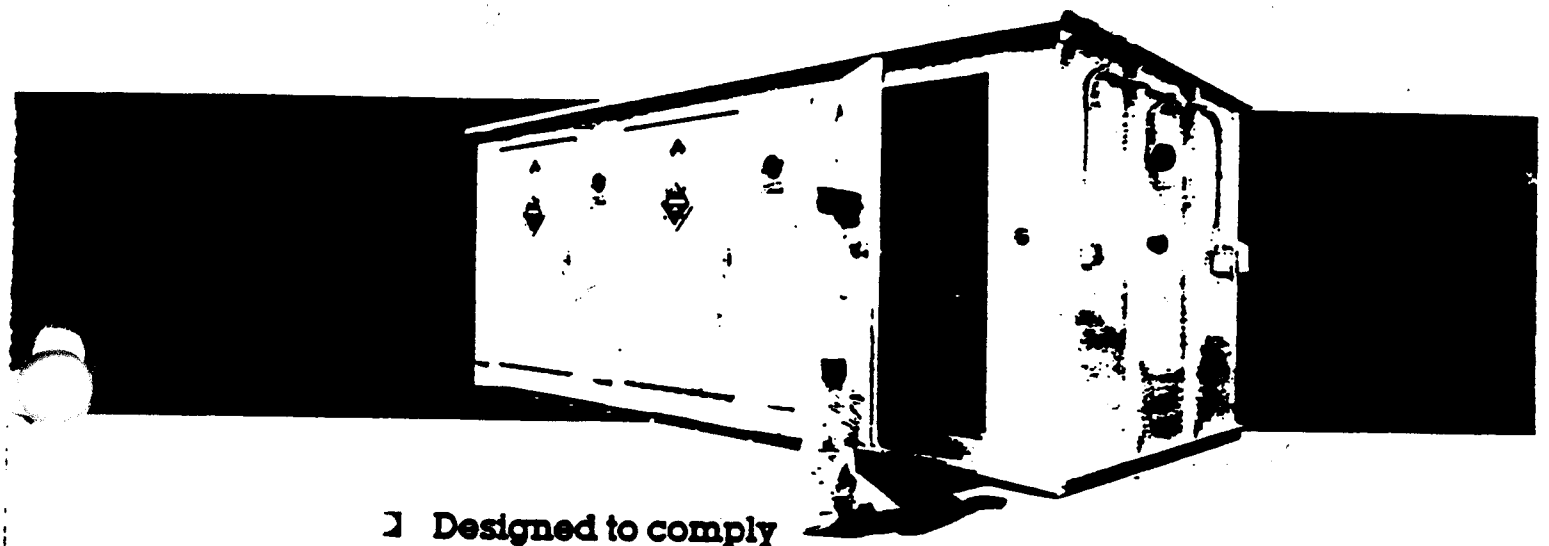
streams contaminated with Toxicity Characteristic (TC) metals. CPS has determined the coatings are resistant to many compounds containing TC metals, such as mercury, chromic acid, barium chloride, and silver nitrate. According to CPS's corrosion charts, both coatings are also extremely resistant to salts, oxidizers, and oils. The only chemicals tested that will eventually degrade the floor coating after continuous contact are methylene chloride, tetrahydrofuran, glacial acetic acid, ethyl bromide, and dimethyl formamide. Although a limited amount of these chemicals (i.e., in 1989, the HWMF processed 1,020 kg glacial acetic acid and 250 kg methylene chloride) are processed by the HWMF, administrative procedures have been developed to prevent any long-term exposure of these or any chemical on the floor coating. (See Section 3.2.3, regarding inspection and spill response procedures.)

The majority of unusual chemicals processed through the HWMF, which CPS have not tested for corrosion against their floor coating, consists of excess reagent chemicals in small containers, i.e., less than 1 gallon. These chemicals are usually lab-packed; however, until that time, they are stored in the Waste Packaging Building. During storage, the likelihood of any chemical exposure to the floor would be from spills of individual containers. Because the area and duration of exposure would be limited, it is unlikely that the floor would deteriorate. Once these chemicals are placed in lab packs and stored in the Waste Storage Building, the volume of absorbent to chemical is five to one, thereby eliminating the likelihood of any exposure to the floor coatings, because the absorbent would absorb any released liquid.

13145/SAF
BuyLine 5195

Safety Storage Containers

for packaged chemicals and hazardous materials



- Designed to comply with regulatory standards for storing hazardous materials
- Factory-built to user requirements
- Four model sizes
- Readily available
- Relocatable

SAFETY STORAGE, INC.
18900 Stevens Creek Blvd.
Cupertino, CA 95014
408/252-2750
1-800/621-0854 Ext. 926

CARL HIME & ASSOCIATES
8220 La Mirada Road NE Suite 300
ALBUQUERQUE, NEW MEXICO 87109
(505) 292-3007

Safety Storage

Spill Containment, Fire Protection, Security

Safety Storage chemical and hazardous material containers are readily available for delivery throughout the United States. Four different size models can be used immediately upon delivery. They are turnkey units which require a minimum of site preparation. These high-quality units meet government standards and regulations for hazardous-materials storage. You can gain in many ways when you order:

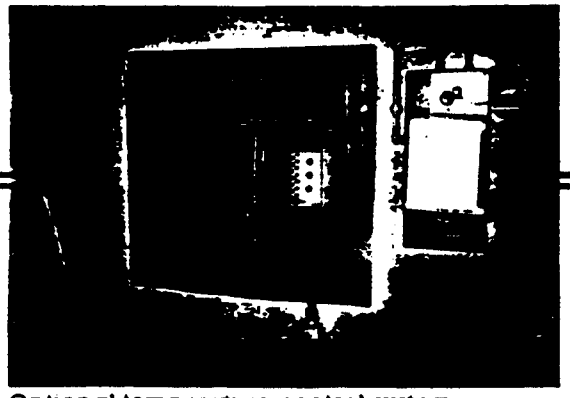
- More economical than comparable block or concrete structures.
- Can be tailored to fit your requirements.
- Avoid costly delays characteristic of on-site construction.
- Combine spill containment, security, fire protection and worker safety.
- Can be relocated on- or off-site.
- You pay only for the features you need.

Safety Storage container construction

Safety Storage containers are made of welded 10- and 12-gauge steel with supporting structural steel sections. Four models are available, the largest of which is the Model 22 with outside dimensions of 22'8" x 9' x 8'7". Three doors, each with three-point locking systems, provide access and security. The 500-gallon secondary spill-containment reservoir, the walls and the ceiling, all are covered with two coats of chemical-resistant epoxy. Maximum storage capacity is 10 tons of chemicals and hazardous materials (drums, boxes and cans). For example, thirty 55-gallon drums can be by conveniently accommodated. Loading can be by forklift or by hand. Standard floors are 1⅛" thick, epoxy-coated, fire-resistant plywood.

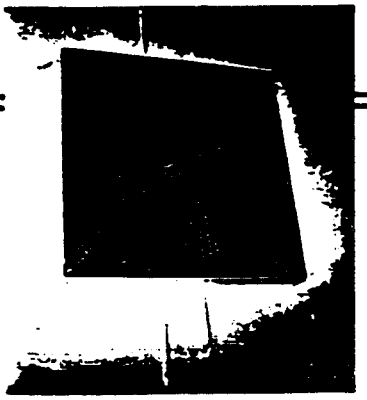
Safety features in this carefully engineered unit include a spill-containment sub-floor to prevent escape of hazardous liquids or solids. It is constructed of continuously welded 10-gauge steel which is epoxy coated to resist chemical attack. Blow-out panels are provided for pressure relief under explosive conditions. A static grounding connection helps to protect flammable materials from ignition by electrical discharge. And fire protection is supplied by three water sprinkler heads with a 2" NPT fitting located outside the container for sprinkler system hookup.

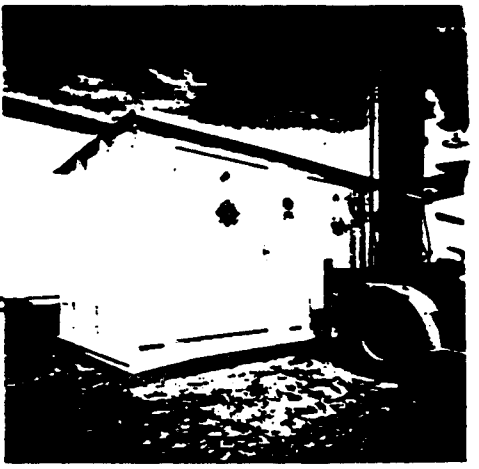
Permanent placards and NFC 704M rating signs are provided for flammable materials, corrosives, oxidizers, poisons and other hazardous materials stored within.



Optional temperature-control system for temperature-sensitive chemicals.

Non-sparking exhaust fan and protective aluminum shield (shown without louvered cover).





Forklift moving a Safety Storage chemical container to a new location.

ATTACHMENT 1

REPRESENTATIVE WASTE INVENTORY HANDLED AT THE SNL HAZARDOUS WASTE MANAGEMENT FACILITY

ATTACHMENT 1

REPRESENTATIVE WASTE INVENTORY HANDLED AT THE SNL HAZARDOUS WASTE MANAGEMENT FACILITY

EPA HAZARDOUS WASTE NUMBER	ESTIMATED ANNUAL QUANTITY OF WASTE (kg)	WASTE MATERIALS[1][2][3]
D001	85,000	**Flash Point Less Than 60°C (T,F)**
		Alcohols Ansul Ether Butyl Acetate (I) Cyanoacrylate Cyclopentane Decalin (I) Ethyl Mercaptan Ethyl Silicate Heptane Hexane Hydrocarbon fluids mixture Methylcyclohexane Octane Paint or Paint Thinner Pentane Petroleum Ether Pentadecane Propanol Trimethyl Borate Trimethylpentane
		Oxidizers (T,F)
		Hydrogen Peroxide (C,P) Nitric Acid, Fuming (C) Potassium Permanganate (C) Sodium Chlorate (I) Sodium Nitrate (P)
D002	65,000	**Acids (T,C)**
		Acetic Acid Acid Waste Chromic Acid (F,S) (also D007) Hydrochloric Acid Malonic Acid Nitric Acid (F) Oxalic Acid (I) Phosphoric Acid Sulfuric Acid
		Alkalis, Caustics, Bases (T,C)
		Ammonium Hydroxide Caustics Potassium Hydroxide Sodium Hydroxide

REPRESENTATIVE WASTE INVENTORY HANDLED AT THE SNL HAZARDOUS WASTE MANAGEMENT FACILITY

EPA HAZARDOUS WASTE NUMBER	ESTIMATED ANNUAL QUANTITY OF WASTE (kg)	WASTE MATERIALS[1][2][3]
D003	10,500	**Pure Metals (F)** Calcium Metal; Lithium Metal (C) Calcium-Bismuth Metal(T); Lithium-Calcium Metal (C) Cesium Metal; Sodium Metal (C,P) **Fumes and Gas Generation (C,F)** Boron Fluoride Ethyl Ether; Pyrophoric Materials Bromine; Silicon Tetrachloride (T) Calcium Carbide; Thionyl Chloride (T) Germanium Tetrachloride; Zirconium Tetrachloride (T)
D004	10,000	Arsenic/Mercury Atomic Absorption Standards (T) (also D009) Arsenic/Mercury Contaminated Waste (T) (also D009) Arsenic Bromide Contaminated Material (T)
D005	25,000	Barium, Barium Carbonate, Barium Chloride, Barium Sulfate
D006	25,000	Nickel Cadmium Batteries, Cadmium Sulfate, Cadmium Chloride
D007	25,000	Chromic Acid Solution, Chromic Chloride, Chromium Alloys, Chromium Sulfate
D008	21,000	Lead Chloride (T); Lead, Scrap Lead Fluoroborate (T); Lead Acid Batteries Lead Powder (T); Debris Contaminated with Lead
D009	15,000	Mercury-Contaminated Waste, Mercury Batteries, Mercury Lamps, Mercury Sulfate, Organic Mercury Compounds
D011	10,000	Discarded Black and White Film, Silver Nitrate Solutions, Photo Chemicals
D018	15,000	Benzene-contaminated waste, oil

REPRESENTATIVE WASTE INVENTORY HANDLED AT THE SNL HAZARDOUS WASTE MANAGEMENT FACILITY

EPA HAZARDOUS WASTE NUMBER	ESTIMATED ANNUAL QUANTITY OF WASTE (kg)	WASTE MATERIALS(1)(2)(3)
D035	7,500	MEK-contaminated waste
F001	25,000	Spent Halogenated Solvents (degreasing & otherwise used)(T)
F002	15,000	Carbon Tetrachloride; Trichloroethylene (F); Freon TF; Trichloroethane Contam.Materials (I); Trichloroethane (I); Methylene Chloride (F)
F003	30,000	Spent Non-Halogenated Solvents (T,F); Acetone; Methanol; Butyl Alcohol (I); Xylene
F005	25,000	Spent Non-Halogenated Solvents (T,F); Methyl Ethyl Ketone; Toluene; Pyridine
P001	25	Warfarin
P005	25	Allyl Alcohol
P011	25	Arsenic (V) Oxide (T)
P022	100	Carbondisulfide
P029	1,500	Copper Cyanide (T)
P030	250	Cyanuric Chloride and Other Cyanide Salts (T)
P064	150	Methyl Isocyanate
P078	30	Nitrogen dioxide
P087	50	Osmium Oxide
P098	50	Potassium cyanide K(CN)
P104	100	Silver Cyanide (also D011)(T)
P106	1,000	Sodium Cyanide
P113	50	Thallium Oxide

REPRESENTATIVE WASTE INVENTORY HANDLED AT THE SNL HAZARDOUS WASTE MANAGEMENT FACILITY

EPA HAZARDOUS WASTE NUMBER	ESTIMATED ANNUAL QUANTITY OF WASTE (kg)	WASTE MATERIALS[1][2][3]
P120	25	Vanadium Pentoxide
U002	1,000	Acetone (T,F)
U003	250	Acetonitrile (T,F)
U008	100	Acrylic Acid
U012	25	Aniline (T,S)
U019	150	Benzene (T,F)
U028	5,000	Diethylhexyl phthalate
U031	500	1-Butanol (T,I,F)
U032	500	Carbonyl Fluoride (T,R)
U035	50	Chlorambucil
U036	500	Chlordane, alpha + gamma isomers
U037	50	Chlorobenzene (T,F)
U044	150	Chloroform (T)
U045	25	Methyl chloride (F,T), Methane, chloro- (F,T)
U051	75	Creosote (T)
U052	25	Cresol, Phenol, methyl-
U055	25	Cumene (F)
U056	250	Cyclohexane (T,F)
U057	25	Cyclohexanone (F)
U067	25	Ethylene dibromide
U069	100	Dibutyl phthalate
U070	50	o-Dichlorobenzene
U075	200	Dichlorodifluoromethane
U077	200	Ethylene dichloride
U078	50	1,1-Dichloroethylene

REPRESENTATIVE WASTE INVENTORY HANDLED AT THE SNL HAZARDOUS WASTE MANAGEMENT FACILITY

EPA HAZARDOUS WASTE NUMBER	ESTIMATED ANNUAL QUANTITY OF WASTE (kg)	WASTE MATERIALS(1)(2)(3)
U079	50	1,2-Dichloroethylene
U080	1,000	Methylene Chloride (T,F)
U102	20	Dimethyl Phthalate
U107	50	1,2-Benzenedicarboxylic acid, dioctyl ester
U108	50	1,4-Dioxane (T,F)
U112	1,000	Ethyl Acetate (T,I,F)
U117	30	Ethyl Ether (F,P)
U121	200	Trichloromonofluoromethane
U122	500	Formaldehyde (T,F,S)
U123	35	Formic Acid (T,C)
U131	50	Hexachloroethane (T)
U132	25	Hexachlorophene
U133	250	Hydrazine (T,I,F)
U134	2,000	Hydrofluoric Acid (T,C)
U135	75	Hydrogen sulfide H_2S
U140	50	Isobutyl Alcohol (T,I,F)
U144	300	Lead Acetate (T)
U147	100	Maleic anhydride
U151	1,000	Mercury (T)
U154	500	Methanol (T,F)
U158	25	4,4'-Methylenebis(2-chloroaniline)
U159	125	Methyl Ethyl Ketone (T,F)
U160	50	Methyl Ethyl Ketone Peroxide (T,I,F)
U161	50	4-Methyl-2-pentanone (F), Methyl isobutyl ketone (F)
U162	100	Methyl methacrylate (F,T)

REPRESENTATIVE WASTE INVENTORY HANDLED AT THE SNL HAZARDOUS WASTE MANAGEMENT FACILITY

EPA HAZARDOUS WASTE NUMBER	ESTIMATED ANNUAL QUANTITY OF WASTE (kg)	WASTE MATERIALS(1)(2)(3)
U165	1,000	Napthalene (T,I,S)
U169	200	Nitrobenzen (T)
U171	25	2-Nitropropane (F,T)
U177	50	N-Nitroso-N-methylurea
U178	50	N-Nitroso-N-methylurethane
U179	100	N-Nitrosopiperidine
U180	100	N-Nitrosopyrrolidine
U181	50	5-Nitro-o-toluidine
U182	25	Paraldehyde (T)
U183	25	Pentachlorobenzene
U184	25	Pentachloroethane
U185	25	Pentachloronitrobenzene (PCNB)
U186	50	1,3-Pentadiene (F), 1-Methylbutadiene (F)
U188	25	Phenol (T,C)
U196	25	Pyridine
U201	25	Resorcinol
U204	25	Selenium Dioxide (T)
U209	20	1,1,2,2-Tetrachloroethane
U210	25	Tetrachloroethylene (T)
U211	100	Carbon Tetrachloride (T)
U213	350	Tetrahydrofuran (T,I,F)
U219	25	Thiourea
U220	500	Toluene (T,F)
U223	1,000	Toluene-2,4-Diisocyanate (T,I,S,P)
U225	50	Bromoform (T)

REPRESENTATIVE WASTE INVENTORY HANDLED AT THE SNL HAZARDOUS WASTE MANAGEMENT FACILITY

EPA HAZARDOUS WASTE NUMBER	ESTIMATED ANNUAL QUANTITY OF WASTE (kg)	WASTE MATERIALS[1][2][3]
U226	4,000	1,1,1-Trichloroethane (T,I)
U227	1,500	1,1,2, Trichloroethane
U228	1,000	Trichloroethylene
U239	250	Xylene (T,F)
U359	100	2-Ethoxyethanol

[1] The potential hazardous property of a waste material cited is indicated as follows: (T) toxic, (C) corrosive, (I) irritant, (F) flammable/ignitable, (R) reactive, (S) strong sensitizer, (P) pressure generating.
[2] Exact composition of waste material varies but hazardous properties are well defined. The hazardous components are listed by common name when available.
[3] This list represents possible waste streams at the facility. Other waste streams could be present any given time, such as D010, F004, P002, U001, etc.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733
August 31, 1992

CERTIFIED MAIL: RETURN RECEIPT REQUESTED

Ms. Kathy Sisneros, Chief
Hazardous Waste Bureau
New Mexico Environment Department
525 Camino de los Marquez
P.O. Box 26110
Santa Fe, New Mexico 87502

Re: Transmittal of Hazardous Waste Permit for
Sandia National Laboratory (NM5890110518)

Dear Ms. Sisneros:

I have enclosed the Hazardous and Solid Waste Amendment (HSWA) permit for Sandia National Laboratory. If you have any questions, please contact Mr. David Neleigh of my staff at (214) 655-6785.

Sincerely yours,

Allyn M. Davis, Director
Hazardous Waste Management Division

Enclosure

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 6

HAZARDOUS WASTE PERMIT
(HAZARDOUS AND SOLID WASTE AMENDMENTS, 1984)

PERMITTEE: Sandia National Laboratory, Albuquerque, New Mexico and the United States Department of Energy

OWNER: United States Department of Energy

OPERATOR: Sandia National Laboratory

LOCATION: Within Kirtland AFB property, on the south end of Albuquerque, New Mexico

I.D. NUMBER: NM5890110518

EFFECTIVE DATE: October 2, 1992

EXPIRATION DATE: September 20, 2002

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C.§§6901, et seq.) and the Hazardous and Solid Waste Amendments of 1984 (HSWA), a permit is issued to Sandia National Laboratory, Albuquerque, New Mexico and the United States Department of Energy (hereafter called the Permittee) to operate a hazardous waste disposal facility at the location stated above.

The Permittee must comply with all the terms and conditions of this permit. This permit consists of the conditions contained herein (including the attachments). Said conditions are needed to ensure that the Permittee's hazardous waste management activities comply with all applicable Federal statutory and regulatory requirements. Applicable requirements are those which are found in, referenced in, or incorporated into that version of RCRA or the regulations promulgated pursuant to RCRA that are in effect on the date this permit is issued. [See 40 CFR 270.32(c)].

This permit is issued in part pursuant to the provisions of Section 201, 202, 203, 206, 207, 212, 215, and 224 of HSWA which modified Sections 3004 and 3005 of RCRA. These require corrective action for all releases of hazardous waste or hazardous constituents for any solid waste management unit at a treatment, storage, or disposal facility seeking a permit, regardless of the time at which the waste was placed in such unit and provides the authority to review and modify the permit at any time. The decision to issue this permit is based on the assumption that all information contained in the permit application is accurate and that the facility will be operated as specified in the permit application. Any inaccuracies found in the application may be grounds for termination or modification of this permit (see 40 CFR 270.41, 270.42 and 270.43) and potential enforcement action.

Under Federal Law, this permit is effective on the effective date specified above unless a petition to the Administrator of the U.S. Environmental Protection Agency is filed in accordance with the requirements of 40 CFR 124.19.

Issued this 27 day of August, 1992

by Allyn M. Davis

Allyn M. Davis, Director
Hazardous Waste Management Division

Appeal No. 92-31

~~2/11/93~~

8/26/93 effective

RESPONSE TO COMMENTS
ON EPA DRAFTED HSWA
PERMIT - MODULE IV
SANDIA NATIONAL LABORATORY
EPA I.D. #NM5890110518

I. BACKGROUND INFORMATION

1. Facility location:

Sandia National Laboratory (SNL) is located within Kirtland Air Force Base property, on the south end of Albuquerque.

2. Facility Activities and Waste Handling:

SNL manages a wide variety of hazardous and non-hazardous wastes. SNL was established in 1945 with the responsibility of conducting research and development concerning national security programs in defense matters, with an emphasis on nuclear weapons. Programs have since been expanded to include alternative energy source research development and advanced military technologies. Characteristically hazardous wastes generated include ignitable reactive, corrosive, and toxicity characteristic streams. Listed hazardous wastes currently generated include numerous F, P, and U-listed streams. Many of the laboratories and activities have also generated or managed hazardous waste that is contaminated with radioactive isotopes, which is considered mixed waste.

3. Public Notice:

The public notice of the proposed permit satisfied the public notice requirements specified in 40 CFR 124.17. The public notice was published in the Albuquerque Journal on February 18, 1992 and was broadcast on radio station KKOB, Albuquerque. The announcement was also sent to the facility, appropriate State agencies, and interested parties. The public comment period closed on March 27, 1992. A public hearing was held in Albuquerque on March 20, 1992.

II. CHANGES MADE IN FINALIZING THE HSWA PERMIT

Below are the changes which EPA made to the Sandia National Laboratory HSWA permit.

The following definitions were modified or added:

"Operable Unit" for the purpose of this permit means a grouping of Solid Waste Management Units (SWMUs) which, because of geographic proximity to one another or type of waste disposed, are treated under a single Activity Data Sheet (ADS). A single RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) is written for the grouping of SWMUs.

"Permittee" means Sandia National Laboratory, Albuquerque, New Mexico, and the Department of Energy, EPA I.D. Number NM5890110518.

The first paragraph for B.1. Waste Minimization was changed to read:

1. Waste Minimization

The Permittee shall annually submit certification to the Administrative Authority according to the requirements of 40 CFR 264.73 (b)(9) by December 1, for the previous year ending September 30, that:

a. the Permittee has a program in place to reduce the volume and toxicity of all hazardous wastes which are generated by the facility's operation to the degree determined to be economically practicable; and that eh proposed method of treatment, storage, or disposal is the practicable method currently available to the Permittee which minimized the present and future threat to human health and the environment. **The following items are recommended to be included in the biennial report as required under 40 CFR 264.75(h)-(j):**

The word PCB was deleted from B.2. Dust Suppression:

2. Dust Suppression

Pursuant to 40 CFR 266.23(b), the Permittee shall not use waste or used oil or any other material which is contaminated with dioxin, or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment.

The highlighted changes were made to the Permit Modification B.3.:

3. Permit Modification

a. If at any time for any of the reasons specified in 40 CFR 270.41, the Administrative Authority determines that modification of this Permit is necessary, the Administrative Authority may require the Permittee to request a permit modification per Module IV.B.3.b or may initiate a modification according 40 CFR 124.5, as follows:

1) The Administrative Authority, when initiating such 270.41-related modifications, shall prepare a draft permit under 124.6 incorporating the proposed changes.

2) Notify the Permittee in writing **by certified mail** of the proposed modification and the date by which comments on the proposed modification must be received **(not less than 30 days).**

3) Publish a notice of the proposed modification in a locally distributed newspaper, broadcast the notice over a local radio station, mail a notice to all persons on the facility mailing list maintained according to 40 CFR 124.10(c)(1)(ix), and place a notice in the facility's information repository (a central source of all pertinent documents concerning the remedial action, usually maintained at the facility or some other public place in the vicinity of the permitted facility, such as a public library).

4) If the Administrative Authority receives no written comment on the proposed modification, the modification shall become effective five (5) calendar days after the close of the comment period. The Administrative Authority shall:

(a) Notify the Permittee in writing of the final decision.

(b) Notify individuals on the facility mailing list in writing that the modification has become effective and shall place a copy of the modified permit in the information repository, if a repository is required for the facility.

5) If the Administrative Authority receives written comment on the proposed modification, the Administrative Authority shall make a final determination concerning the modification after the end of the comment

period. The Administrative Authority shall:

a) Notify the Permittee in writing of the final decision.

b) Provide notice of the final modification decision in a locally distributed newspaper and place a copy of the modified permit in the information repository, if a repository is required for the facility.

b. The Permittee may initiate permit modifications proceeding under 40 CFR 270.42. All applicable requirements and procedures as specified in 40 CFR 270.42 shall be followed.

c. Modifications of the Permit do not constitute a reissuance of the Permit.

The following highlighted changes were made to B.6. Specific Waste Ban:

6. Specific Waste Ban

a. The Permittee shall not place in any land disposal unit the wastes specified in 40 CFR 268 after the effective date of the prohibition unless the Administrator has established disposal or treatment standards for the hazardous waste and the Permittee meets such standards and other applicable conditions of this Permit. **Not withstanding the foregoing, the Permittee may land dispose hazardous waste restricted by 40 CFR 268 which does not meet treatment standards if:**

1. A variance from the treatment standards has been granted pursuant to 40 CFR 268.44;

2. A petition has been granted on a case-by-case extension to the effective date, pursuant to 40 CFR 268.5; or

3. A "no-migration" petition has been granted pursuant to 40 CFR 268.6.

b. The Permittee may store wastes restricted under 40 CFR 268 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of 40 CFR 268.50(a)(2) including, but not limited to, clearly marking each tank or container.

c. The Permittee is required to comply with all requirements of 40 CFR 268.7 as amended. Changes to the

waste analysis plan will be considered permit modifications at the request of the Permittee, pursuant to 40 CFR 270.42.

d. The Permittee shall perform a waste analysis **annually on at least 5 percent of the defined regularly received process waste streams or** when a process changes, to determine whether the waste meets applicable treatment standards. Results shall be maintained in the operating record **as defined in 40 CFR 264.73.**

e. The Permittee shall comply with all statutory and regulatory requirements restricting or prohibiting the disposal of hazardous wastes in or on the land and the Permittee shall comply with the requirements as of the effective date of the statute or regulation.

The highlighted changes were made to B.7. Information Submittal in response to comments made. The address information was also updated. The requirement for submittal of one 3.5"IBM compatible disk copy of each plan, report, notification or other submittal was also removed below (B.7.) and from R.6. RFI Reporting Requirements and S.6.a. CMS Reporting Requirements as being unnecessary.

7. Information Submittal

Failure to comply with any condition of the Permit, including **relevant** information submittal, constitutes a violation of the Permit and is grounds for enforcement action, permit amendment, termination, revocation, suspension, or denial of permit renewal application. **Misrepresentation of any relevant facts at any time is grounds for termination of this Permit (40 CFR 270.43).**

The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Administrative Authority required in this Permit are signed and certified in accordance with 40 CFR 270.11. A summary of the planned reporting requirements pursuant to this Permit is found in Table 1. Two (2) copies and one (1) 3.5" IBM compatible disk copy each of these plans, reports, notifications or other submissions shall be submitted to the Administrative Authority by Certified Mail or hand delivered to:

U.S. EPA, Region 6
Hazardous Waste Management Division
RCRA Permits Branch (6H-P)
1445 Ross Avenue
Dallas, Texas 75202-2733

New Mexico Environmental Department
Hazardous and Radioactive Waste Bureau
525 Camino de los Marquez Suite 4
P.O. Box 87503
Santa Fe, New Mexico 87503

Section B.8.: The word relevant was added to the following sentence:

> Since required items are essential elements of this Permit, failure to submit any of the required items or submission of inadequate or insufficient **relevant** information may subject the Permittee to enforcement action under Section 3008 of RCRA which may include fines, suspension, or revocation of the Permit.

The following Special Conditions were added to Module IV:

C. Special Conditions

Within the designated timeframes the Permittee shall undertake the following measures, or be bound to the following conditions concurrent with the RCRA Facility Investigation required in Module IV J. Any required submittals shall be clearly referenced as to the requirement which is being fulfilled.

1. Program Implementation Plan

Due to the large number of SWMUs identified in this permit and the need to prioritize, schedule, and manage the performance of RCRA Facility Investigations, the Permittee shall submit to the Administrative Authority for approval a Program Implementation Plan. The Program Implementation Plan shall contain, at a minimum: (1) a Project Management Plan (which will incorporate the Project Schedule for five (5) years beginning with the current fiscal year); (2) a Quality Assurance Project Plan; (3) a Health and Safety Plan; and (4) a Community Relations Plan. This Program Implementation Plan shall be submitted to the Administrative Authority within one hundred eighty (180) days of the effective date of this permit then updates annually thereafter. As part of this plan the priority and relative risk (as known) for each SWMU will be presented. After the Permittee submits the Program Implementation Plan, the Administrative Authority will approve, disapprove or modify the plan. Upon approval of the plan, the Permittee shall immediately initiate implementation of the plan according to the schedule contained therein. The PIP will be available in the operating record as defined in 40 CFR 264.73, and will also be made available to all interested citizens

and citizen groups. Sandia will highlight all changes made in the PIP which are a result of changes in program needs and/or direction which do not warrant a permit modification.

2. Installation-wide Hydrogeologic Environment

Within one hundred eighty (180) days of the effective date of this permit, and annually thereafter, the Permittee shall submit to the Administrative Authority a report describing the current knowledge of the installation-wide hydrogeological environment. This report shall be a summary description of the major features and conceptual interrelationships of the hydrogeological environment and will include all known reports or work on the geohydrology of the facility. It shall address the regional and installation-wide geologic setting and hydrologic characteristics, and their associated uncertainties, affecting the occurrence, movement, and interaction of surface and subsurface water with a view toward a quantitative understanding of potential pathways for transport of contaminants. An annual update shall be prepared that will incorporate the major findings of installation-wide significance from studies conducted under the RCRA Facility Investigations performed pursuant to Section I of this permit. This report shall contain detailed maps depicting important hydrogeologic information. This report will be available in the operating record as defined in 40 CFR 264.73, and will also be made available upon request to interested citizen groups and citizens.

