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# FACT SHEET

# INTENT TO ISSUE A HAZARDOUS AND MIXED WASTE FACILITY PERMIT UNDER THE NEW MEXICO HAZARDOUS WASTE ACT TO U. S. DEPARTMENT OF ENERGY AND SANDIA CORPORATION FOR SANDIA NATIONAL LABORATORIES

**EPA ID NUMBER: NM5890110518**

**September 17, 2012**

## TABLE OF CONTENTS

# A. GENERAL BACKGROUND

The New Mexico Environment Department (Department or NMED) intends to issue a hazardous and mixed waste Permit to the U. S. Department of Energy (DOE) and Sandia Corporation for Sandia National Laboratories (SNL, or the Facility) to store and treat hazardous and mixed waste in accordance with the New Mexico's Hazardous Waste Act (HWA) and its associated regulations. The DOE and Sandia Corporation are the "Applicants." The action to be taken by the Department would renew and combine three existing permits and add several additional existing units into one comprehensive permit. The Department is charged with issuing a permit that will ensure that SNL's hazardous and mixed waste operations are properly managed to protect human health and the environment. The Department also intends to grant corrective-action-complete status for 24 sites that have been investigated for releases of contaminants and remediated where necessary. A separate fact sheet, also known as a Statement of Basis, has been prepared to address these 24 sites and is available for public review and comment.

The draft Permit is a renewal of the permit that was first issued in August of 1992. The Department currently enforces the 1992 Permit. As mentioned in the preceding paragraph, the draft Permit includes additional waste management units not covered by the original Permit. Units added to the draft Permit include former "interim status" units, which are units that: (1) existed when the hazardous waste regulations took effect, (2) were not permitted by the Department or the U. S. Environmental Protection Agency (EPA) in the past, and (3) were used to manage mixed wastes under the interim status provisions of the regulations.

Prior to issuing a permit, the Department is required by regulation to release a draft of the permit for public comment. The Department is also required to issue a fact sheet which serves two functions: 1) to facilitate public review of that draft permit; and 2) to provide the basis for any requirements in the permit. This is that Fact Sheet.

Sections A through O of this Fact Sheet describes the general background for the draft Permit, including; a physical description of SNL, its hazardous and mixed waste activities, and how the public may be involved in the permitting process. Section P explains the technical and regulatory basis for the permit conditions.

### *Sandia National Laboratories*

SNL is located within the boundaries of Kirtland Air Force Base (KAFB) on land owned by the DOE, the U. S. Department of Defense, and the U. S. Forest Service (USFS). Collectively, these lands are situated south of Albuquerque in north-central New Mexico. The Facility is divided into five smaller geographical areas known as technical areas (TAs) and several large remote test areas (Foothills Test Area, Central Coyote Test Area, Southwest Test Area, and Canyons Test Area). The Facility occupies 2,820 acres (4.4 square miles). The administrative offices of SNL are located at the following mailing addresses: Sandia Corporation, 1515 Eubank Boulevard SE, Albuquerque, New Mexico, 87123; and the DOE Sandia Site Office at KAFB-East, Pennsylvania & H Street, Albuquerque, New Mexico 87116. The Applicants' primary contact and address for this action is: Mr. David Rast, NNSA/Sandia Site Office, DOE, Post Office Box 5400, Albuquerque, New Mexico 87185.

SNL is an engineering and science laboratory owned by the DOE and operated by Sandia Corporation (a subsidiary of Lockheed Martin, Incorporated). The DOE and Sandia Corporation

are collectively referred to as the "Permittees" in the draft Permit and as "the Permittees" or "the Applicants" in this Fact Sheet.

During the late 1940's, the final assembly of nuclear weapons was conducted at SNL. Since 1949, SNL has been dedicated to research, development, and testing. SNL currently employs approximately 9,300 people. The primary mission of SNL is to provide engineering and testing support for nuclear weapons components and related systems. The Facility conducts a variety of research and development programs and develops technologies and procedures to sustain, modernize, and protect the nuclear arsenal, prevent the spread of weapons of mass destruction, defend against terrorism, protect national infrastructures, ensure stable energy and water supplies, and provide new capabilities to the U. S. armed forces.

As a result of such activities, the Applicants have generated and continue to generate hazardous, radioactive, mixed (those wastes containing both hazardous and radioactive components), and solid wastes. From 1945 to 1988 most of these wastes were disposed of at SNL at numerous locations, which have been classified by the Department as solid waste management units (SWMUs) or areas of concern (AOCs). The SWMUs and AOCs include landfills, septic system drainfields and seepage pits, outfalls, waste piles, and test areas. Past waste management activities at SNL have caused the release of hazardous and radioactive contaminants into the environment.

The Permit would address both hazardous waste and mixed waste. Congress has adopted separate laws for regulating hazardous wastes and radioactive materials. The Resource Conservation and Recovery Act (RCRA) covers the management of hazardous wastes; The Atomic Energy Act (AEA) provides for the management of radioactive materials at DOE facilities. NMED regulates mixed waste only with respect to its hazardous properties under RCRA, while the National Nuclear Safety Administration within DOE regulates mixed waste with respect to its radioactive properties under the AEA.

***Permit Contents***

The Permit would address the storage (generally for periods longer than 90 days) and treatment of hazardous and mixed waste. The Permit would authorize hazardous and mixed waste management at eight container storage units (including two units where waste may be treated), one other unit where the Applicant's would be authorized to treat (through open burning) explosive wastes, and one other unit where post-closure care would be conducted. The Applicants do not seek a permit for hazardous or mixed waste disposal.

The draft Permit includes eight Permit Parts and 13 Permit Attachments (A through M). The Permit Parts address how the Applicants are to adhere to specific hazardous and mixed waste treatment and storage procedures, how they are to terminate use of the treatment and storage facilities (referred to as "closure" of a unit), and how they are to conduct cleanup of contaminated soil, surface water, or groundwater (referred to as "corrective action"). The Permit Parts also include general requirements common to all hazardous waste permits throughout New Mexico (*e.g.*, duration of a permit); and general requirements that apply to SNL as a facility (*e.g.*, characterization of waste).

The Permit would authorize the Applicants to receive certain limited types of hazardous and mixed wastes from outside the Facility ("off-site" sources). First are wastes that were generated by SNL, shipped off-site to be treated, and returned to SNL as treatment residues. Second are

wastes from an SNL cleanup site not located at SNL. The final type is wastes from SNL operations outside the Facility but located within the Albuquerque metropolitan area.

The Permit Attachments consist primarily of certain plans, including a waste analysis plan for determining which wastes are hazardous, a contingency plan for emergency responses, an inspection plan, a personnel training plan, and unit-specific closure plans for the 10 units proposed for permitting. The Permit Attachments also include a list of units that are to be permitted, and several lists of numerous sites where corrective action is currently underway or has been completed.

If the Permit is issued as proposed, site investigation and cleanup of contaminated soil, surface water, and groundwater, referred to as "corrective action," at SNL would be governed by one of two documents, the Permit or the April 29, 2004 Compliance Order on Consent (Consent Order). The Department's intent in establishing these two enforceable documents is to address all possible situations where corrective action would be necessary to ensure protection of human health and the environment and to establish a clear regulatory process by distinguishing which situations are addressed in which document. The relationship between the Permit and the Consent Order is discussed in this Fact Sheet in Section P under the discussion for Permit Section 8.1.1.

The Permit would require the Applicants to implement an emergency response plan when there is a fire, explosion, or release of waste at a permitted hazardous or mixed waste management unit that may endanger human health or the environment. This plan is called the Contingency Plan. Terms of the Permit would include required emergency equipment, testing and maintenance of emergency equipment, communication and alarm systems, emergency response procedures, establishment of a chain of command, and post-emergency procedures. The Applicants would have to notify the Department of emergencies. Although the Department does not take part in directing or managing emergency responses, the Department would be available for consultation to resolve an emergency.

The Permit would also addresses how DOE would sell, donate, or otherwise "transfer" property within its boundary to other entities. The Department has an obligation to ensure that transferees are aware of environmental risks associated with the land. Further, because the Applicants are obligated under the regulations to notify and cooperate with the Department regarding the release of any hazardous constituents within the Facility's boundaries, the Department must be aware of those boundaries and any environmental problems associated with the land known at the time of transfer.

The Permit would also require the Applicants to maintain a program that minimizes the amount of wastes generated at the Facility and reduces the toxicity of those wastes.

Finally, the Permit would require the Applicants to establish a community relations plan, in order to foster community understanding and involvement in SNL's environmental programs. The Permit would also require the Applicants to establish an "information repository," where Permit-related documents, including the Permit, may be viewed. Furthermore, the Applicants would be required to issue e-mail notices to the public of the filing of specific documents that are of interest to the public. Interested persons are to be allowed to add their e-mail address to a list maintained by the Applicants. When specified documents are submitted to the Department, the Applicants are to provide notice within 30 days to those on the list.

### *Public Participation*

The New Mexico Hazardous Waste Management Regulations (HWMR) require an opportunity for public involvement any time there is a modification to change a permit, or issue a new or renewal permit. That process involves public notices and includes an opportunity for public comment on major permit modifications or permit issuance or rejection. Public notices are provided in local newspapers and are included with letters to individuals on the facility mailing list. The facility mailing list is maintained by the Department and any interested person may request to be placed on it to be informed of such actions.

The Department first released a draft renewal Permit for public comment on August 20, 2007. After extensions, the public, comment period ended on February 17, 2008. The Department received public comment and requests for public hearing on the 2007 version of the draft Permit. As required under the rules, the Department in conjunction with the Applicants and other members of the public attempted to resolve the issues giving rise to opposition to the draft 2007 Permit. As a result of this effort, the current 2012 version of the draft Permit has been prepared and is the subject of this Fact Sheet. The 2007 version of the draft Permit is hereby withdrawn. Comments and requests for hearing on the 2007 draft Permit are also therefore moot. The public may submit comments and request a hearing on the current draft Permit following the procedures in Section B of this Fact Sheet.

There are significant opportunities for the public to learn about and become involved in the regulation of hazardous and mixed waste at SNL, including the corrective action requirements. Documents pertinent to permitting and corrective action activities submitted to or issued by the Department are available for public review in the Administrative Record maintained by the Department at 2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico. This Fact Sheet is in part an effort to involve the public, and in Section B of this Fact Sheet describes how the public may comment on the draft Permit.

## B. PUBLIC REVIEW OF THE DRAFT PERMIT

The Administrative Record for this proposed action consists of the Permit Application, the draft Permit, the Public Notice, this Fact Sheet, numerous corrective action-related documents, and supporting documentation. The Administrative Record may be reviewed, with prior appointment, at the following location during the public comment period.

NMED - Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone: (505) 476-6000
Monday – Friday: 8:00 a.m. to 5:00 p.m.
Contact: Pam Allen

In addition, the draft Permit and the Fact Sheet may be reviewed, with prior appointment, at the following location during the public comment period.

NMED - Hazardous Waste Bureau
District 1 Office
5500 San Antonio Avenue, NE
Albuquerque, New Mexico 87109
Phone: (505) 222-9551
Mondays - Fridays from 8:00 a.m. to 5:00 p.m.
Contact: William Moats

A copy of the draft Permit, the Public Notice, and this Fact Sheet, are also available on the Department website at: www.nmenv.state.nm.us/HWB/snlperm.html under *SNL Draft Permit*. To obtain a copy of the Administrative Record or a portion thereof, please contact Ms. Pam Allen at (505) 476-6000, or at address given above. The Department will provide copies, or portions thereof, of the Administrative Record at a cost to the requestor.

The Department issues this public notice on **September 17, 2012**, to announce the beginning of a 60-day comment period that will end at **5:00 p.m. MST, November 16, 2012**. Any person who wishes to comment on the draft Permit or request a public hearing should submit written or electronic mail (e-mail) comments with the commenter's name and address to the respective address below. Only comments and/or requests received before **5:00 p.m. MST** on **November 16, 2012** will be considered.

John E. Kieling, Chief
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(505) 476-6000
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Ref: SNL Draft Permit

Written comments must include, to the extent practicable, all referenced factual materials. Documents in the Administrative Record need not be re-submitted if expressly referenced by the commenter. Requests for a public hearing shall provide: (1) a clear and concise factual statement of the nature and scope of the interest of the person requesting the hearing; (2) the name of all persons whom the requestor represents; (3) a statement of any objections to the draft Permit, including specific references to any conditions being addressed; and (4) a statement of the issues which the commenter proposes to raise for consideration at the hearing. Written comment and requests for Public Hearing must be filed with Mr. John Kieling on or before **5:00 p.m. MST, November 16, 2012**. The Department will provide a thirty (30) day notice of a public hearing, if scheduled.

All comments submitted will be considered in formulating a final decision and may cause the draft Permit to be modified. The Department will respond in writing to the comments. This response will specify which provisions, if any, of the draft Permit have been changed in the final

decision and the reasons for the changes. All persons who have submitted written comments or who requested notification of the final decision will be notified of the decision by mail. These responses will also be posted on the Department's website.

After consideration of all written public comments received, the Secretary of the New Mexico Environment Department may issue a final Permit. The Secretary will make the final decision publicly available and will notify the Applicants by certified mail. All persons that submitted written comments, requested a hearing, or requested notification of the final decision will be notified of the decision by first class regular mail. The Secretary's decision will constitute a final agency decision and may be appealed as provided by the HWA (Chapter 74, Article 4 NMSA 1978).

## C. ARRANGEMENTS FOR PERSONS WITH DISABILITIES

Persons having a disability and requiring assistance or auxiliary aid to participate in this process should contact Connie Joseph at the New Mexico Environment Department, Human Resources Bureau, P.O. Box 26110, 1190 St. Francis Drive, Santa Fe, New Mexico, 87502, telephone number: (505) 827-9769. TDY users please access her number via the New Mexico Relay Network at 1-800-659-8331.

## D. REGULATORY BACKGROUND

In 1976 the Resource Conservation and Recovery Act (RCRA) was passed by the U.S. Congress to regulate "cradle to grave" management of hazardous waste. RCRA was enacted as an amendment to the Solid Waste Disposal Act of 1965, and mandates the development of regulations governing the actions of owners or operators of facilities that generate, transport, treat, store, or dispose of solid and hazardous wastes.

On November 19, 1980, the RCRA regulations became effective, and it became unlawful under certain conditions to treat, store, or dispose of hazardous waste without having, or having applied for, a permit. For then-existing treatment, storage, or disposal facilities (TSDFs), the requirement to submit a permit application was satisfied by submitting the "Part A" portion of the application; the "Part B" portion could be submitted at a later time. The roles of these application parts are clarified in 40 CFR §§ 270.1(b) and 270.10.

The United States Environmental Protection Agency (EPA) has authorized the State of New Mexico (the State) to implement and enforce hazardous waste management requirements, including corrective action requirements, under its own hazardous waste management program. The State's authority for the program is the Hazardous Waste Act (HWA), which: (1) authorizes the State's Environmental Improvement Board (EIB) to adopt hazardous waste management regulations; and (2) authorizes the Department to implement and enforce regulations issued under the HWA. These regulations are known as the New Mexico Hazardous Waste Management Regulations (HWMR).

The EIB has adopted regulations concerning hazardous waste management and the issuance of hazardous waste permits. These regulations incorporate by reference pertinent sections of the Code of Federal Regulations (CFR) – 40 CFR Parts 260 through 270, 273, and 280 – and are codified in the HWMR, 20.4.1 NMAC.

Whenever the Permit cites a provision of 20.4.1 NMAC or Title 40 Code of Federal Regulations (40 CFR) the Permit is meant to incorporate the citation by reference, including all subordinate

provisions of the cited provision, and make binding the full text of the cited provision. Hazardous waste management regulations are frequently cited throughout the Permit. The federal hazardous waste management regulations, 40 CFR Parts 260 through 273, are generally cited rather than the HWMR. The federal regulations are cited because only the federal regulations set forth the detailed regulatory requirements; the State regulations incorporate by reference, with certain exceptions, the federal regulations in their entirety. Citing only the federal regulations also serves to avoid encumbering each citation with references to two sets of regulations. However, it is the State regulations that are legally applicable and enforceable. Therefore, for the purpose of the draft Permit, and enforcement of its terms and conditions when finalized, all references to provisions of federal regulations that have been incorporated into the State regulations are to be deemed to include the State incorporation of those provisions. The same method of citation of the regulations apply to this Fact Sheet -- the federal hazardous waste management regulations, 40 CFR Parts 260 through 273, are generally cited rather than the HWMR.

The HWA and HWMR require each person owning or operating an existing facility or planning to construct a new facility for the treatment, storage, or disposal of hazardous waste to have a HWA permit (*see* 42 U.S.C. 6925 and 20.4.1.900 NMAC (incorporating 40 CFR § 270.1)). A TSDF in existence on or before November 19, 1980 is eligible for "interim status" (IS). Interim status authorizes an existing facility to operate, subject to the interim status standards set forth in 20.4.1.600 NMAC, incorporating 40 CFR Part 265, until the Department issues or denies a HWA permit or until interim status is otherwise terminated. SNL was eligible for interim status in November of 1980, and some of SNL's mixed waste management units proposed for permitting still retain and will retain that status until such time that a final decision on the draft Permit is made.

Under the HWMR, if a permit application is withdrawn for a given unit, the unit loses interim status and is required to close. On November 8, 1985, RCRA mandated the termination of interim status for land disposal units that had been granted interim status before November 8, 1984, unless the owner/operator had submitted a Part B portion of an application and had submitted certification of compliance with the groundwater monitoring and financial responsibility requirements. At SNL, only the Chemical Waste Landfill (CWL) fell within this category of units; a post-closure care plan was issued by the Department as a stand-alone Permit for the CWL in 2009.

The HWA and HWMR require corrective action for all releases of hazardous waste or hazardous constituents, regardless of when waste was placed in such a unit, from any solid waste management unit (SMWU) at a facility seeking a permit. (42 U.S.C. § 6924(u); NMSA 1978 § 74-4-4.2(B); 20.4.1.500 NMAC, incorporating 40 CFR § 264.101(a)). RCRA facilities must also conduct corrective action at areas of concern (AOCs). An AOC is any area that may have had a release of a hazardous waste or hazardous constituents, which is not a SWMU. Corrective action is required to be conducted beyond the facility boundary (42 U.S.C. § 6924(v); 20.4.1.500 NMAC, incorporating 40 CFR § 264.101(c)) where necessary to protect human health or the environment.

On January 26, 1983, "units" managing and disposing of hazardous waste became subject to the closure and post-closure standards of 40 CFR Part 264, Subpart G and Part 265, Subpart G, requiring a post-closure care permit in some circumstances.

On January 25, 1985, the State of New Mexico received authorization from the EPA to implement its hazardous waste program under the HWA. *See* 50 Fed. Reg. 1515 (Jan. 11, 1985). Subsequent program revisions were approved effective on April 10, 1990; July 25, 1990; December 4, 1992; August 23, 1994; December 21, 1994; July 10, 1995; January 2, 1996; March 10, 1997; July 13, 1998; October 9, 2001; and October 16, 2007.