3. Voluntary Corrective Measures

At any time, if the Permittee identifies a corrective measure that, if implemented before final corrective measures have been identified, would reduce impacts to human health and the environment, reduce cost and/or reduce overall schedule, the Permittee is encouraged to request a permit modification or request temporary authorization for the activities. In the request for a permit modification (or a temporary authorization) the Permittee must include: (1) a description of the remediation initiative, including the details of the unit or activity that is subject to permit requirements; and (2) an explanation of how the proposed action is consistent with the overall corrective action objectives and requirements. The Administrative Authority will screen the cleanup proposal to ensure that it would not pose unacceptable risks to human health and the environment or interfere with attainment of the final remedy at the SWMU. Where a permit modification is

approved under these circumstances, the modification will make clear that the voluntary activities initiated for corrective action purposes may not be the final remedy, and that those activities will not absolve the Permittee from further cleanup responsibilities at a later date. Following this review, the Administrative Authority will approve or disallow the application.

4. Department of Energy Integrated Demonstration Program

The Department of Energy has established an Integrated Demonstration (ID) Program to advance Environmental Restoration assessment and remediation technologies in support of the investigation and corrective action or releases from SWMUs. This ID Program will bring advanced technologies that will be fielded and evaluated with the objective of incorporating successful technologies into the RCRA Facility Investigation (RFI)/Corrective Measure Study (CMS)/Corrective Measure Implementation (CMI) process. The Administrative Authority supports the integration of the results of the ID Program into the RFI/CMS/CMI process.

The ID Program consists of separate, experimental projects and is outside the scope of the permit. Therefore, ID Projects will not require RFI/CMS documentation and will not interfere with ongoing RFI/CMS/CMIs. However, in the event an ID project results in assessment or remediation technologies found to be applicable to sites under the scope of this permit, such assessment or remediation technologies will be proposed in appropriate RFI workplans. The Administrative Authority will consider such information in a determination of the adequacy of the RFI Report (for assessment technologies), the approval of Voluntary Corrective Measures or in the approval of Corrective Measures identified in the CMS.

5. Protection of Regional Aquifer

The Permittee shall, as part of the RFI, undertake measures to detect and/or predict any future movements of contaminants toward the regional aquifer from the SWMUs and through the regional aquifer to any potential receptors. These measures include, but are not limited to, monitoring of temperature, pressure and moisture in the vadose (unsaturated) zone, moisture and vapor flux investigations and numerical simulations. Where the Permittee believes that source characteristics and/or site conditions do not warrant such measures, evidence supporting this conclusion must be submitted as part of the RFI report.

6. Prioritization of Operable Units (OUs) for Assessment and Remediation

Prioritization of OUs shall be performed in accordance with DOE's risk-based ER Priority System. Under this system, OUs will be re-prioritized annually based on updated risk assessments performed in concurrence with the DOE ER Five-Year Plan. The Installation-Wide Hydrogeologic Environment Study will provide information to support the DOE ER Priority System. All priority changes in SWMUs which result in changes in the RFI workplan schedules will be addressed through a modification of the permit. All changes in the priorities of SWMUs which result in changes in the investigation schedules will be addressed through a modification of the permit.

E.2. was modified as highlighted below:

a. The Permittee shall notify the Administrative Authority verbally, within 24 hours of discovery, of any releases of hazardous waste or hazardous constituents that has the potential to migrate **beyond the facility boundary.**

b. Section 3004(v) of RCRA as amended by HSWA, and Federal regulations promulgated as 40 CFR 264.101(c), require corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates **to the Administrative Authority** that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied. **On-site measures to address such releases will be determined on a case-by-case basis.**

The following changes were made to F.1. Reporting Requirements:

1. The Permittee shall submit, in accordance with Module IV.B.7, signed quarterly progress reports of all activities (i.e., **a consolidated quarterly progress report on RFI/CMS/CMI for all OUs)** conducted pursuant to the provisions of this Permit beginning no later than ninety (90) calendar days from the effective date of this Permit.

The following phrase was deleted from F.1.e. "or environmental matters". The paragraph now reads:

e. Summaries of contacts pertaining to corrective action with representatives of the local community, public interest groups or State government during the reporting period;

Changes were made to G.1.a, b and c of Module IV as follows:

G. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUs

A. The Permittee shall notify the Administrative Authority, in writing, of any newly-identified SWMU(s) (i.e., a unit not specifically identified during the RFA), discovered in the course of ground water monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The notification shall include the following items, to the extent available:

a. The location of the unit on the topographic map submitted as part of the part B application in accordance with 40 CFR 270.14(b)(19) or a topographic map of comparable scale which clearly indicates the location of the unit in relation to other solid waste management units at the facility;

b. The type of unit;

c. The general dimensions of the unit (supply any available drawings);

d. The period during which the unit was operated;

e. The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU; and

f. Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the unit.

The following highlighted language was changed in the Interim Measures requirement of Module IV.I.:

I. INTERIM MEASURES

1. If during the course of any activity initiated under this Permit, the Administrative Authority determines that, **based on consideration of factors specified in 40 CFR 264.540(b), or based on site-specific circumstances a** release or potential release of hazardous constituents from a SWMU poses a threat to human health and the

environment, the Administrative Authority may require interim measures. The Administrative Authority shall determine the specific measure(s) or require the Permittee to propose a measure(s). The interim measure(s) may include a permit modification, a schedule for implementation, and a written plan. The Administrative Authority shall notify the Permittee in writing of the requirement to perform interim measures. The Administrative Authority shall modify this Permit according to Module IV.B.3 to incorporate interim measures into the Permit.

2. The following factors will be considered by the Administrative Authority in determining the need for interim measures:

1. Time required to develop and implement a final remedy;

2. Actual or potential exposure of nearby populations or environmental receptors to hazardous waste (including hazardous constituents);

3. Actual or potential contamination of drinking water supplies or sensitive ecosystems;

4. Further degradation of the medium which may occur if remedial action is not initiated expeditiously;

5. Presence of hazardous wastes (including hazardous constituents) in drums, barrels, tanks or other bulk storage containers, that may pose a threat of release;

6. Presence of high levels of hazardous wastes (including hazardous constituents) in soils largely at or near the surface, that may migrate;

7. Weather conditions that may cause hazardous waste (including hazardous constituents) to migrate or be releases;

8. Risks of fire or explosion, or potential for exposure to hazardous wastes (including hazardous constituents) as a result of an accident or failure of a container or handling system;

9. Other situations that may pose threats to human health and the environment.

The following changes were made to J.1. RFI Workplan and to Table 2:

The following SWMUs were removed from Table 2 as Kirtland Air Force Base has accepted responsibility for them:

Site #189, ADS # 1293, Dry Radioactive Waste Burial
Site #24, ADS # 1309, Landfill/Open Dump

The comment "under NM mixed waste, possible RCRA closure" was removed from the Mixed Waste Landfill in Table 2.

The name of Site 101 was changed to read: "Explosive Contaminated Sumps and Drains (Bldg. 9920).

The name of Site 160 was changed to read: "Bldg. 9832 Septic System".

The comment "may contain hazardous material" has been added to Site 102.

The name of Site 188 was changed to read "Bldg. 6597 Above Ground Containment Spill Tank (Area V).

The name of Site 179 has been changed to read "Manzano AFB Bldg. 7570-1".

Site 110 was removed from the list as it is covered under different sites already listed, and including the addition of Site 193 Sabotage Test Area which was added to the list. Site 79 was removed from the list as it is the same as Site 6.

The name of Site 19 was changed to read "Scrap Yard (NW end of old Aerial Cable)".

The name of Site 87 has been changed to read: "Bldg. 9990 (firing site)".

The name of Site 13 has been changed to read "Oil Surface Impoundments (Lurance Canyon Burn Site)".

The name of Site 10 has been changed to read "Burial Mounds (Bunker Area north of Pendulum Site)".

The name of Site 60 has been changed to read "Bunker Area (North of Pendulum Site)".

The name of Site 92 has been changed to read "Pressure Vessel Test Site (Coyote Canyon Blast Area)".

Site 106 was removed from Table 2 as this area was already covered in other sites.

The name of Site 73 has been changed to read "Hazardous Waste Repackaging/Storage (Bldg. 895)".

Site 185 was renumbered to Site 186.

The name of Site 98 has been changed to read: "Bldg. 863, TCA Photochemical Releases: Silver Catch Boxes".

Site 189 was changed to Site 192, Tech Area I Waste Oil Tank.

Site 190, the Tank Farm was added to Table 2.

Changes which were made to N. CMS Plan as follows:

N. CMS PLAN

1. If the Administrative Authority has reason to believe that a SWMU has released concentrations of hazardous constituents, **which exceed action levels as defined under 40 CFR 264.521**, or if the Administrative Authority determines that contaminants present a threat to human health or the environment given site-specific exposure conditions, the Administrative Authority may require a CMS and shall notify the Permittee in writing. The notification may also specify remedial alternatives to be evaluated by the Permittee during the CMS.

2. The Permittee shall submit a CMS Plan to the Administrative Authority within **ninety (90)** calendar days from notification of the requirement to conduct a CMS. The Scope of Work for a CMS Plan is in Module IV.S.3.

   The CMS Plan shall provide the following information:

   10. A description of the general approach to the investigation, and potential remedies;

   11. A definition of the overall objectives of the study;

   12. Specific plans for evaluating remedies to ensure compliance with remedy standards;

   13. Schedules for conducting the study; and

   14. The proposed format for the presentation of information.

3. After the Permittee submits the CMS Plan, the Administrative Authority will either approve, disapprove, or modify the plan in writing.

   If the Administrative Authority approves the CMS Plan,

the Permittee shall implement the plan per Module IV.O.

If the plan is not approved, the Administrative Authority will notify the Permittee in writing of the plan's deficiencies and specify a due date for submittal of the revised plan. The modified CMS plan shall be submitted in writing to the Administrative Authority for review. Should the permittee take exception to all or part of the disapproval, the Permittee shall submit a written statement of the grounds for the exception within 10 days of receipt of the disapproval per Module IV.E.4.

The following additions were made to R.1 and 2, RFI Scope of Work:

R. RFI SCOPE OF WORK

1. Purpose

The purpose of the RFI is to determine the nature and extent of releases of hazardous wastes or hazardous constituents from solid waste management units. The required information shall include each item specified under Tasks I-III. The Permittee shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RFI.

If the Permittee believes that certain requirements of the Scope of Work are not applicable, the specific requirements shall be identified and a detailed rationale for inapplicability shall be provided.

Subsection 1004(27) of RCRA, 42. U.S.C., Subsection 6903(27), excludes source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (AEC), as amended, 42 U.S.C. 2011 et.seq., from the definition of solid waste as that term is defined in RCRA. Accordingly, such excluded radioactive wastes are not subject to RCRA and are not regulated in this permit. However, this permit provides for monitoring and reporting of radioactive constituents at SWMUs in section R.3.a.2.a.2 and 3, R.3.a.3.b.1.c, R.3.d.3.f, R.d.d.4, and R.3.e:

(1) to ensure health and safety of EPA and EPA Contractor personnel while on site, and during sampling;

(2) to facilitate safe and accurate analysis of any samples which may be contaminated with radioactive constituents;

(3) to ensure and assess migration of mixed waste; and

(4) to facilitate the undertaking of corrective measures with respect to hazardous waste by helping to ensure the health and safety of workers and the public during remediation.

2. Scope

The RFI consists of three tasks:

Task I: RFI Workplan

Under the Program Implementation Plan workplan (PIP) a Community Relations Plan, Health and Safety Plan, a Quality Assurance Project Plan and a Project Management Plan will be submitted. The information provided in the PIP may be referenced in the RFI Workplans unless it is information which is pertinent to a specific RFI workplan.

a. Introduction
b. Environmental Setting
c. Source Characterization
d. Contamination Characterization
e. Potential Receptor Identification
f. Data Collection Quality Assurance Plan
g. Data Management Plan
h. Health and Safety Plan
i. Community Relations Plan
j. Project Management Plan

Task II: RCRA Facility Investigation

Task III: RFI Final Report and Summary

This additional sentence was added to R.3.a.1.a. :

R.3.a.1.a.9) review all available/applicable aerial photography to characterize changes at SWMUs.

Modifications made to Module IV. R.3.a.1.d and e are as follows:

d) A reference to all **known** environmental, geologic, and hydrogeologic studies performed by all parties, at or near the facility, with a short summary of the purpose, scope ad significant finding thereof.

e) A reference to all environmental permits, applied for and/or received **by the Permittee,** the purpose thereof, and a short summary of requirements.

The phrase "to the extent known" was added to R.3.a.2.a.2. so it now reads:

2) quantities of solid, hazardous, and radiochemical wastes **to the extent known;**

Several changes were made to the Community Relations Plan R.3.i; therefore, the entire section is included here with changes made being highlighted:

i. Community Relations Plan

The Permittee shall prepare a plan for dissemination of information to the public regarding investigation activities and results.

1) Establishing an active mailing list of interested parties (to be updated annually), including those on the official mailing list who wish to be on Sandia's list.

2) Informal meetings, including briefings and workshops as appropriate, with the public and local officials before and during the RFI process, which includes activities associated with the RFI Report and Workplan;

3) News releases, fact sheets, draft and approved RFI Workplans, draft and final RFI Reports and publicly available quarterly progress reports that explain the progress and conclusions of the RFI **must be provided to interested citizen groups and the public as requested.**

4) Creation of a public information repository and reading room;

5) Public tours and briefings to inform and to listen informally to public concerns and answer individual questions;

6) Procedures for immediate notification of affected parties in case of a newly discovered off-site release which could impact them;

7) Attend meetings, **present requested information, and respond to questions** of the Bernalillo County/Kirtland Air Force Base Environmental Working Group;

8) Notify interested community groups of opportunities to observe field data gathering activities conducted during the RFI/CMS process;

9) Develop and implement a means of notifying the citizens of the East Manzano area directly east of Sandia National Laboratory of any outdoor burn testing;

10) Present the results of the waste minimization plan

at least annually at one of the scheduled public meetings;

11) Provide written follow-up to unanswered questions from attendees of any public meetings or presentations initiated as part of community relations activities.

Changes made to Table 1 are highlighted below:

Table 1: RFI/CMS SUBMISSION SUMMARY

Below is a summary of the planned reporting requirements pursuant to this Permit:

Facility Submission Requirements	Due Date
Verbal notification of newly-discovered releases	**24 hours after release discovery**
Written notification of newly-identified SWMUs:	Thirty (30) calendar days after discovery
Written notification of newly-discovered releases:	Fifteen (15) calendar days after discovery
Risk Assessment of newly-discovered SWMUs:	**Thirty (30) calendar days after discovery.**
Progress reports on all activities:	Quarterly, no later than ninety (90) days from the effective date of the permit
Program Implementation Plan:	**One hundred eighty (180) calendar days from effective date of permit then updated annually thereafter. Any modifications will require a resubmittal of a revised Program Implementation Plan, regardless of the time at which the modification occurs.**
Site-Wide Hydrogeologic Environment Report:	**One hundred eighty (180) calendar days from effective date**

	of permit, then annually thereafter.
Waste Minimization Plan:	**Biennially, by December 1**
Interim Measures Plan:	As determined by Administrative Authority
Revised Interim Measures Plan:	As determined by Administrative Authority
Voluntary Corrective Measures Plan:	**As circumstances dictate**
Integrated Demonstration Technology Application Plan:	**Upon successful demonstration of applicable technologies.**
RFI Workplans:	As specified in Section J of this permit.
Revised RFI Workplans:	As determined by Administrative Authority, usually within 30 days of receipt of NOD.
RFI Report and Summary:	Sixty (60) calendar days after completion of RFI.
Revised RFI Report and Summary:	Thirty (30) calendar days after notification of deficiency
CMS Plan:	**Ninety (90) calendar days after notification of requirement to perform CMS**
Revised CMS Plan:	As determined by Administrative Authority, usually within thirty (30) calendar days of receipt of notice of

	deficiency
CMS Final Report and Summary:	Sixty (60) calendar days after completion of CMS.
Revised CMS Report:	**Thirty (30) calendar days after notification of deficiency**
Demonstration of Financial Assurance at Facility	one hundred and twenty (120) calendar days after permit modification to implement corrective measures

III. Response to Comments

The following comments represent the Department of Energy (DOE) and Sandia National Laboratories (SNL) comments on the HSWA portion of the permit. As part of the comments submitted, a modified permit was also submitted which incorporated all the comments made by DOE and SNL. The modified permit has not been addressed in this response to comments, rather all the individual comments made have been addressed. In addition all minor editorial comments to the original comments submitted by Sandia were made and included in the appropriate comment.

1. SNL Comment:

Sandia proposes the following definition be added:

"off-site" means off of the boundaries of areas utilized by Sandia, including areas owned by DOE and used under permit or transfers by DOE.

EPA Response:

Due to the integration of Sandia and Kirtland Air Force Base a definition of "off-site" in the HSWA portion of the permit does not appear appropriate. Rather, Sandia will address their SWMUs under their permit, as Kirtland Air Force Base will address their SWMUs under their separate permit.

2. SNL Comment:

SNL proposed the following definition be added:

"Operable Unit" means a grouping of Solid Waste Management Units (SWMUs) which, because of geographic proximity to one another or type of waste disposed, are treated under a single Activity Data Sheet (ADS). A single RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) is written for the grouping of SWMUs.

EPA Response:

The proposed definition has been added to the permit although changed somewhat to read: "Operable Unit" for the purposes of this permit means a grouping of Solid Waste Management Units (SWMUs) which, because of geographic proximity to one another or similarities in the type of waste disposed, are investigated under a single RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS).

3. SNL Comment:

The following definition was modified:

"Permittee" means Sandia National Laboratories, Albuquerque and the Department of Energy, EPA I.D. Number NM5890110518.

EPA Response:

The permit has been changed to reflect this definition change.

4. SNL Comment:

B.1. Waste Minimization.

This section on waste minimization cites 40 CFR 270.11 as if it were authority for the entire requirement for the condition on waste minimization. That CFR cite pertains only to the form of certification. The only apparent regulatory authority for a Treatment, Storage and Disposal (TSD) facility is found at 40 CFR 264.75(h)-(j) and 265.75(h)-(j), respectively. In both these cases, the only requirement is for the owner or operator to biennially report, and certify, the following:

a. The efforts undertaken during the year to reduce the volume of toxicity of waste, and;

b. the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984.

There is no regulatory authority for requiring the type of plan this permit section describes. Therefore, Sandia request that this requirement should be deleted, and the above-described requirements, at most, should be substituted.

Additional comments by SNL indicate that EPA has no regulatory authority to require the type of extensive waste minimization plan it purports to require in this section of the draft permit. SNL believes that its inclusion in the permit absent authorizing regulation constitutes arbitrary and capricious agency action. SNL cannot agree to the inclusion in the permit of another basis for possible violation citations.

EPA Response:

Even though there was significant public interest in increasing the waste minimization plan, the permit has been changed to reflect EPA's regulatory authority for annual certification of a waste minimization program under 40 CFR 264.73(b)(9). The permit has also been changed to reflect only recommendations rather than

requirements for items to be included in the bienniel waste minimization report.

5. SNL Comment:

B.2. Dust Suppression

Sandia requests that the reference to PCBs be deleted; they are not mentioned in the cited regulation. EPA's authority over PCBs in the context of a RCRA permit is in connection with PCB releases from SWMUs, discussed at 55 FR 30853 (Friday, July 27, 1990) in the Preamble to the Proposed Rule for Corrective Action for SWMUS at Hazardous Waste Management Facilities which are addressed in accordance with TSCA PCB spill cleanup policy. That policy concerns PCB concentrations greater than 50 ppm. This comment is intended to achieve a permit which is clearly based on regulatory requirements.

EPA Response:

The reference to PCBs has been deleted from the permit.

6. SNL Comment:

B.3.a, Permit Modification

This section as worded does not follow 124.5, which it cites. Administrative authority-initiated tentative modifications under 40 CFR 124.5 are made pursuant to 40 CFR 270.41. 124.5(c) requires the Administrative Authority, when initiating such 270.41-related modifications, to prepare a draft permit under 124.6 incorporating the proposed changes. Also, 40 CFR 270.41 states that, unless a permit modification is requested by the Permittee, a draft permit shall be prepared (by the Administrative Authority) and other procedures of 124 followed.

Thus, Sandia requests that this section include a requirement for the Administrative Authority to prepare a draft permit upon Authority-initiated permit modifications. Also, all notification to the Permittee must be by certified mail, and the comment period must be a reasonable period of time, at least 30 days. In order to make this section consistent with the dispute resolution process proposed in Section C.7, the following language should be incorporated into the end of the permit modification section: "If modifications that are initiated and finalized by the Administrative Authority according to this process are not agreed to by the Permittee, after all attempts to resolve the differences, closure of the matter will be sought through the alternative dispute resolution process".

This requested requirement also serves the purpose of having the new draft prepared by the party in the best position to do the

drafting, i.e., the party who conceived of the proposed modification.

EPA Response:

The requirement for the Administrative Authority to prepare a draft permit upon Authority-initiated permit modifications has been added to the permit. Notification to the permittee must be by certified mail and the comment period will be at least 30 days. The dispute resolution language was not added as this right has already been defined in the permit under dispute resolution (E.4.).

7. SNL Comment:

B.4. Permit Review

Sandia proposes that the first and last sentence of this section be deleted since any review of Parts A and B of the Permit should be so stated in those parts, not in the HSWA module, and, review of the HSWA module may be done on an annual basis.

EPA Response:

No change is needed as Section 3005(c)(3) of the Act allows EPA these permit review rights.

8. SNL Comment:

B.5. Compliance with Permit

Please rewrite the second sentence of this section as follows: "The Permittee is also required to comply with Parts 260, 261, 262, and 263 as applicable, but non-compliance with these sections, while providing the basis for possible RCRA enforcement actions, would not constitute permit violations." This language is proposed to clarify that the second sentence does not include compliance with the mentioned regulatory sections as a permit requirement. As an alternative, the same clarity could be achieved by deleting the second sentence altogether.

EPA Response:

40 CFR 270.32(b)(1) and (2) indicates that each RCRA permit shall include permit conditions necessary to achieve compliance with the Act and regulations; therefore, the inclusion of compliance with Parts 260, 261, 262, and 263 is appropriate, and will remain in the permit.

9. SNL Comment:

B.6.a. Specific Waste Ban

Section B.6.a. prohibits disposal unless land disposal restricted waste meets treatment standards established by EPA. This sections does not acknowledge other compliance options available in the regulations. Sandia believes this request for variance language is needed in order to allow for the possibility of technological advances in treating waste. Sandia requests that the following language and provisions be substituted for this section to address those options:

"a. The Permittee shall not place in any land disposal unit the wastes specified in 40 CFR 268 after the effective date of the prohibition unless the Administrator has established disposal of treatment standards for the hazardous waste and the Permittee meets such standards and other applicable conditions of this Permit. Not withstanding the foregoing, the Permittee may land dispose hazardous waste restricted by 40 CFR 268 which does not meet treatment standards if:

1. A variance from the treatment standards has been granted pursuant to 40 CFR 268.44;

2. A petition has been granted on a case-by-case extension to the effective date, pursuant to 40 CFR 268.5; or

3. A "no-migration" petition has been granted pursuant to 40 CFR 268.6.".

EPA Response:

The Permit language has been changed to incorporate the language proposed.

10. SNL Comment:

B.6.d. Specific Waste Ban

This section uses the term "operating record" without definition Add the citation 40 CFR 264.73 after the term.

We request the deletion of the annual requirement for performance of a waste analysis, since this requirements is inconsistent with the schedule for waste analysis already established in the Waste Analysis Plan for the Hazardous Waste Facility under the RCRA portion of the permit. We propose that Module IV , section B.6.d. be revised to parallel the requirements in 40 CFR 264.13(a) and 268.7(a), and the Waste Analysis Plan be referenced for details.

EPA Response:

The requested citation has been added following the term "operating record".

The permit language has been changed to parallel the waste analysis schedule established in Attachment A Waste Analysis Plan under the RCRA portion of the permit. Therefore, waste analysis is required annually on at least 5 percent of the defined regularly received process waste streams or when a process changes.

11. SNL Comment:

B.6., last sentence of this Section in EPA's draft permit. In our previously submitted comments, we recommended the deletion of the phrase "This section applies to the RCRA Permit" because the waste ban section had implications for both the RCRA and HSWA permits. We have subsequently determined that New Mexico has not received authority from EPA for implementation of the requirements of 40 CFR 268. Thus, regardless of any "implications" we previously alluded to, it seems that only EPA has the authority at present to implement 40 CFR 268 requirements. Therefore, we request clarification of the statement "This section applies to the RCRA Permit." Does this mean that EPA intends for the state to implement the 40 CFR 268 requirements? If so, we believe the state lacks authority to do so. If not, we do not understand the purpose of this statement.

EPA Response:

EPA has removed this sentence from the permit, "This section applies to the RCRA Permit". In order for to clarify the language of B.6.e. the following language has been added to the permit:

> "The Permittee shall comply with all statutory and regulatory requirements restricting or prohibiting the disposal of hazardous wastes in or on the land and the Permittee shall comply with the requirements as of the effective date of the statute or regulation."

12. SNL Comment:

<u>B.7. Information Submittal</u>

Sandia requests that the term "relevant" be added before the work "information" in the second line of the first paragraph, to conform to 40 CFR 270.43, which this section relies on for authority. Also, change the last sentence in the first paragraph to read, "Misrepresentation of any relevant information is grounds for termination of the Permit (40 CFR 270.43).". These changes would avoid a situation where Sandia could be found to be in violation of the permit for any information omission, no matter how small.

EPA Response:

EPA has changed the permit to better conform to 40 CFR 270.43.

13. SNL Comment:

B.8. Plans and Schedules Incorporation Into Permit

Sandia request that the word "relevant" be inserted before the word "information" in the 7th line in the first paragraph, for the same reason cited in the previous comment.

EPA Response:

This change has been made to the permit.

14. SNL Comment:

C. Special Conditions

Sandia proposes the following section be added to the permit. Within the designated timeframes the Permittee shall undertake the following measures, or be bound to the following conditions concurrent with the RCRA Facility Investigation required in Module IV I. Any required submittal shall be clearly referenced as to the requirement which is being fulfilled.

EPA Response:

This section has been added under C. Special Conditions with the modification of RCRA Facility Investigation required in Module IV J.

15. SNL Comment:

1. Program Implementation Plan

Due to the large number of SWMUs identified in this permit and the need to prioritize, schedule, and manage the performance of RCRA Facility Investigations, the Permittee shall submit to the Administrative Authority for approval a Program Implementation Plan. The Program Implementation Plan shall contain, at a minimum: (1) a Project Management Plan (which will incorporate the Project Schedule for five (5) years beginning with the current fiscal year); (2) a Quality Assurance Project Plan; (3) a Health and Safety Plan; and (4) a Community Relations Plan. This Program Implementation Plan shall be submitted to the Administrative Authority within one hundred eighty (180) days of the effective date of this permit then updates annually thereafter. After the Permittee submits the Program Implementation Plan, the Administrative Authority will approve, disapprove or modify the plan. Upon approval of the plan, the Permittee shall immediately

initiate implementation of the plan according to the schedule contained therein.

Sandia feels that through the PIP, changes in program needs and direction which do not warrant a permit modification can be easily incorporated. Since the Administrative Authority must approve this plan on an annual basis, the proper check remains in place to ensure congruence with the balance of the permit requirements.

EPA Response:

This Special Condition will be added to the permit. In addition, the following language was added:

> "The PIP will be available in the operating record as defined in 40 CFR 264.73, and will also be made available to all interested citizens and citizen groups. Sandia will highlight all changes made in the PIP which are a result of changes in program needs and/or direction which do not warrant a permit modification."

16. SNL Comments:

C.2. Installation-wide Hydrogeologic Environment

Within one hundred eighty (180) days of the effective date of this permit, and annually thereafter, the Permittee shall submit to the Administrative Authority a report describing the current knowledge of the installation-wide hydrogeological environment. This report shall be a summary description of the major features and conceptual interrelationships of the hydrogeological environment. It shall address the regional and installation-wide geologic setting and hydrologic characteristics, and their associated uncertainties, affecting the occurrence, movement, and interaction of surface and subsurface water with a view toward a quantitative understanding of potential pathways for transport of contaminants. An annual update shall be prepared that will incorporate the major findings of installation-wide significance from studies conducted under the RCRA Facility Investigations performed pursuant to Section I of this permit.

Sandia believes that an installation-wide assessment of the hydrogeologic environment should be completed. Sandia is not required to do this, but feels it is the right thing to do. Determination of these pathways cannot be done rigorously at the Operable Unit level. A defensible analysis required assessment and analysis at both a larger scale and with a different technical approach than is required or needed at the Operable Unit level.

EPA Response:

The special permitting condition Installation-wide Hydrogeologic Environment has been included in the permit.

17. SNL Comments:

C.3. Voluntary Corrective Measures

At any time, if the Permittee identifies a corrective measure that, if implemented before final corrective measures have been identified, would reduce impacts to human health and the environment, reduce cost and/or reduce overall schedule, the Permittee is encouraged to request a permit modification or request temporary authorization for the activities. In the request for a permit modification (or a temporary authorization) the Permittee must include: (1) a description of the remediation initiative, including the details of the unit or activity that is subject to permit requirements; and (2) an explanation of how the proposed action is consistent with the overall corrective action objectives and requirements. The Administrative Authority will screen the cleanup proposal to ensure that it would not pose unacceptable risks to human health and the environment or interfere with attainment of the final remedy at the SWMU. Where a permit modification is approved under these circumstances, the modification will make clear that the voluntary activities initiated for corrective action purposes may not be the final remedy, and that those activities will not absolve the Permittee from further cleanup responsibilities at a later date.

Sandia would like to emphasize that it is important to have a process specified, as part of the module, for performing voluntary corrective measures. Sandia would also like to add the following paragraph.

Any voluntary corrective measures, ongoing at the time this permit takes effect, are supported by the Administrative Authority, and do not require authorization for completion.

EPA Response:

The permit has been modified to include the first paragraph of this comment which begins, "At any time.." and ends, "at a later date" with the modification of adding the sentence, "Following this review, the Administrative Authority will approve or disallow the application.". This sentence would allow this section of the permit to be more in line with the proposed language for voluntary corrective action.

EPA does not feel it is appropriate to include Sandia's second paragraph for ongoing corrective actions, as EPA reserves the right to comment on all corrective measures.

18. SNL Comment:

Sandia replaced the language proposed in their original comments on the HSWA permit dated September 4, 1991 with the following

language:

C.4. Department of Energy Integrated Demonstration Program

The Department of Energy has established an Integrated Demonstration (ID) Program to advance Environmental Restoration assessment and remediation technologies in support of the investigation and corrective action of releases from SWMUs. This ID Program will bring advanced technologies that will be fielded and evaluated with the objective of incorporating successful technologies into the RCRA Facility Investigation (RFI)/Corrective Measure Study (CMS)/Corrective Measure Implementation (CMI) process. The Administrative Authority supports the integration of the results of the ID Program into the RFI/CMS/CMI process.

The ID Program consists of separate, experimental projects and is outside the scope of the permit. Therefore, ID Projects will not require RFI/CMS documentation and will not interfere with ongoing RFI/CMS/CMIs. However, in the event an ID project results in assessment or remediation technologies found to be applicable to sites under the scope of this permit, such assessment or remediation technologies will be proposed in appropriate RFI workplans. The Administrative Authority will consider such information in a determination of the adequacy of the RFI Report (for assessment technologies), the approval of Voluntary Corrective Measures or in the approval of Corrective Measures identified in the CMS.

Inclusion of the above-proposed language referring to the ID Program would demonstrate commitment by the Administrative Authority to bringing better, cheaper, faster, safer technologies to bear on the environmental restoration problem. Sandia believes that the success of the ID Program is essential to reducing the long-term cost of environmental remediation and the risks posed to the public.

EPA Response:

The Special Permit condition on the Integrated Demonstration Program will be added to the permit. Sandia should be reminded that the use of an Integrated Demonstration Program does not preclude the fact that a Research Design and Development permit may be required for many of these activities.

19. SNL Comment:

Sandia believes that the regional aquifer should be protected and is demonstrating a commitment to its protection by proposing that this activity be a permit requirement.

C.5. Protection of Regional Aquifer

The Permittee shall, as part of the RFI, undertake measures to detect and/or predict any future movements of contaminants toward the regional aquifer from the SWMUs and through the regional aquifer to any potential receptors. These measures include, but are not limited to, monitoring of temperature, pressure and moisture in the vadose (unsaturated) zone, moisture and vapor flux investigations and numerical simulations. Where the Permittee believes that source characteristics and/or site conditions do not warrant such measures, evidence supporting this conclusion must be submitted as part of the RFI report.

EPA Response:

This Special Permit Condition has been added to the permit.

20. SNL Comment:

6. System for Decision Support.

A Decision Support System (DSS) is under development by Sandia National Laboratories to aid in the assessment of SWMUs. The DSS will be proposed through the Implementation Plan and the annual updates to that Plan. The DSS is designed to assist the technical investigator in optimizing assessment strategies at various SWMUs, particularly with respect to hydrogeologic characterization and monitor well locations. The development of the DSS is supported by the Administrative Authority and will not require the submission and approval of RFI type Workplans and reports. Prior to implementation of the DSS, the Permittee will submit a technical report to the Administrative Authority describing the system and the intended application to SWMUs covered under this permit. The Administrative Authority will consider such information in approving or disapproving the application of the system to assessment activities. In addition, the Permittee shall work with the Administrative Authority to develop quantitative measures where subjective approaches have traditionally been used, thus minimizing the potential for dispute.

EPA Response:

Sandia may initiate this Decision Support System without it being a permit requirement; therefore it was not added to the permit.

21. SNL Comment:

C.7 Alternative Dispute Resolution

The proposed language has been used routinely between DOE and EPA for DOE CERCLA cleanup agreements. The most important feature of this scheme is that it provides a mechanism for elevation of inter-

agency disputes. EPA's language in its proposed draft, on the other hand, provides only that EPA's decision is final, once the parties are past the informal negotiation stage and the Permittee has held an informal conference. The establishment of a procedure leading to a final agency decision is desirable to private party Permittees, because a final decision is then appealable to a court of law. When the Permittee is another federal agency, however, the unitary executive theory precludes that Permittee from bringing suit against the EPA. Instead, it is necessary to have a mechanism in place for resolution of permit disputes, which are actually interagency disputes. The scheme does, in fact, preserve the ultimate right of EPA to issue a final decision, however, this decision is not made until after the opportunity for a meeting between the Administrator of EPA and the Secretary of Energy.

The proposed scheme has the effect of providing a strong motivation for resolution of disputes at the lower levels of management.

C.7. Alternative Dispute Resolution

During the process of investigating releases and studying remedies for SWMUs covered under this permit, disagreements between the Permittee and the Administrative Authority may arise regarding various technical or procedural issues. Such disagreements will be resolved through negotiations between the Permittee and the Administrative Authority to the extent possible. For situations where the requirements at issue are clearly defined in the permit schedule of compliance, but where the Permittee refuses, or otherwise demonstrates an unwillingness to comply with the requirements, the Administrative Authority would utilize enforcement options (e.g. section 3008(a) of RCRA) to compel appropriate action by the Permittee. Where the permit provides no clear definition of compliance requirements, such as would be the case for technical issues, a neutral, third party mediation team, of recognized technical competence, will be utilized as a first alternative to resolution of the matter in the context of a time-limited, nonbinding negotiation process. If resolution is still not achieved, then elevation of the dispute to higher and higher levels within the Parties' organizations would follow.

All parties to this permit shall make reasonable efforts to informally resolve disputes at the Project Manager or immediate supervisor level. If resolution cannot be achieved informally, the following procedures shall be implemented to resolve a dispute:

A. Within thirty (30) days after: (1) the period established for review of a draft final primary document, of (2) any action which leads to or generates a dispute, the disputing Party shall submit to the other Party a written statement of dispute setting forth the nature of the dispute, the work affected by the dispute, the disputing Party's position with respect to the dispute and the information the disputing Party is relying upon to support its

position.

B. Prior to any Party's issuance of a written statement of dispute, the disputing Party shall engage the other Party in informal dispute resolution among the Project Managers and/or their immediate supervisors. During this informal dispute resolution period the Parties shall meet as many times as are necessary to discuss and attempt resolution of the dispute.

C. If informal negotiations fail, a neutral, third party mediation team will be formed, made up of three independent experts from related government organizations (e.g. the U.S. Geological Survey) and academia. Two of the experts will be chosen by the EPA with the remaining expert chosen by the Permittee. The Permittee will be responsible for summarizing the issue in dispute and providing all of the supporting data. The EPA will then review this summary, edit the summary if necessary, return it to the Permittee for comment, then provide the summary as approved by the EPA and the Permittee, to the mediation team. The team will have thirty (30) days from the time the EPA provides them with a summary of the disputed issue to review the issue in dispute. Immediately following this review period a hearing will be held to allow the Parties to present and defend their respective position on the disputed issue. Following the hearing, the mediation team will have fifteen (15) days to provide the EPA with their recommendation for dispute resolution. If agreement still cannot be reached on the issue(s) within this dispute resolution process, the disputing Party shall forward the written statement of dispute to the Dispute Resolution Committee (DRC) thereby elevating the dispute to the DRC for resolution.

D. The DRC will serve as a forum for resolution of disputes for which agreement has not been reached through the neutral, third party process. The Parties shall each designate one individual and an alternate to serve on the DRC. The individuals designated to serve on the DRC shall be employed at the policy level (SES) or equivalent or be delegated the authority to participate on the DRC for the purposes of dispute resolution under this permit. The EPA representative on the DRC is the Waste Management Division Director of EPA's Region VI. The DOE's designated member is the DOE/AL Environmental Restoration Project Office Manager. Written notice of any delegation of authority from a Party's designated representative on the DRC shall be provided to all other Parties.

E. Following elevation of a dispute to the DRC, the DRC shall have twenty-one (21) days to unanimously resolve the dispute and issue a written decision. If the DRC is unable to unanimously resolve the dispute within this twenty-one (21) day period the written statement of dispute shall be forwarded to the Senior Executive Committee (SEC) for resolution.

F. The SEC will serve as the forum for resolution of disputes for

which agreement has not been reached by the DRC. The EPA representative on the SEC is the Regional Administrator of EPA Region VI. The DOE's representative on the SEC is the DOE Albuquerque Operations Office Manager. The SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute and issue a written decision. If unanimous resolution of the dispute is not reached within twenty-one (21) days, EPA's Regional Administrator shall issue a written position on the dispute. The DOE may, within twenty-one (21) days of the Regional Administrator's issuance of EPA's position, issue a written notice elevating the dispute to the Administrator of EPA for resolution accordance with all applicable laws and procedures. In the event that the DOE elects not to elevate the dispute to the Administrator within the designated twenty-one (21) day escalation period, the DOE shall be deemed to have agreed with Regional Administrator's written position with respect to the dispute.

G. Upon escalation of a dispute to the Administrator of EPA pursuant to part F above, the Administrator will review and resolve the dispute within twenty-one (21) days. Upon request, and prior to resolving the dispute, the EPA Administrator shall meet and confer with the Secretary of the DOE to discuss the issue(s) under dispute. Upon resolution, the Administrator shall provide the DOE with a written final decision setting forth resolution of the dispute.

H. The pendency of any dispute under this Part shall not affect the DOE's responsibility of timely performance of the work required by this permit, except that the time period for completion of work affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this permit which are not affected by the dispute shall continue and be completed in accordance with the applicable schedule.

I. When dispute resolution is in progress, work affected by the dispute will immediately be discontinued if the Hazardous Waste Division Director for EPA's Region VI requests, in writing, that work related to the dispute be stopped because, in EPA's opinion, such work is inadequate or defective, and such inadequacy or defect is likely to yield and adverse effect on human health or the environment, or is likely to have a substantial adverse effect on the remedy selection or implementation process. To the extent possible, EPA shall give the DOE prior notification that a work stoppage request is forthcoming. After stoppage of work, if the DOE believes that the work stoppage is inappropriate or may have potential significant adverse impacts, the DOE may meet with the Division Director to discuss the work stoppage. Following this meeting, and further consideration of the issues, the Division Director may immediately be subjected to formal dispute resolution. Such dispute may be brought directly to either DRC or the SEC, at

the discretion of the DOE.

J. Within twenty-one (21) days of resolution of a dispute pursuant to the procedures specified in this Part, the DOE shall incorporate the resolution and final determination into the appropriate plan, schedule or procedures and proceed to implement this permit according the amended plan, schedule or procedures.

K. Resolution of a dispute pursuant to this Part of the permit constitutes a final resolution of any dispute arising under this permit. The DOE shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Part of this permit.

EPA Response:

The dispute resolution process as currently in the permit provides that all disputes are resolved at the lower levels of management. The language for alternative dispute resolution as proposed by DOE is not appropriate for a RCRA permit, and would be more appropriate in a Federal Facilities Compliance Agreement or a CERCLA §120 Interagency Agreement. Such extended dispute resolution language was not included in the HSWA portion of the Los Alamos National Laboratory Permit (NM0890010515) which became effective May 23, 1990.

22. SNL Comment:

The proposed language in this section has been the subject of negotiations between DOE, EPA and OMB and has been proposed as model language for cleanup agreements. The language is appropriate in the HSWA permit because the ER funds will be applied to the cleanup activity under this Permit.

C.8. Funding

It is the expectation of the Permittee and the Administrative Authority that all obligations of the Permittee under this permit will be fully funded through Congressional appropriations. Consistent with Congressional limitations on future funding, the Permittee shall take all necessary steps and use its best efforts to obtain timely funding to meet its obligations under this permit, including but not limited to submission of timely and sufficient budget requests.

In order to assure that the Permittee and the Administrative Authority adequately communicate and exchange information about funding concerns that affect the implementation of this permit, the following conditions apply:

C.8.A. The Permittee and the Administrative Authority project managers shall meet periodically throughout each fiscal year to

discuss activities being funded in the current fiscal year, the status of the current year projects, and events causing or expected to cause significant changes to any milestone, or activity within such milestone. The frequency of such meetings will depend upon circumstances, and therefore cannot be specified. However, meetings will be held at least annually. The Permittee shall provide information for these meetings that shows, to the extent possible, projected and actual costs of accomplishing requirements under this permit.

C.8.B. The Administrative Authority may comment annually on the Permittee's cost estimate for the corresponding negotiated activities established under this permit for each budget year. The Permittee will consider any comments received before including these cost estimates in submittal for funding for the relevant budget year.

C.8.C. In or about January of each year, the Permittee shall provide the Administrative Authority with current five-year planning cost estimates based upon revisions to the Permittee's Five-Year Plan. These estimates will be based on the Activity Data Sheet (ADS) level. This submission shall include a general correlation of relevant ADSs with requirements of this permit.

C.8.D. The DOE will provide the Administrative Authority a copy of the President's Budget Request to the Congress and sections of the DOE Congressional Budget Request pertaining to the Environmental Restoration Program.

C.8.E. Whenever the DOE proposes a reprogramming, requests a supplemental appropriation, or transfers funds in a manner that is likely to or will affect the ability of the Permittee to meet requirements under this permit, the DOE shall notify the Administrative Authority of its plans and, prior to such a transfer of funds or the submittal of the reprogramming or supplemental appropriation request to Congress, shall consult with them about the effect that such an action is likely to or will have on the requirements of this permit.

C.8.F. In accordance with Section 120(e)(5)(B) of CERCLA, 42 U.S.C. Subpart 9620(e)(5)(B), the DOE shall include in its annual report to Congress the specific cost estimates and budgetary proposals associated with the implementation of this permit.

C.8.G. After appropriations have been received from the Congress, the Permittee and the Administrative Authority project managers will review the level of available appropriated funds and the most recent estimated cost of meeting requirements under the permit. If appropriated funds are not available to fulfill the Permittee's obligations under this permit, the parties shall attempt to agree upon appropriate adjustments to the dates that require the payment or obligation of such funds. Subject to the terms of this permit,

if no agreement on appropriate adjustments can be reached, the Administrative Authority reserves the right to initiate any other action which would be appropriate absent this permit. Initiation of any such actions shall not release the parties from their other obligations under this permit. Acceptance of these conditions under Funding, however, does not constitute a waiver by the Permittee that its obligations under this permit are subject to the provisions of the Anti-Deficiency Act, 31 U.S.C. Subpart 1341. In any action by the Administrative Authority to enforce any provision of this permit, the Permittee may raise as a defense that its failure or delay was caused by the unavailability of appropriated funds.

EPA Response:

DOE and EPA should exchange information at least annually on the funding needed to complete work required at the facility. A permit condition to address funding is not necessary in the permit.

23. SNL Comment:

SNL proposed replacement of their original paragraph C.8.H. proposed in their September 4, 1992 comments with the following:

C.8.H. If appropriated funds are available to the DOE's Kirtland Area Office to fulfill the Permittee's obligations under this permit, the Kirtland Area Office shall apply the funds in amounts sufficient to support the requirements specified in this permit unless otherwise directed by the DOE Headquarters, or unless those requirements are modified in accordance with provisions of this permit.

C.8.I. The participation by the Administrative Authority under these conditions is limited solely to the aforementioned and is in no way to be construed to allow the Administrative Authority to become involved with the internal DOE budget process, nor to become involved in the Federal budget process as it proceeds from DOE to the Office of Management and Budget and ultimately to Congress through the President's submittal. Nothing herein shall affect DOE's authority over its budgets and funding level submissions.

EPA Response:

See previous comment #22 to special conditions on Funding. These conditions will not be added to the permit.

24. SNL Comment:

If ongoing risk assessments, performed at least annually, indicate that a site needs to have a higher priority for funding, Sandia feels that the flexibility for altering the site priorities for assessment should be an integral part of the permit. Inclusion of

the proposed language would meet the requirement for this flexibility.

C.9. Prioritization of Operable Units (OUs) for Assessment and Remediation

Prioritization of OUs shall be performed in accordance with DOE's risk-based ER Priority System. Under this system, OUs will be re-prioritized annually based on updated risk assessments performed in concurrence with the DOE ER Five-Year Plan. The Installation-Wide Hydrogeologic Environment Study will provide information to support the DOE ER Priority System.

EPA Response:

This special condition has been added to the permit with the addition of the following language: "All changes in the priorities of SWMUs which result in changes in the investigation schedules will be addressed through a modification of the permit."

25. SNL Comment:

C.10. Community Involvement Regarding Environmental Restoration Activities

The Permittee, as part of the Community Relations Program (CRP), shall attend meetings of, but is not required to be a signatory to, the Greater Albuquerque/Kirtland Environmental Working Group. This working group has been established under the Kirtland Air Force HSWA permit (effective November 14, 1990). This requirement is in addition to the establishment of a CRP under this permit.

EPA Response:

Community involvement is addressed elsewhere in this permit (R.3.i. Community Relations Plan), and does not need to be included here.

26. SNL Comment:

C.11. Contaminant Cleanup Levels for Underground Storage Tank Remediation

The Permittee will remediate any hydrocarbon contamination associated with releases from USTs, in connection with the remediation of any USTs shown in Table 2 to the Total Petroleum Hydrocarbon levels specified under the New Mexico UST regulations.

EPA Response:

This paragraph is not needed in the HSWA permit, as the hydrocarbon contamination associated with releases from USTs should already be handled under the New Mexico UST regulations. USTs included in

this permit were added by the request of Sandia, and were not required by EPA.

27. SNL Comment:

D. AA-BB Air Regulations

Sandia requests deletion of its previous comment on this section. We have determined that New Mexico does not have authority to implement the requirements of these regulations; therefore, the appropriate location for these requirements is in the EPA-enforced HSWA permit.

EPA Response:

This portion of the permit remains unchanged.

28. SNL Comment:

Sandia's comments of March 19, 1992 replaced their first paragraph of their earlier comments. Sandia requested the following section be added as introduction to the Corrective Action section:

E.2. Corrective Action

"Sandia National Laboratories, Albuquerque, is implementing the ER Program as a number of Operable Units (OU). Each operable unit constitutes one or more specific sites located within a given geographic area. RFI/CMS documents are prepared with respect to each OU. The Program Implementation Plan (PIP) (see Special Permit conditions, C.1) is the umbrella plan under which the ER Program is conducted and under which all ER OUs are managed. Certain components of RFI Workplans common to all OUs will be contained only in the PIP, which will referenced in the individual OU RFIs. These components are, at a minimum: (1) a Project Management Plan; (2) a Quality Assurance Project Plan; (3) a Health and Safety Plan; and (4) a Community Relations Plan.

Depending on site-specific findings during the Corrective Action Plan process, a site within an OU may be removed by a determination that no further actions is necessary. The prioritization of a site for assessment and corrective action measures may change (see Special Permit conditions, C.9). Any changes in OU prioritization, or removal of a site from further action will be processed annually, if appropriate, as a major permit modification, subject to the approval of the Administrative Authority.

The SNLA implementation schedule, contained in the SNLA Program Implementation Plan, shall be updated annually, as appropriate. The implementation schedule shall be depicted on a time scale format, and will be five (5) years in length. The implementation schedule shall be updated, at a minimum, annually with the primary

purpose to expand the new current fiscal year and follow-on year, and add an additional year at the end. In addition, any approved schedule changes shall be incorporated at this time, if not previously incorporated. This annual update shall be performed in the first quarter of the current fiscal year, but subject to receiving final Budget Authority. The implementation schedule may be revised at any time during the year for significant changes (e.g. major change in prioritization or funding). The annual updates to the implementation schedule, or revisions due to significant changes, shall require new approval by the Administrative Authority."

In order to recognize that Sandia is working under the RCRA/CERCLA programmatic elements, but that conformity with the DOE ER program elements will be assured, the following language should also be included as part of the introduction to this section:

The Permittee proposes as equivalent to requirements under RCRA the applicable portion of the ongoing DOE Environmental Restoration Program, and that the DOE ER Program also complies with the major elements of the CERCLA remedial process. The Sandia Program Implementation Plan shall contain comparison tables to demonstrate equivalency to RI/FS documents.

EPA Response:

EPA does not feel that the requested language is appropriate in this permit. These comments were not incorporated in the permit. An addition has been made to R.2. RFI Scope of Work to indicate the Program Implementation plan will provide the following: (1) a Project Management Plan; (2) a Quality Assurance Project Plan; (3) a Health and Safety Plan; and (4) a Community Relations Plan. Each individual RFI workplan may reference the appropriate portion of the PIP where necessary, and that only changes required for that specific RFI will be included in each RFI work plan.

29. SNL Comment:

<u>E.2.a. Corrective Action, Releases Beyond the Facility Boundary</u>

Sandia requests that the term "discovery" be followed by the phrase "as evidenced by quality controlled, quantified data, of any ...". This change will serve in better defining the term "discovery". Also, in this section, delete the requirement to report a release which has the potential for migration off-site. By definition, this section applies to releases which have already migrated "beyond the facility boundary". It would be an abuse of the Administrative Authority's discretion to require reports of on-site releases under its authority to regulate corrective actions for releases beyond the facility boundary.

EPA Response:

The phrase "as evidenced by quality controlled, quantified data, of any..." was not included after the term "discovery" as this may prove too slow and thereby impede the notification process. The phrase "off-site" has been changed to read "beyond the facility boundaries". In the opinion of EPA, EPA can require notification of any releases that have the potential to migrate outside of the facility boundaries; because, it is protective of the population and environment if all releases are properly and promptly addressed. Notification of the Administrative Authority is one of the first steps in this process.

30. SNL Comment:

E.2.b. Corrective Action, Release Beyond the Facility Boundary

Sandia request that the following sentence be added to complete the recitation of 40 CFR 264.101(c): "On-site measures to address such releases will be determined on a case-by-case basis." This is important because it explains that the Permittee's responsibility for clean-up of a release migrating beyond the boundary would simply be for on-site measures.

EPA Response:

The requested sentence will be added to the paragraph. In addition, the phrase "to the Administrative Authority" will be added following "unless the Permittee demonstrates" to be more consistent with 40 CFR 264.101(c). The permittee is not relieved of responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied.

31. SNL Comment:

E.3. Financial Responsibility

Consistent with the DOE policy on signing RCRA permits with GOCOs, which states that DOE, rather than the GOCO, is responsible for financial and budget matters relevant to the RCRA Permit, EPA should look to DOE, not Sandia, for assurances of financial responsibility. Therefore Sandia requests that this section be deleted.

EPA Response:

EPA retains the right to request financial assurance for corrective action. Both DOE and Sandia are listed as the Permittee. This paragraph will remain in the permit.

32. SNL Comment:

E.4. Dispute Resolution

Sandia proposes that this entire section be deleted, since the dispute resolution process proposed under Section C.7 specifies the authorities and responsibilities of all parties. Alternatively, the dispute resolution process proposed under Section C.7 could be deleted from that section and inserted here, under Section E.4.

EPA Response:

See EPA Response to Sandia Comment 21, therefore, the dispute resolution provision portion of provision E.4 of the permit remains unchanged.

33. SNL Comment:

F.1. Reporting Requirements

Please rewrite paragraph F.1. of EPA's draft as follows:

"The Permittee shall submit, in accordance with Module IV.B.6., a signed quarterly progress report of all activities (i.e., a consolidated quarterly progress report on RFIs/CMSs for all OUs) conducted pursuant to the provisions of this Permit beginning no later than ninety (90) calendar days from the effective date of this Permit. These reports shall contain:"

EPA Response:

The paragraph has been modified to include the statement"(i.e., a consolidated quarterly progress report on RFIs/CMSs/CMIs for all OUs)".

34. SNL Comment:

F.1.e. Reporting Requirements

Sandia requests that from the sentence "Summaries of contacts pertaining to corrective action or environmental matters with representatives of the local community, etc." The phrase "or environmental matter." be deleted. It is beyond the authority of EPA under a RCRA/HSWA permit to require Sandia to report on such a general subject as "contacts pertaining to environmental matters".

EPA Response:

The permit has been modified to remove the phrase "or environmental matters".

35. SNL Comment:

<u>G.1. Notification of Newly-Identified SWMUs, and/or Release or Threat of Release from a SWMU.</u>

Sandia proposes the following language be substituted for what is now contained in this section. Note that the proposed language incorporates the entire section proposed by the EPA (with some changes as detailed below):

"Sandia, as part of its ongoing ER Program, has established a pro-active system to identify, track and prioritize new sites. Internal Sandia communications channels as well as external notification through the public media are utilized to periodically solicit information on old disposal sites for which records may no longer exist. When a new site is discovered, it is tracked and prioritized according to a process outlined in the Program Implementation Plan. As part of the plan for identification, tracking and prioritizing new sites, the Permittee will:

1. Notify the Administrative Authority, in writing, of any newly-discovered SWMU (i.e., a unit not specifically identified during previous investigations or studies), discovered in the course of ground water monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The notification shall include the following items, to the extent available:

a. The location of the newly-identified SWMU.

b. The type of unit;

c. The general dimensions of the unit (supply any available drawings);

d. The period during which the unit was operated to the extent possible with available information;

e. The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU; and

f. Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the unit.

To Section G.1.b and c, above, which is language proposed by EPA, the following changes were made:

G.1.b: "and function" deleted from this item; it is not a part of the regulatory requirement (40 CFR 270.30(1)(12)(i)(A)(2))and could

have security implications.

G.1.c: The regulatory requirement (40 CFR 270.30(1)(12)(i)(A)(3)) is only to provide the general dimensions of the unit, not the capacities and structural description, including any available drawings." Therefore, the unauthorized language was deleted.

EPA Response:

EPA does not feel that the first paragraph added by Sandia is necessary in the permit. EPA has modified G.1.b and c, to respond to the requested other changes. In addition G.1.a. has been changed to comply with the regulatory requirements of 40 CFR §270.30(1)(12)(i)(A) (1) (see permit changes).

36. SNL Comment:

G.1.2.

2. Within 30 days after notification, the Permittee shall also submit in writing to the Administrative Authority, a subjective assessment of the risk of this release compared to the other SWMUs listed in this permit. This subjective assessment shall propose whether interim corrective measures are necessary to mitigate the risk of this release and, if interim corrective measures are not necessary, the priority and schedule for investigation of the newly-identified SWMU performed pursuant to section J.".

Sandia proposes that section G.2 be deleted, since the subjective assessment for determining the relative risk of a new SWMU is all that has been performed to complete the current prioritization of all previously identified SWMUs. The SWMU Assessment Report is more detailed than that which occurred for either the CEARP Phase I of the RCRA RFA. The RFI process established in Section J is designed to provide the same information as the SWMU Assessment Report. If Section G.2 were to remain, all new SWMUs would receive a higher priority for initial assessment than any previously identified SWMU, without concern for relative risk between the new and old, and without concern for prioritization of scarce resources.

EPA Response:

The paragraph in the permit is based on the language as proposed by EPA (40 CFR 270.30(1)(12)(ii); therefore, no changes were made to the permit language.

37. SNL Comment:

H. Notification Requirement for Newly-Discovered Releases at SWMUs

Sandia proposes that the last three sentences of this section be

deleted (starting with the sentence "The Administrative Authority..."). It is anticipated that as part of the RFI process releases will be routinely identified and all the necessary information will be collected to determine the extent and rate of migration of any hazardous waste (including hazardous constituents) as part of the RFI. Further investigation of the release would be performed if the release was not sufficiently characterized and the use of the RFI workplan as a format for the investigation is the mechanism for further investigation. As part of the periodic reporting, under Section F, Reporting Requirements, and the provisions of Section I, Interim Measures, the necessary steps for any modifications to the RFI workplan or interim measures are already specified.

EPA Response:

The permitting language stands as is to ensure that all releases will be investigated to the extent necessary.

38. SNL Comment:

I. Interim Measures

To aid in clarifying the conditions under which Interim Measures would be appropriate, Sandia proposes that the first sentence of Section I.1 be changed to read as follows:

"If during the course of any activity initiated under this Permit, the Administrative Authority determines that, based on consideration of factors specified in 40 CFR 264.540(b), or, based on site-specific circumstances a release or potential release of hazardous constituents from a SWMU poses a threat to human health and the environment, the Administrative Authority may require interim measures.

In part 2 of this section, the items listed in a.-i. are not worded consistently with the regulatory requirement in 40 CFR 264.540. Sandia request that they be reworded to accurately reflect the regulatory requirements, especially in items d.-g.

EPA Response:

The permit has been modified to reflect these changes.

39. SNL Comment:

J.1. RFI Workplan

Sandia proposes that section J.1 be changed to reflect the following schedule, which is based on the current projections of budget and schedule for completion of RFI Workplans:

The RFI workplan submittal schedule is as follows:

(a) The Permittee shall submit draft RFI work plans, within 1 year of the effective date of the permit, for 10% of those SWMUs listed in Table 2.

(b) The Permittee shall submit draft RFI work plans, within 2 years of the effective date of the permit, an additional 25% (cumulative total 35%) of those SWMUs listed in Table 2.

(c) The Permittee shall submit draft RFI work plans, within 3 years of the effective date of the permit, for an additional 25% (cumulative total 60%) of those SWMUs listed in Table 2.

(d) The Permittee shall submit draft RFI work plans, within 4 years of the effective date of the permit, for an additional 20 % (cumulative total 80%) of those SWMUs listed in Table 2.

(e) The Permittee shall submit draft RFI work plans, within 10 years of the effective date of the permit, for the balance (20%, cumulative total 100%) of those SWMUs listed in Table 2.

Note that for (e) the time period is "within 10 years". This group of SWMUs are those for which active testing is still taking place within the area, and assessment is therefore not due to begin until FY 1995 and later.

Sandia, as an addition to the schedule portion, RFI Work Plan, would like to add the following language: "All assessments, and RFI reports covering all SWMUs are to be completed within 10 years of the effective date of this permit. In addition, the last 20 % of draft RFI work plans are to be submitted within 5 years of the effective date of the permit".

EPA Response:

No changes in this portion of the permit are necessary as 90 to 180 days is a standard time frame in which most facilities are required to submit an RFI work plan. SNL has already submitted an interim RFI workplan for Technical Area 2 which includes over 19 SWMUs. EPA feels that the investigative process should be initiated within 180 days from the effective date of this permit, and all SWMUs should be addressed as soon as possible. Los Alamos National Laboratory is investigating over 2000 SWMUs within a four year time frame under their HSWA permit, therefore, it is not unreasonable to require SNL to conduct an RFI investigation of 153 SWMUs within four years.

40. SNL Comment:

J.1. RFI Workplan

With respect to Table 2, Sandia has recently compared SWMU lists with Kirtland Air Force Base in order to ensure that no sites appear on both SWMU lists. The results of this comparison, and in conformance with agreement between the two installations, the following SWMUs should be removed from Table 2:

Site #189, ADS# 1293, Dry Radioactive Waste Burial
Site #24, ADS# 1309, Landfill/Open Dump

EPA Response:

See EPA response to Sandia Comments 51 and 52.

41. SNL Comment:

As part of their additional comments, Sandia also submitted the following revised list of SWMUs (included in Attachment B of their comments). EPA has made a separate response to each grouping of comments, and these changes are also indicated on Table 2 of the permit.

Mixed Waste Landfill: The comment, "under NM mixed waste, possible RCRA closure" has been deleted. Sandia is proposing to address the assessment and remediation of this landfill under the HSWA portion of the RCRA Part B Permit.

EPA Response:

This change has been made to Table 2.

42. SNL Comment:

Septic Tanks and Drainfields: The name of Site 101 has been changed to read: "Explosive Contaminated Sumps and Drains (Bldg 9920)". The name of Site 161 has been changed to read: "Bldg. 9832 Septic System".

EPA Response:

A typo was in the SNL comments which should read Site 160 rather than Site 161. The appropriate changes have been made to Table 2.

43. SNL Comment:

Tech Areas III & V: The comment "may contain hazardous material" has been added to the Site 102 description.

Site 105 has been removed from the list. Building 6536 was

formerly used for testing aerospace nuclear safety systems. A 5 Mega Watt plasma torch was located in a steel tank inside the building. The pressure in the tank system was measured using a mercury bath. In 1972, the bath was examined and found to contain about 11 to 13 pounds less than the design capacity of mercury. Mercury detection equipment was brought in to survey the building, but no traces of spilled mercury were ever found. The mercury bath was later removed.

The name of Site 188 has been changed to read: "Bldg. 6597 Above Ground Containment Spill Tank (Area V)".

EPA Response:

The addition has been made to Site 102 description. Site 105 has not been removed from the list. Sandia should submit enough information so that a determination about this SWMU can be made. This information may be included in a modification or in the RFI report in which that SWMU was scheduled to be investigated.

The name of Site 188 has been changed.

44. SNL Comment:

Leaking Underground Storage Tanks: " The name of Site 179 has been changed to read: "Manzano AFB Bldg. 7570-1".

EPA Response:

The requested change has been made to the permit.

45. SNL Comment:

Thunder Range: Site 110 has been removed from the list. This site originally included three separate sites. The first of the three sites is active, and should not have been included. The second site is actually a part of Site 17, Scrap Yards and dumps. The third site was a test area for effects of sabotage on spent fuel elements, and has been designated with a new site number, 193, and name, Sabotage Test Area.

Site 193, Sabotage Test Area, has been added to the list (see comment in previous paragraph). Site 79 has been removed from the list. It was discovered that Site 79 was the same Site as Site 6.

EPA Response:

These changes have been made to Table 2.

46. SNL Comment:

Central Coyote Test Field: The name of Site 19 has been changed to

read: "Scrap Yard (NW end of old Aerial Cable)".

The name of Site 87 has been changed to read: "Bldg. 9990 (firing site)".

EPA Response:

These changes have been made to Table 2.

47. SNL Comment:

Lurance Canyon: The name of Site 13 has been changed to read: "Oil Surface Impoundments (Lurance Canyon Burn Site)".

EPA Response:

This change has been made to Table 2.

48. SNL Comment:

Pendulum Area: The name of Site 10 has been changed to read: "Burial Mounds (Bunker Area north of Pendulum Site)".

The name of Site 60 has been changed to read: "Bunker Area (North of Pendulum Site)".

The name of Site 92 has been changed to read: "Pressure Vessel Test Site (Coyote Canyon Blast Area)".

EPA Response:

These changes have been made to Table 2.

49. SNL Comment:

SW Coyote Test Field: Site 53 has been removed from the list. Building 9923 contains some radioactive materials from neutron activation experiments at the Nevada Test Site. Contaminants are confined to the building, with no environmental release. This building will be assessed and remediated under the Building Decontamination and Decommissioning Program.