On July 25, 1990, the State received from EPA authorization to expand its hazardous waste program under the HWA, including the authority to regulate the hazardous component of mixed waste. *See* 55 Fed. Reg. 28397 (July 11, 1990).

On January 2, 1996, the State received authorization from the EPA to implement a corrective action program under the HWA. *See* 60 Fed. Reg. 53708 (Oct. 17. 1995); 61 Fed. Reg. 2450 (Jan. 26, 1996).

## E. PERMIT APPLICATION REQUIREMENTS

Owners or operators of hazardous and mixed waste management facilities, including interim status facilities, are required to submit a comprehensive permit application covering all aspects of design, operation, maintenance, and closure of their facilities. A permit application consists of Parts A and B; Part A is a standard form that requires the name and location of the owner/operator, a list of the types of wastes managed, a facility layout diagram, and the activities requiring a permit. Part B is an extensive document submitted in a narrative, tabular, and schematic format that includes general and specific information for all hazardous and mixed waste management units at a facility. The Part B also includes information necessary to establish corrective action requirements for releases from SWMUs and AOCs.

## F. SNL PERMIT HISTORY

On November 19, 1980 the DOE and Sandia Corporation submitted to the EPA a Part A Application to qualify for interim status under the Resource Conservation and Recovery Act (RCRA).

The first Part B Application was requested by EPA on December 29, 1983. On April 23, 1984, the Department, then the Environmental Improvement Division of the New Mexico Department of Health, requested a Part B from the Permit Applicants, for joint review with EPA. As stated in the 1984 letter, the request was in anticipation of the Department receiving authorization for RCRA Subtitle C in January, 1985. Once the authorization was assigned by EPA, the Department would assume primary responsibility for permitting hazardous and mixed waste facilities in New Mexico.

On November 3, 1988, the Applicants submitted to the Department a Part B Application, which addressed a hazardous waste management facility (HWMF), a proposed waste storage tank, and the open burn unit at the Thermal Treatment Facility (TTF). Following review, the Part B was declared administratively complete on April 3, 1989 with the stipulation that the TTF would not be included in the technical review until the Department received authorization from EPA to regulate units and waste types covered under RCRA Subpart X at 40 CFR §§ 600-603.

On October 28, 1991, the Applicants submitted to the EPA a revised Part A and Part B Application for the Facility. The Applicants also sent a copy of the Part A Application to the NMED. The Application covered hazardous waste treatment and storage activities at TA-II, TA-III, and TA-V, and included many hazardous waste types. The Applicants have revised the Part

A Application several times since it was first submitted, including, among other things, to notify the Department that the Applicants would not seek a permit for hazardous waste disposal activities.

On August 6, 1992 the Department issued a Hazardous Waste Facility Permit (the Permit currently in force) to the DOE and Sandia Corporation to operate a hazardous waste storage unit at SNL pursuant to Section 74-4-4.2 of the HWA. The Permit covered a hazardous waste container storage area near TA-II -- the Hazardous Waste Management Unit (now referred to as the Hazardous Waste Handling Unit in the draft Permit).

The 1992 Permit, which was due to expire in August 2002, was administratively extended pursuant to 20.4.1.900 NMAC (incorporating 40 CFR § 270.51) because the Applicants submitted a Part B Application in February of 2002 in compliance with the regulations. The 1992 permit in modified form remains in effect until a final decision for the draft Permit is made by the Department Secretary. The most recent Part A and Part B Applications were submitted on June 7, 2012.

The Thermal Treatment Unit and the Corrective Action Management Unit were issued separate Permits for operation and post-closure care, respectively, on November 4, 1994, and September 26, 1997. The Permits for both units are incorporated into the draft Permit.

## G. THE CONSENT ORDER

The Compliance Order on Consent (Consent Order), dated April 29, 2004, is an enforceable document pursuant to 40 CFR § 270.1(c)(7). The Consent Order requires the Applicants to conduct corrective action at all solid waste management units (SWMUs) and areas of concern (AOCs) at the Facility to fulfill the requirements of 40 CFR § 264.101. The relationship between the Permit and the Consent Order are discussed in this Fact Sheet in Section P under the discussion for Permit Section 8.1.1.

## H. PART A APPLICATION

On February 6, 2002, the Applicants timely submitted to the Department a Part A Application concurrently with their Part B Application for renewal of the operating Permits for the Hazardous Waste Handling Unit, the Thermal Treatment Unit, and for a Post-Closure Care Permit for the Corrective Action Management Unit. Additionally, seven units that are currently under interim status were included in the Part A and B Applications. The Part A Permit Application is the Department's basis for the list of hazardous and mixed waste management units to be permitted at the Facility, the waste management processes the Applicants propose to utilize at those units, and the waste types to be managed at those units. The Part A Permit Application contains information on the hazardous and mixed waste treatment and storage units and the unit undergoing post-closure care, as listed in Section K of this Fact Sheet.

## I. PART B APPLICATION

On February 6, 2002, the Applicants also submitted, in a timely manner, their Part B Application for renewal of their current Permits for the Thermal Treatment Unit, the Hazardous Waste Management Unit), and the Corrective Action Management Unit, and information concerning corrective action for the Facility's SWMUs and AOCs. Information on the seven operating interim status units is also included in the Part B Application. The Part B Application addresses the requirements that apply to hazardous and mixed waste treatment and storage facility

operations at the Facility and contains a description of the Facility and its various operating plans (*i.e.,* waste analysis, inspection, personnel training, contingency, closure, and post-closure).

In December 2005, following response to a Notice of Deficiency issued by the Department, the Applicants submitted an updated version of their Part B Application, Revision 6.0.

In August 2007, the Department issued for public comment a draft Permit based upon the Part A and Part B Applications. During the public comment period the Department received extensive comments from the DOE/Sandia Corp., the EPA, and other interested parties including the Citizens for Alternatives to Radioactive Dumping (CARD), the Albuquerque Center for Peace and Justice, and Citizen Action, New Mexico. Several of the commenters requested an extension of the public comment period, and a public hearing on the 2007 draft Permit. The comment period was extended through January 17, 2008. Additionally, when a draft permit is issued and a timely written notice of opposition to the permit and a request for a public hearing are received, the Department and the applicant are required to respond to the request in an attempt to resolve the issues giving rise to the opposition. If the issues are resolved, the opponent may withdraw the request for a hearing. (20.4.1.901.A.4 NMAC).

On July 15, 2008 the Department issued an invitation to meet and confer with the Department and the Applicants. The invitation was sent to persons who had commented on the draft Permit or had requested a hearing. The meeting was held in an attempt to resolve issues giving rise to opposition of the 2007 draft Permit. The Department determined that it would not be possible to resolve all issues that gave rise to opposition to the permit. Instead, the Department decided to issue a revised draft permit. The Department convened over 30 meetings with the commenters, the Applicants, or both, beginning in August 2008 and concluding in May 2012. Based on the discussions in these meetings, the Department developed a revised draft Permit, and is now issuing it for public comment. Any member of the public may comment and request a hearing on the revised draft Permit, regardless of whether he or she commented on the 2007 version of the draft Permit. The 2007 version of the draft Permit is withdrawn, and the comments and the hearing requests submitted for the 2007 version is now moot.

The Applications, correspondence between the Department and the Applicants, and additional materials submitted by the Applicants, and relevant materials reviewed by the Department together comprise the Administrative Record ("AR"). The AR is the basis for the Department's action on the Application. The AR is available for review by members of the public during business hours as explained in Section B of this Fact Sheet.

## J. TYPES OF HAZARDOUS AND MIXED WASTES MANAGED AT THE FACILITY

The Applicants manage "D", "U", "F", "P", and "K" wastes, which are categories of hazardous waste found at 40 CFR §§ 261.20-261.33, as described below.

The criteria for establishing a waste as a hazardous waste are provided in 40 CFR Part 261, incorporated in 20.4.1.200 NMAC. A waste is considered hazardous if it meets the definition of a solid waste as described in 40 CFR § 261.2; is not exempted by 40 CFR § 261.4; and exhibits any of the characteristics of hazardous waste identified in 40 CFR Part 261, Subpart C; or is listed in 40 CFR Part 261, Subpart D. Specifically: (1) D hazardous waste numbers (codes) denote the characteristics of ignitability (D001), corrosivity (D002), reactivity (D003), and toxicity (D004- D043); (2) F codes signify wastes from non-specific sources; (3) K codes signify

wastes from specific sources; and (4) P and U codes denote discarded commercial chemical products, off-specification species, container residues, and spill residues thereof, with the P codes signifying acutely hazardous wastes and the U codes signifying toxic wastes.

Hazardous waste types may be of uniform physical composition (*i.e.*, homogeneous) or of dissimilar or diverse composition (*i.e.*, heterogeneous). Homogeneous waste contains only one material, substance, or waste, and when a sample of the waste is collected, it represents the entire waste type. Homogeneous waste types can be either solids or liquids. Heterogeneous waste contains multiple components that differ in density, specific gravity, or other physical properties, are located in different places within the waste, or are discrete and different particles. Representative samples are often difficult to obtain for heterogeneous wastes (*e.g.*, debris).

## K. TYPES OF UNITS TO BE PERMITTED

The Permit would authorize the Permittees:

1. To store hazardous and mixed wastes in containers in the following units:

   ***Hazardous Waste Handling Unit** (HWHU)* (TA II): Buildings 958 and Building 959, Modular Buildings 958B and 958C (19,386 Gallons total);

   ***Radioactive and Mixed Waste Management Unit** (RMWHU)* (TA III): Buildings 6920, 6921, 6925, 6926, Modular Storage Buildings, and Outdoor Waste Storage Area (52,388 Gallons total);

   ***Auxiliary Hot Cell Unit** (AHCU)* (TA V): Buildings 6597, and Building 6597 Storage Silos (589 Gallons total);

   ***Manzano Storage Bunkers** (MSBs)* (Manzano Base): bunkers 37034, 37045, 37055, 37057, and 37118 (28,930 Gallons total);

   (Note – waste quantities specified in gallons denote volumes, but the wastes are not necessarily in a liquid state).

2. To treat by stabilization/soldification, chemical deactivation, thermal deactivation, macroencapsulation, amalgamation, or to conduct physical treatment of hazardous and mixed wastes at the following units:

   ***Radioactive and Mixed Waste Management Unit*** (TA III): Buildings 6920, 6921, 6925, 6926;

   ***Auxiliary Hot Cell Unit*** (TA V) Building 6597 and Building 6597 Storage Silos;

3. To treat by open burning and otherwise safely manage high explosive (ignitable and reactive) hazardous wastes at the following unit:

   ***Thermal Treatment Unit (TTU)*** **(**TA-III)*: Building 6715*; and

4. To conduct post-closure care at the following unit used to contain remediation waste:

   ***Corrective Action Management Unit (CAMU)*** (TA III).

## L. PERMIT organization

The draft Permit comprises Permit Parts (1-8) and Permit Attachments (A-M). The Parts contain requirements that the Applicants would have to adhere to while treating and storing hazardous

and mixed waste, conducting post-closure care, and conducting corrective action at the Facility (where corrective action is required under the Permit and not the Consent Order).

Permit requirements are established to ensure compliance with New Mexico's HWA and HWMRs and are derived from applicable regulatory requirements, the Applicants' commitments, or additional facility or unit specific requirements established by the Department to ensure adherence with the regulations or to protect human health or the environment as provided at 20.4.1.900 NMAC, incorporating by reference 40 CFR § 270.32(b)(2).

This Fact Sheet and the draft Permit generally refer to regulations by citing the federal hazardous waste management regulations, 40 CFR Parts 260 through 273, rather than the New Mexico Hazardous Waste Management Regulations, 20.4.1 NMAC, which incorporate by reference the federal regulations, with some exceptions. In some cases, the New Mexico HWMR are cited directly.

## M. PERMIT PARTS: Each draft Permit Part is briefly described below.

**Permit Part 1: General Permit Conditions** contains permit conditions that apply to all hazardous and mixed waste management units at all facilities, most of which are based upon mandatory permit conditions set forth at 40 CFR Parts 264 and 270.

**Permit Part 2: General Facility Requirements** contains permit conditions for operation of hazardous and mixed waste management facilities set forth at 40 CFR Part 264, Subparts B through E. Permit Part 2 references Permit Attachments that provide more information regarding the Facility, as described in Section N below.

**Permit Part 3: Storage of Hazardous and Mixed Waste** contains the regulatory requirements that the Applicants would have to follow when managing and storing hazardous and mixed wastes at the Hazardous Waste Handling Unit, the Radioactive and Mixed Waste Management Unit, the Auxiliary Hot Cell Unit, and the five Manzano Storage Bunkers. The Applicants would be authorized to manage, treat and store at the storage units only those hazardous and mixed wastes listed in Permit Attachment B (*Authorized Wastes*). Permit Part 3 addresses the requirements for managing hazardous and mixed waste in containers in accordance with 40 CFR Part 264, Subpart I. Requirements and general descriptions of the permitted units and their locations, and the management, storage, and treatment, of hazardous and mixed waste at the permitted units are provided in Attachment A (*Facility Description)* of the Permit. The Waste Analysis Plan is described in Attachment C (*Waste Analysis Plan*) of the Permit.

**Permit Part 4: Treatment of Hazardous and Mixed Wastes** contains requirements for treatment of hazardous and mixed wastes at the RMWMU, and the AHCU. Also presented is information on treatment processes. The treatment processes include:

1. Chemical deactivation to eliminate the hazardous waste characteristics of ignitability, corrosivity, and reactivity;
2. Thermal deactivation to eliminate the hazardous waste characteristic of reactivity in reactive wastes, including explosives;
3. Amalgamation to immobilize elemental mercury into a solid, leach-resistant form;
4. Stabilization/solidification to immobilize hazardous waste toxicity characteristic metals or eliminate free liquids, or both;

5. Macro-encapsulation to immobilize hazardous constituents; and
6. Physical treatment to change the physical character of the waste in order to make it more amenable to subsequent treatment or storage, or to reduce waste volume.

Once the permit is issued, the Applicants could treat at the treatment units only the amounts shown, by treatment type, in Permit Attachment J (*Hazardous and Mixed Waste Management Units), Table J.1-2*.

**Permit Part 5: Treatment by Open Burning** contains the requirements for treatment of reactive and ignitable wastes at the Thermal Treatment Unit (TTU). The Applicants would be authorized to treat at the TTU only silver acetylide/silver nitrate (SASN) and SASN mixed with only the solid and hazardous wastes identified in Part 5, Table 5-1 of the Permit, and only such wastes generated by the Facility operations in Building 6715. More detailed information on the treatment by open burning at the TTU can be found in Permit Attachment A (*Facility Description*). Authorized wastes are burned using propane in a steel box with dimensions of 2.5 by 2.5 by 0.5 feet.

**Permit Part 6: Closure Requirements** contains the requirements for final closure of the Permitted Units under 40 CFR §§ 264.110 through 264.116, 264.178 and 264.601 as applicable, and refers to the procedures described in the Permitted Unit-specific closure plans in Attachment G (*Closure Plans*). Closure is the permanent discontinuation of storage and treatment of hazardous or mixed wastes at a Permitted Unit. Closure involves the removal of all hazardous or mixed wastes from the Unit, the decontamination or removal of contaminated structures and equipment, and, if necessary, corrective action of contaminated environmental media, such that the Unit is left in a condition that is protective of human health and the environment.

**Permit Part 7: General Provisions for Post-Closure Care** contains the post-closure care requirements of 40 CFR Part 264, Subpart G, which apply to the CAMU. Provisions of Part 7 include information on the types of wastes disposed of in the CAMU; the length of post-closure care; planned monitoring and maintenance activities; a sampling and analysis plan; personnel training; a contingency plan, and other aspects of post-closure care. Further description of the post-closure care procedures for the CAMU is presented in Attachment H of the Permit.

**Permit Part 8: Corrective Action** would require the Applicants to implement corrective action as necessary to protect human health and the environment for all releases pursuant to 42 U.S.C. § 6924(u) and (v), and 40 CFR § 264**.**101, Subparts F and S. Requirements include the procedures for implementing corrective action, cleanup levels, general methods and procedures for conducting field activities, laboratory procedures, general procedures for conducting risk assessments and determining background levels, general requirements for drilling and well installations, and requirements for reporting on corrective action activities conducted under the Permit. The relationship between Permit Part 8 and the Consent Order is described in this Fact Sheet in Section P under the discussion for Permit Section 8.1.1.

## N. PERMIT ATTACHMENTS

**Attachment A, *Facility Description,*** contains unit descriptions based on information included in the permit application, including unit dimensions, materials of construction, security procedures, and emergency equipment.

**Attachment B, *Authorized Wastes,*** identifies the EPA Hazardous Waste Numbers (waste codes) authorized to be managed at each permitted hazardous and mixed waste management unit.

**Attachment C, *Waste Analysis Plan,*** fulfills the requirement contained in 40 CFR § 264.13(c) for a written waste analysis plan describing the procedures the Applicants will carry out to obtain a chemical and physical analysis of representative samples of waste. At a minimum, an analysis must provide all the information that must be known to treat, store, or dispose of the waste in accordance with 40 CFR Parts 264 and 268. Other conditions would authorize use of various published data to characterize waste fully or in part and require that an analysis be repeated as necessary to ensure accuracy.

The waste analysis plan specifies:

1. Parameters for which wastes will be analyzed and the rationale for choosing such parameters,
2. Test methods,
3. Sampling methods, and
4. Frequency with which the initial analysis will be reviewed or repeated.

**Attachment D, *Contingency Plan,*** is required by 40 CFR §§ 264.51 and 264.52. Under 40 CFR § 264.52, the contingency plan must describe the actions facility personnel will take in response to a fire, explosion, or any release of hazardous and mixed waste or hazardous constituents to air, soil, surface water, or groundwater at the Facility that pose a threat to human health or the environment. The plan must describe arrangements with local first responders, list emergency coordinators, list emergency equipment, and include an evacuation plan. (40 CFR § 264.52).

**Attachment E, *Inspection Plan,*** responds to the regulatory requirement that the "owner or operator must develop and follow a written schedule for inspecting stored waste, monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards." 40 CFR § 264.15(b)(1). *See also* 40 CFR § 270.14(b)(5).

**Attachment F, *Personnel Training Plan,*** is required to meet the terms of 40 CFR § 264.16(d)(3), which calls for a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position related to hazardous and mixed waste management.

**Attachment G, Closure Plans,** contains the unit-specific closure plans for the permitted hazardous and mixed waste storage and treatment units. Closure plans must address the closure performance standards at § 264.111, the specific contents at § 264.112(b), the schedule at § 264.113, the container-specific requirements under § 264.178, and applicable requirements under § 264.601 (Environmental Performance Standards, Miscellaneous Units).