Site 106 has been removed from the list. The drains in the four buildings in this site are already included as part of sites 140 Bldg. 9965 Septic Systems, 141, Bldg.9967 Septic System, 150, Bldg. 9939/9939A Septic System, and 154, Bldg. 9960 Septic System.

EPA Response:

More information needs to be submitted prior to removal of Site 53, so that EPA can adequately evaluate this request. This information may be submitted in a modification request or in the appropriate

RFI report.

Site 106 has been removed from Table 2.

50. SNL Comment:

Tech Area I: The name of Site 73 has been changed to read: "Hazardous Waste Repackaging/Storage (Bldg. 895)".

Site 104 has been removed from the list. The computer facility has some PCB-containing filters. One of the filters failed and discharged PCB into the equipment room. The spill was confined to the building, a no environmental release occurred. This facility will be assessed and remediated under the Building Decontamination and Decommissioning Program.

Site 185 has been renumbered as Site 186. There was a numbering error in the SWMU list originally submitted.

The name of Site 98 has been changed to read: "Bldg. 863, TCA Photochemical Releases: Silver Catch Boxes".

The name of Site 98 has been changed to read: "Bldg. 863, TCA Photochemical Releases: Silver Catch Boxes".

Site 189, which was listed under this Operable Unit as Blue Oil Tank, near Bldg. 898, had the wrong site number (Site 189 is actually a Kirtland Air Force Base Site). To correct this, and the wording for the name of the site, a new number and name have been assigned. This site is now number 192, Tech Area I Waste Oil Tank.

Add Site 190, Tank Farm.

EPA Response:

The name of Site 73 has been changed as requested. Site 104 will not be removed from the list until more information is provided either in a permit modification or RFI report.

Site 185 has been renumbered to 186, and the name of Site 98 has been changed as requested.

The number and name for Site 189 have been changed as requested to Site 192, Tech Area I Waste Oil Tank.

Site 190, the Tank Farm has been added to Table 2.

51. SNL Comment:

Schoolhouse Mesa: Site 189, Dry Radioactive Waste Burial, NE Corner of Manzano Base, has been removed from the list. Kirtland Air Force Base has accepted responsibility for this site, and has

included it in its site list.

EPA Response:

The site has been removed from the Sandia list and has been added to Kirtland Air Force Base's list. This is Site 88, Radioactive Burial site #7 on Kirtland's list.

52. SNL Comment:

Tijeras Arroyo: Site 24, Landfill/Open Dump, has been removed from the site list. Kirtland Air Force Base has accepted responsibility for this site, and has included it in its site list.

EPA Response:

This site has been deleted from Sandia's list as Kirtland Air Force Base has placed it on their list. This is Sites 6-10 abandoned landfill on Kirtland's list.

53. SNL Comment:

J.2. RFI Workplan

Sandia proposes that the following be adopted as the first paragraph of this section:

"The Permittee shall submit to the Administrative Authority for approval RFI work plans following the format outlined in the applicable RFI/CMS guidance documents. RFI work plans are developed at the OU level, which may include one or more SWMUs. The scope of the RFI work plans shall address all necessary actions to verify and determine the nature and extent of releases of hazardous waste or hazardous constituents from solid waste management units. As appropriate and with the approval of the Administrative Authority, the RFI work plans may be developed and implemented using the phased approach as described in EPA Corrective Action Plan guidance documents. Information obtained during the preceding phase shall be incorporated in the modified RFI work plan for the subsequent phase. After the Permittee submits an RFI work plan, the Administrative Authority will approve, disapprove, or modify the plan. If the Administrative Authority approves the plan, the Permittee shall immediately initiate implementation of the plan according to the schedule contained therein. The timeframe requirements imposed by the schedule on the Permittee shall commence to begin upon approval of the RFI Workplan by the governing Administrative Authority. Workplans approved prior to the effective date of this permit are incorporated into this permit as approved work plans. The schedule of RFI work plans to be submitted in each period for which this permit is effective is given in Section J.1".

To Section J.2, first paragraph, Sandia proposes that the last sentence be deleted, and the next to last sentence read "The RFI Workplan shall detail all proposed activities and procedures to be conducted at the facility and the schedule for implementing and completing such investigation." This change would eliminate the requirement to specify qualifications of Sandia and contractor personnel. Sandia feels that its employment and contracting requirements already insure that only highly qualified individuals are assigned to the tasks contemplated under this permit.

Sandia proposes that the last sentence of what is now the second paragraph of the J.2. Section, (if the previous language is adopted by EPA for the first paragraph) beginning with "The Scope of..." be deleted. Section J.2.b essentially sets forth the guidance requirements, in which are contained the format for the Scope of Work.

EPA Response:

It is the opinion of EPA that 40 CFR §264,512(a)(1) provides the requisite authority for requesting the qualifications of the personnel conducting the investigations. Therefore, this sentence remains in the permit.

54. SNL Comment:

<u>J.2.b. RFI Workplan</u>

Sandia proposes the following substitution for that which is now contained in this section:

"The Permittee shall prepare the RFI work plans and undertake the facility investigation in accordance with the following.

(a) Development of the RFI work plans and reporting of data shall be consistent (not taken to mean word-for-word equivalency, but consistent with the technical aims of the guidance) with the RCRA facility Investigation Guidance Document (EPA OSWER Directive 9502.00-6c), its successor guidance document, or the equivalent thereof;

(b) EPA and the NMED reserve the right to split samples with the Permittee. The Permittee shall notify EPA and the NMED at least 10 days prior to any sampling activity which has been identified from the field sampling plan by EPA or NMED for split sampling;

(c) When developing groundwater related investigations, the Permittee shall follow, to the extent possible, the RCRA Groundwater Monitoring Technical Enforcement Document (EPA OSWER Directive 9950-1, September, 1986) or the equivalent thereof to determine methods and materials

that are acceptable to EPA. In the event the Permittee chooses not to follow this directive, the Permittee will notify the EPA in writing specifying the particular issue and the related technical justification for the variance,; and

(d) Any schedule deviations from the approved RFI work plan which are necessary during implementation for the facility investigation shall be fully documented and described in the quarterly reports and in the draft RFI report. Technical deviation from the approved RFI work plan shall be fully documented and described in the draft RFI report.

The Permittee shall submit a draft RFI report to the Administrative Authority. An extension of the time required to submit the draft RFI Workplan may be obtained only through the Permittee's written request and the written approval of the Administrative Authority.

After the Permittee submits the RFI Workplan, the Administrative Authority will either approve or disapprove it. If the Administrative Authority disapproves, the Administrative Authority shall specify the deficiencies and the Permittee shall have thirty (30) days to submit a modified report. If this report is not approved, the Administrative Authority and the Permittee will negotiate, throughout the process described under Section C.7, Alternative Dispute Resolution, any modifications to the report.".

EPA Response:

No modification has been made to the permit in response to these comments. EPA prefers to separate section J. RFI Workplans from section K. RFI Implementation and feels that the language of these two sections is appropriate.

55. SNL Comment:

<u>J.3. RFI Workplan</u>

Elements of this Section, which deal with dispute resolution, are addressed under Section C.7, Alternative Dispute Resolution, and therefore Sandia proposes that this section (J.3) be eliminated.

EPA Response:

No modification has been made to the dispute resolution portion of the permit; therefore, section J.3. remains in the permit.

56. SNL Comment:

K. RFI Implementation

Sandia proposes that this section be eliminated, since the elements of this section are addressed in the language proposed for section J.2.b, RFI Workplan.

EPA Response:

See response to above comments to J.2.b. RFI Workplan. The permit section RFI Implementation remains in the permit.

57. SNL Comment:

L.1, RFI Final Report and Summary

This section states that the RFI Final Report contain certain things, including the results of investigations described in Module IV.R.5. That module requires the Permittee, among other things, to identify all relevant and applicable standards for the protection of human health or the environment. This requirements seems to go beyond what is contemplated by 40 CFR 264.513 as the contents of the report, which should be primarily an analysis of data. Sandia proposes, for Section R, that the guidance documents/regulations be used for determining the elements to be included in the RFI Final Report and Summary (see Sandia's comments to Section R and S).

EPA Response:

Under 40 CFR 264.513(b)(1) the Administrative Authority is given the latitude to specify the type of information required in the final RFI Report; therefore, the requirement to identify all relevant and applicable standards for the protection of health or the environment is appropriate. The permit has not been modified to include this comment.

58. SNL Comment:

N.1, CMS Plan

Add "which exceed action levels as defined under 40 CFR 264.521" after the word "constituents" in the first sentence, to be consistent with 40 CFR 264.520(a).

EPA Response:

This modification was made to the permit.

59. SNL Comment:

N.2. CMS Plan

Sandia requests that the submittal period for a CMS Plan to the Administrative Authority be increased from forty five (45) days to ninety (90) days from notification of the requirement to conduct a CMS. This is consistent with the submittal period in the LANL permit.

EPA Response:

The submittal period for a CMS Plan has been changed to ninety (90) calendar days from the notification of the requirement to conduct a CMS.

60. SNL Comment:

N.3. CMS Plan

Sandia proposes the following be added as paragraph 2 to this section, to provide consistency with proposed item C.7, Alternative Dispute Resolution:

"After the Permittee submits the draft CMS plan, the Administrative Authority will either approve or disapprove the plan. If the plan is not approved, the Administrative Authority will notify the Permittee in writing of the plan's deficiencies and specify a due date for submittal of the revised plan. If this plan is not approved, the Administrative Authority and the Permittee will negotiate, through the process described under Section C.7, Alternative Dispute Resolution, any modifications to the plan.".

EPA Response:

The third paragraph of N.3. CMS Plan has been modified to read in part, "If the plan is not approved, the Administrative Authority will notify the Permittee in writing of the plan's deficiencies and specify a due date for submittal of the revised plan". The rest of the language was not included for reasons stated in EPA Response to Sandia Comment 21.

61. SNL Comment:

P. CMS Final Report

Sandia proposes that the following dispute resolution language be added as the next to last sentence in section P.2, third paragraph:

"If this report is not approved, the Administrative Authority and the Permittee will negotiate, through the process described under Section C.7, Alternative Dispute Resolution, any modifications to

the plan."

EPA Response:

See EPA Response to Sandia Comment 21.

62. SNL Comment:

R., RFI Scope of Work, and S., CMS Scope of Work

Sandia proposes that the elements for these two sections (R and S, noted above) not be included in the permit. As the alternative Sandia proposes that the requirements under these sections be stipulated as the guidance documents themselves, from which the scopes of work will be developed. The reasons for Sandia's proposal are as follows:

1. Task I (Section R), would need to be modified to show that much of the Health and Safety Plan, Community Relations Plan and the Project Management Plan are written in the Program Implementation Plan and will not need to be repeated in detail in the RFI/CMS work plans.

2. New guidance will continue to be promulgated, requiring the Permittee to follow both current and possibly future guidance. Specifying conformance to the guidance documents will eliminate the need to continually revise the permit to reflect new requirements. As an example, the LANL and KAFB permits are based on the EPA RCRA Corrective Action Plan (EPA 530-SW-88-028, June 1988), yet supplemental guidance that has been issued (Interim Final RFI Guidance, EPA 530/SW-89-031, May 1989) is not, and cannot be addressed under the permit without modification. In addition, boilerplate outlines may lead to an interpretation of limiting the scope of, or restricting the format of the RFI/CMS workplan.

3. The sites that Sandia must assess and remediate are very diverse with respect to the source, environmental conditions, and other related factors. Given this diversity, a more flexible approach is to determine the specific requirements based on the site, rather than try to fit a general boilerplate to each one.

EPA Response:

EPA has added a statement to R.2. Scope of RFI Workplan to indicate that the Project Implementation Plan (PIP) covers the Health and Safety Plan, the Community Relations Plan, the Project Management Plan and Quality Assurance Project Plan in detail, and therefore may be referenced in individual RFI workplans. Information pertinent to individual RFI workplans which has not been included in the PIP should be submitted in the individual plan.

The permit indicates under J.2.b. RFI Workplan that the permittee must use the EPA guidance documents listed or the equivalent thereof in development of the RFI Workplan. This allows the permittee to use updated guidance and should eliminate the problem described in comment R.2 above.

In response to comment R.3. above, EPA believes that the RFI Workplan as it is now allows for flexibility, and all necessary information may be integrated into the requirements of the workplan; therefore, the permit will not be changed.

63. SNL Comment:

Based on the reasons cited above, Sandia proposes the following permit language:

"R. RFI/CMS Scope of Work

The Scope of Work shall consist of two (2) tasks. These tasks are: (1) Preparation of a Program Implementation Plan, and (2), RFI/CMS work plans for each Operable Unit (OU). The Permittee shall prepare a single installation-wide Program Implementation Plan which shall be updated annually. The installation-wide Program Implementation Plan shall contain, at a minimum: (1) a Project Management Plan, (2), a Quality Assurance Project Plan, (3) a Health and Safety Plan, and (4) a Community Relations Plan.

With respect to task 2, the Permittee shall formulate the RFI/CMS work plans in accordance with guidance given in: (1) EPA RCRA Corrective Action Plan (EPA 530-SW-88-028, June 1988), (2), Interim Final RFI Guidance (EPA 530/SW-89-031, May 1989), and/or (3), any relevant formal guidance document promulgated during the life of this permit. The Administrative Authority will review each RFI/CMS work plan submitted for conformance to the applicable guidance document, taking into account any site-specific conditions. The Permittee, at the written request of the Administrative Authority, shall provide in writing, within sixty (60) calendar days of the request, any substantiating evidence for deviations or deficiencies in these plans noted by the Administrative Authority.".

EPA Response:

See EPA Response to Sandia Comment #62. In the opinion of EPA the RFI and CMS portions of the permit as they are now are appropriate, and no change to the permit has been made.

64. SNL Comment:

If EPA does not agree with Sandia's proposed language for Sections R and S, a number of changes must be made to these sections as they currently stand. These changes are:

1. Provision of Radionuclide Information: There are several places in the draft permit that call for analysis and information on radionuclides (section R.3.a.2.a.2 and 3, R.3.a.3.b.1.c, R.3.d.3.f, R.d.d.4, and R.3.e). Unless these provisions can be deleted in their entirety, the following must be added:

"Subsection 1004(27) of RCRA, 42 U.S.C., Subsection 6903(27), excludes source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (AEC), as amended, 42 U.S.C. 2011 et seq., from the definition of solid waste as that term is defined in RCRA. Accordingly, such excluded radioactive wastes are not subject to RCRA and are not regulated in this permit. However, this permit provides for monitoring and reporting of radioactive constituents at SWMUs in section R.3.a.2.a.2 and 3, R.3.a.3.b.1.c, R.3.d.3.f, R.d.d.4, and R.3.e:

(1) to ensure health and safety of EPA and EPA Contractor personnel while on site, and during sampling;

(2) to facilitate safe and accurate analysis of any samples which may be contaminated with radioactive constituents;

(3) to ensure and assess migration of mixed waste; and

(4) to facilitate the undertaking of corrective measures with respect to hazardous waste by helping to ensure the health and safety of workers and the public during remediation.".

EPA Response:

This language was added to the permit under R.1.

65. SNL Comment:

2. R.3.a.1.d, page 22: The requirements should be to reference all known, rather than just all studies performed by all known parties rather than just all parties.

EPA Response:

This change has been made to the permit.

66. SNL Comment:

3. R.e.a.1.e, page 23: This requirement should reference all environmental permits that were applied for/received by the Permittee.

EPA Response:

The requested phrase has been added to the permit.

67. SNL Comment:

4. R.3.a.2.a.2., page 23: The phrase "to the extent known" should be placed after quantities of solid, hazardous, and radiochemical wastes.".

EPA Response:

The requested phrase has been added to the permit.

68. SNL Comment:

5. R.3.d.4.and 5. page 28: Because of the number, isolated nature and geographic spread of Sandia's sites, fulfilling the provisions of these two sections would expend a substantial portion of the total program resources. Sandia believes that the scope of the requirements in these sections is untenable, and must be limited to a very small number of sites where demonstratable evidence can be obtained to justify such air and subsurface gas phase characterization. From purely a technical standpoint, the physical number of air monitoring stations and subsurface gas phase monitoring instrumentation installations required to truly characterize the gas phase movement is such detail, at all sites, would be impossible to determine in light of our current knowledge of micro-meteorology, subsurface gas transport mechanisms and behavior, and the techniques available to numerically simulate such processes.

EPA Response:

The permittee is required to characterize the contamination from each SWMU. If the permittee believes certain media could not be affected by a release from a specific unit, a detailed justification for not investigating those media must be provided. The permit has not been changed in response to this comment.

69. SNL Comment:

6. R.3.e.4. page 29: Due to the nature of the land use in areas adjacent to Sandia (KAFB, Forest Service Land, etc.), developing a demographic profile that is statistically meaningful and relevant on more than just a short time scale may be very difficult and might require the application of significant financial and personnel resources. Sandia would, by necessity, require that other land tenants in the area, who also might also need this information, share the cost of such a survey. The level of detail of the survey would need to be much less than that called for in this section.

EPA Response:

EPA believes that the request for a demographic profile is

appropriate in the permit, and Sandia should be aware of the nature of land use in adjacent areas. No change has been made to the permit.

70. SNL Comment:

7. S.4.a., page 37: While the term "all possible alternatives" is standard language, any alternative must first be technically, physically, institutionally, culturally and fiscally possible. Sandia suggests that the phrase "all reasonable possible alternatives" be substituted for the current permit language.

EPA Response:

In the opinion of EPA the phrase "all possible alternatives" is necessary, as EPA believes all possible alternatives should be examined, and not simply the ones that Sandia feels are reasonable. Therefore, no change has been made to the permit.

71. SNL Comment:

8. S.4.d.b. page 40: Sandia proposes that the appropriate NEPA document be prepared for groups of alternatives that are alike in their short and long-term beneficial and adverse effects. It would be preferable that only one NEPA document be prepared for all alternatives selected for a given Operable Unit.

EPA Response:

Permit section S.4.d.b. does not require a separate document be prepared for each Environmental Assessment. If the preparation of a NEPA document fulfills the requirements of this portion of the permit then that document may be used. No change in the permit language is necessary.

72. SNL Comment:

In addition to the above noted changes, Sandia would be compelled, in light of an evolving regulatory and guidance environment, to revisit Sections R and S on a regular basis, to ensure that the permit requirements are compatible with the technical mission and the level of resources available. Sandia believes that it would be much more reasonable to specify the guidance document as the requirement, rather than what is now in the draft permit for this section.

EPA Response:

Sandia may review and request modifications of the permit whenever they believe they are necessary.

73. SNL Comment:

Table 1: RFI/CMS Submission Summary

Sandia proposes the following submission summary:

Facility Submission Requirements	Due Date
Verbal notification of newly-discovered releases	24 hours after release discovery
Written notification of newly-identified SWMUs:	Thirty (30) calendar days after discovery
Written notification of newly-discovered releases:	Fifteen (15) calendar days after discovery
Risk Assessment of newly-discovered SWMUs:	Thirty (30) calendar days after discovery.
Quarterly Progress Summary Reports:	Quarterly, no later than one hundred eighty (180) days from effective date of permit
Program Implementation Plan:	One hundred eighty (180) calendar days from effective date of permit then updated annually thereafter. Any modifications will require a resubmittal of a revised Program Implementation Plan, regardless of the time at which the modification occurs.
Site-Wide Hydrogeologic Environment Report:	One hundred eighty (180) calendar days from effective date of permit, then annually thereafter.
Waste Minimization Plan:	Annually, by December 1
Interim Measures Corrective Action Plan:	Thirty (30) calendar days after notification for interim actions required

	after permit issuance
Revised Interim Measures Corrective Action Plan	As determined
Voluntary Corrective Measures Plan:	As circumstances dictate
Integrated Demonstration Technology Application Plan:	Upon successful demonstration of applicable technologies.
RFI Operable Unit Workplans:	As specified in Section J of this permit.
Revised RFI Operable Unit Workplans:	As determined by Administrative Authority, usually within 30 days of receipt of NOD.
RFI Report:	Sixty (60) calendar days after EPA approval of the revised RFI Report.
Revised RFI Report:	Thirty (30) calendar days after notification of deficiency.
CMS Plan:	Ninety (90) calendar days after notification of requirement to perform CMS
Revised CMS Plan:	As determined
CMS Report	Sixty (60) calendar days after completion of CMS.
Revised CMS Report:	Thirty (30) calendar days after notification of deficiency

The primary differences in the draft HSWA permit and this submission summary is the addition of a number of reports dealing

with proposed activities under Section C., Special Condition.

EPA Response:

The majority of the table is as shown; however some elements and title of the original submission summary are included (i.e. financial assurance and original report titles).

74. SNL Comment:

Table 2, Solid Waste Management Units

In addition to those changes to Table 2 noted in Section J.1, the phrase "may contain Haz" needs to be put next to all listings that only address rad in their titles (i.e., CEARP No.'s 43 and 102).

EPA Response:
The appropriate changes have been made to Table 2.

The following comments were received from the public.

75. Public Comment:

A comment was received which opposed the permit and operation of those proposed and already operating facilities as an endangerment to the groundwater and environment.

EPA Response:

This permit is the primary means of regulating and overseeing the operation of Sandia National Laboratory (SNL). SNL is required to investigate all Solid Waste Management Units on its facility, and to remediate any contamination from these units. EPA believes that issuing a permit to Sandia is protective of human health and the environment by providing the means to investigate and remediate contamination from past practices.

76. Public Comment:

There were several comments pertaining to the lack of community relations by DOE/SNL, and that SNL should join as a signing member of the Greater Bernalillo County/Kirtland Air Force Base Environmental Working Group.

EPA Response:

EPA has included additional public participation requirements in the permit (Community Relations Plan R.3.i.). EPA believes that Sandia may fulfill their community relations requirements without becoming a signatory to the Greater Bernalillo County/Kirtland Air Force Base Environmental Working Group; therefore, this requirement was not included in the permit.

77. Public Comment:

SNL should inform the citizens who live directly east of Sandia National Laboratory of any major outdoor burn testing.

EPA Response:

A provision for citizen notification has been added to the Community Relations Portion of the permit. (See permit change R.3.i.9.)

78. Public Comment:

A comment was received that the transportation routes and methods of transport for hazardous materials should be discussed in the permit.

EPA Response:

This comment is more appropriate to the New Mexico portion of the permit Module I-III which address transport of hazardous materials.

79. Public Comment:

The maps in the permit are too general and do not address the ground water situation in the area.

EPA Response:

Sandia has requested that as a Special Permit Condition, they will submit an annual report describing the current knowledge of the installation-wide hydrogeological environment. EPA added the condition that detailed maps must be included in this report, and the report should be made available to interested citizen groups and citizens (see C.2. Installation-wide Hydrogeologic Environment).

80. Public Comment:

Kirtland Air Force Base and SNL should number and label sites and SWMUs similarly so they can be easily identified and the extent of contamination can be determined. There needs to be coordination between agencies immediately to help determine the extent of the contamination from all previous and current users.

EPA Response:

As part of the permitting and RFI process both Kirtland Air Force Base and Sandia are required to properly identify and investigate all SWMUs; therefore, no change in the permit has been made.

81. Public Comment:

In the Site Specific Plans for SNL the possible contaminates are listed too generally, and it is difficult to determine whether the probable contaminate is leaching into the ground water.

EPA Response:

As part of the RFI process Sandia is required to analyze all facility investigation data collected and to prepare a detailed report on the type and extent of contamination at the facility including sources and migration pathways (see R.5.). No change in the permit has been made.

82. Public Comment:

In the Site Specific Plans for SNL the depth to ground water, especially in Lurance Canyon, is misleading.

EPA Response:

As part of the special permitting conditions, Sandia is required to address the regional and installation-wide geologic setting and hydrologic characteristics and include this information in a yearly report. See permit changes under Special Conditions (C.2.).

83. Public Comment:

There is a lack of an available community relations plan.

EPA Response:

EPA has no authority to require Sandia to produce a community relations plan prior to issuance of the permit. Once the permit is issued then as part of the RFI scope of work a community relations program is required. See permit changes (R.3.i) for changes to the community relations plan requirements.

84. Public Comment:

A waste minimization plan relevant to current and future practices at SNL is lacking.

EPA Response:

Under 40 CFR 264.73(b)(9) EPA has only been given regulatory authority to require a facility to certify annually that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that the permittee generates to the degree determined by the permittee to be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the permittee which

minimizes the present and future threat to human health and the environment. EPA requires a biennial report under 40 CFR 264.75 which describes the efforts undertaken during the year to reduce the volume and toxicity of waste, and the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984. EPA has made recommendations in the permit for inclusion of additional information in the waste minimization report, however, there is no regulatory authority for EPA to require additional information beyond the requirements of 40 CFR 264.75(h)-(j).

85. Public Comment:

The list of SWMUs was incomplete especially for Laurance Canyon.

EPA Response:

The permit lists all SWMUs which were determined to require further investigation after the RFA, as well as, additional SWMUs identified by Sandia. Under the permit Module IV Section G there are requirements for notification and assessment of all newly-discovered SWMUs.

86. Public Comment:

The permit application of SNL fails to incorporate information from recent technical publications such as the City of Albuquerque's threat characterization study written by CH2M Hill.

EPA Response:

It is difficult to determine what this comment refers to. It may be similar to comment #87 below, and therefore has the same response.

87. Public Comment:

Though SNL is well stocked with technical resources, it has provided only a superficial view of the geologic and hydrogeologic environment within which it operates. SNL has failed to incorporate or acknowledge recent research in these areas. SNL is extremely careful to update its growing "representative annual waste volume" but unable to stay current on research about its site. It has failed to include important recent work such as a master's thesis from New Mexico Tech by Linda Logan or the Ground Water Threat Characterization Reports from City of Albuquerque's Public Works Department consultant and staff.

EPA Response:

As a special permitting condition, SNL will submit a report

describing the current knowledge of the installation-wide hydrogeological environment. EPA has added a condition that SNL must include all known work which assist in characterizing the ground water at the facility.

88. Public Comment:

Several comments requested the addition of the following information in the HSWA portion of the permit: characterization of the on-site generation locations, and contingency plans for transportation related releases that may occur between those sites and the storage areas appear necessary as soil conditions and the Tijeras Arroyo floodplain are important considerations in the implementation of facility siting and emergency response activities.

EPA Response:

This comment is not appropriate to include in the HSWA portion of the permit, as these items are addressed in Modules I-III of the NMED portion of the permit.

89. Public Comment:

Waste Minimization is addressed specifically in the EPA portion of the proposed Permit. The Standard Conditions found in the proposed Permit are useful but fail to provide waste minimization targets or goals to measure permittee performance in this program area. The Permittee may be required to specify waste minimization opportunities, based on professional experience or literature sources, for each waste code generated on-site. Such minimizations opportunity assessments can identify the relative completeness of waste minimization, in terms of volume reduction or toxicity reduction, to allow targets to be considered and set by SNL based on other facility's current experience.

EPA Response:

The permittee is required in the permit (B.1.a.) to certify that the permittee has a program in place to reduce the volume and toxicity of all hazardous wastes which are generated by the facility's operation. Requiring waste minimization targets or performance goals in the permit is not appropriate, because it could interfere with or intrude into the production process at the permitted facility. In the preamble to the Waste Minimization rule (50 Fed. Reg. 28702, 28734 (July 15, 1985), EPA stated:

> The amendment [RCRA Subsection 3005(h)] does not authorize EPA to interfere with or to intrude into the production process by requiring standards for waste minimization; rather it specifically provides that substantive determinations of "economically practicable" and "practicable method currently

available" are to be made by the generator in light of his own particular circumstances.

90. Public Comment:

Compliance with the Standard Conditions is also of concern from a completeness and performance standpoint based on a review of the document Kirtland Air Force Base has submitted as the waste minimization plan report pursuant to its RCRA Permit, copies of which are available in NMED and EPA files. In its Waste Minimization Report, Kirtland fails to list recycling measures actually used, volumes of materials treated by the measures, itemized lists of capital expenditures, factors preventing recycling, additional efforts available or other of the specific items listed as mandatory in Standard Conditions found in the KAFB Permit, as well as the SNL proposed Permit on p. 4-5 of the EPA portion of the Permit. Kirtland's Report is more in the line of highlights and notes, rather than the "itemized lists" and a "program in place to reduce the volume and toxicity of all hazardous waste generated" as mandated by the Standard Conditions language in the SNL proposed Permit.

EPA Response:

This is not a comment on the Sandia permit; therefore, no further response is needed.

91. Public Comment:

EPA should explicitly outline the level of detail for each waste stream, and the level of detail anticipated in reporting requirements to maximize the waste minimization activities of the Permittee. Such efforts should include waste minimization activities, including waste volume, treatment processes and costs or cost reductions, for each waste code at each point of generation.

EPA Response:

See response to comments #84 and #89.

92. Public Comment:

The Permittee should be required to convene a Waste Minimization working meeting, on an annual or more frequent basis if requested, to establish an interactive dialogue on waste minimization.

EPA Response:

As part of the Community Relations Plan, EPA has added the requirement (R.3.i.10) that Sandia present the results of the waste minimization plan at least annually at one of the scheduled public

meetings.

93. Public Comment:

SNL should establish a community relations committee, including a majority of off-site parties active in SNL waste management matters to create a formal arena for planning SNL-community actions. Were such a committee in place, SNL would not be able to schedule meetings for community input without community input into the site and schedule for the meetings.

EPA Response:

SNL is required under R.3.i.2. of the permit to conduct meetings and workshops with the public and local officials. Community input into the site and schedule of these meetings is encouraged. No additional requirements have been added to the permit.

94. Public Comment:

SNL should be required to provide copies of HSWA implementation documents, such as draft and final RFI work plans, and reporting data, directly to interested parties if requested. We are requesting that those people who express an interest in these documents be able to receive a copy and comment on them.

EPA Response:

EPA has modified R.3.i.3. of the Community Relations Plan, to require SNL to provide workplans and progress reports to interested parties.

95. Public Comment:

SNL should also be required to schedule working meetings with interested community organizations to review draft work plans to insure that community input is available prior to the finalization of work plans.

EPA Response:

EPA believes that under the Community Relations Plan R.3.i.2 and 7 these meetings can be scheduled if requested by the community without making any additional changes to the permit.

96. Public Comment:

SNL should be required to notify interested community groups of opportunities to observe field data gathering activities conducted during work plan implementation, when requested.

EPA Response:

EPA has added this requirement under R.3.i.8. of the Community Relations Plan.

97. Public Comment:

SNL should schedule RFI work plan meetings with community organizations and local governments to assure maximum community input in the development and implementation of such plans. Working documents of such meetings should include documentation of the full range of site investigation strategies for each SWMU including: shallow and deep soil borings, surface geophysics and soil gas tests and ground water monitoring devices.

EPA Response:

SNL is already required to hold workshops for discussion of the RFI workplans and reports under the Community Relations Plan portion of the permit. SNL is required to fully investigate all SWMUs under the RFI program. No change to the permit is needed in response to this comment.

98. Public Comment:

Investigation of SWMUs at SNL should be subject to a full range of geophysical, geohydrologic and soil sampling programs to fully characterize each site including: investigations of up gradient and down gradient points of surface or ground water occurrence to identify water quality and soil parameters, background sites and for points of potential water use.

EPA Response:

SNL is required to fully and thoroughly investigate all SWMUs under the RFI process using all available technology. No change in the permit has been made in response to these comments.

99. Public Comment:

The SNL complex should be investigated through use of past and current aerial photography to characterize surface changes at SWMUs before, during and after use.

EPA Response:

The permit has been modified to reflect this comment. See permit changes under 3.a.1.a.9. RFI Workplan, Facility Description.

100. Public Comment:

The status of SWMU investigations at SNL "off-site locations" in

California, Nevada, Hawaii, and elsewhere in New Mexico is unclear in the Permit and relevant Applications.

EPA Response:

This permit only applies to the investigation of SWMUs at the Sandia National Laboratory as described in the permit, and not for SWMUs that may be located in other states which are not within the Region 6 geographical jurisdiction. Only SWMUs which are located on the Sandia facility as described in this permit will be addressed under this permit.