**Attachment H, Post-Closure Care for the CAMU,** contains the post-closure care plan for the Corrective Action Management Unit. The plan addresses the post-closure activities that are to be performed at the CAMU by the Applicants. The CAMU is used for the containment of hazardous and toxic wastes that were generated during remediation of at the Chemical Waste Landfill (CWL), located adjacent to the CAMU. The CWL is regulated under a stand-alone Post-Closure Care Permit.

The CAMU post-closure care plan incorporates the requirements of 40 CFR § 264.117 through § 264.120 and § 264.552(e)(6). Post-closure care of the CAMU began on October 15, 2003, and is to continue for 30 years after that date, unless the 30-year period is shortened or extended, as specified in Part 7 of the Permit. Additional information on post-closure practices to be conducted at the CAMU, and a description of the Unit is provided in Permit Attachment A (*Facility Description*).

**Attachment I, *Reserved,*** is reserved for future use. No future use is currently planned by the Department or the Applicant.

**Attachment J, *Hazardous Waste Management Units,*** lists the hazardous and mixed waste management units (HWMUs) at the Facility. The Attachment includes several tables: 1) Tables J-1.1 and J-1.2 show the active portion of the Facility, listing units for treating and storing wastes, 2) Table J-2 shows permitted units in post-closure care, listing units that are not active, and have completed closure 3) Table J-3 shows the closed portion of the Facility, listing units that are not active, have completed closure, and are not subject to post-closure care.

**Attachment K, *Solid Waste Management Units and Areas of Concern,*** comprises four lists of SWMUs and AOCs: (a) Table K-1 is a listing of SWMUs/AOCs requiring corrective action under the Consent Order, Table K-2 is a listing of SWMUs/AOCs/HWMUs requiring corrective action under the Permit (currently none), (c) Table K-3 is a listing of SWMUs/AOCs/HWMUs where corrective action is complete with controls, and (d) Table K-4 is a listing of SWMUs/AOCs/HWMUs where corrective action is complete without controls.

**Attachment L*, Figures,*** contains figures referenced elsewhere in the Permit.

**Attachment M, *Long-Term Monitoring and Maintenance Plan for SWMUs and AOCs Granted Corrective Action Complete with Controls,*** contains long-term maintenance and monitoring plans for SWMUs and AOCs with controls in place after corrective action is complete.

## O. GENERAL CONSIDERATIONS

Important general issues concerning the Permit are as follows:

**Relation of Permit to Consent Order**: Corrective action to clean up releases of hazardous and mixed wastes at SNL has proceeded since April 29, 2004 under a Consent Order that addresses contamination throughout the SNL Facility. The Permit would not change any part of the Consent Order and the Consent Order remains in effect (more information concerning the relationship between the Permit and the Consent order in this Fact Sheet is found in Section P under the discussion for Permit Section 8.1.1).

The cleanup levels set forth in the Permit follow the Department's general standard of human health target risk level of $10^{-5}$ for carcinogens and a Hazard Index of 1.0 for non-carcinogens. Similar standards are contained in the Consent Order (§ VI.K). In case of impracticability of achieving these standards, the Applicants may seek a variance from the cleanup standards. The Consent Order has a similar provision § VI.L. Permit Part 8 would closely follow §§ III.M-III.Y, and IV-X of the Consent Order.

The Department requires the Applicants to adhere to the schedules included in the Consent Order unless an extension of time is granted for submittal of a corrective action document as provided for in Consent Order § III.J.2. The Applicants are subject to enforcement action under Consent

Order § III.G if the Applicants do not comply with the Consent Order schedule. Such enforcement action may include requirements to complete additional investigation, monitoring and remediation to mitigate deficiencies with work already completed.

One category of circumstances where the Permit would regulate corrective action, when finalized, is the implementation of controls for any SWMUs or AOCs that have been listed as having corrective action complete with controls. The Department will include such SWMUs and AOCs in Attachment K (*Listing of SWMUs and AOCs*), Table K-3 (*SWMUs, AOCs, and HWMUs for which Corrective Action is Complete with Controls*). The specific controls associated with the sites are to be specified in the documents associated with the completion of the corrective action and in Permit Attachment K, Table K-3.

**Financial assurance:** Regulations under the HWA require an applicant to provide financial assurance for closure and post-closure care of hazardous and mixed waste management units. (40 CFR §§ 264.143, 264.145); however, government facilities, such as SNL, are exempt from these regulations.

**Department regulation of mixed waste**: The Department regulates the Applicants under the New Mexico Hazardous Waste Act. That statute regulates "hazardous waste" which, by definition, does not include radioactive materials that are classified as source, special nuclear, or byproduct materials under the 1954 Atomic Energy Act (AEA). 74-4-3(M) NMSA 1978. These radioactive materials are regulated by DOE as authorized by Congress. Some of the waste managed at SNL is "mixed waste" which contains substances that are hazardous and regulated under the Hazardous Waste Act and also radioactive and regulated under the AEA. Various court decisions hold that by the AEA, state efforts to regulate the radiological threats of mixed waste on human health and the environment are invalid. *See, e.g., Pacific Gas & Electric Co. v. State Energy Resources Conservation & Development Commission*, 461 U.S. 190 (1983). Thus, the Department only regulates the hazardous component of mixed waste.

Congress addressed the interplay between the AEA and RCRA. Congress has said that solid waste does not include source, special nuclear, or byproduct materials (42 USC § 6903(27)) and that RCRA shall not apply to activities or substances that are subject to the AEA to the extent that such application is "inconsistent with the requirements of" the AEA (42 USC § 6905(a)). Congress has, simultaneously, waived sovereign immunity with regard to hazardous waste regulation and has directed that hazardous waste permits shall include terms "necessary to protect human health and the environment." (42 USC § 6925(c)(3); 40 CFR § 270.32(b)(2)).

Based on this direction from Congress, EPA and DOE have concluded that a RCRA permit may regulate the hazardous component of mixed waste. *See*, EPA, Clarification of Interim Status Qualification Requirements for the Hazardous Components of Radioactive Mixed Waste, 53 Fed. Reg. 37045 (Sept. 23, 1988); EPA, State Authorization to Regulate the Hazardous Components of Radioactive Mixed Waste under the Resource Conservation and Recovery Act, 51 Fed. Reg. 24504 (July 3, 1986). DOE expressly supports a reading of the law that "affords the greatest scope to the RCRA regulatory scheme, consistent with the requirements of the AEA." 52 Fed. Reg. 15937, 15939 (May 1, 1987). DOE has observed that "RCRA was intended to have some applicability to materials that were already regulated under the AEA" and supports "complementary regulation under both statutes of substances that under prior law might have been regulated exclusively by the AEA." (*id.*15940 n.9). EPA reviewed NRC regulations to identify inconsistencies between RCRA and AEA-based regulations. "No inconsistencies

were identified as a result of this comparison although RCRA was more prescriptive in some instances and differences in stringency were observed. Differing or more stringent requirements do not necessarily constitute inconsistent requirements." (53 Fed. Reg. at 37048). Only in case of direct conflict with AEA requirements must a RCRA permit cede to the AEA.

**Subpart X Open Burn (OB) Units:** Open burning is the destruction of reactive and ignitable hazardous wastes, by self-sustained combustion after being ignited, to remove the characteristics of ignitability and reactivity. Such burning t produces air contaminants that are directly emitted into the atmosphere without first passing through a stack or chimney from an enclosed chamber. The Thermal Treatment Unit (TTU) at the Facility burns chiefly silver acetalide silver nitrate (SASN) wastes and SASN contaminated wastes in a steel pan designed to withstand high temperatures. The purpose of this kind of treatment is to destroy the explosive component of the waste, which is considered hazardous. The Applicants are prohibited by the U.S. Department of Transportation from shipping this type of waste off site due to the potential for the waste to ignite or react. Furthermore, while there are certain requirements the Applicants must adhere to in order to ensure the protection of human health and the environment; they would be authorized by New Mexico statute and regulation to treat these wastes so long as they do so in accordance with a hazardous waste facility permit.

Open Burn units, such as the TTU, are considered RCRA miscellaneous units, which are regulated by 40 CFR Part 264, Subpart X.

The Department understands that a small amount of the high explosives treated at the TTU Unit contains plastics that are capable of generating dioxins and furans. Thus, the Department has required in the Permit that the Applicants sample soil for dioxins, furans, and other substances to determine if these substances are detectable in the soil, and if so, to ensure that the concentrations of contaminants in soil would not exceed levels that would pose a threat to human health.

Waste to be treated by open burning at the TTU have special characterization requirements, certain wastes are prohibited, and for all wastes treated at the TTU annual and batch limits are imposed. The conditions regarding treatment by open burning are in Permit Part 5 (*Treatment by Open Burning*). Open burning may not be conducted during electrical storms or high winds. The Permit prescribes operating procedures and time limits for open burning and several more operational safety precautions.

Regulations at 40 CFR § 264.601(c) require that the operation of miscellaneous units be protective of air quality by preventing any release that may have adverse effects on human health or the environment. Both the Department and the Applicants have conducted air modeling for the TTU. Such modeling is an assessment of the migration of waste constituents produced by the open burning process and released into the air. The primary objective of the air modeling is to assess adverse effects to human health and the environment. The models show that risks to a hypothetical resident located at the nearest fence lines to the TTU were acceptable for both exposure to soil and air borne contaminants, and that ecological risks were acceptable for both on site and fence-line receptors.