101. Public Comment:

SNL should be required to comprehensively list SWMUs, their relative risk and priority for RFI work plan development and implementation within the first six-twelve months of Permit issuance.

EPA Response:

The permittee has requested a special permit condition C.1. to produce a Program Implementation Plan which will contain a five year project plan. As part of the PIP, EPA has required that Sandia list the priority and relative risk (to their best knowledge) of each SWMUs as they fit into the scheduled RFI workplans required under part J.1. of the permit.

102. Public Comment:

Time lines for the development of RFI and other environmental investigation and restoration work plans must be made available to the public.

EPA Response:

A schedule for the development of RFI workplans is incorporated in the permit under Module IV. J. All RFI workplans will be available in the public repository, and will be furnished to interested citizen groups upon request as indicated in the Community Relations Plan portion of the permit (R.3.i.)(see permit changes).

103. Public Comment:

Time lines and all work plans associated with environmental restoration programs at Sandia should be submitted to the Bernalillo County/Kirtland Environmental Working Group members for review and input.

EPA Response:

The requirements of the Community Relations Plan provide for the

distribution of this information. See changes to the Community Relations Plan.

104. Public Comment:

As much as possible, the permittee should be encouraged to develop long-range alternatives to creating hazardous waste. Recycling and hazardous waste minimization programs should be encouraged and ongoing. That short- and long-range plans for these programs should be developed and made public. That time lines for developing and implementing these plans must be developed and made public.

EPA Response:

EPA encourages all generators of hazardous waste to have a waste minimization program in place. EPA only has authority to require annual certification that a waste minimization program is in place, and a biennial report. See response to comments #84.

105. Public Comment:

In regards to priorities for solid waste management unit investigations, several of the sites at SNL which have been subject to activities involving the use of extremely hazardous materials or mixed hazardous and radioactive materials appear to be lower priority action SWMUs, than other less problematic sites.

These sites include: Lurance Canyon, including the large open dump (RFA SWMU 41); the Explosive Test Site and the Aerial Cable Site and Dump(RFA #22, 50, 51, 59);
Coyote Canyon, including the Coyote Canyon "Open Dump" (RFA 23), the Coyote Canyon Test Facility (RFA 136-139), the Coyote Test Facility Mounds, (RFA #68-70) in addition to the Coyote Springs Area sites (RFA #73,42 and J);
Beryllium Handling sites - Sol Se Mete Mesa (RFA #50-51); Shock Tube Debris Area (RFA #56), Pendulum Site Mounds and Bunkers (RFA #60-63, 124-125), Thunder Range Beryllium Firing Site (RFA #B);
Uranium handling Sites - Schoolhouse Mesa Dump (RFA #43) and Uranium Burn Sites (CEARP #20).
Mixed waste sites - Landfills (RFA #24-30, 115-116), Rad. Disposal (CEARP #102), Radioactive impoundments and seepage basin (RFA #16-19);
Heavy Metal and Explosive Handling Sites - lead firing range (RFA #132), Radioactive/explosives burial grounds (RFA #68-70), Explosive Test Pit (RFA #127), Explosive Contaminated Sump (CEARP #112).
Tech Area 2 - Radioactive and Classified Burial Pits (RFA #32-40), Radioactive Storage Yard (RFA 57), Uranium Calibration Pits (RFA #130).

EPA Response:

A special permitting condition has been added to the permit "C.6 Prioritization of Operable Units (OUs) for Assessment and Remediation" which requires DOE to use a risk-based prioritization system based in part on their hydrogeologic environmental study. In the opinion of EPA, a phased approach to investigation and remediation of all OUs based on risk is the most effective means of addressing such a large number of SWMUs. The priority of the SWMUs as listed in Table 2 of the permit is based on DOEs FY93 five-year plan and is subject to change based on the special permitting condition C.6. No change has been made in the permit.

106. Public Comment:

These sites and the SNL SWMU complex at large, should be subject to a full range of geophysical, geohydrological and soil sampling programs to fully characterize each site. Such characterizations should include investigations of upgradient and downgradient points of surface or groundwater occurrence to identify water quality and soil parameters background sites and for points of potential water use.

EPA Response:

Complete characterization of all SWMUs is already a requirement of the permit under J.2 RFI workplan.

107. Public Comment:

A higher priority was requested for Lurance Canyon and the Coyote Springs area, as they are on fault lines and should there be substantial contamination, it could possibly flow directly to the Albuquerque aquifer.

EPA Response:

See EPA Response to comments #105.

108. Public Comment:

SNLs mailing list should be updated to include citizens groups, environmental groups, and local officials in the east mountain area.

EPA Response:

In the permit SNL is required to update their mailing list annually under requirement R.3.i.1.

109. Public Comment:

There should be a written follow-up to those in attendance (all DOE/SNL public forums) with complete explanations to the unanswered questions.

EPA Response:

A special condition under the Community Relations Plan has been added to address this comment (See permit changes R.3.i.11).

110. Public Comment:

A request was made that a schedule be established for all public outreach meetings and notification (of this schedule be) published no later than April 20th, 1992.

EPA Response:

Under the Community Relations portion of the permit SNL is required to hold meetings or workshops with the public. It is not possibly to include the April 20th, 1992 notification, as the permit will become effective after that date.

111. Public Comment:

Residents would like further information on how the hazardous waste from the removal of nuclear warheads and the storage of the plutonium pits will affect this facility and what precautions are being taken.

EPA Response:

This comment does not apply to the permit, because the hazardous waste from the removal of nuclear warheads and the storage of plutonium pits is not included in the permit. This may be an appropriate question to ask SNL at one of their public meetings under the Community Relations Plan.

112. Public Comment:

It is imperative that groundwater monitoring be of utmost priority since the Manzano Mountains and the faults that pass through Kirtland Air Force Base are a proven conduit for the flow of water to the Albuquerque aquifer.

EPA Response:

SNL has included in the permit an installation-wide hydrogeologic report, and additional monitoring will be added as needed around SWMUs. No additional modification of the permit is required.

113. Public Comment:

There needs to be more and better dissemination of information about the current water well tests and the results of testing. More monitor wells may be required to obtain this information.

EPA Response:

As a special permit condition, SNL will be producing an installation-wide hydrogeologic report which will provide information on the current well information and testing results. Monitor wells will be added as needed during SWMU investigations. No modification to the permit has been made in response to this comment.

114. Public Comment:

There needs to be more done to inform the public of exactly what is being accomplished to determine the extent of the contamination of the identified 190 possible solid waste management units.

EPA Response:

Under the Community Relations plan, SNL is required to hold meetings and inform the public of the investigation and extent of contamination from all SWMUs. See changes to the Community Relations Plan (R.3.i).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REISSUED MODULE IV. OF RCRA PERMIT
HAZARDOUS WASTE TREATMENT/STORAGE/DISPOSAL FACILITY

PERMITTEE:	Sandia National Laboratories, Albuquerque, New Mexico and the United States Department of Energy
OWNER:	United States Department of Energy
OPERATOR:	Sandia National Laboratories
LOCATION:	Within Kirtland AFB property, on the south end of Albuquerque, New Mexico
I.D. NUMBER:	NM5890110518
EXPIRATION DATE:	September 20, 20002

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C.§§6901, et seq.) and the Hazardous and Solid Waste Amendments of 1984 (HSWA), a permit is issued to Sandia National Laboratories, Albuquerque, New Mexico and the United States Department of Energy (hereafter called the Permittee) to operate a hazardous waste disposal facility at the location stated above.

The Permittee must comply with all terms and conditions of this permit. This permit is based on the assumption that the information provided to the Administrative Authority by the Permittee is accurate. Further, this permit is based in part on the provision of Sections 206, 212, and 224 of HSWA, which modify Sections 3004 and 3005 of RCRA. In particular, Section 206 requires corrective action for all releases of hazardous waste or constituents from any solid waste management unit at the treatment, storage or disposal facility seeking a permit, regardless of the time at which waste was placed in such unit. Section 212 provides authority to review and modify the permit at any time. Any inaccuracies found in the submitted information may be grounds for the termination, modification or revocation and reissuance of this permit (40 CFR 270.41, 270.42, and 270.43) and potential enforcement action. The Permittee must inform the Administrative Authority of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations of permit conditions.

This reissued Module IV. of the permit is effective as of August 26, 1993, and shall remain in effect until

September 20, 2002, unless revoked and reissued, modified or terminated.

WK Hooker

Allyn M. Davis, Director
for Hazardous Waste Management Division
USEPA, Region 6

Date: 7-27-93

BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

IN RE:	)	
UNITED STATES DEPARTMENT OF ENERGY	)	
and SANDIA NATIONAL LABORATORIES	)	RCRA APPEAL NO. 92-31
	)	
Dkt. No.: NM5890110518	)	

SETTLEMENT AGREEMENT

This agreement, dated for ease of reference as February 11, 1993, but effective upon filing with the Regional Hearing Clerk, is between the United States Environmental Protection Agency, Region 6, (EPA), the United States Department of Energy (DOE) and Sandia National Laboratories (SNL), located in Albuquerque, New Mexico (the permitees) (collectively, the parties). This settlement agreement arises out of a petition for review filed by the DOE and SNL, before the Environmental Appeals Board, RCRA Appeal No. 92-31, challenging certain conditions and provisions of the Hazardous Waste Permit issued to the permitees jointly by the New Mexico Enviroment Department (NMED) and the EPA on October 2, 1992, permit no. NM5890110518, and negotiations between the parties. Specifically, this settlement agreement addresses the obligations, agreements and understanding of the parties pertaining to modifications to Sections B.9, C.7, C.8, E.3, R.3, R.3.i.3, S.1, and S.4.e of the Hazardous Waste Permit (the HSWA permit) and settlement of the above-referenced petition for review.

I. OBLIGATIONS OF EPA

EPA agrees, as a part of this settlement agreement, to take the following actions:

1. The EPA will issue a HSWA permit to the DOE and SNL without further public comment, which permit shall incorporate the modifications agreed to by the parties. A copy of the HSWA permit, worded as the EPA currently proposes to issue it is attached to this settlement agreement and incorporated herein by reference. Any further changes or modifications to the HSWA permit from the permit attached hereto shall be agreed to by the parties in writing, which agreement shall be prior to EPA's issuance of the permit.

2. The EPA will issue the HSWA permit to the DOE and SNL in a timely fashion, and such permit shall become effective thirty (30) days after final signature of this agreement by the parties.

II. OBLIGATIONS OF DOE AND SNL

The DOE and SNL agree as a part of this settlement agreement, to take the following action(s):

1. Upon issuance of the HSWA permit to the DOE and SNL as set forth in paragraph I.1. above, the parties shall jointly move for withdrawal or dismissal of the petition for review in RCRA Appeal No. 92-31.

2. Upon issuance of the HSWA permit by EPA to the DOE and SNL, the DOE and SNL hereby agree that they will not file a petition for review with regard to the HSWA permit issued as a result of this settlement agreement.

III. SEVERABILITY

The provisions of this settlement agreement are severable. In the event that any section, paragraph, clause, provision or condition of this agreement be declared unenforceable, all other sections, paragraphs, clauses, provisions or other conditions not affected, shall remain in force and in effect.

IV. INTEGRATION

This agreement contains the entire agreement of the parties, and all prior representations, agreements or understandings with respect to the subjects addressed herein are superseded by this agreement.

BY:

K. A. Carlson 7/14/93
The United States Department of Energy

Allyn M. Davis 7/27/93
Allyn M. Davis, Director
for Hazardous Waste Management Division
EPA Region 6

Allyn M. Blackwell 7/8/93
Sandia National Laboratories

DATE:

_____ _____

CHANGES MADE IN THE HSWA PERMIT

Below are the changes which EPA made to the Sandia National Laboratories (SNL) HSWA permit. Language added or modified as a result of discussions with the Department of Energy and Sandia National Laboratories will be indicated in bold type.

1. The definition of facility was altered to better indicate the actual land both owned and leased by the permittee. In addition, language was added to the permit under Special Conditions (C.8.) which will provide for any changes in the land currently used by the permittee. The definition of permittee was modified to acurately reflect the name of the contractor.

"Facility" means all property under the control of the permittee seeking a permit under Subtitle C of RCRA.

"Permittee" means Sandia National Laboratories, Albuquerque, New Mexico, and the Department of Energy, EPA I.D. Number NM5890110518.

2. B.9. Data Retention

All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained at the facility during the term of this Permit, including any reissued Permits. **Raw data shall be made available to the Administrative Authority upon request.**

3. The original financial responsibility portion of the permit under Corrective Action (E.3.) was deleted and new language was added under Special Conditions (C.7.). The new language is standard language currently used in Federal facilities agreements between EPA and other Federal facilities.

C.7. **It is the expectation of the Parties to this Permit that all obligations of the permittee arising under this Permit will be fully funded. The Permittee shall take all necessary steps and make efforts to obtain timely funding to meet its obligations under this Permit.**

With Regards to the adequacy of funding to fulfill the requirements of this permit, the permittee is entitled the protections set out in RCRA Section 6001. Nothing in this permit requires the permitee to violate the Anti-Deficiency Act, 31 U.S.C. § 1341.

EPA reserves the right to take appropriate enforcement action if the requirements of this permit are not fulfilled.

4. The original dispute resolution language was replaced with this language which is currently used in Federal facility agreements. Please indicate in E.3.f. who your designated member will be.

E.3. Dispute Resolution

If a dispute arises under this permit, the procedures of this Part shall apply. In addition, during the pendency of any dispute, the permittee agrees that it shall continue to implement those portions of this permit which are not in dispute and which the Administrative Authority determines can be reasonably implemented pending final resolution of the issue(s) in dispute. If the Administrative Authority determines that all or part of those portions of work which are affected by the dispute should stop during the pendency of the dispute, the permittee shall discontinue implementing those portions of the work.

The permittee and the Administrative Authority shall make reasonable efforts to informally resolve disputes at the Facility Manager or immediate supervisor level. If resolution cannot be achieved informally, the procedures of this portion of the permit shall be implemented to resolve a dispute.

a. Within thirty (30) days of the date of any action by the Administrative Authority which leads to or generates a dispute, the permittee shall submit to the Administrative Authority a written statement of dispute setting forth the nature of the dispute, the permittee's position with respect to the dispute and the information the permittee is relying upon to support its position. If the permittee does not provide such written statement to the Administrative Authority within this thirty (30) day period, the permittee shall be deemed to have agreed with the action taken by the Administrative Authority which led to or generated the dispute.

b. Where the Administrative Authority issues a Written Notice of Position, any other Party which disagrees with the Written Notice of Position may provide the issuing Party with a written statement of dispute setting forth the nature of the dispute, its position with respect to the dispute and the information it is relying upon to support its position. If no other Party provides such a written statement of dispute within thirty (30) days of receipt of the Written Notice of Position, the Parties shall be deemed to have agreed with the Written Notice of Position.

c. Upon receipt of the written statement of dispute, the Parties shall engage in dispute resolution among the Facility Managers and/or their immediate supervisors. The Parties shall have fourteen (14) days from the receipt by the Administrative Authority of the written statement of dispute to resolve the dispute. During this period the Facility Managers shall meet as many times as are necessary to discuss and attempt resolution of the dispute. If agreement cannot be reached on any issue within this fourteen (14) day period any Party may, within ten (10) days of the conclusion of the fourteen (14) day dispute resolution period, submit a written notice to the Parties escalating the dispute to the Dispute Resolution Committee (DRC) for resolution. If no Party elevates the dispute to the DRC within this ten (10) day escalation period, the Parties shall be deemed to have agreed with the Administrative Authorities position with respect to the dispute.

d. The DRC will serve as a forum for resolution of disputes for which agreement has not been reached pursuant to Subparts a, b, or c of this Part. The Parties shall each designate one individual and an alternate to serve on the DRC. The individuals designated to serve on the DRC shall be employed at the policy level (SES or equivalent) or be delegated the authority to participate on the DRC for the purposes of dispute resolution under this permit. Following escalation of a dispute to the DRC as set forth in Subpart c, the DRC shall have thirty (30) days to unanimously resolve the dispute. If the DRC is unable to unanimously resolve the dispute within this thirty (30) day period any Party may, within ten (10) days of the conclusion of the thirty (30) day dispute resolution period, submit a written notice of dispute to the Administrator of U.S. EPA for final resolution of dispute. In the event that the dispute is not escalated to the Administrator of U.S. EPA within the designated ten (10) day escalation period, the Parties shall be deemed to have agreed with the U.S. EPA DRC representative's position with respect to the dispute.

e. Upon escalation of a dispute to the Administrator of U.S. EPA pursuant to Subpart d, the Administrator will review and resolve such dispute as expeditiously as possible. Upon resolution, the Administrator shall provide the permittee with a written final decision setting forth resolution of the dispute.

f. The U.S. EPA representative on the DRC is the Waste Management Division Director of U.S. EPA's Region 6. The permittee's designated member is the Assistant

Manager, Office of Energy and Special Programs, Department of Energy. Notice of any delegation of authority from a Party's designated representative on the DRC shall be provided to all other Parties within ten (10) days of delegation.

g. The pendency of any dispute under this Part shall not affect the permittee's responsibility for timely performance of the work required by this permit, except that the time period for completion of work affected by such dispute shall be extended for a period of time not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this permit which are not affected by the dispute shall continue and be completed in accordance with the applicable schedule. The determination of elements of work, Submittals or actions affected by the dispute shall be determined by the Administrative Authority and shall not be subject to dispute under this Part.

h. Within fourteen (14) days of resolution of a dispute pursuant to the procedures specified in this Part, the permittee shall incorporate the resolution and final determination into the appropriate plan, schedule or procedures and proceed to implement this permit according to the amended plan, schedule or procedures.

i. Resolution of a dispute pursuant to this Part of the permit constitutes a final resolution of any dispute arising under this permit. The permittee shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Part of this permit.

5. The following language was added to indicate that much of the guidance EPA gives may be verbal as well as written.

R.3. Task I: RFI Workplan

The Permittee shall prepare a RFI Workplan as specified in Module IV.J and the following. **Consistent with applicable EPA guidance,** the RFI Workplan shall provide for and address the following information needs:

6. Changes were made to the community relations portion of the permit in order to clarify what SNL's responsibilities should be under the permit.

R.3.i.3) News releases, fact sheets, **RFI workplan submittals, RFI report submittals,** and publicly available quarterly progress reports that explain the progress and conclusions of the RFI

must be provided to interested citizen groups and the public as requested.

8) Notify interested community groups of opportunities to observe field data gathering activities conducted during the RFI/CMS process **and that appropriate safety training for such observations may be required. Such training shall include training pursuant to 29 CFR 1910.120(c). Such notice shall describe all necessary training.**

9) Develop and implement a means of notifying the citizens of the East Manzano area directly east of Sandia National Laboratory of any outdoor burn testing **conducted pursuant to the requirements of this permit.**

11) Provide written **response** to **all** unanswered questions **pertaining to activities subject to this permit.**

7. The following language was added to indicate that some of EPA's guidance was verbal as well as written:

S. CMS SCOPE OF WORK

1. Purpose

The purpose of the CMS is to develop and evaluate corrective measures alternatives and to recommend the corrective measure or measures to be taken. **Consistent with applicable EPA guidance,** the required information shall include each item specified under CMS Tasks IV-VI. The Permittee will furnish the personnel, materials, and services necessary to prepare the CMS, except as otherwise specified.

8. Language was added to the Corrective Measures Alternatives portion of the permit to better reflect wording in the Corrective Action for Solid Waste Mangement Units at Hazardous Waste Management Facilities; Proposed Rule, 40 CFR § 264.525 (b)(5):

S.4. e. Selection of Corrective Measures Alternative(s)

The Permittee shall select a corrective measures alternative using technical, human health, environmental **and cost** criteria. At a minimum, the following criteria shall be used to select the final corrective measure or measures.

9. In addition, the requirement for a Integrated Demonstration Program Plan was omitted from Table 1, as this plan is not a permit requirement.

MODULE IV. SPECIAL CONDITIONS PURSUANT TO THE 1984 HAZARDOUS AND SOLID WASTE AMENDMENTS (HSWA) TO RCRA FOR SANDIA NATIONAL LABORATORY, EPA I.D. NUMBER NM5890110518

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A. DEFINITIONS

For purposes of these special conditions pursuant to the 1984 Hazardous and Solid Waste Amendments to RCRA, the following definitions shall apply:

"Administrative Authority" means the Director of the New Mexico Environment Department (NMED), or his/her designee, or, in the case of HSWA provisions for which the State is not authorized, the United States Environmental Protection Agency (EPA).

"NMED" means the New Mexico Environment Department.

"CMS" means Corrective Measures Study.

"EPA" means the United States Environmental Protection Agency.

"Facility" means all property under the control of the permittee seeking a permit under Subtitle C of RCRA.

"HSWA" means the 1984 Hazardous and Solid Waste Amendments to RCRA.

"Hazardous constituent" means any constituent identified in Appendix VIII of 40 CFR Part 261, or any constituent identified in Appendix IX of 40 CFR Part 264.

"Hazardous waste" means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. The term hazardous waste includes hazardous constituent.

"Operable Unit" for the purpose of this permit means a grouping of Solid Waste Management Units (SWMUs) which, because of geographic proximity to one another or type of waste disposed, are treated under a single Activity Data Sheet (ADS). A single RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) is written for the grouping of SWMUs.

"Permit" means the conditions embodied in these special conditions pursuant to the 1984 Hazardous and Solid Waste Amendments to RCRA.

"Permittee" means Sandia National Laboratories, Albuquerque, New Mexico, and the Department of Energy, EPA I.D. Number NM5890110518.

"RCRA" means the Resource Conservation and Recovery Act of 1980 as amended by HSWA in 1984.

"RCRA Permit" means the full permit, with RCRA and HSWA portions.

"RFA" means RCRA Facility Assessment.

"RFI" means RCRA Facility Investigation.

"Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

"Solid Waste Management Unit" (SWMU) means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

If, subsequent to the issuance of this permit, regulations are promulgated which redefine any of the above terms, the Administrative Authority may, at its discretion, apply the new definition to this permit.

A. STANDARD CONDITIONS

1. Waste Minimization

The Permittee shall annually submit certification to the Administrative Authority according to requirements of 40 CFR 264.73 (b)(9) by December 1, for the previous year ending September 30, that:

a. the Permittee has a program in place to reduce the volume and toxicity of all hazardous wastes which are generated by the facility's operation to the degree determined by the permittee to be economically practicable; and that the proposed method of treatment, storage, or disposal is the practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment.

The following items are recommended to be included in the biennial report as required under 40 CFR 264.75(h)-(j):

1) Any written policy or statement that outlines goals, objectives, and/or methods for source reduction and recycling of hazardous waste at the facility;

2) Any employee training or incentive programs designed to identify and implement source reduction and recycling opportunities;

3) Any source reduction and/or recycling measures implemented in the last five years or planned for the near future;

4) An itemized list of the dollar amounts of capital expenditures (plant and equipment) and operating costs devoted to source reduction and recycling of hazardous waste;

5) Factors that have prevented implementation of source reduction and/or recycling;

6) Sources of information on source reduction and/or recycling received at the facility (e.g., local government, trade associations, suppliers, etc.);

7) An investigation of additional waste minimization efforts which could be implemented at the facility. This investigation shall analyze the potential for reducing the quantity and toxicity of each waste stream through production reformulation, recycling, and all other appropriate means. The analysis shall include an assessment of the technical feasibility, cost, and potential waste reduction for each option;

8) The Permittee shall submit a flow chart or matrix detailing all hazardous wastes it produces by quantity, type, and building/area;

9) The Permittee shall demonstrate the need to use those processes which produce a particular hazardous waste due to a lack of alternative processes or available technology that would produce less hazardous waste.

b. The Permittee shall include this certified plan in the operating record.

2. Dust Suppression

Pursuant to 40 CFR 266.23(b), the Permittee shall not use waste or used oil or any other material which is

contaminated with dioxin, or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment.

3. Permit Modification

a. If at any time for any of the reasons specified in 40 CFR 270.41, the Administrative Authority determines that modification of this Permit is necessary, the Administrative Authority may require the Permittee to request a permit modification per Module IV.B.3.b or may initiate a modification according 40 CFR 124.5, as follows:

1) The Administrative Authority, when initiating such 270.41-related modifications, shall prepare a draft permit under 124.6 incorporating the proposed changes.

2) Notify the Permittee in writing by certified mail of the proposed modification and the date by which comments on the proposed modification must be received (not less than 30 days).

3) Publish a notice of the proposed modification in a locally distributed newspaper, broadcast the notice over a local radio station, mail a notice to all persons on the facility mailing list maintained according to 40 CFR 124.10(c)(1)(ix), and place a notice in the facility's information repository (a central source of all pertinent documents concerning the remedial action, usually maintained at the facility or some other public place in the vicinity of the permitted facility, such as a public library).

4) If the Administrative Authority receives no written comment on the proposed modification, the modification shall become effective five (5) calendar days after the close of the comment period. The Administrative Authority shall:

a) Notify the Permittee in writing of the final decision.

b) Notify individuals on the facility mailing list in writing that the modification has become effective and shall place a copy of the modified permit in the information repository, if a repository is required for the facility.

5) If the Administrative Authority receives written comment on the proposed modification, the Administrative Authority shall make a final determination concerning the

modification after the end of the comment period. The Administrative Authority shall:

a) Notify the Permittee in writing of the final decision.

b) Provide notice of the final modification decision in a locally distributed newspaper and place a copy of the modified permit in the information repository, if a repository is required for the facility.

b. The Permittee may initiate permit modifications proceeding under 40 CFR 270.42. All applicable requirements and procedures as specified in 40 CFR 270.42 shall be followed.

c. Modifications of the Permit do not constitute a reissuance of the Permit.

4. Permit Review

This Permit may be reviewed by the Administrative Authority five years after the date of permit issuance and may be modified as necessary as provided for in Module IV.B.3. Nothing in this section shall preclude the Administrative Authority from reviewing and modifying the Permit at any time during its term. This section applies to the RCRA Permit.

5. Compliance with Permit

Compliance with this Permit during its term constitutes compliance, for the purposes of enforcement, with 40 CFR Parts 264 and 266 only for those management practices specifically authorized by this Permit. The Permittee is also required to comply with Parts 260, 261, 262, and 263 as applicable.

6. Specific Waste Ban

a. The Permittee shall not place in any land disposal unit the wastes specified in 40 CFR 268 after the effective date of the prohibition unless the Administrator has established disposal or treatment standards for the hazardous waste and the Permittee meets such standards and other applicable conditions of this Permit. Not withstanding the foregoing, the Permittee may land dispose hazardous waste restricted by 40 CFR 268 which does not meet treatment standards if:

1. A variance from the treatment standards has been granted pursuant to 40 CFR 268.44;

2. A petition has been granted on a case-by-case extension to the effective date, pursuant to 40 CFR 268.5; or

3. A "no-migration" petition has been granted pursuant to 40 CFR 268.6.

b. The Permittee may store wastes restricted under 40 CFR 268 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of 40 CFR 268.50(a)(2) including, but not limited to, clearly marking each tank or container.

c. The Permittee is required to comply with all requirements of 40 CFR 268.7 as amended. Changes to the waste analysis plan will be considered permit modifications at the request of the Permittee, pursuant to 40 CFR 270.42.

d. The Permittee shall perform a waste analysis annually on at least 5 percent of the defined regularily received process waste streams or when a process changes, to determine whether the waste meets applicable treatment standards. Results shall be maintained in the operating record as defined in 40 CFR 264.73.

e. The Permittee shall comply with all statutory and regulatory requirements restricting or prohibiting the disposal of hazardous wastes in or on the land and the Permittee shall comply with the requirements as of the effective date of the statute or regulation.

7. Information Submittal

Failure to comply with any condition of the Permit, including relevant information submittal, constitutes a violation of the Permit and is grounds for enforcement action, permit amendment, termination, revocation, suspension, or denial of permit renewal application. Misrepresentation of any relevant facts at any time is grounds for termination of this Permit (40 CFR 270.43).

The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Administrative Authority required in this Permit are signed and certified in accordance with 40 CFR 270.11. A summary of the planned reporting requirements pursuant to this Permit is found in Table 1. Two (2) copies each of these plans, reports, notifications or other submissions shall be submitted to the Administrative Authority by Certified Mail or hand delivered to:

U.S. EPA, Region 6
Hazardous Waste Management Division
RCRA Permits Branch (6H-P)
1445 Ross Avenue
Dallas, Texas 75202-2733

and

New Mexico Environmental Department
Hazardous and Radioactive Waste Bureau
525 Camino de los Marquez Suite 4
P.O. Box 26110
Santa Fe, New Mexico 87503

8. Plans and Schedules Incorporation Into Permit

All plans and schedules required by this Permit are, upon approval by the Administrative Authority, incorporated into this Permit by reference and become an enforceable part of this Permit. Since required items are essential elements of this Permit, failure to submit any of the required items or submission of inadequate or insufficient relevant information may subject the Permittee to enforcement action under Section 3008 of RCRA which may include fines, suspension, or revocation of the Permit.

Any noncompliance with approved plans and schedules shall be termed noncompliance with this Permit. Written requests for extensions of due dates for submittals may be granted by the Administrative Authority in accordance with Module IV.B.3.

If the Administrative Authority determines that actions beyond those provided for, or changes to what is stated herein, are warranted, the Administrative Authority shall modify this Permit according to procedures in Module IV.B.3 of this Permit.

9. Data Retention

All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained at the facility during the term of this Permit, including any reissued Permits. Raw data shall be made available to the Administrative Authority upon request.

C. Special Conditions

Within the designated timeframes the Permittee shall undertake the following measures, or be bound to the following conditions concurrent with the RCRA Facility Investigation required in Module IV J. Any required submittals shall be clearly referenced as to the requirement which is being fulfilled.

1. Program Implementation Plan

Due to the large number of SWMUs identified in this permit and the need to prioritize, schedule, and manage the performance of RCRA Facility Investigations, the Permittee shall submit to the Administrative Authority for approval a Program Implementation Plan (PIP). The PIP shall establish the manner in which corrective action will be carried out to meet promulgated RCRA requirements. The PIP shall contain, at a minimum: (1) a Project Management Plan (which will incorporate the Project Schedule for five (5) years beginning with the current fiscal year); (2) a Quality Assurance Project Plan; (3) a Health and Safety Plan; and (4) a Community Relations Plan. This Program Implementation Plan shall be submitted to the Administrative Authority within one hundred eighty (180) days of the effective date of this permit. When substantive conditions under which corrective action is carried out change, or when the regulatory framework for corrective action changes, the Permittee will revise the PIP to reflect such changes. At least biennially (once every two years), the Permittee shall submit a PIP Relevance Evaluation to the Administrative Authority to identify any sections of the PIP needing updates. The PIP Relevance Evaluation shall consist of the following three criteria: 1) Substantive Condition Changes Affecting the Schedule, Amount, or Method of Corrective Action at the Permitted Facility; 2) Necessary PIP Updates, and 3) Changes to the Regulatory Framework for Corrective Action. If there are no changes to any of the above Relevance Evaluation criteria, the permittee shall briefly document that no changes (that are relevant to the PIP) occurred during the current review cycle. If the Permittee does identify changes relevant to the PIP, the Relevance Evaluation shall briefly explain such changes upon submittal to the Administrative Authority. Within 180 days of the submittal of the Relevance Evaluation, the Permittee shall submit a revised PIP which incorporates the relevant changes to the Administrative Authority. Although the PIP Relevance Evaluation review cycle must be conducted at least biennially, this minimum requirement shall not preclude the Permittee from

submitting, nor does it preclude the Administrative Authority from ordering, revisions to this PIP at any time.

As part of this plan the priority and relative risk (as known) for each SWMU will be presented. After the Permittee submits the PIP or the PIP Relevance Evaluation, the Administrative Authority will approve, disapprove or modify the submittal. Upon approval of the PIP, the Permittee shall immediately initiate implementation of the PIP according to the schedule contained therein. The PIP will be available in the operating record as defined in 40 CFR 264.73, and will also be made available to all interested citizens and citizen groups. Sandia will highlight all changes made in the PIP which are a result of changes in program needs and/or direction which do not warrant a permit modification.

2. Installation-wide Hydrogeologic Environment

Within one hundred eighty (180) days of the effective date of this permit, and annually thereafter, the Permittee shall submit to the Administrative Authority a report describing the current knowledge of the installation-wide hydrogeological environment. This report shall be a summary description of the major features and conceptual interrelationships of the hydrogeological environment and will include all known reports or work on the geohydrology of the facility. It shall address the regional and installation-wide geologic setting and hydrologic characteristics, and their

associated uncertainties, affecting the occurrence, movement, and interaction of surface and subsurface water with a view toward a quantitative understanding of potential pathways for transport of contaminants. An annual update shall be prepared that will incorporate the major findings of installation-wide significance from studies conducted under the RCRA Facility Investigations performed pursuant to Section I of this permit. This report shall contain detailed maps depicting important hydrogeologic information. This report will be available in the operating record as defined in 40 CFR 264.73, and will also be made available upon request to interested citizen groups and citizens.

C.3 3. Voluntary Corrective Measures

At any time, if the Permittee identifies a corrective measure that, if implemented before final corrective measures have been identified, would reduce impacts to human health and the environment, reduce cost and/or reduce overall schedule, the Permittee is encouraged to request a permit modification or request temporary authorization for the activities. In the request for a permit modification (or a temporary authorization) the Permittee must include: (1) a description of the remediation initiative, including the details of the unit or activity that is subject to permit requirements; and (2) an explanation of how the proposed action is consistent with the overall corrective action objectives and requirements. The Administrative Authority will screen the cleanup proposal to ensure that it would not pose unacceptable risks to human health and the environment or interfere with attainment of the final remedy at the SWMU. Where a permit modification is approved under these circumstances, the modification will make clear that the voluntary activities initiated for corrective action purposes may not be the final remedy, and that those activities will not absolve the Permittee from further cleanup responsibilities at a later date. Following this review, the Administrative Authority will approve or disallow the application.

C.4 4. Department of Energy Integrated Demonstration Program

The Department of Energy has established an Integrated Demonstration (ID) Program to advance Environmental Restoration assessment and remediation technologies in support of the investigation and corrective action or releases from SWMUs. This ID Program will bring advanced technologies that will be fielded and evaluated with the objective of incorporating successful technologies into the RCRA Facility Investigation (RFI)/Corrective Measure

Study (CMS)/Corrective Measure Implementation (CMI) process. The Administrative Authority supports the integration of the results of the ID Program into the RFI/CMS/CMI process.

The ID Program consists of separate, experimental projects and is outside the scope of the permit. Therefore, ID Projects will not require RFI/CMS documentation and will not interfere with ongoing RFI/CMS/CMIs. However, in the event an ID project results in assessment or remediation technologies found to be applicable to sites under the scope of this permit, such assessment or remediation technologies will be proposed in appropriate RFI workplans. The Administrative Authority will consider such information in a determination of the adequacy of the RFI Report (for assessment technologies), the approval of Voluntary Corrective Measures or in the approval of Corrective Measures identified in the CMS.

5. Protection of Regional Aquifer

The Permittee shall, as part of the RFI, undertake measures to detect and/or predict any future movements of contaminants toward the regional aquifer from the SWMUs and through the regional aquifer to any potential receptors. These measures include, but are not limited to, monitoring of temperature, pressure and moisture in the vadose (unsaturated) zone, moisture and vapor flux investigations and numerical simulations. Where the Permittee believes that source characteristics and/or site conditions do not warrant such measures, evidence supporting this conclusion must be submitted as part of the RFI report.

6. Prioritization of Operable Units (OUs) for Assessment and Remediation

Prioritization of Ous shall be performed in accordance with DOE's risk-based ER Priority System. Under this system, OUs will be re-prioritized annually based on updated risk assessments performed in concurrence with the DOE ER Five-Year Plan. The Installation-Wide Hydrogeologic Environment Study will provide information to support the DOE ER Priority System. All changes in the priorities of SWMUs which result in changes in the investigation schedules will be addressed through a modification of the permit.

7. Financial Responsiblity

It is the expectation of the Parties to this Permit that all obligations of the permittee arising under this Permit will be fully funded. The Permittee shall take all necessary steps and make efforts to obtain timely funding to meet its obligations under this Permit.

With regards to the adequacy of funding to fulfill the requirements of this permit, the permittee is entitled the protections set out in RCRA Section 6001. Nothing in this permit requires the permittee to violate the Anti-Deficiency Act, 31 U.S.C. § 1341.

EPA reserves the right to take appropriate enforcement action of the requirements of this permit are not fulfilled.

D. AA-BB AIR REGULATIONS

The Permittee must comply with the requirements of 40 CFR 264 Subparts AA and BB, as applicable. Within 90 days of the effective date of this Permit, the Permittee shall submit to the Administrative Authority a report which must contain, at minimum, the following information:

1. An equipment list which includes all the information required under 264.1064(b)(1) for equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight, and a list of all process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous waste with organic concentrations of at least 10 percent by weight.

2. For the process vents listed above, the amount of vent emissions in lb/hr or kg/hr, and in lb/yr or kg/yr.

3. If the emissions in paragraph 2 of this section exceed the emission limits cited in 264.1032(a)(1), the report must detail the manner in which compliance will be obtained, i.e., by the reduction of total organic emissions to the limits in 264.1032(a)(1), or reduction by means of a control device per 264.1032(a)(2).

4. If a closed-vent system and control device is installed to comply with the requirements in 264.1032(a)(2), provide the following information:

a. An implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation per 40 CFR 264.1033(a)(2).

b. The type of control device under 264.1033 to be installed (e.g. vapor recovery, flare, etc.).

5. If the Permittee feels any of the requirements of this Module IV.D, or of 40 CFR 264 Subparts AA and BB, are not applicable to this facility, the Permittee must provide justification for this decision as part of the report.

E. CORRECTIVE ACTION

1. Corrective Action for Releases: Section 3004(u) of RCRA, as amended by HSWA, and 40 CFR 264.101, require that permits issued after November 8, 1984, address corrective action for releases of hazardous waste including hazardous constituents from any SWMU at the facility, regardless of when the waste was placed in the unit.

2. Releases Beyond Facility Boundary

a. The Permittee shall notify the Administrative Authority verbally, within 24 hours of discovery, of any release of hazardous waste or hazardous constituents that has the potential to migrate beyond the facility boundary.

b. Section 3004(v) of RCRA as amended by HSWA, and Federal regulations promulgated as 40 CFR 264.101(c), require corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates to the Administrative Authority that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied. On-site measures to address such releases will be determined on a case-by-case basis.

3. Dispute Resolution

If a dispute arises under this permit, the procedures of this Part shall apply. In addition, during the pendency of any dispute, the permittee agrees that it shall continue to implement those portions of this permit which are not in dispute and which the Administrative Authority determines can be reasonably implemented pending final resolution of the issue(s) in dispute. If the

Administrative Authority determines that all or part of those portions of work which are affected by the dispute should stop during the pendency of the dispute, the permittee shall discontinue implementing those portions of the work.

The permittee and the Administrative Authority shall make reasonable efforts to informally resolve disputes at the Facility Manager or immediate supervisor level. If resolution cannot be achieved informally, the procedures of this portion of the permit shall be implemented to resolve a dispute.

a. Within thirty (30) days of the date of any action by the Administrative Authority which leads to or generates a dispute, the permittee shall submit to the Administrative Authority a written statement of dispute setting forth the nature of the dispute, the permittee's position with respect to the dispute and the information the permittee is relying upon to support its position. If the permittee does not provide such written statement to the Administrative Authority within this thirty (30) day period, the permittee shall be deemed to have agreed with the action taken by the Administrative Authority which led to or generated the dispute.

b. Where the Administrative Authority issues a Written Notice of Position, any other Party which disagrees with the Written Notice of Position may provide the issuing Party with a written statement of dispute setting forth the nature of the dispute, its position with respect to the dispute and the information it is relying upon to support its position. If no other Party provides such a written statement of dispute within thirty (30) days of receipt of the Written Notice of Position, the Parties shall be deemed to have agreed with the Written Notice of Position.

c. Upon receipt of the written statement of dispute, the Parties shall engage in dispute resolution among the Facility Managers and/or their immediate supervisors. The Parties shall have fourteen (14) days from the receipt by the Administrative Authority of the written statement of dispute to resolve the dispute. During this period the Facility Managers shall meet as many times as are necessary to discuss and attempt resolution of the dispute. If agreement cannot be reached on any issue within this fourteen (14) day period any Party may, within ten (10) days of the conclusion of the fourteen (14) day dispute resolution period, submit a written notice to the Parties escalating the dispute to the Dispute Resolution Committee (DRC) for resolution. If no

Party elevates the dispute to the DRC within this ten (10) day escalation period, the Parties shall be deemed to have agreed with the Administrative Authorities position with respect to the dispute.

d. The DRC will serve as a forum for resolution of disputes for which agreement has not been reached pursuant to Subparts a, b, or c of this Part. The Parties shall each designate one individual and an alternate to serve on the DRC. The individuals designated to serve on the DRC shall be employed at the policy level (SES or equivalent) or be delegated the authority to participate on the DRC for the purposes of dispute resolution under this permit. Following escalation of a dispute to the DRC as set forth in Subpart c, the DRC shall have thirty (30) days to unanimously resolve the dispute. If the DRC is unable to unanimously resolve the dispute within this thirty (30) day period any Party may, within ten (10) days of the conclusion of the thirty (30) day dispute resolution period, submit a written notice of dispute to the Administrator of U.S. EPA for final resolution of dispute. In the event that the dispute is not escalated to the Administrator of U.S. EPA within the designated ten (10) day escalation period, the Parties shall be deemed to have agreed with the U.S. EPA DRC representative's position with respect to the dispute.

e. Upon escalation of a dispute to the Administrator of U.S. EPA pursuant to Subpart d, the Administrator will review and resolve such dispute as expeditiously as possible. Upon resolution, the Administrator shall provide the permittee with a written final decision setting forth resolution of the dispute.

f. The U.S. EPA representative on the DRC is the Waste Management Division Director of U.S. EPA's Region 6. The permittee's designated member is the Assistant Manager, Office of Energy and Special Programs, Department of Energy. Notice of any delegation of authority from a Party's designated representative on the DRC shall be provided to all other Parties within ten (10) days of delegation.

g. The pendency of any dispute under this Part shall not affect the permittee's responsibility for timely performance of the work required by this permit, except that the time period for completion of work affected by such dispute shall be extended for a period of time not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this permit

which are not affected by the dispute shall continue and be completed in accordance with the applicable schedule. The determination of elements of work, Submittals or actions affected by the dispute shall be determined by the Administrative Authority and shall not be subject to dispute under this Part.

h. Within fourteen (14) days of resolution of a dispute pursuant to the procedures specified in this Part, the permittee shall incorporate the resolution and final determination into the appropriate plan, schedule or procedures and proceed to implement this permit according to the amended plan, schedule or procedures.

i. Resolution of a dispute pursuant to this Part of the permit constitutes a final resolution of any dispute arising under this permit. The permittee shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Part of this permit.

F. REPORTING REQUIREMENTS

1. The Permittee shall submit, in accordance with Module IV.B.7, signed quarterly progress reports of all activities (i.e., a consolidated quarterly progress report on RFI/CMS/CMI for all OUs) conducted pursuant to the provisions of this Permit beginning no later than ninety (90) calendar days from the effective date of this Permit. These reports shall contain:

a. A description of the work completed and an estimate of the percentage of work completed;

b. Summaries of all findings, including summaries of laboratory data;

c. Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;

d. Projected work for the next reporting period;

e. Summaries of contacts pertaining to corrective action with representatives of the local community, public interest groups or State government during the reporting period;

f. Changes in key project personnel during the reporting period; and

g. Summaries of all changes made in implementation during the reporting period.

2. Copies of other reports (e.g., inspection reports), drilling logs and laboratory data shall be made available to the Administrative Authority upon request.

3. In addition to the written reports, at the request of the Administrative Authority, the Permittee shall provide status review through semi-annual briefings with the Administrative Authority.

G. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUs

1. The Permittee shall notify the Administrative Authority, in writing, of any newly-identified SWMU(s) (i.e., a unit not specifically identified during the RFA), discovered in the course of ground water monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The notification shall include the following items, to the extent available:

   a. The location of the unit on the topographic map submitted as part of the part B application in accordance with 40 CFR 270.14(b)(19) or a topographic map of comparable scale which clearly indicates the location of teh unit in relation to other solid waste management units at the facility;

   b. The type of unit;

   c. The general dimensions of the unit (supply any available drawings);

   d. The period during which the unit was operated;

   e. The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU; and

   f. Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the unit.

2. Based on the results of this Notification, the Administrative Authority will determine the need for further investigations or corrective measures at any newly-identified SWMU(s). If the Administrative Authority determines that such investigations are needed, the Administrative Authority may require the Permittee to prepare a plan for such investigations. This plan will be reviewed for approval as part of the RFI Workplan or a new RFI Workplan under Module IV.J. The Permit will be

modified according to Module IV.B.3 to incorporate the investigation requirements for the newly-identified SWMU(s), if required.

H. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT SWMU(s)

The permittee shall notify the Administrative Authority in writing, no later than fifteen (15) calendar days after discovery, of any release(s) of hazardous waste or hazardous constituents discovered during the course of ground water monitoring, field investigation, environmental auditing, or other activities undertaken after the commencement of the RFI. Such newly-discovered releases may be from newly-identified units or from units for which, based on the findings of the RFA, the Administrative Authority had previously determined no further investigation was necessary. The Administrative Authority may require further investigation and/or interim measures for the newly-identified release(s), and may require the Permittee to prepare a plan for the investigation and/or interim measure. The plan will be reviewed for approval as part of the RFI Workplan or a new RFI Workplan under Module IV.J. The Permit will be modified according to Module IV.B.3 to incorporate the investigation, if required.

I. INTERIM MEASURES

1. If during the course of any activity initiated under this Permit, the Administrative Authority determines that, based on consideration of factors specified in 40 CFR 264.540(b), or based on site-specific circumstances a release or potential release of hazardous constituents from a SWMU poses a threat to human health and the environment, the Administrative Authority may require interim measures. The Administrative Authority shall determine the specific measure(s) or require the Permittee to propose a measure(s). The interim measure(s) may include a permit modification, a schedule for implementation, and a written plan. The Administrative Authority shall notify the Permittee in writing of the requirement to perform interim measures. The Administrative Authority shall modify this Permit according to Module IV.B.3 to incorporate interim measures into the Permit.

2. The following factors will be considered by the Administrative Authority in determining the need for interim measures:

a. Time required to develop and implement a final remedy;

b. Actual or potential exposure of nearby populaitons or environmental receptors to hazardous waste (including hazardous constituents);

c. Actual or potential contamination of drinking water supplies or sensitive ecosystems;

d. Further degradation of the medium which may occur if remedial action is not initiated expeditiously;

e. Presence of hazardous wastes (including hazardous constituents) in drums, barrels, tanks or other bulk storage containers, that may pose a threat of release;

f. Presence of high levels of hazardous wastes (including hazardous constituents) in soils largely at or near the surface, that may migrate;

g. Weather conditions that may cause hazardous waste (including hazardous constituents) to migrate or be released;

h. Risks of fire or explosion, or potential for exposure to hazardous wastes (including hazardous constituents) as a result of an accident or failure of a container or handling system;

i. Other situations that may pose threats to human health and the environment.

J. RFI WORKPLAN

1. The RFI Workplan as specified in Module IV.R.3 shall be submitted to the Administrative Authority in four parts. The RFI Workplan submittal schedule is as follows:

a. The Permittee shall submit draft RFI Workplans within 180 days of the effective date of this permit, for 15% of those SWMU's listed in Table 2.

b. The Permittee shall submit draft RFI Workplans within 2 years of the effective date of the permit an additional 25% (cumulative total 40%) of those SWMU's listed in Table 2.

c. The Permittee shall submit draft RFI Workplans within 3 years of the effective date of the permit an additional 30% (cumulative total of 70 %) of the SWMU's listed in Table 2.

d. The Permittee shall submit draft RFI Workplans within 4 years of the effective date of the permit an additional

30% (cumulative total of 100%) of those SWMU's listed in Table 2.

e. The Permittee shall submit to the Administrative Authority within 30 days of the effective date of the permit, for Approval, a list of SWMU's to be investigated for each submittal requirement. The SWMU numbers in Table 2 are from the A.T. Kearney report dated April 9, 1987. Also included in this Table for cross reference are ADS No.'s, CEARP No.'s, and operable unit names from DOE reports.

2. The Workplan shall describe the objectives of the investigation and the overall technical and analytical approach to completing all actions necessary to characterize the direction, rate, movement, and concentration of releases of hazardous waste or hazardous constituents from specific units or groups of units, and their actual or potential receptors. The RFI Workplan shall detail all proposed activities and procedures to be conducted at the facility, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the RFI. The Scope of Work for a RCRA Facility Investigation (RFI) is in Module IV.R.

a. The RFI Workplan shall describe sampling, data collection quality assurance, and data management procedures, including formats for documenting and tracking data and other results of investigations, and health and safety procedures.

b. Development of the RFI Workplan and reporting of data shall be consistent with the following EPA guidance documents or the equivalent thereof:

1) RCRA Facility Investigation Guidance Document (EPA 530/5W-89-031);

2) RCRA Groundwater Monitoring Technical Enforcement Guidance Document (OSWER 9950.1) September 1986; and

3) Test Methods for Evaluating Solid Waste (SW 846, 2nd ed.) 1982.

3. After the Permittee submits the Workplan, the Administrative Authority will either approve, disapprove, or modify the Workplan in writing.

If the Administrative Authority approves the workplan, the Permittee shall implement the plan within two weeks

(14 days) of receipt of approval, according to the schedule contained in the plan. All approved workplans become incorporated into this Permit as per Module IV.B.8.

In the event of disapproval (in whole or in part) of the workplan, the Administrative Authority shall specify deficiencies in writing. The Permittee shall modify the plan to correct these within the time frame specified in the notification of disapproval by the Administrative Authority. The modified workplan shall be submitted in writing to the Administrative Authority for review. Should the permittee take exception to all or part of the disapproval, the Permittee shall submit a written statement of the grounds for the exception within 10 days of receipt of the disapproval per Module IV.E.4.

4. The Administrative Authority shall review for approval as part of the RFI Workplan or as a new workplan any plans developed pursuant to Module IV.G addressing further investigations of newly-identified SWMUs, or Module IV.H addressing new releases from previously-identified SWMUs.

K. RFI IMPLEMENTATION

Upon receipt of written approval from the Administrative Authority for the RFI Workplan, the Permittee shall implement the RFI according to the schedules and in accordance with the approved RFI Workplan and the following:

1. The Permittee shall notify EPA and NMED at least 10 days prior to any sampling, testing, or monitoring activity required by this Permit to give Agency personnel the opportunity to observe investigation procedures and/or split samples.

2. Deviations from the approved RFI Workplan which are necessary during implementation of the investigations must be approved by the Administrative Authority and fully documented and described in the progress reports and in the RFI Final Report.

L. RFI FINAL REPORT AND SUMMARY

1. Within sixty (60) calendar days after the completion of the RFI, the Permittee shall submit an RFI Final Report and Summary. The RFI Final Report shall describe the procedures, methods, and results of all investigations as described in Module IV.R.5. This includes SWMUs and their releases, the type and extent of contamination at the facility, sources and migration pathways, and actual or potential receptors. The RFI Final Report shall

present all information gathered under the approved RFI Workplan. The RFI Final Report must contain adequate information to support further corrective action decisions at the facility. The Summary shall summarize the RFI Final Report.

2. After the Permittee submits the RFI Final Report and Summary, the Administrative Authority shall either approve or disapprove them in writing.

   If the Administrative Authority approves the RFI Final Report and Summary, the Permittee shall mail the approved Summary to all individuals on the facility mailing list established pursuant to 40 CFR 124.10(c)(1)(ix), within fifteen (15) calendar days of receipt of approval.

   If the Administrative Authority determines the RFI Final Report and Summary do not fully meet the objectives stated in Module IV.R, the Administrative Authority may disapprove the RFI Final Report and Summary. If the Administrative Authority disapproves the Report, the Administrative Authority shall notify the Permittee in writing of the Report's deficiencies and specify a due date for submittal of a revised Final Report and Summary. Once approved, the Summary shall be mailed to all individuals on the facility mailing list as specified above.

M. DETERMINATION OF NO FURTHER ACTION

1. Based on the results of the RFI and other relevant information, the Permittee may submit an application to the Administrative Authority for a Class III permit modification under 40 CFR 270.42(c) to terminate the RFI/CMS process for a specific unit. This permit modification application must contain information demonstrating that there are no releases of hazardous waste including hazardous constituents from a particular SWMU at the facility that pose threats to human health and/or the environment, as well as additional information required in 40 CFR 270.42(c).

   If, based upon review of the Permittee's request for a permit modification, the results of the RFI, and other information, including comments received during the sixty (60) day public comment period required for Class III permit modifications, the Administrative Authority determines that releases or suspected releases which were investigated either are non-existent or do not pose a threat to human health and/or the environment, the Administrative Authority will grant the requested modification.

2. If necessary to protect human health or the environment, a determination of no further action shall not preclude the Administrative Authority from requiring continued or periodic monitoring of air, soil, ground water, or surface water, when site-specific circumstances indicate that releases of hazardous waste or hazardous constituents are likely to occur.

3. A determination of no further action shall not preclude the Administrative Authority from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU at the facility that is likely to pose a threat to human health or the environment. In such a case, the Administrative Authority shall initiate a modification to the Permit according to Module IV.B.3.

N. CMS PLAN

1. If the Administrative Authority has reason to believe that a SWMU has released concentrations of hazardous constituents, which exceed action levels as defined under 40 CFR 264.521, or if the Administrative Authority determines that contaminants present a threat to human health or the environment given site-specific exposure conditions, the Administrative Authority may require a CMS and shall notify the Permittee in writing. The notification may also specify remedial alternatives to be evaluated by the Permittee during the CMS.

2. The Permittee shall submit a CMS Plan to the Administrative Authority within ninety (90) calendar days from notification of the requirement to conduct a CMS. The Scope of Work for a CMS Plan is in Module IV.S.3.

   The CMS Plan shall provide the following information:

   a. A description of the general approach to the investigation, and potential remedies;

   b. A definition of the overall objectives of the study;

   c. Specific plans for evaluating remedies to ensure compliance with remedy standards;

   d. Schedules for conducting the study; and

   e. The proposed format for the presentation of information.

3. After the Permittee submits the CMS Plan, the Administrative Authority will either approve, disapprove, or modify the plan in writing.

   If the Administrative Authority approves the CMS Plan, the Permittee shall implement the plan per Module IV.O.

   If the plan is not approved, the Administrative Authority will notify the Permittee in writing of the plan's deficiencies and specify a due date for submittal of the revised plan. The modified CMS plan shall be submitted in writing to the Administrative Authority for review. Should the permittee take exception to all or part of the disapproval, the Permittee shall submit a written statement of the grounds for the exception within 10 days of receipt of the disapproval per Module IV.E.4.

O. CMS IMPLEMENTATION

No later than fourteen (14) calendar days after the Permittee has received written approval from the Administrative Authority for the CMS Plan, the Permittee shall implement the Corrective Measures Study according to the schedules specified and in accordance with the approved CMS Plan. All approved plans become incorporated into this Permit as per Module IV.B.8.

P. CMS FINAL REPORT AND SUMMARY

1. Within sixty (60) calendar days after the completion of the CMS, the Permittee shall submit a CMS Final Report and Summary. The Summary shall summarize the Final Report. The CMS Final Report shall discuss the results of investigations of each remedy studied and of any bench-scale or pilot tests conducted. It must include an evaluation of each remedial alternative. The CMS Final Report shall present all information gathered during the CMS, and must contain adequate information to support the remedy selection process. In the CMS Final Report, the Permittee shall propose a corrective action program that shall:

   a. attain compliance with corrective action objectives for hazardous constituents in each medium, as established in Module IV.S;

   b. control sources of releases;

   c. meet acceptable waste management requirements; and

   d. protect human health and the environment.

2. After the Permittee submits the CMS Final Report and Summary, the Administrative Authority will either approve or disapprove them in writing.

   If the Administrative Authority approves the CMS Final Report and Summary, the Permittee shall mail the approved Summary to all individuals on the facility mailing list established pursuant to 40 CFR 124.10(c)(1)(ix), within fifteen (15) calendar days of receipt of approval.

   If the Administrative Authority determines the CMS Final Report and Summary do not fully meet the objectives stated in Module IV.S, the Administrative Authority may disapprove the CMS Final Report and Summary. If the Administrative Authority disapproves the Report, the Administrative Authority shall notify the Permittee in writing of the Report's deficiencies and specify a due date for submittal of a revised Final Report and Summary. Once approved, the Summary shall be mailed to all individuals on the facility mailing list as specified above.

3. Based on preliminary results and the CMS Final Report, the Administrative Authority may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

Q. CORRECTIVE MEASURE (REMEDY) SELECTION AND IMPLEMENTATION

Within fifteen (15) calendar days from receipt of approval of CMS Final Report and Summary, the Permittee shall submit a Permit Modification request according to Module IV.B.3, for corrective measure (remedy) selection, based on the approved CMS Final Report. The resultant modified permit will include schedules for remedy implementation.

R. RFI SCOPE OF WORK

1. Purpose

   The purpose of the RFI is to determine the nature and extent of releases of hazardous wastes or hazardous constituents from solid waste management units. The required information shall include each item specified under Tasks I-III. The Permittee shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RFI.

   If the Permittee believes that certain requirements of the Scope of Work are not applicable, the specific requirements shall be identified and a detailed rationale for inapplicability shall be provided.

Subsection 1004(27) of RCRA, 42. U.S.C., Subsection 6903(27), excludes source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (AEC), as amended, 42 U.S.C. 2011 et.seq., from the definition of solid waste as that term is defined in RCRA. Accordingly, such excluded radioactive wastes are not subject to RCRA and are not regulated in this permit. However, this permit provides for monitoring and reporting of radioactive consitituents at SWMUs in section R.3.a.2.a.2 and 3, R.3.a.3.b.1.c, R.3.d.3.f, R.d.d.4, and R.3.e:

(1) to ensure health and safety of EPA and EPA Contractor personnel while on site, and during sampling;

(2) to facilitate safe and accurate analysis of any samples which may be contaminated with radioactive constituents;

(3) to ensure and assess migration of mixed waste; and

(4) to facilitate the undertaking of corrective measures with respect to hazardous waste by helping to ensure the health and safety of workers and the public during remediation.

2. Scope

The RFI consists of three tasks:

Task I: RFI Workplan

Under the Program Implementation Plan workplan (PIP) a Community Relations Plan, Health and Safety Plan, a Quality Assurance Project Plan and a Project Management Plan will be submitted. The information provided in the PIP may be referenced in the RFI Workplans unless it is information which is pertinent to a specific RFI workplan.

a. Introduction
b. Environmental Setting
c. Source Characterization
d. Contamination Characterization
e. Potential Receptor Identification
f. Data Collection Quality Assurance Plan
g. Data Management Plan
h. Health and Safety Plan
i. Community Relations Plan
j. Project Management Plan

Task II: RCRA Facility Investigation

Task III: RFI Final Report and Summary

3. Task I: RFI Workplan

The Permittee shall prepare a RFI Workplan as specified in Module IV.J and the following. Consistent with applicable EPA guidance, the RFI Workplan shall provide for and address the following information needs:

a. Introduction

1) Facility Description

The introduction shall summarize the regional location, pertinent boundary features, general facility physiography, hydrogeology, and historical use of the facility for the treatment, storage, or disposal of solid and hazardous waste. Information from existing reports and studies is acceptable, as long as the source of this information is documented, pertinent, and reflective of current conditions. This section shall include:

a) Map(s) depicting the information specified below. All maps shall be consistent with requirements set forth in 40 CFR 270.14 and shall be of sufficient detail and accuracy to locate all current and future work performed at the site.

(1) general geographic location;

(2) property lines, with the owners of all adjacent property clearly indicated, and all land previously owned and/or used by the Permittee around the facility;

(3) topography, waterways, wetlands, floodplains, water features, and drainage patterns;

(4) all tanks, buildings, utilities, paved areas, rights-of-way, and other features;

(5) all solid waste management units;

(6) all known past solid or hazardous waste treatment, storage and disposal areas or units regardless of whether they were active on November 19, 1980;

(7) surrounding land uses (residential, commercial, agricultural, recreational); and

(8) the location of all production and ground water monitoring wells. These wells shall be clearly labeled

and ground and top of casing elevations included (these elevations may be included as an attachment).

(9) review all available/applicable aerial photography to characterize changes at SWMUs.

b) A history and description of ownership and operation, solid and hazardous waste generation, treatment, storage and disposal activities at the facility.

c) A summary of approximate dates or periods of past waste releases, identification of the materials released, the amount released, the location released, and a description of the response actions conducted (local, state, or Federal response units, or private parties), including any inspection reports or technical reports generated as a result of the response.

d) A reference to all known environmental, geologic, and hydrogeologic studies performed by all parties, at or near the facility, with a short summary of the purpose, scope, and significant findings thereof.

e) A reference to all environmental permits, applied for and/or received by the Permittee, the purpose thereof, and a short summary of requirements.

2) Nature and Extent of Contamination

a) The Introduction shall summarize all possible source areas of contamination. This, at a minimum, should include all SWMUs. For each area, the Permittee shall identify the following:

(1) location of unit/area on a facility map;

(2) quantities of solid, hazardous,and radiochemical wastes to the extent known;

(3) quantities of radiochemical and hazardous constituents, to the extent known; and

(4) identification of areas where additional information is necessary.

b) The Permittee shall prepare an assessment and description of the existing degree and extent of contamination. This should include:

(1) available monitoring data and qualitative information on locations and levels of contamination at the facility;

(2) all potential migration pathways including information on geology, pedology, hydrogeology, physiography, hydrology, water quality, meteorology, and air quality; and

(3) the potential impact(s) on human health or the environment, including demography, ground water and surface water use, and land use.

3) Implementation of Interim Measures

The Permittee shall document and report on all interim measures which were or are being undertaken at the facility, including under state or Federal compliance orders, other than those specified in the Permit. This shall include:

a) Objectives of the interim measures: how the measure is mitigating a potential threat to human health or the environment and/or is consistent with and integrated into requirements for a long term solution;

b) Schedules for design, construction and monitoring; and

c) Schedule for progress reports.

b. Environmental Setting

The Workplan shall provide for collection of information to supplement and verify existing information on the environmental setting at the facility. The Workplan shall provide for characterization of the following:

1) Hydrogeology

The Workplan shall describe in detail a program to evaluate hydrogeologic conditions at the facility. This program shall provide for least the following information needs:

a) A description of the regional, local, facility-wide, and SWMU-specific geologic and hydrogeologic characteristics affecting ground water flow beneath the facility.

b) An analysis of any topographic features including surface water bodies that might influence the ground water flow system.

c) A representative and accurate classification and description of the hydrogeologic units which may be part of migration pathways at the facility (i.e., the aquifers and any intervening saturated and unsaturated units) based on field data, tests (e.g., gamma and neutron logging of existing and new wells, piezometers and borings), and cores.

d) The extent (depth, thickness, lateral extent) of hydrogeologic units which may be part of migration pathways based on field studies and cores, structural geology, and hydrogeologic cross sections, including:

(1) unconsolidated sand and gravel deposits;

(2) zones of fracturing or channeling in consolidated or unconsolidated deposits; and

(3) zones of high permeability or low permeability that might direct and restrict the flow of contaminants.

e) A description of representative water level or fluid pressure based on data obtained from ground water monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source. Information needs include: potentiometric surface maps; hydrologic cross sections showing vertical gradients; vertical and horizontal components of flow; temporal changes in hydraulic gradients; and flow nets.

f) A description of man-made influences that may affect site hydrogeology such as active and inactive local water-supply and production wells, pipelines, french drains, and ditches.