**Offsite waste:** Under the Permit, the Applicants would not be allowed to receive waste from off site, with specific exceptions that are intended to ensure that the Facility's waste inventory is not enlarged by the addition of new wastes for which no off-site disposal pathway exists. Exceptions

are noted under Section 2.2.3 of the Permit and are summarized in Section Q of this Fact Sheet under PS 2.2.3. Further, the Applicants would need to confirm that any off-site waste received at the Facility meets the conditions of Permit Section 2.2.3 at the time the Applicants examine the shipping manifest, and that any discrepancy for an off-site waste is to be resolved.

**Relation of Permit to Federal Facility Compliance Order**: The Federal Facility Compliance Act (FFCA) was enacted in 1992 to require federal facilities to comply with waste treatment requirements and the storage prohibition of the Land Disposal Restrictions (LDR) under RCRA for mixed waste. The FFCA makes penalties imposed under state hazardous waste statutes hazardous and mixed waste enforceable against federal entities. Under the FFCA, the Department reached agreement with the Applicants in 1995 which was later memorialized as the SNL Federal Facility Compliance Order (FFCO). The Site Treatment Plan (STP) Compliance Plan Volume (CPV), prepared under the FFCO, identify specific volumes of and types of mixed wastes, and dates for shipping mixed waste off-site for treatment or treatment and disposal. The primary purpose of the FFCO is to compel the Applicants to treat and dispose of mixed waste that in general has been in storage for many years. However, newly generated mixed waste can be covered under the FFCO subject to certain conditions.

Permit Section 2.3 would prohibit the storage of hazardous waste beyond one year from the date that the wastes were first placed into storage at a permitted unit. That storage would be exempt from the requirement if the Applicants demonstrate to the Department that such storage is solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal. The FFCO addresses mixed waste where a storage exemption cannot be demonstrated, and treatment or disposal options are not available at an offsite TSDF. The STP is revised occasionally to show wastes that enter and leave the waste inventory. Currently, only a single radioactive source remains in inventory under the provisions of the FFCO, as all other mixed waste previously covered under the FFCO prior to 2010 has been treated in compliance with the storage prohibition in 40 CFR Part 268.

**Seismic location standard**: Proposed new or enlarged units are subject to the requirement to show compliance with the seismic location standard at 40 CFR §§ 264.18(a) and 270.14(b)(11)(ii). These regulations prohibit location of a new facility closer than 200 feet to a fault that has had displacement in Holocene time. The regulations are applicable only to a "new facility" and are not applicable to currently permitted or interim status units.

Based on information transmitted in the Part B Application for the Facility, the Department has determined that there are no Holocene faults within 200 feet of any of the units proposed for permitting, and furthermore, none of the units to be permitted is a new unit.

**Omnibus provision:** Under 40 CFR Section 270.32(b) a RCRA permit may contain terms that are more specific than the regulations. As EPA has explained, the intent of Section 270.32(b) is to implement Congress's intent to allow specific tailoring of permit conditions:

> "Congress amended § 3005(c) to provide that each RCRA permit issued shall contain such terms as the Administrator (or the State) determines necessary to protect human health and the environment. The accompanying legislative history indicates a Congressional intent to authorize the Administrator to add permit conditions beyond those specified in the regulations. S. Rep. No. 284, 98th Cong., 1st Sess. 31 (1983). The

> Agency is today implementing this amendment by adding a new subsection to the RCRA regulations, concerning the establishment of permit conditions, § 270.32(b)(2)."
>
> Improvements and changes in control and measurement technology are factors that Congress intended the Administrator to take into account when adding permit terms and conditions as necessary to protect human health and the environment. *Id.* Accordingly, the Administrator has the authority under section 3005(c) to add conditions necessary to protect human health and the environment when reviewing an application for permit renewal. In addition, the Administrator shall consider any changes that may have occurred in operation of the facility since the permit was issued, and other information concerning the impact of the facility on human health and the environment. Section 3005(c) provides that each RCRA permit issued under section 3005(c) shall contain such terms as the Administrator deems necessary to protect human health and the environment. The Congressional intent underlying this amendment is to authorize the Agency to impose permit conditions beyond those mandated by the regulations, such as new or better technologies or other new requirements. S. Rep. No. 284, 98th Cong., 1st Sess. 31 (1983)." EPA, 50 Fed Reg. at 20702, 20722-23 (July 15, 1985).

Additionally, EPA has stated:

> "[O]ne of the most useful purposes of issuing a permit is to prescribe with specificity the requirements that a facility will have to meet, both so that the facility can plan and operate with knowledge of what rules apply, and so that the permitting authority can redirect its standard-setting efforts elsewhere." 45 Fed. Reg. 33290, 33312 (May 19, 1980) (Discussing an earlier, similar provision at 40 CFR § 122.8).

**Closure**: Closure, under Part 6 of the Permit, would require the Applicants to remove all hazardous wastes from a unit undergoing closure and to ensure that contaminated media (*e.g.,* soils) do not contain concentrations of hazardous constituents greater than cleanup levels specified in Part 8. If the Applicants cannot comply with these conditions, they would have to carry out site-specific controls and post-closure care at the unit.

**Land disposal restrictions**: The Land Disposal Restrictions (LDRs) are part of the HWMRs. The LDRs prohibit the land disposal of certain hazardous and mixed wastes unless they have been treated to meet regulatory standards. They also prohibit the storage of LDR-prohibited wastes for more than one year unless treatment standards have been met or other exceptions apply. These restrictions are included in the draft Permit. Further, regulations require the waste generator to accompany each shipment of hazardous and mixed waste with a certification as to the characterization of the waste under LDR requirements.

**Emergency response:** The draft Permit contains a Contingency Plan (Attachment D) which would require the Applicants to implement emergency response when there is a fire, explosion, release of waste that may endanger human health or the environment. The Permit would also require the Applicants to notify the Department of any emergency that calls for implementation of the Contingency Plan.

**Permit-as-shield**: The permit shield provision in draft Permit Section 1.4, authorized by 40 CFR § 270.4, applies only to activities specifically authorized or addressed by the Permit. This approach means that any waste management not fully disclosed by the permit application, and thus not mentioned in the Permit, will not escape enforcement action if the waste management

activity is in violation of the HWMR. *See* the explanatory OSWER Directive at 1987 WL 417946 (Nov. 19, 1987), calling for limitation of permit shield terms to "those management practices specifically authorized by this permit."

**Land conveyance and transfers:** The Permit contains conditions that would need to be met before land subject to the requirements of the Permit may be conveyed or transferred. The Applicants would have to give notice, if possible, before the planned conveyance or transfer and describe the status of any investigation or remediation. The Department would then determine whether closure, post-closure, or corrective action efforts are sufficiently protective in light of the intended use of the land and, if not, what further efforts are needed. DOE may be required to restrict future use of the land to those uses consistent with its cleanup level (*e.g.*, industrial use only). A change in the Facility boundary would also require a modification to the Permit. Requirements for conveyance or land transfer are covered under Permit Section 1.20.

**Regulation of SNL as a waste generator**: SNL generates most of the waste that would be regulated under this Permit at numerous sites throughout the Facility. The process of waste generation is regulated separately from treatment or storage, and a permit to generate hazardous waste is not required Thus, 40 CFR Part 262 regulates hazardous and mixed waste generators, requires the generator to make a hazardous waste determination, and generally limits the duration of storage of waste without a permit to no more than 90 days. It also allows accumulation for longer than 90 days of up to 55 gallons of hazardous or mixed waste or one quart of acutely hazardous or mixed waste at a location near the point of generation. (40 CFR).

§ 262.34. Title 40 CFR Part 263 regulates transporters and requires that any transporter of hazardous or mixed waste must clean up any discharge that occurs during transportation. (40 CFR § 263.31).

**Community relations plan:** The Permit would direct the Applicants to establish and carry out a community relations plan to inform the nearby communities and members of the public of permit-related activities. In addition, the plan would provide the public a means to give feedback and input to the Applicants.

**Information repository**: The Permit would require the Applicants to establish an information repository (IR) containing specific documents concerning the issuance and operation of the Permit. The Department considers an electronic index of the IR available through the internet to be more readily accessible and therefore likely to be more utilized. The Department considers the requirement to include particular documents in an electronic index to be easier to enforce because the Department can access an internet-based repository at any time. In any event, the Department maintains a physical copy of information in the IR in its Administrative Record. Content of the IR is specified in the draft Permit in Section 1.17.

**E-mail notification**: The Permit would require the Applicants to issue e-mail notification of the filing of specified documents that will be of interest to members of the public. Interested persons may enter their e-mail address in a list maintained by the Applicants. When documents are filed, the Applicants will give notice within 30 days to those on the list.

**Administrative Record:** The Department maintains the Administrative Record (AR) supporting issuance of the Permit. The Administrative Record consists of the Application and all other documents and data considered by the Department in determining whether to issue the Permit

and the terms and content of the Permit. This Record is available for review by any member of the public as provided for in Section B of this Fact Sheet.

## P. PART SPECIFIC CONDITIONS

### PART 1 -- GENERAL PERMIT REQUIREMENTS

Part 1 contains the following provisions. (Many of these provisions follow the form contained in EPA's model permit for RCRA regulation. *See* **http://www.epa.gov/epawaste/hazard/tsd/permit/sample.htp).**

**Permit Section (PS) 1.1 – Authority: The section refers to the statutory authority underlying the Permit, namely: the Hazardous Waste Act (HWA), t**he Hazardous Waste Management Regulations (HWMR), and the Resource Conservation and Recovery Act (RCRA).

PS 1.2 – **Permittees and Permitted Activity:** This section identifies the Applicants, who would become the Permittees, as the United States Department of Energy (DOE) and Sandia Corporation. It recites that the activities regulated are hazardous and mixed waste management, storage and treatment, closure and post-closure care, and corrective action.

PS 1.3 – **Permit Citations:** This section explains how references to the regulations are generally made throughout the draft Permit. The draft Permit generally cites federal regulations incorporated into the HWMR by reference.

PS 1.4 – **Effect of Permit:** This section contains a permit-shield provision, providing that compliance with the Permit shall constitute compliance with RCRA and HWA as to activities specifically authorized or addressed by the Permit, except for requirements becoming effective by statute after the Permit is issued. The section also states that compliance with the Permit, once effective, does not provide a defense to any order or action brought to enforce the HWA or RCRA and does not constitute an authorization to infringe the rights of others nor relieve the Applicants from their responsibility to comply with all applicable laws. This provision follows the form contained in EPA's model permit for RCRA regulation. (*See* **http://www.epa.gov/epawaste/hazard/tsd/permit/sample.htp**).

PS 1.5 – **Severability:** This section states that if any permit provision is found invalid, the remainder shall not be affected.

PS 1.6 – **Definitions**: Defined terms are stated in this section.

PS 1.7 – **Effect of Inaccuracies in Permit Application:** The section states that the Permit is based upon information in the Part A and B Applications and that any inaccuracies may be grounds for termination, revocation and reissuance or modification of the Permit. Applicants

PS 1.8.1 - **Duration of Permit**: The Permit is effective for a fixed term of ten years. This section is based upon 40 CFR § 270.50(a).

PS 1.8.2 – **Permit Modification**: Modifications are required to comply with the applicable regulations, 40 CFR §§ 270.41 through 270.43.

PS 1.8.3 – **Permit Suspension, Termination and Revocation and Re-Issuance**: The revised draft Permit in this Section refers to applicable regulations concerning suspension, termination, and revocation and reissuance of a permit for cause. *See* 40 CFR §§ 270.41, 270.43.

PS 1.8.4 – **Permit Re-Application**: This section calls for submission of any renewal application at least 180 days before the expiration date of the Permit. This section is based upon 40 CFR § 270.10(h)(1).

PS 1.8.5 – **Continuation of Expiring Permit**: This section states that a timely renewal application maintains the expiring permit in effect until a new permit is effective, on stated conditions. This section is based upon 40 CFR § 270.51.

PS 1.9.1 – **Duty to Comply:** This section would require the Applicants to comply with all conditions in this Permit, except to the extent and for the duration noncompliance is authorized in a temporary emergency permit pursuant to 40 CFR § 270.61.

PS 1.9.2 – **Transfer of Permit**: This section requires Department approval for any transfer of the Permit. Transfer requires modification or revocation and re-issuance. The requirement is supported by 40 CFR § 270.30(l)(3). The transfer of a Facility permit may require filing of a disclosure statement pursuant to 74-4-4.7 NMSA 1978.

PS 1.9.3 – **Need to Halt or Reduce Activity Not a Defense**: This section states that it is no defense to an enforcement action that the Applicants would need to halt or reduce permitted activities in order to comply with the Permit. The requirement is supported by 40 CFR § 270.30(c).

PS 1.9.4 – **Duty to Mitigate**: This section states that in event of noncompliance, the Applicants would need to take all reasonable steps to minimize releases and to prevent adverse effects on health and the environment. The requirement is supported by 40 CFR § 270.30(d).

PS 1.9 – **Proper Operation and Maintenance**: This section states that the Applicants would need to properly operate and maintain all facilities, including effective performance; adequate funding, staffing, and training, and adequate laboratory and process controls. The requirement is supported by 40 CFR § 270.30(e).

PS 1.9.6 - **Duty to Provide Information**: The Applicants would be required to furnish to the Department within a reasonable time any relevant information that the Department may request regarding compliance with or determining possible modification, suspension, termination, or revocation and re-issuance of the Permit. The requirement is supported by 40 CFR § 270.30(h).

PS 1.9.7– **Inspection and Entry**: The Applicants would be required to allow Department representatives to have access to and inspect any facilities regulated under the Permit, to provide records required under the Permit, and to sample and monitor. Access to regulated facilities is subject to reasonable limitations based on protection of human health or the environment Photographs taken by the SNL personnel and provided to the Department within a reasonable time will be considered by the Department to satisfy the requirement to allow the Department to take photographs. The requirement is supported by 40 CFR § 270.30(i).

PS 1.9.8 – **Representative Sampling**: This section would require that all samples and measurements taken by the Applicants under the Permit shall be representative of the medium, waste, or material being sampled. The requirement is supported by 40 CFR § 270.30(j)(1).

PS 1.9.9.1– **Reporting Planned Changes**: This section would require the Applicants to give written notice to the Department of planned physical changes or additions to any permitted unit. The requirement is supported by 40 CFR § 270.30(l)(1).

PS 1.9.9.2 – **Reporting Anticipated Noncompliance**: This section would require the Applicants to give advance written notice of any planned changes or activity that may result in noncompliance with the Permit. The requirement is supported by 40 CFR § 270.30(l)(2).

PS 1.9.9.3 – **24 Hour and Subsequent Reporting**: The Applicants would be required to report to the Department, orally and in writing, any noncompliance that may endanger human health or the environment. The first report is due within 24 hours. The requirement is supported by 40 CFR § 270.30(l)(6).

PS 1.9.9.4– **24 Hour Oral Report**: The Applicants would be required to make an initial report within 24 hours of becoming aware of a noncompliance Elements of the report are stated. The requirement is supported by 40 CFR § 270.30(l)(6).

PS 1.9.9.5 – **5 Day Written Report**: This section would require the Applicants to make a written report within five days after becoming aware of a noncompliance. Elements of the report are stated. If the report is made by e-mail, the same or an updated report is to be submitted within 15 days. The requirement is supported by 40 CFR § 270.30(l)(6)(iii).

PS 1.9.9.6 – **Reports required by the Contingency Plan**: This section would require reporting of information about any implementation of the Contingency Plan pursuant to the reporting requirements required by 40 CFR § 264.56(i), Permit Section 2.13.5.3, and the Contingency Plan.

Emergencies are to be reported as follows:

1. If an assessment indicates that evacuation of local areas may be advisable, he or she are to immediately notify the appropriate local and tribal authorities and are to be available to assist appropriate officials in deciding whether local areas should be evacuated (s*ee* 40 CFR § 264.56(d)(1)); and
2. Immediately notify the New Mexico Department of Public Safety dispatcher (1-505-827-9329), and the National Response Center (1-800-424-8802) (*see* 40 CFR § 264.56(d)(2)).

PS 1.9.9.7 – **Reports of Other Noncompliance**: This section requires an annual report of all instances of noncompliance not reported under any other section of the Permit. The requirement is supported by 40 CFR § 270.30(l)(10).

PS 1.9.9.8 - **Manifest Discrepancy Report:** This section requires that if a significant discrepancy in a manifest is discovered, the Applicants are to attempt to reconcile the discrepancy. If not resolved within 15 calendar days, the Applicants are to submit a letter report, including a copy of the manifest to the Department. (*See* 40 CFR § 264.72 and 40 CFR § 270.30(l)(7)).

PS 1.9.9.9 - **Unmanifested Waste Report:** This section requires that if the Facility accepts for treatment, or storage unmanifested hazardous or mixed waste from an off-site source, the Applicants are to meet the reporting requirements of 40 CFR § 264.76. (*See* 40 CFR § 270.30(l)(8)).

PS 1.9.9.10 - **Biennial Report:** This section would require the Applicants to submit a biennial report by March 1 of each even numbered calendar year. The report must cover Facility activities during the previous calendar year in accordance with the requirements of 40 CFR § 264.75. (*See* 40 CFR § 270.30(l)(9)).

PS 1.10 - **Admissibility of Data:** This section would require that in any administrative or judicial action to enforce a condition of the Permit, the Applicants are to waive any objection to the admissibility as evidence of any data generated pursuant to the Permit.

PS 1.11 – **Other Information**: This section would require that whenever the Applicants become aware that they failed to submit any relevant facts in a Permit Application, or submitted incorrect information in a Permit Application, or in any report to the Department, the Applicants shall promptly submit such facts or correct information in writing to the Department. (40 CFR § 270.30(l)(11)).

PS 1.12 – **Signatory Requirement**: This section would require signing and certification of submissions. The requirement is supported by 40 CFR §§ 270.11 and 270.30(k).

PS 1.13 – **Compliance Schedule**: The section would direct the Applicants to adhere to the compliance schedules in the Permit. Compliance schedules are authorized by 40 CFR § 270.33(a).

PS 1.14.1 – **Information Submittal**: This section contains directions as to making submissions to the Department.

PS 1.14.2 – **Approval of Submittals**: This section provides that upon the Department's written approval, all submittals and associated schedules shall become enforceable as part of this Permit in accordance with the terms of the Department's written approval (74-4-10(A) NMSA 1978). Such documents, as approved, are to control over any inconsistent requirements of this Permit. This section also states that the document approval process shall be performed in accordance with 20.4.2 NMAC**.**

PS 1.14.3 – **Extensions of Time**: This section would allow the Applicants to seek an extension of time to comply with a permit requirement. It is supported by the authorization to adopt a compliance schedule. (40 CFR § 270.33).

PS 1.15 – **Confidential Information**: This section would authorize the Applicants to claim that any information submitted to the Department is confidential and should not be made public. This provision is supported by 74-4-4.3(D) and (F) NMSA 1978 and 40 CFR §§ 260.2 and 270.12. However, most information provided under the Permit will be available for public review as required by law.