2) Soils

The Permittee shall describe in detail a program designed to characterize soil and rock units above the water table. Such characterization shall include, but is not limited to, the following information: surface soil distribution; soil profile, including ASTM and USCS classifications of soils; transects of soil stratigraphy; saturated hydraulic conductivity; porosity; cation exchange capacity (CEC); soil pH; particle size distribution; depth to water table; moisture content; effect of stratification on unsaturated flow; infiltration; evapotranspiration; residual concentration

of contaminants in soil; total natural organic carbon content; and mineral and metal content.

c. Source Characterization

The Permittee shall describe in detail a program designed to completely characterize the wastes and the areas where wastes have been placed, including: type, quantity, physical form, composition, disposition (containment and nature of wastes), and the facility characteristics affecting releases (e.g., facility security, engineered barriers). This shall include quantification of the following specific characteristics, at each source area:

1) Unit/disposal area characteristics, including but not limited to: location of unit/disposal area; type of unit/disposal area; design features; operating practices (past and present); period of operation; age of unit/disposal area; general physical conditions; and method used to close the unit/disposal area.

2) Waste characteristics, including but not limited to: type of waste placed in unit (hazardous classification, quantity, chemical composition); physical and chemical characteristics (physical form, physical description, temperature, pH; general chemical class, molecular weight, density, boiling point, viscosity, solubility in water, solubility in solvents, cohesiveness, vapor pressure); and migration and dispersal characteristics of the waste (sorption coefficients, biodegradability, photodegradation rates, hydrolysis rates, chemical transformations).

d. Contamination Characteristics

The Permittee shall describe in detail a program to collect analytical data on ground water, soils, surface water, sediment, and subsurface gas contamination when necessary to characterize contamination from a SWMU. The data shall be sufficient to define the extent, origin, direction, and rate of movement of contaminant plumes. Data required shall include time and location of sampling, media sampled, concentrations found, conditions during sampling, and the identity of the individual(s) performing the sampling and analysis. Each medium (ground water, surface water and sediments, soil, air, and gas) must be investigated. If the permittee believes certain media could not be affected by a release from a specific unit, a detailed justification for not investigating those media must be provided. The

Permittee shall address the following types of contamination at the facility:

1) Ground Water Contamination

The Workplan shall describe in detail a program of ground water investigation to characterize any plumes of contamination at the facility. The program shall at a minimum provide for the following information needs:

a) a description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the facility;

b) the horizontal and vertical direction of contamination movement;

c) the velocity of contaminant movement;

d) the horizontal and vertical concentrations of any 40 CFR 264 Appendix IX constituents;

e) an evaluation of factors influencing the plume movement; and

f) an extrapolation of future contaminant movement.

2) Soil Contamination

The Permittee shall describe in detail a program to characterize contamination of soil and rock units above the water table in the vicinity of the contaminant release. The program shall provide for the following information needs:

a) a description of the vertical and horizontal extent of contamination;

b) a description of contaminant and soil chemical properties within the contaminant source area. This includes contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation, natural total organic carbon content, and other factors that might affect contaminant migration and transformation.

c) plume migration and transformation; specific contaminant concentrations; the velocity and direction of contaminant movement; and an extrapolation to future contaminant movement.

3) Surface Water and Sediment Contamination

The Permittee shall describe in detail a program to characterize contamination in surface water bodies and sediment resulting from contaminant releases at the facility. The investigation shall at minimum include the following:

a) a description of the surface water body including location, elevation, flow, velocity, depth, width, seasonal fluctuations, flooding tendencies, drainage patterns, and evapotranspiration rates.

b) a description of sediment characteristics including depositional area, thickness, mineralogy, grain size, density, ion exchange capacity, and total natural organic carbon content.

c) maps for all areas included in surface water and sediment investigations which meet requirements in 40 CFR 270.14 and which are sufficiently detailed and accurate to depict all the information required.

d) a description of the horizontal and vertical extent of any immiscible or dissolved plumes originating from the facility, and the extent of contamination in the underlying sediments;

e) the horizontal and vertical direction and velocity of contaminant movement;

f) an evaluation of the physical, biological, chemical, and radiochemical factors influencing contaminant movement;

g) an extrapolation to future contaminant movement;

h) a description of the chemistry of the contaminated surface waters and sediments. This includes pH, temperature, total dissolved solids, total suspended solids, biochemical oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients, chemical oxygen demand, total organic carbon, and specific contaminant concentrations.

4) Air Contamination

The Permittee shall describe in detail a program to characterize particulate and gaseous contaminants released into the atmosphere. This investigation shall provide the following information: a description of the horizontal and vertical direction and velocity of

contaminant movement; the rate and amount of the release; and the chemical, radiochemical, and physical composition of the contaminants released, including horizontal and vertical concentration profiles.

5) Subsurface Gas

The Permittee shall describe in detail a program to characterize the nature, rate and extent of releases of reactive gases from the units. Such a program shall include, but is not limited to: provisions for monitoring subsurface gases released from the unit, and an assessment of the potential for threat to human health and/or the environment.

e. Potential Receptors

The Permittee shall describe in detail a program to collect data to describe human populations and environmental systems that are susceptible to contaminant exposure from the facility. Chemical and radiochemical analysis of biological samples may be needed. Data on observable effects in ecosystems may also be required. The following characteristics shall be identified:

1) Local uses and possible future uses of ground water, including:

a) type of use (i.e., potable, domestic, agricultural, residential, industrial, municipal)

b) location of all ground water wells, names of owners or tenants at those locations, USGS/DODT well designations, and current use of those wells within a 1 mile radius of facility.

2) Local uses and possible future uses of surface waters within a 1.5 mile radius of the facility, including domestic and municipal, recreational, agricultural, industrial, and environmental.

3) Human use of or access to the facility and adjacent lands, including but not limited to recreation, hunting, residential, commercial, and industrial.

4) A demographic profile of people who use or have access to the facility and adjacent land, including, but not limited to age, gender, and sensitive subgroups.

5) A description of the local ecology, including biota in surface water bodies on, adjacent to, or affected by

the facility, and a description of any endangered or threatened species near the facility.

f. Data Collection Quality Assurance Plan

The Permittee shall prepare a plan to document all monitoring procedures: sampling, field measurements, and sample analysis performed at the facility during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented.

1) The strategy section of the Data Collection Quality Assurance Plan shall include but not be limited to the following:

a) description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses;

b) description of methods and procedures to be used to assess the precision, accuracy and completeness of the measurement data; and

c) schedule and information to be provided in quality assurance reports, including at least:

(1) periodic assessment of measurement data accuracy, precision, and completeness;

(2) results of performance audits;

(3) results of systems audits; and

(4) significant quality assurance problems and resolutions.

2) The Sampling and Field Measurements Section of the Data Collection Quality Assurance Plan shall at least discuss:

a) selecting appropriate sampling and field measurements locations, depths, etc.;

b) providing a statistically sufficient number of sampling and field measurement sites;

c) determining conditions under which sampling or field measurements shall be conducted;

d) determining which parameters are to be measured and where;

e) selecting the frequency of sampling and length of sampling period;

f) selecting the types of sample (e.g., composites vs. grabs) and number of samples to be collected;

g) delineating procedures designed to prevent contamination of sampling or field measurements equipment and cross contamination between sampling points;

h) documenting field sampling operations and procedures;

i) selecting appropriate sample containers;

j) preserving samples;

k) controlling chain-of-custody; and

l) disposing of all contaminated materials generated by activities in a manner compliant with all state and Federal regulations.

3) The Sample Analysis shall include:

a) chain-of-custody procedures;

b) sample storage procedures and holding times;

c) sample preparation methods;

d) analytical procedures;

e) calibration procedures and frequency;

f) data reduction, validation and reporting; and

g) frequency of internal quality control checks and laboratory performance audits.

g. Data Management Plan

The Permittee shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures (data record), project file requirements, and project-related progress reporting procedures and documents.

1) The data record shall include at least the following for all sample and field measurements: unique measurement code; measurement location; measurement type; laboratory ID number; property or component analyzed; and results of analysis.

2) The Data Management Plan shall provide the format to be used to present the data and conclusions of the investigation, etc.

a) The following shall be presented in tables: raw data; data sorted by significant features such as location, media, constituent; data reduction for statistical analysis; and summary data.

b) The following shall be presented in graphical formats (e.g., bar graphs, line graphs, plan maps, isopleth plots, cross-sections, three-dimensional displays, etc.): sampling location and grid; levels of contamination at each sampling location; geographical extent of contamination; and changes in concentration relative to source, time, depth, and other parameters.

h. Health and Safety Plan

1) The Permittee shall prepare a facility Health and Safety Plan, which shall include:

a) a description of the facility including availability of resources such as roads, water supply, electricity and telephone service;

b) a description of the known hazards and evaluation of the risks associated with each activity conducted, including but not limited to on and off-site exposure to contaminants during implementation of interim measures;

c) a list of key personnel and alternatives responsible for site safety, response operations, and for protection of public health;

d) a delineation of the work area;

e) a description of levels of protection to be worn by personnel in the work area;

f) procedures established to control site access;

g) decontamination procedures for personnel and equipment;

h) site emergency procedures;

i) emergency medical care procedures for injuries and toxicological problems;

j) requirements for an environmental field monitoring program;

k) routine and special training requirements for responders; and

l) procedures for protecting workers from weather-related problems.

2) The Facility Health and Safety Plan shall be consistent with:

a) NIOSH Occupation Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);

b) EPA Order 1440.1 - Respiratory Protection;

c) EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;

d) approved Facility Contingency Plan;

e) EPA Operating Safety Guide (1984);

f) OSHA regulations, particularly 29 CFR 1910 and 1926;

g) State and local regulations; and

h) other EPA guidance as provided.

i. Community Relations Plan

The Permittee shall prepare a plan for dissemination of information to the public regarding investigation activities and results.

1) Establishing an active mailing list of interested parties (to be updated annually), including those on the official mailing list who wish to be on Sandia's list.

2) Informal meetings, including briefings and workshops as appropriate, with the public and local officials before and during the RFI process, which includes activities associated with the RFI Report and Workplan;

3) News releases, fact sheets, RFI workplan submittals, RFI report submittals, and publicly available quarterly progress reports that explain the progress and conclusions of the RFI must be provided to interested citizen groups and the public as requested.

4) Creation of a public information repository and reading room;

5) Public tours and briefings to inform and to listen informally to public concerns and answer individual questions;

6) Procedures for immediate notification of affected parties in case of a newly discovered off-site release which could impact them;

7) Attend meetings, present requested information, and respond to questions of the Bernalillo County/Kirtland Air Force Base Environmental Working Group;

8) Notify interested community groups of opportunities to observe field data gathering activities conducted during the RFI/CMS process and that appropriate safety training for such observations may be required. Such training shall include training pursuant to 29 CFR 1910.120(c). Such notice shall describe all necessary training.

9) Develop and implement a means of notifying the citizens of the East Manzano area directly east of Sandia National Laboratory of any outdoor burn testing conducted pursuant to the requirements of this permit.

10) Present the results of the waste minimization plan at least annually at one of the scheduled public meetings;

11) Provide written response to all unanswered questions pertaining to activities subject to this permit.

j. Project Management Plan

The Permittee shall prepare a Project Management Plan which will include a discussion of the technical approach, schedules, budget, and key project personnel. The project management plan will also include a description of qualifications of key project personnel performing or directing the RFI, including contractor personnel. This plan shall also document the overall management approach to the RFI.

4. Task II: RCRA Facility Investigation

The facility investigation activities shall follow the approved RFI Workplan. All sampling and analyses shall be conducted in accordance with the Data Collection Quality Assurance Plan. All sampling locations shall be documented in a log and identified on a detailed site map. During the RFI, it may be necessary to revise the RFI Workplan to increase or decrease the detail of information collected to accommodate the facility specific situation.

The Permittee shall conduct investigations of SWMUs previously identified with known or suspected releases of contamination to characterize the facility (Environmental Setting), define the source (Source Characterization), define the degree and extent of contamination (Contamination Characterization), and identify actual or potential receptors.

The investigations should result in data of adequate technical quality to develop and evaluate corrective measures alternatives during the Corrective Measures Study, when necessary.

5. Task III: RFI Final Report and Summary

The Permittee shall analyze all facility investigation data collected during the RFI process and prepare a detailed report on the type and extent of contamination at the facility including sources and migration pathways. All information generated during the investigation shall be presented and analyzed. All evidence and procedures used for making any determinations (e.g., velocity of groundwater, extent of contamination) shall be fully documented. The report shall describe extent of contamination (qualitative/quantitative) in relation to background levels indicative for the area. The report shall contain the results of all tests, calculations, inspections, record searches, and observations. It shall contain soil and ground water contamination profiles, statistical comparisons, and the results of all sampling events conducted as part of the investigation. It shall display results in tables, graphs, maps, and cross sections as discussed in the Data Management Plan and Module IV.R.3.g.2).

The Permittee shall identify all relevant and applicable standards for the protection of human health or the environment (e.g., National Ambient Air Quality Standards, Federally-approved State water quality standards, ground water protection standards, etc.)

Data shall be evaluated to ensure it is sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, to evaluate the potential threat to human health or the environment, and to support a CMS, if required. The report shall present all data in an Appendix.

6. Task IV. General RFI Reporting Requirements

a. Two hard copies of all reports and data shall be submitted by the Permittee to the Administrative Authority as specified in Module IV.B.7.

b. The RFI Workplan shall be submitted by the Permittee to the Administrative Authority as described in Module IV.J.

c. The RFI Final Report and Summary shall be submit by the Permittee to the Administrative Authority as described in Module IV.L.

d. Within 90 days of the effective date of this Permit, the Permittee shall provide the Administrative Authority with signed, quarterly progress reports as specified in Module IV.F.1.

S. CMS SCOPE OF WORK

1. Purpose

The purpose of the CMS is to develop and evaluate corrective measures alternatives and to recommend the corrective measure or measures to be taken. Consistent with applicable EPA guidance, the required information shall include each item specified under CMS Tasks IV-VI. The Permittee will furnish the personnel, materials, and services necessary to prepare the CMS, except as otherwise specified.

If the Permittee believes that certain requirements of the Scope of Work are not applicable, the specific requirements shall be identified and the rationale for inapplicability shall be provided.

2. Scope

The Corrective Measure Study consists of three tasks:

Task IV: CMS Plan

a. Description of Current Situation

b. Establishment of Corrective Action Objectives
c. Description of Approach to CMS
d. Schedule for CMS

Task V: Corrective Measures Study

a. Identification of Corrective Measures Alternatives(s)
b. Screening of Corrective Measures Alternatives(s)
c. Development of Corrective Measures Alternative(s)
d. Evaluation of Corrective Measures Alternative(s)
e. Selection of Corrective Measures Alternative(s)

Task VI: CMS Final Report and Summary

3. Task IV: CMS Plan

a. Description of Current Conditions

The Permittee shall briefly describe current conditions at the facility to update information provided in the RFI Final Report and Summary. This shall include previous and/or ongoing remedial activity or interim measures.

b. Establishment of Corrective Action Objectives

The Permittee shall propose to the Administrative Authority for review and approval, facility specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RFI, EPA guidance, and the requirements of any applicable Federal statutes and regulations.

c. Description of Approach to CMS

The Permittee shall describe the general approach to the corrective measures study. The approach shall include identification, development, screening, and evaluation of the corrective measures alternatives, as discussed in detail in Module IV.S.4. The Permittee shall describe specific plans for laboratory and bench-scale studies, or field studies, if needed. Specific plans for evaluating remedy effectiveness shall also be developed. The approach shall specify formats to be used for data presentation, including raw data, maps, charts, graphs, engineering schematics, construction design, etc.

d. Schedule

The Permittee shall develop a schedule for implementing the corrective measures study, and a schedule for submitting quarterly progress reports on the study implementation.

4. Task V: Corrective Measures Study

The CMS consists of five parts: identification, screening, development, evaluation, and selection of the corrective measures alternative(s).

a. Identification of Preliminary Corrective Measures Alternative(s)

Based on the results of the RFI and the CMS Plan objectives, the Permittee shall identify all possible alternatives for removal, containment, treatment and/or other remediation of the contamination.

b. Screening of Preliminary Corrective Measures Alternatives

The Permittee shall screen the identified preliminary corrective measures alternatives to eliminate those that may not prove feasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective action objective within a reasonable time period. This screening process focuses on eliminating those technologies which have severe limitations for a given set of waste and site-specific conditions. The screening step may also eliminate technologies based on inherent technological limitations.

Site, waste, and technological characteristics which are used to screen inapplicable technologies are described in more detail below:

1) Site Characteristics. Site data should be reviewed to identify conditions which may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration;

2) Waste Characteristics. Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by waste characteristics should be eliminated from consideration.

3) Technological Limitations. The level of technology development, performance record, and operation and maintenance problems shall be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process.

c. Development of Corrective Measures Alternatives

The Permittee shall develop corrective measures alternatives based on corrective measures objectives, and identification and screening of preliminary alternatives. The Permittee shall rely on engineering practice to determine which of the previously identified and screened technologies appear most suitable for the site. Technologies can be combined to form the overall corrective measures alternatives. The alternatives developed should represent a workable number of options that each appear to adequately address all site problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Permittee shall document the reasons for excluding technologies.

When a new technology is proposed or similar waste streams have not routinely been treated or disposed of using the technology, the Permittee shall conduct laboratory and/or bench-scale studies to determine the applicability to facility conditions. The Permittee shall analyze the technologies, based on literature review, vendor contracts, and past experience to determine the testing requirements.

1) The Permittee shall develop a testing plan identifying the type(s) and goal(s) of the study(ies), the level of effort needed, and the procedures to be used for data management and interpretation.

2) Upon completion of testing, the Permittee shall evaluate the testing results to assess the technology or technologies with respect to the site-specific questions identified in the test plan.

3) The Permittee shall prepare a report summarizing the testing program and its results, both positive and negative.

d. Evaluation of Corrective Measures Alternative(s)

The Permittee shall evaluate each corrective measures alternative developed in Module IV.S.4.c. The evaluation shall be based on technical, environmental, human health

and institutional concerns. The Permittee shall also develop cost estimates for each corrective measure.

1) Technical, Environmental, Human Health, and Institutional Concerns

The Permittee shall provide a description of each corrective measures alternative which includes but is not limited to the following: preliminary process flow sheets; preliminary sizing and type of construction for buildings and structures; and rough quantities of utilities required. The Permittee shall evaluate each alternative in the four following areas:

a) Technical

The Permittee shall evaluate each corrective measure alternative based on performance, reliability, implementability and safety.

(1) The Permittee shall evaluate performance based on the effectiveness and useful life of the corrective measure:

(a) Effectiveness shall be evaluated in terms of the ability to perform intended functions such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. Any specific waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies.

(b) Useful life is defined as the length of time the level of effectiveness can be maintained. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.

(2) The Permittee shall provide information on the reliability of each corrective measure including operation and maintenance requirements and demonstrated reliability:

(a) Operation and maintenance requirements include the frequency and complexity of operation and maintenance. Technologies requiring frequent or complex

operation and maintenance activities should be regarded as less reliable than technologies requiring little or straightforward operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered.

(b) Demonstrated and expected reliability is a way of measuring risk and effect of failure. The Permittee should evaluate whether technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes at the site.

(3) The Permittee shall describe the implementability of each corrective measure including relative ease of installation (constructibility) and total time required to achieve a given level of response:

(a) Constructibility is determined by conditions both internal and external to facility conditions and includes such items as location of underground utilities, depth to water table, heterogeneity of subsurface materials, and location of facility (i.e., remote location vs. congested urban area). The Permittee shall evaluate what measures can be taken to facilitate construction under site specific conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities.

(b) Time has two components to be addressed: the time it takes to implement a corrective measure and the time it takes to see beneficial results. Beneficial results are defined as the reduction of contaminants to acceptable levels as established in the corrective measures objectives.

(4) The Permittee shall evaluate each corrective measures alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those to workers during implementation. Factors to consider include fire, explosion, and exposure to hazardous substances.

b) Environmental

The Permittee shall perform an Environmental Assessment for each alternative. The assessment shall

focus on facility conditions and pathways of contamination actually addressed by each alternative. The Environmental Assessment for each alternative will include at a minimum, an evaluation of the short- and long-term beneficial and adverse effects of the response alternative, evaluation of any adverse effects on environmentally sensitive areas, and an analysis of measures to mitigate adverse impacts.

c) Human Health

The Permittee shall assess each alternative in terms of the extent to which it mitigates short- and long-term potential exposure to any residual contamination and protects human health both during and after implementation of the corrective measure. The assessment will describe the levels and characterizations of contaminants on-site, potential exposure routes, and potentially affected populations. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. For management of mitigation measures, the relative reduction of impact will be determined by comparing residual levels of each alternative with existing criteria, standards, or regulations acceptable to the Administrative Authority.

d) Institutional

The Permittee shall assess relevant institutional needs for each alternative. Specifically, the effects of Federal, State, and Local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative shall be considered.

2) Cost Estimate

The Permittee shall develop an estimate of the cost of each corrective measures alternative and for each phase or segment of the alternative. The cost estimate shall include capital, and operation and maintenance costs.

a) Capital costs consist of direct and indirect costs.

(1) Direct capital costs include:

(a) Construction costs: Cost of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measures alternative;

(b) Equipment costs: Costs of treatment, containment, disposal and/or servicing of equipment used to implement the action;

(c) Land and site development costs: Expenses associated with purchase of land and development of existing property; and

(d) Building and services costs: Costs of process and non-process buildings, utility connections, purchased services, and disposal costs.

(2) Indirect capital costs include:

(a) Engineering expenses: Costs of administration, design, construction, supervision, drafting, and testing of corrective measures alternatives;

(b) Legal fees and license or permit costs: Administrative and technical costs necessary to obtain licenses and permits for installation and operation;

(c) Start-up and shakedown costs: Costs incurred during corrective measure start-up; and

(d) Contingency allowances: Funds to cover costs resulting from unforeseen circumstances such as adverse weather conditions, strikes, and inadequate facility characterization.

b) Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. The Permittee shall consider the following operation and maintenance cost components:

(1) Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operation;

(2) Maintenance materials and labor costs: Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;

(3) Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;

(4) Purchased services: Sampling costs, laboratory fees, and professional fees which can be predicted;

(5) Disposal and treatment: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operation;

(6) Administrative costs: Costs associated with administration of corrective measures operation and maintenance not included under other categories;

(7) Insurance, taxes, and licensing costs: Costs of such items as liability and accident insurance; real estate taxes on purchased land or rights-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;

(8) Maintenance reserve and contingency funds: Annual payments into escrow funds to cover costs of anticipated replacement or rebuilding of equipment, and any large unanticipated operation and maintenance costs; and

(9) Other costs: Items that do not fit any of the above categories.

e. Selection of Corrective Measures Alternative(s)

The Permittee shall select a corrective measures alternative using technical, human health, environmental and cost criteria. At a minimum, the following criteria shall be used to select the final corrective measure or measures.

1) Technical

a) Performance. Corrective measure or measures which are most effective at performing their intended functions and maintaining performance over extended periods of time will be given preference;

b) Reliability. Corrective measure or measures which do not require frequent or complex operation and maintenance activities and have proven effective under conditions similar to those anticipated will be given preference;

c) Implementability. Corrective measure or measures which can be constructed and operated to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time will be preferred; and

d) Safety. Corrective measure or measures which pose the least threat to the safety of nearby residents

and environments as well as workers during implementation will be preferred.

2) Human Health

The corrective measure or measures must comply with existing EPA criteria, standards, or regulations for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

3) Environmental

The corrective measure or measures imposing the least adverse impact or greatest improvement on the environment over the shortest period of time will be preferred.

5. Task VI: CMS Final Report and Summary

The Permittee shall prepare a CMS Final Report and Summary presenting the results of the CMS and recommending a corrective action program. The Report shall at a minimum include:

a. A summary of all the corrective measures alternatives originally identified, and the screening rationale employed. The results of development of each alternative shall be described, and the evaluation of those developed shall be presented in detail. The report will describe the rationale for selection of a corrective measures alternative, including performance expectations, preliminary design criteria and rationale, general operation and maintenance requirements, and long-term monitoring requirements. The report shall include summary tables which allow the alternative or alternatives to be easily understood. Trade-offs among health risks, environmental effects, and other pertinent factors shall be highlighted.

b. A proposed corrective action program that will attain compliance with concentration level objectives, control sources of releases, meet acceptable waste management requirements, and protect human health and the environment.

c. Design and implementation precautions, including special technical problems, additional engineering data required, permits and regulatory requirements, access, easements, and right-of-way, health and safety requirements, and community relations activities.

d. Cost estimates and schedules including capital cost estimate, operation and maintenance cost estimate, and project schedule (design, construction, operation).

e. A schedule for corrective measure (remedy) implementation.

6. Task VII: General CMS Reporting Requirements

a. Two hard copies of all reports shall be submitted by the Permittee to the Administrative Authority as specified in Module IV.B.7.

b. The CMS Plan shall be submitted by the Permittee to the Administrative Authority as described in Module IV.N.

c. The CMS Final Report and Summary shall be submitted by the Permittee to the Administrative Authority as described in Module IV.P.

d. Within 90 days of the date the Permittee is notified to begin a CMS, the Permittee shall provide the Administrative Authority with signed, quarterly progress reports as specified in Module IV.F.1.

Table 1: RFI/CMS SUBMISSION SUMMARY

Below is a summary of the planned reporting requirements pursuant to this Permit:

Facility Submission Requirements	Due Date
Verbal notification of newly-discovered releases	24 hours after release discovery
Written notification of newly-identified SWMUs:	Thirty (30) calendar days after discovery
Written notification of newly-discovered releases:	Fifteen (15) calendar days after discovery
Risk Assessment of newly-discovered SWMUs:	Thirty (30) calendar days after discovery.
Progress reports on all activities:	Quarterly, no later than ninety (90) days from the effective date of the permit
Program Implementation Plan:	One hundred eighty (180) calendar days from effective date of permit then updated annually thereafter. Any modifications will require a resubmittal of a revised Program Implementation Plan, regardless of the time at which the modification occurs.
Site-Wide Hydrogeologic Environment Report:	One hundred eighty (180) calendar days from effective date of permit, then annually thereafter.
Waste Minimization Plan:	Biennially, by December 1
Interim Measures Plan:	As determined by Administrative Authority
Revised Interim Measures Plan:	As determined by Administrative Authority

Voluntary Corrective Measures Plan:	As circumstances dictate
RFI Workplans:	As specified in Section J of this permit.
Revised RFI Workplans:	As determined by Administrative Authority, usually within 30 days of receipt of NOD.
RFI Report and Summary:	Sixty (60) calendar days after completion of RFI.
Revised RFI Report and Summary:	Thirty (30) calendar days after notification of deficiency
CMS Plan:	Ninety (90) calendar days after notification of requirement to perform CMS
Revised CMS Plan:	As determined by the by the Administrative Authority, usually within thirty (30) calendar days of receipt of notice of deficiency
CMS Final Report and Summary:	Sixty (60) calendar days after completion of CMS.
Revised CMS Report:	Thirty (30) calendar days after notification of deficiency
Demonstration of Financial Assurance at Facility	One hundred and twenty (120) calendar days after permit modification to implement corrective measures

Attached is Table A.1 which lists SWMUs requiring an RFI.

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Lieutenant Governor

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Secretary

JON GOLDSTEIN
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 21, 2008

Patty Wagner
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Francis B. Nimick
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RE: FINAL DECISION: PETITION FOR NO FURTHER ACTION STATUS FOR 28 SOLID WASTE MANAGEMENT UNITS/AREAS OF CONCERN SANDIA NATIONAL LABORATORIES, EPA ID# NM5890110518 HWB-SNL-06-001

Dear Ms. Wagner and Mr. Nimick:

The New Mexico Environment Department (NMED) has made its final decision regarding the Class 3 Permit Modification request submitted by the U. S. Department of Energy and Sandia Corporation (collectively, the Permittees) on August 30, 2005, on behalf of the Sandia National Laboratories (SNL) facility. This proposed modification consisted of a request to approve No Further Action (NFA) status for twenty-eight (28) solid waste management units (SWMUs) / Areas of Concern (AOCs) and to transfer the listing of these SWMUs/AOCs from Table A.1 to Table A.2 of Module IV of SNL's Resource Conservation and Recovery Act Permit. Please note that the term "NFA" as used in this letter is considered equivalent to "Corrective Action Complete", the term used in the April 29, 2004 Compliance Order on Consent.

The 28 SWMUs/AOCs that are listed on the enclosed table are approved for NFA status. The approval for SWMUs 1, 3, 45, 137 and 1081 is subject to the establishment of site controls. NMED intends to restrict future land use for these SWMUs to industrial land use only, based on the risk assessment results for the levels of contaminants remaining at these sites. The controls are to be placed on these SWMUs as required by Section III.W.3.b of the Compliance Order on Consent.

In accordance with 20.4.1.901 NMAC, NMED provided public notice and a public comment period from September 20, 2007 to November 19, 2007, regarding this modification request. Comments were received only from the Permittees during the public comment period. A copy of NMED's response to public comment is enclosed.

This shall become effective thirty (30) days after the date of this letter. The revised Tables A.1 and A.2 are enclosed with this letter. If you have any questions regarding this decision, please contact Brian L. Salem of my staff at (505) 222-9576.

Sincerely,

Jon Goldstein
Acting Director
Water & Waste Management Division

JG:bls (HWB)

Enclosures: NMED's response to Public Comment, Revised Tables A.1 and A.2

cc: J. Bearzi, NMED HWB
W. Moats, NMED HWB
B. Salem, NMED HWB
T. Skibitski, NMED DOE-OB
L. King, EPA, 6PD-N
P. Freshour, SNL MS 1089
J. Gould, DOE, MS 0184
File: SNL 2008 and Reading
SNL-06-001

SWMUs/AOCs Granted No Further Action (Corrective Action Complete) Status

	SWMU/AOC ID Number	SWMU/AOC Name
1	ER Site 1	Radioactive Waste Landfill
2	ER Site 3	Chemical Disposal Pit
3	ER Site 45	Liquid Discharge (behind TA-IV)
4	ER Site 78	Gas Cylinder Disposal Pit
5	ER Site 137	Building 6540/6542 Septic System (TA-III)
6	ER Site 146	Building 9920 Drain System (Coyote Test Field)
7	ER Site 148	Building 9927 Septic System (Coyote Test Field)
8	ER Site 152	Building 9950 Septic System (Coyote Test Field)
9	ER Site 153	Building 9956 Septic Systems (Coyote Test Field)
10	ER Site 276	Former Building 829X, Silver Recovery Sump (TA-I)
11	AOC 1004	Building 6969 Septic System (Robotic Vehicle Range)
12	AOC 1031	Former Buildings 6589 and 6600 Septic System (TA-III)
13	AOC 1034	Building 6710 Septic System (TA-III)
14	AOC 1035	Building 6715 Septic System (TA-III)
15	AOC 1036	Building 6922 Septic System (TA-III)
16	AOC 1052	Building 803 Seepage Pit (TA-I)
17	AOC 1078	Building 6640 Septic System (TA-III)
18	AOC 1079	Building 6643 Septic System (TA-III)
19	AOC 1080	Building 6644 Septic System (TA-III)
20	AOC 1081	Building 6650 Septic System (TA-III)
21	AOC 1084	Building 6505 Septic System (TA-III)
22	AOC 1087	Building 6743 Seepage Pit (TA-III)
23	AOC 1092	MO 228-230 Septic System (TA-III)
24	AOC 1098	TA-V Plenum Rooms Drywell (TA-V)
25	AOC 1102	Former Building 889 Septic System (TA-I)
26	AOC 1104	Building 6595 Seepage Pit (TA-V)
27	AOC 1113	Building 6597 Drywell (TA-V)
28	AOC 1120	Building 6643 Drywell (TA-III)

TABLE A.1
List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) Requiring Corrective Action

SWMU/AOC	Description	Comments
OU-1289	***Mixed Waste Landfill***	
ER Site 76	Mixed Waste Landfill (TA-III)	
OU 1295	***Septic Tanks and Drainfields***	
ER Site 49	Bldg. 9820 Drains (Lurance Canyon)	
ER Site 101	Bldg. 9926/9926A Septic System and Seepage Pit (Coyote Test Field)	
ER Site 116	Bldg. 9990 Septic System (Coyote Test Field)	
ER Site 138	Bldg. 6630 Septic System (TA-III)	
ER Site 140	Bldg. 9965 Septic System and Drywell (Thunder Range)	
ER Site 147	Bldg. 9925 Septic Systems (Coyote Test Field)	
ER Site 149	Bldg. 9930 Septic System (Coyote Test Field)	
ER Site 150	Bldgs. 9939/9939A Septic System and Drainfield (Coyote Test Field)	
ER Site 154	Bldg. 9960 Septic System and Seepage Pits (Coyote Test Field)	
ER Site 161	Bldg. 6636 Septic System (TA-III)	
OU-1306	***TAs-III&V***	
ER Site 83	Long Sled Track	
ER Site 84	Gun Facilities	
ER Site 196	Bldg. 6597 Cistern (TA-V)	
ER Site 240	Short Sled Track	
OU-1307	***Liquid Waste Disposal System***	
ER Site 4	LWDS Surface Impoundments	
ER Site 5	LWDS Drainfield (TA-V)	
ER Site 52	LWDS Holding Tank	
OU-1309	***Tijeras Arroyo***	
ER Site 46	Old Acid Waste Line Outfall	
ER site 233	Storm Drain System Outfall	
ER Site 234	Storm Drain System Outfall	

OU-1332	***Foothills Test Area***	
ER Site 8	Open Dump (Coyote Canyon Blast Area)	
ER Site 28	Mine Shafts	
ER Site 28-2	Mine Shafts	
ER Site 58	Coyote Canyon Blast Area	
OU-1334	***Central Coyote Test Area***	
ER Site 68	Old Burn Site	
OU-1335	***Southwest Test Area***	
ER Site 91	Lead Firing Site (Thunder Range)	
Misc. Sites		
	Tijeras Area Ground-Water Investigation	AOC -- Not a SWMU, not included in AUA
NON-ER SEPTIC SYSTEMS		
1090	Bldg. 6721 Septic System (TA-III)	
1094	Live Fire Range East Septic System (Lurance Canyon)	
1095	Bldg. 9938 Seepage Pit (Coyote Test Field)	
1101	Bldg. 885 Septic System (TA-I)	
1114	Bldg. 9978 Drywell (Coyote Test Field)	
1115	Former Offices Septic System (Solar Tower Complex)	
1116	Bldg. 9981A Seepage Pit (Solar Tower Complex)	
1117	Bldg. 9982 Drywell (Solar Tower Complex)	

TABLE A.2
List of Solid Waste Management Units (SWMUS) and Areas of Concern (AOCs) not currently requiring Corrective Action

OPERATING UNITS

SWMU/AOC	Description	Date of NFA Approval	Comments
[2]Waste Storage Bldg. 958	8 recessed storage compartments		Operating permit (OP) -- RCRIS shows permitted as Hazardous Waste Management Facility (HWMF)
[2]Waste Packaging Bldg. 959 and bermed Area	Storage: 8 recessed holding cells and a recessed repackaging area		OP -- Included in HWMF
[2]Two modular safety structures	Storage: Reactive wastes and lithium batteries		OP -- Included in HWMF
[2]Modular Storage Bldg. for Reactive Waste Photograph	Storage		Part A 9/91
[2]Thermal Treatment Facility (TTF), TA-III	OB unit. Treatment		OP
[2]Radioactive and Mixed Waste Management Facility (RMWMF), Bldg. 6920, TA-III	MW storage and treatment		IS -- 95/96 Permit application
[2]RMWMF Exploding Igloo	MW storage		IS -- Part A 8/31/90. Non-billable unit

[2]Bldg. 6596 (High Bay Waste Management Facility – HBWMF), TA-V)	MW storage and treatment: High Bay		IS -- 8/93 Part B. 95 Permit application.
Bldg. 6921, Waste Assay Facility, TA-III	MW storage		IS -- 96 Permit application
[2]Skid-mounted storage building	MW (reactive) storage		IS -- 1/95 Permit application
[2]Skid-mounted storage building	MW (flammable) storage		IS -- 1/95 Permit application
[2]Bldg. 6925, TA-III, MWL	MW storage		IS -- 96 Permit application
[2]Outside Mixed Waste Storage Pile (the Sandlot), TA-V	MW storage: Waste pile		IS -- Part A 8/93: Shown on Figure 10 as N of SPR
[2]Manzano Bunker 37034	MW storage		IS -- 95 Permit application: 208.1(?)
[2]Manzano Bunker 37045	MW storage		IS -- 95 Permit application: 208.1(?)
[2]Manzano Bunker 37055	MW storage		IS -- 95 Permit application: 208.1(?)
[2]Manzano Bunker 37057	MW storage		IS -- 95 Permit application: 208.1(?)
[2]Manzano Bunker 37063	MW storage		IS -- 95 Permit application. 208.1(?)
[2]Manzano Bunker 37078	MW storage		IS -- 95 Permit application: 208.1(?)
[2]Manzano Bunker 37118	MW storage		IS -- 95 Permit application
RD&D PERMIT			
SWMU/AOC	**Description**	**Date of NFA Approval**	**Comments**

Unlined chromic acid pit, CWL, TA-III	EK Demonstration		Verification needed: 208.1(?)
UNITS UNDER CLOSURE PLANS			
SWMU/AOC	**Description**	**Date of NFA Approval**	**Comments**
[2]Chemical Waste Landfill (OU-1267, ER Site 74), TA-III	Chemical Waste Landfill		2nd VCM completed
[2]Igloo 6007, Igloo 6000 Area	MW storage		IS -- CP verification needed
[2]Magazine 6011, Igloo 6000 Area	MW storage		IS -- CP verification needed
[2]Bldg. SC-1, TA-V	MW storage		IS -- CP verification needed: 208.1(?)
[2]Bldg. 6502, TA-III	MW storage: High Bay		IS -- Withdrawal approved 10/16/98
[2]Bldg. 6580, TA-V	MW storage: Rm. 112		IS -- SC-1 CP verification needed: 208.1(?)
[2]Bldg. 6580	MW storage. Rms. 105, 106, 108, 109, 110, 111, 113, 113A, 203, 212A, Steel Containment Box (SCB)-1, SCB-2, SCB-3, Zone 2A		IS -- Withdrawal approved 10/16/98
[2]Bldg. 6588, TA-V	MW storage: Annular Core Research Reactor (ACRR) High Bay Rm. 10 -- Safe and Vaults I, IIA, IIB, and III, and Low Bay		IS -- Withdrawal approved 10/16/98
[2]Sandia Pulsed Reactor Facility (SPR), Bldg. 6590/6593, TA-V	MW storage: Bldg. 6593B		IS -- CP verification needed: 208.1(?)
[2]SPR	MW storage: 3X Vault; NOVA Vault; Prefabricated Storage Bldgs. 6593A, 6593B, 6593C; Outside Storage Bin; Dense PAC		IS -- CP verification needed: Withdrawal approved 10/16/98
[2]Bldg. 6597, TA-III	MW storage: Middle Bay		IS -- Withdrawal approved 10/16/98

[2]Bldg. 819, TA-I	MW Storage: Warehouse and Vault		IS -- Withdrawal approved 10/16/98

ENVIRONMENTAL RESTORATION SITES

SWMU/AOC	Description	Date of NFA Approval	Comments
OU 1295	***Septic Tanks and Drainfields***		
ER Site 137	Bldg. 6540/6542 Septic System (TA-III)	NFA'd 02/08	Controls Needed
ER Site 139	Bldg. 9964 Septic System	NFA'd 12/95	
ER Site 141	Bldg. 9967 Septic System	NFA'd 11/01	
ER Site 142	Bldg. 9970 Septic System	NFA'd 09/00	
ER Site 143	Bldg. 9972 Septic System	NFA'd 09/00	
ER Site 144	Bldg. 9980 Septic System	NFA'd 09/00	
ER Site 145	Bldgs. 9981/9982 Septic System	NFA'd 09/00	
ER Site 146	Bldg. 9920 Drain System (Coyote Test Field)	NFA'd 02/08	
ER Site 148	Bldg. 9927 Drain System (Coyote Test Field)	NFA'd 02/08	
ER Site 151	Bldg. 9940 Septic System	NFA'd 11/01	
ER Site 152	Bldg. 9950 Drain System (Coyote Test Field)	NFA'd 02/08	
ER Site 153	Bldg. 9956 Drain System (Coyote Test Field)	NFA'd 02/08	
ER Site 160	Bldg. 9832 Septic System	NFA'd 11/01	
ER Site 276	Former Bldg. 829X Silver Recovery Sump (TA-I)	NFA'd 02/08	
OU 1300			
ER Site 211	Bldg. 840, Former UST 840-1 (TA-I)	NFA'd 09/00	
OU 1302	***TA-I***		
ER Site 25	Burial Site (South of TA-I)	NFA'd 12/95	
ER Site 30	PCB Spill (Reclamation Yard)	NFA'd 04/05	
ER Site 32	Steam Plant Oil Spill	NFA'd 12/95	
ER Site 33	Motor Pool Oil Spill	NFA'd 04/05	
ER Site 41	Bldg. 838 Mercury Spill	NFA'd 12/95	
ER Site 42	Acid Spill, Bldg. 879 Water Treatment Facility	NFA'd 09/00	
ER Site 73	Hazardous Waste Repackaging and Storage (Bldg. 895)	NFA'd 12/95	

ER Site 96	Storm System Drain	NFA'd 06/06	Controls Needed
ER Site 98	Bldg. 863 (TCA, Photochemical Releases: Silver Catch Boxes)	NFA'd 11/05	Industrial land use only
ER Site 104	PCB Spill	NFA'd 12/95	
ER Site 186	TCE Dumping south of Bldg. 859	NFA'd 09/00	
ER Site 187	Septic Tank Piping for POTW	NFA'd 06/06	Controls Needed
ER Site 190	Steam Plant Tank Farm	NFA'd 06/06	Controls Needed
ER Site 192	TA-I Waste Oil Tank	NFA'd 07/00	
ER Site 226	Old Acid Waste Line	NFA'd 06/06	Controls Needed
OU 1303	***TA-II***		
ER Site 1	Radioactive Waste Landfill	NFA'd 02/08	Controls Needed
ER Site 2	Classified Waste Landfill (TA-II)	NFA'd 06/06	Controls Needed
ER Site 3	Chemical Disposal Pit	NFA'd 02/08	Controls Needed
ER Site 43	Radioactive Material Storage Yard (TA-3)	NFA'd 09/00	
ER Site 44	Decontamination Site and Uranium Calibration Pits (UCPs)	NFA'd 07/00	
ER Site 48	Bldg. 904 Septic System and HE Drain System (TA-II)	NFA'd 06/06	Controls Needed
ER Site 113	Area II Firing Sites	NFA'd 11/01	
ER Site 114	Explosive Burn Pit	NFA'd 04/05	
ER Site 135	Bldg. 906 Drain System (TA-II)	NFA'd 06/06	Controls Needed
ER Site 136	Bldg. 907 Septic System and HE Drain System (TA-II)	NFA'd 06/06	Controls Needed
ER Site 159	Bldg. 935 Septic System and Drywell (TA-II)	NFA'd 06/06	
ER Site 165	Bldg. 901 Septic System (TA-II)	NFA'd 06/06	
ER Site 166	Bldg. 919 Septic System and Seepage Pit (TA-II)	NFA'd 06/06	
ER Site 167	Bldg. 940 Septic System and Seepage Pit (TA-II)	NFA'd 06/06	
OU 1306	***TAs-3&5***		
ER Site 18	Concrete Pad	NFA'd 04/05	
ER Site 26	Burial Site (West of TA-3)	NFA'd 04/05	
ER Site 31	Electrical Transformer Oil Spill	NFA'd 11/01	
ER Site 34	Centrifuge Oil Spill	NFA'd 11/01	
ER Site 35	Vibration Facility Oil Spill (TA-3)	NFA'd 04/05	

ER Site 36	HERMES Oil Spill	NFA'd 11/01	
ER Site 37	PROTO Oil Spill	NFA'd 11/01	
ER Site 51	Bldg. 6924 Pad, Tank, and Pit	NFA'd 11/01	
ER Site 78	Gas Cylinder Disposal Pit	NFA'd 02/08	
ER Site 100	Bldg. 6620 Drain/Sump	NFA'd 11/01	
ER Site 102	Radioactive Disposal Area	NFA'd 11/01	
ER Site 105	Mercury Spill (Bldg. 6536)	NFA'd 12/95	
ER Site 107	Explosive Test Area (South-East TA-3)	NFA'd 04/05	Also site of CAMU
ER Site 111	Bldg. 6715 Sump/Drain	NFA'd 11/01	
ER Site 188	Bldg. 6497 Above Ground Containment Spill Tank	NFA'd 12/95	
ER Site 241	Storage Yard	NFA'd 04/05	
ER Site 275	Seepage Pits, TA-V	NFA'd 07/00	
OU 1309	***Tijeras Arroyo***		
ER Site 7	Gas Cylinder Disposal (Arroyo del Coyote)	NFA'd 09/00	
ER Site 16	Open Dumps (Arroyo del Coyote)	NFA'd 09/00	
ER Site 23	Disposal Trenches (near Tijeras Arroyo)	NFA'd 07/00	
ER Site 40	Oil Spill (6000 Igloo Area)	NFA'd 11/97	
ER Site 45	Liquid Discharge (Behind TA-IV)	NFA'd 02/08	Controls Needed
ER Site 50	Old Centrifuge Site (Tijeras Arroyo)	NFA'd 09/00	
ER Site 77	Oil Surface Impoundment	NFA'd 07/00	
ER Site 227	Bunker 904 Outfall	NFA'd 06/06	Controls Needed
ER Site 228A	Centrifuge Dump Site	NFA'd 09/00	Radiation VCA Area
ER Site 228B	Centrifuge Dump Site	NFA'd 11/01	
ER Site 229	Storm Drain System Outfall (for TA-II)	NFA'd 06/06	Controls Needed
ER Site 230	Storm Drain System Outfall (for TA-4)	NFA'd 04/05	
ER Site 231	Storm Drain System Outfall (for TA-4)	NFA'd 04/05	
ER Site 232	Storm Drain System Outfall	NFA'd 04/05	
ER Site 235	Storm Drain System Outfall	NFA'd 09/00	
OU 1332	***Foothills Test Area***		
ER Site 15	Trash Pits (Frustration Site)	NFA'd 12/97	
ER Site 19	TRUPAK Boneyard Storage Area (NW End of Old Aerial Cable)	NFA'd 07/00	

ER Site 27	Animal Disposal Pit (Coyote Springs)	NFA'd 07/00	
ER Site 28-1	Mine Shafts	NFA'd 12/97	
ER Site 28-3	Mine Shafts	NFA'd 12/97	
ER Site 28-4	Mine Shafts	NFA'd 12/97	
ER Site 28-5	Mine Shafts	NFA'd 12/97	
ER Site 28-6	Mine Shafts	NFA'd 12/97	
ER Site 28-7	Mine Shafts	NFA'd 12/97	
ER Site 28-8	Mine Shafts	NFA'd 12/97	
ER Site 28-9	Mine Shafts	NFA'd 12/97	
ER Site 28-10	Mine Shafts	NFA'd 11/01	
ER Site 66	Boxcar Site	NFA'd 04/05	
ER Site 67	Frustration Site	NFA'd 11/01	
ER Site 82	Old Aerial Cable Site	NFA'd 11/01	
ER Site 87	Bldg. 9990 Firing Site	NFA'd 06/06	Controls Needed
ER Site 277	New Firing Site East of Optical Range	NFA'd 11/01	
OU 1333	***Canyons Test Area***		
ER Site 10	Burial Mounds (Bunker Area North of Pendulum Site)	NFA'd 07/00	
ER Site 12A	Open Arroyo Channel	NFA'd 09/00	
ER Site 12B	Buried Debris in Graded Area	NFA'd 07/00	
ER Site 13	LCBS Oil Surface Impoundment (Lurance Canyon Burn Site)	NFA'd 07/00	
ER Site 59	Pendulum Site	NFA'd 07/00	
ER Site 60	Bunker Area	NFA'd 11/01	
ER Site 63-A	Balloon Test Area: Plutonium Dispersal Study Program (PDSP) Site	NFA'd 09/00	
ER Site 63-B	Balloon/Helicopter Site	NFA'd 07/00	
ER Site 64	Gun Site (Madera Canyon)	NFA'd 09/00	
ER Site 65-A	Lurance Canyon Explosive Test Site: Small Debris Mound	NFA'd 09/00	
ER Site 65-B	Lurance Canyon Explosive Test Site: Primary Detonation Area	NFA'd 09/00	
ER Site 65-C	Lurance Canyon Explosive Test Site: Secondary Detonation Area	NFA'd 09/00	

ER Site 65-D	Lurance Canyon Explosive Test Site: Near Field Dispersion Area	NFA'd 09/00	
ER Site 65-E	Far Field Dispersion Area	NFA'd 07/00	
ER Site 72	Operation Beaver Site	NFA'd 07/00	
ER Site 81-A	Catcher Box/Sled Track	NFA'd 11/01	
ER Site 81-B	Impact Pad	NFA'd 11/01	
ER Site 81-C	New Aerial Cable Site: Former Burial Location	NFA'd 09/00	
ER Site 81-D	Northern Cable Area	NFA'd 11/01	
ER Site 81-E	Gun Impact Area	NFA'd 11/01	
ER Site 81-F	Scrap Yard	NFA'd 11/01	
ER Site 92	Pressure Vessel Test Site (Coyote Canyon Blast Area)	NFA'd 12/97	
ER Site 93	Madera Canyon Rocket Launcher Pads A, B & C	NFA'd 07/00	
ER Site 94-A	Aboveground Tanks, Lurance Canyon Burn Site	NFA'd 07/00	
ER Site 94-B	Debris/Soil Mound Area	NFA'd 04/05	Controls needed
ER Site 94-C	Bomb Burner Area and Discharge Line	NFA'd 11/01	
ER Site 94-D	Lurance Canyon Burn Site: Bomb Burner Discharge Pit	NFA'd 09/00	
ER Site 94-E	Lurance Canyon Burn Site: Small Surface Impoundment	NFA'd 09/00	
ER Site 94-F	LAARC Discharge Pit	NFA'd 04/05	Controls needed
ER Site 94-G	Scrap Yard, Lurance Canyon Burn Site	NFA'd 11/01	
ER Site 94-H	Fuel Spill at Open Pool Test Area, Lurance Canyon Burn Site	NFA'd 04/05	Controls needed
ER Site 225	AEC Storage Facility/Kirtland AFB	NFA'd 12/05/96; already on KAFB permit.	
OU 1334	***Central Coyote Test Area***		
ER Site 9	Burial/Open Dump (Schoolhouse Mesa)	NFA'd 04/05	
ER Site 11	Explosive Burial Mounds	NFA'd 09/00	
ER Site 20	School House Mesa Burn Site	NFA'd 12/95	
ER Site 21	Metal Scrap (Coyote Springs)	NFA'd 09/00	
ER Site 22	Storage/Burn (West of DEER)	NFA'd 07/00	
ER Site 47	Unmanned Seismic Observatory	NFA'd 12/95	
ER Site 57-A	Workman Site-Firing Site	NFA'd 09/00	

ER Site 57-B	Workman Site-Target Area	NFA'd 09/00	
ER Site 61-A	Blast Area	NFA'd 07/00	
61-B	Cratering Area	NFA'd 12/05/96; already on KAFB permit	
ER Site 61-C	Schoolhouse Mesa Test Site -- Schoolhouse Bldg.	NFA'd 09/00	
ER Site 62	Greystone Manor Site (Coyote Springs)	NFA'd 12/95	
ER Site 69	Old Borrow Pit	NFA'd 12/95	
ER Site 70	Explosives Test Pit (Water Towers)	NFA'd 09/00	
ER Site 71	Moonlight Shot Area	NFA'd 07/00	
ER Site 88-A	Firing Site: Ranch House	NFA'd 12/95	
ER Site 88-B	Firing Site: Instrumentation Pole	NFA'd 09/00	
OU 1335	***Southwest Test Area***		
ER Site 6	Gas Cylinder Disposal Pit (Bldg. 9966)	NFA'd 11/01	
ER Site 6-A	Gas Cylinder Disposal Pit	NFA'd 11/01	
ER Site 14	Burial Site (Bldg. 9920)	NFA'd 07/00	
ER Site 17	Scrap Yards/Open Dump (Thunder Range)	NFA'd 07/00	
ER Site 39	Oil Spill - Solar Facility	NFA'd 11/97	
ER Site 38	Oil Spills (Bldg. 9920)	NFA'd 07/00	
ER Site 53	Bldg. 9923 Storage Igloo	NFA'd 11/97	
ER Site 54	Pickax Site (Thunder Range)	NFA'd 07/00	Controls needed
ER Site 55	Red Towers Site (Thunder Range)	NFA'd 09/00	
ER Site 56	Old Thunderwells (Thunder Range)	NFA'd 07/00	
ER Site 85	Burial Site (Bldg. 9920)	NFA'd 07/00	
ER Site 86	Firing Site (Bldg. 9927)	NFA'd 11/01	
ER Site 89	Shock Tube Site (Thunder Range)	NFA'd 07/00	
ER Site 90	Beryllium Firing Site (Thunder Range)	NFA'd 09/00	
ER Site 103	Scrap Yard (Bldg. 9939)	NFA'd 07/00	
ER Site 108	Firing Site (Bldg. 9940)	NFA'd 07/00	
ER Site 109	Firing Site (Bldg. 9950)	NFA'd 07/00	
ER Site 112	Explosive Contaminated Sump (Bldg. 9956)	NFA'd 09/00	
ER Site 115	Firing Site (Bldg. 9930)	NFA'd 09/00	
ER Site 117	Trenches (Bldg. 9939)	NFA'd 11/01	

ER Site 191	EQUUS Red	NFA'd 11/01	
ER Site 193	Sabotage Test Area	NFA'd 07/00	
ER Site 194	General Purpose Heat Source Test Area	NFA'd 11/97	
Misc. Sites			
	Building 828, TA-1	NFA'd 04/05	
	TNT Site	NFA'd 04/05	Controls needed
ER Site 195	Experimental Test Pit	NFA'd 11/05	Site 195 determined not to be a SWMU, not included in AUA
ER Site 276	Former Bldg. 829X Silver Recovery Sump (TA-I)	NFA'd 02/08	
ER Site 277	New Firing Site East of Optical Range	NFA'd 11/01	

NON-ER SEPTIC SYSTEMS

SWMU/AOC	Description	Date of NFA Approval	Comments
1001	Bldg. 898 Septic System (TA-I)	NFA'd 11/05	
1002	Bldg. 8895/MO 100 Septic System (TA-I)		AOC -- No Investigation Needed, Active System
1003	Former Bldg. 915/922 Septic System (TA-II)	NFA'd 11/05	
1004	Bldg. 6969 Septic System (Robotic Vehicle Range)	NFA'd 02/08	
1005	Bldg. 6020 Septic System (6000 Igloo Area)		AOC -- No Investigation Needed, Active System
1006	Bldg. 6741 Septic System (TA-III)	NFA'd 06/06	
1007	Bldg. 6530 Septic System (TA-III)	NFA'd 06/06	
1008	Bldg. 6750 Septic System (TA-III)	NFA'd 11/05	
1009	Bldg. 6620 Internal Sump (TA-III)	NFA'd 11/05	
1010	Bldg. 6530 Septic System (TA-III)	NFA'd 06/06	
1013	Bldg. T-52 and Former Bldg. 6500 South Septic System (TA-V)		AOC – Does Not Exist
1014	Former T-12, T-42, and T-43 Septic System (TA-V)	NFA'd 11/05	
1015	Bldg. 6530 Septic System (TA-III)	NFA'd 06/06	
1016	Bldg. 914 Seepage Pit (TA-II)		AOC -- No Investigation Needed
1017	Bldg. 897X Septic System (TA-I)		AOC – Does Not Exist
1020	MO-146, MO-235, and T-40 Septic System (TA-III)	NFA'd 06/06	

1021	Bldg. 859 Drywell (TA-I)		AOC -- No Investigation Needed
1022	Bldg. 6505A Seepage Pit (TA-III)		AOC -- No Investigation Needed
1023	Bldg. 6505 Southwest Seepage Pit (TA-III)		AOC -- No Investigation Needed
1024	MO 242-245 Septic System (TA-III)	NFA'd 06/06	
1025	Bldg. 6501 East Septic System (TA-III)	NFA'd 11/05	
1026	Bldg. 6501 West Septic System (TA-III)	NFA'd 11/05	
1027	Bldg. 6530 Septic System (TA-III)	NFA'd 11/05	
1028	Bldg. 6560 Septic System (TA-III)	NFA'd 06/06	
1029	Bldg. 6584 North Septic System (TA-III)	NFA'd 06/06	Controls Needed
1030	Bldg. 6587 Septic System (TA-III)	NFA'd 11/05	
1031	Former Bldgs. 6589 and 6600 Septic System (TA-II)	NFA'd 02/08	
1032	Bldg. 6610 Septic System (TA-III)	NFA'd 11/05	
1033	Bldg. 6631 Septic System (TA-III)	NFA'd 11/05	
1034	Bldg. 6710 Septic System (TA-III)	NFA'd 02/08	
1035	Bldg. 6715 Septic System (TA-III)	NFA'd 02/08	
1036	Bldg. 6922 Septic System (TA-III)	NFA'd 02/08	
1037	MO 14, MO 15 Septic System (TA-I)		AOC -- No Investigation Needed, Active System
1038	MO 154 Drywell (TA-I)		AOC -- No Investigation Needed
1039	MO 155 Drywell (TA-I)		AOC -- No Investigation Needed
1040	MO 156 Drywell (TA-I)		AOC -- No Investigation Needed
1041	T-28 Drywell (TA-I)		AOC -- No Investigation Needed
1042	T-29 Drywell (TA-I)		AOC -- No Investigation Needed
1043	T-30 Drywells (TA-I)		AOC -- No Investigation Needed
1044	T-31 Drywell (TA-I)		AOC -- No Investigation Needed
1045	T-32-2 Drywell (TA-I)		AOC -- No Investigation Needed
1046	T-44 Drywell (TA-I)		AOC -- No Investigation Needed
1047	T-45 Drywell (TA-I)		AOC -- No Investigation Needed
1048	T-46 Drywell (TA-I)		AOC -- No Investigation Needed

1049	T-47 Drywells (TA-I)		AOC -- No Investigation Needed
1050	T-48 Drywells (TA-I)		AOC -- No Investigation Needed
1051	Bldg. 803 Outfall (TA-1)		AOC -- No Investigation Needed
1052	Bldg. 803 Seepage Pit (TA-I)	NFA'd 02/08	
1053	Bldg. 823 Outfall (TA-I)		AOC -- No Investigation Needed
1054	Bldg. 823 Drywells (TA-I)		AOC -- No Investigation Needed
1055	Bldg. 829 Drywell (TA-I)		AOC -- No Investigation Needed
1056	Bldg. 838 Drywell (TA-I)		AOC -- No Investigation Needed
1057	Bldg. 839 Drywell (TA-I)		AOC -- No Investigation Needed
1058	Bldg. 847 Drywell (TA-I)		AOC -- No Investigation Needed
1059	Bldg. 850 Drywell (TA-I)		AOC -- No Investigation Needed
1060	Bldg. 857A Drywell (TA-I)		AOC -- No Investigation Needed
1061	Bldg. 867 Drywells (TA-I)		AOC -- No Investigation Needed
1062	Bldg. 869 Drywell (TA-I)		AOC -- No Investigation Needed
1063	Bldg. 882 Drywell (TA-I)		AOC -- No Investigation Needed
1064	Bldg. 890 Drywells (TA-I)		AOC -- No Investigation Needed
1065	Bldg. 893 Drywells (TA-I)		AOC -- No Investigation Needed
1066	Bldg. 894 Drywells (TA-I)		AOC -- No Investigation Needed
1067	Bldg. 959 Drywell (TA-I)		AOC -- No Investigation Needed
1068	Bldg. 904E Drywell (TA-II)		AOC -- No Investigation Needed
1069	Bldgs. 913/913A Septic System (TA-II)		AOC – Does Not Exist?
1070	Bldg. 962 Drywells (TA-IV)		AOC -- No Investigation Needed
1071	Bldg. 986 Drywell (TA-IV)		AOC -- No Investigation Needed
1072	Bldg. T-52 and Former Bldg. 6500 Septic System (TA-V)	NFA'd 11/05	
1073	Bldg. 6580 Seepage Pit (TA-V)	NFA'd 11/05	
1074	Bldgs. 6581/6582 MO 32/57 Septic System (TA-V)		AOC -- No Investigation Needed

1075	Bldg. 6582 Septic System (TA-V)		AOC – Does Not Exist
1076	Bldg. 6585 Septic System (TA-V)		AOC – Does Not Exist
1077	Bldg. 6920 Septic System (TA-III)	NFA'd 11/05	
1078	Bldg. 6640 Septic System (TA-III)	NFA'd 02/08	
1079	Bldg. 6643 Septic System (TA-III)	NFA'd 02/08	
1080	Bldg. 6644 Septic System (TA-III)	NFA'd 02/08	
1081	Bldg. 6650 Septic System (TA-III)	NFA'd 02/08	Controls Needed
1082	Bldg. 6620 Septic System (TA-III)	NFA'd 11/05	
1083	Bldg. 6570 Septic System (TA-III)	NFA'd 06/06	
1084	Bldg. 6505 Septic System (TA-III)	NFA'd 02/08	
1085	Bldg. 6520 Septic System (TA-III)		AOC – Does Not Exist
1086	Bldg. 6526 Septic System (TA-III)	NFA'd 06/06	
1087	Bldg. 6743 Septic System (TA-III)	NFA'd 02/08	
1088	Bldg. 6736 Septic System (TA-III)		AOC – Does Not Exist
1089	Bldg. 6734 Seepage Pit (TA-III)	NFA'd 11/05	
1091	Bldg. 6720 Septic System (TA-III)	NFA'd 11/05	
1092	MO 228 230 Septic System (TA-III)	NFA'd 02/08	
1093	Bldg. 6584 West Septic System (TA-III)	NFA'd 11/05	
1096	Bldg. 6583 Septic System (TA-III)	NFA'd 11/05	
1097	SFER/127/128/130 Septic System (Lurance Canyon) (DOE Facility)		AOC -- No Investigation Needed
1098	TA V Plenum Rooms Drywell (TA-V)	NFA'd 02/08	
1099	Bldg. 634 Outfall (TA-I)		AOC -- No Investigation Needed
1100	Bldg. 814 Outfall (TA-I)		AOC -- No Investigation Needed
1102	Former Bldg. 889 Septic System (TA-I)	NFA'd 02/08	
1103	Bldg. 6030 Septic System (6000 Igloo Area)		AOC -- No Investigation Needed, Active System
1104	Bldg. 6595 Septic System (TA-V)	NFA'd 02/08	
1105	Bldg. 6596 Drywell (TA-V)	NFA'd 11/05	
1106	Bldg. 6505 Interior Sump (TA-III)		AOC -- No Investigation Needed
1107	Bldg. 6526 Drywell (TA-III)		AOC -- No Investigation Needed
1108	Bldg. 6531 Seepage Pits (TA-III)	NFA'd 06/06	

1109	Bldg. 6530 Seepage Pit (TA-III)		AOC -- No Investigation Needed
1110	Bldg. 6536 Drain System (TA-III)	NFA'd 06/06	
1111	Bldg. 6720 Seepage Pit (TA-III)	NFA'd 11/05	Site referred to as Bldg. 6720 Drywell (TA-III) in Consent Order
1112	Bldg. 6590 Reactor Sump Drywell (TA-V)	NFA'd 11/05	
1113	Bldg. 6597 Septic System (TA-V)	NFA'd 02/08	
1118	Bldg. 9966 Drywell (Thunder Range)		AOC -- No Investigation Needed
1119	Live Fire Range West Septic System (Lurance Canyon) (DOE Facility)		AOC -- No Investigation Needed, Active System
1120	Bldg. 6643 Septic System (TA-III)	NFA'd 02/08	

Note:
1. Unit underwent Corrective Action, was approved for No Further Action, and is limited by Institutional Controls.
2. Unit is a Hazardous Waste Management Unit.