PS 1.16 – **Reserved**: This section is reserved.

PS 1.17 – **Information Repository**: This section would require that the Applicants establish an information repository. The section lists the documents to be included in the repository, which are important documents relating to the issuance and operation of the Permit. The establishment of an information repository is in accordance with 40 CFR §§ 124.33(c) through (f) and 270.30(m). Section 124.33(c) states "the information repository shall contain all documents, reports, data, and information deemed necessary by the Director to fulfill the purposes for which the repository is established." The documents are to be indexed, and the index searchable. New documents are to be added within 30 days after their submittal to the Department. There are provisions for informing the public of the availability of the repository.

PS 1.18 – **Community Relations Plan**: This section would require the Applicants to set up a community relations plan to inform communities and interested members of the public about permit actions, to seek to minimize disputes, and to receive feedback from communities and

members of the public. This requirement is imposed under the Department's omnibus authority, 40 CFR § 270.32(b)(2).

PS 1.19 – **Dispute resolution**: Permit Sections 1.19.1 through 1.19.4 would provide a process to resolve a dispute concerning the Department's decision on a submittal. Within 30 days after receiving the Department's decision, the Applicants may serve notice of disagreement, with an explanation of the reasons. The parties then have 30 days to meet to resolve the issue. In the absence of agreement, the Department Secretary will issue a final decision on the issue.

The dispute resolution process is not intended to modify a permit but to address a Permittee's concerns about a Department's response to a submittal. Thus, disputes may involve differences in opinion on technical or regulatory matters about reports, plans, proposals, and other submittals and that do not call into question conditions of the Permit. A dispute resolution will not by itself modify the Permit and will not bypass the permit modification procedures.

PS 1.20 – **Real Property Conveyance and Transfer**: The draft Permit contains conditions that must be met in order for land subject to the requirements of the Permit to be conveyed or transferred. The land conveyance/transfer requirements in the Permit apply only to properties within the permitted units. There is a provision in the Consent Order (§ III.Y) that applies to other Facility property.

Under the Permit, the Applicant would give notice before the planned conveyance or transfer and describe the status of any investigation or remediation. The notice must describe the property to be conveyed or transferred, the new owner, and the location on the property of any unit subject to the Permit, including existing solid waste management units or areas of concern that may have undergone corrective action. It must also describe the presence of any known or suspected contaminants (hazardous waste, hazardous constituents) and the status of investigation or remediation. A notice on conveyance must comply with CERCLA § 120(h), 42 USC § 9620(h), and indicate any restrictions on future use of the property.

PS 1.20.1.1 – **Determination of Need for Further Action**: This section states that the Department will determine whether closure, post-closure or corrective action efforts are sufficiently protective in light of the intended use of the property and, if not, what further efforts are needed. The Applicants must advise the new owner of any future obligations as to the property. A permit modification is required to update the new boundary of the Facility.

PS 1.20.1.2 – **Restricted Use**: If cleanup has achieved less than residential-use levels, DOE would be required to include a deed restriction to limit future use of the land to those uses consistent with its cleanup level (*e.g.*, industrial use only).

PS 1.20.1.3 – **Enforceability Against Subsequent Owners**: This section states that the deed covenant required by CERCLA § 120(h)(3)(A)(ii), which warrants that all necessary remedial action has been taken and any further such action shall be taken by the United States, and the deed restriction calling for restricted use, shall be an obligation of the transferee enforceable by the Department and the transferor.

PS 1.20.1.4 – **EPA Institutional Controls Tracking System**: This section states that EPA Region 6 is to be advised of any conveyance of any property subject to the Permit.

PS 1.20.2 – **Transfer of Facility Property to Another Federal Agency**: This section would provide for notice before any transfer of operational control of land subject to the Permit to another federal agency.

PS 1.20.2.1 – **Notice and Meeting:** This Section would require appropriate representatives of DOE to meet with representatives of the Department and the transferee federal entity.

PS 1.20.2.2 – **Department's Determination**

This Section would require that within 60 days after the meeting required under Section 1.20.2.1, the Department will determine whether the closure, post-closure, and any corrective actions implemented by the Applicants with respect to the transferred property are protective of human health and the environment in light of the transferee entity's intended use of the property.

PS 1.20.2.3 – **Contrary Land Use**

This Section would provide that if the Department determines that the transferee entity plans to use, or is using, the subject property in a manner contrary to the use(s) discussed at the meeting described under Permit Section 1.20.2.1, the Department will notify DOE and the transferee entity in writing and arrange a meeting to discuss the issues. The Department reserves the right to take any administrative or judicial action to address the contrary land use.

**PART 2 -- GENERAL FACILITY REQUIREMENTS**

PS 2.1 - **Design, construction, maintenance and operation**: This section requires that the design, construction, maintenance and operation of each permitted unit be conducted in a manner to minimize the possibility of fire, explosion, or any sudden or nonsudden release. This condition is supported by 40 CFR § 264.31.

PS 2.2.1 – **Permitted Waste**: Permit Section 2.2 limits the Applicants to management of only those wastes listed in Permit Parts 3-5 and Attachment B. No waste is to be managed at the CAMU except waste generated by post-closure care activities.

PS 2.2.2 – **Hazardous and Mixed Waste from Foreign Sources:** This Section would prohibit the Applicants from accepting for storage, treatment, or otherwise managing hazardous and mixed wastes from foreign sources.

PS 2.2.3 – **Hazardous and Mixed Waste from Off-Site Sources**: Permit Section 2.2.3 identifies off-site sources that the Applicants may accept, treat, or otherwise manage waste from at the Facility, specifically:

1. Treatment-derived waste or residues from wastes generated at the Facility, sent off site for treatment at off-site facilities, and subsequently returned to the Facility prior to final disposition off-site.
2. Waste generated by the Applicants as a result of investigation or remediation of a solid waste management unit (SWMU) or area of concern (AOC) listed in Attachment K, Table K-1 (*SWMUs and AOCs Requiring Corrective Action*).
3. Wastes from SNL operations located within the metropolitan Albuquerque area.

PS 2.2.4 – **Restrictions on PCB-Contaminated Waste**: This section would prohibit storage of liquid hazardous or mixed wastes containing PCBs in excess of 50 parts per million, unless such

storage is in compliance with 40 CFR § 761.65(b)(*see* 40 CFR § 268.50(f)) and is for less than one year.

PS 2.3.1 – **Prohibition on Dilution or Aggregation as a Substitute for Treatment**: Section 2.3.1 would prohibit the dilution of waste that is subject to the land disposal restrictions, or its residual, as a substitute for treatment pursuant to 40 CFR § 268.3. It would also prohibit dilution by addition of a solid waste and ineffective treatment that fails to destroy, remove, or immobilize hazardous constituents. It also states that aggregating or mixing wastes in a legitimate treatment process is not prohibited. RCRA § 3004(m) requires that hazardous constituents be destroyed, removed, or immobilized before land disposal. Cases hold that hazardous constituents are not destroyed, removed, or immobilized by simple dilution. *Chemical Waste Management v. EPA*, 976 F.2d 2, 16-20 (D.C. Cir. 1992), *cert. denied*, 507 U.S. 1057 (1993).

PS 2.3.2 – **Documentation of Exclusion or Exemption**: Permit Section 2.3.2 would require that the Applicants place a one-time notice in the Operating Record for any LDR prohibited wastes that the Applicants determine are excluded from the definition of hazardous or solid waste or exempted under 40 CFR §§ 261.2-261.6 after generation. The applicable regulation, 40 CFR § 268.7(a)(7), requires that a generator who determines that he is managing a LDR-prohibited waste that is excluded or exempted after generation must place a one-time notice describing the generation and exclusion or exemption of the waste in the facility's files. Potential exemptions include, for example, (a) addition of adsorbents in containers, (b) wastewater treatment unit, (c) elementary neutralization unit, (d) emergency response, (e) closed recycling unit, evaporator bottoms, among others. Nearly all of the waste managed by the Applicants is generated on site, so that, although the Permit would authorize storage and treatment, the Applicants are also generators, subject to § 268(a)(7), and obligated to make the one-time notice. The notice must be specific to the waste involved and explain the circumstances said to give rise to an exclusion or exemption. Further, since the exemption may arise from events well after generation, it is appropriate to impose the requirement upon the Applicants under their storage and treatment permit. Under this provision, on-site files include files created by Applicants as generator. This permit condition is included to ensure that the Applicants are accurately and comprehensively documenting exemptions.

PS 2.4.1 – **General Waste Characterization Requirements**: This section contains general waste characterization requirements. The Applicants' waste characterization would need to follow (a) 40 CFR § 264.13 (b), Part 2 of the Permit, (c) Attachment C, Waste Analysis Plan, and (d) the requirements of 40 CFR Parts 264 and 268 with respect to information needed to treat, store, or otherwise manage a hazardous and mixed waste. Specific elements of characterization are enumerated as follows to manage and treat waste:

1. EPA hazardous waste numbers;
2. Characterization needed to determine LDR status;
3. Characterization needed to comply with compatibility rules, to prevent impairment of containers, and to prevent ignition or reaction of wastes;
4. Whether the waste contains free liquids; and
5. A description of the waste generation process.

The basis for each of the above 5 elements of characterization are as follows, enumerated in the same order.

1. EPA hazardous waste numbers are required to determine whether the waste is authorized under the Permit.
2. Characterization to determine LDR status is required by 40 CFR § 268.7 as to generators and treatment facilities, and records kept. Characterization for LDR purposes must identify any underlying hazardous constituents for characteristic wastes.
3. Characterization for compatibility purposes is necessary to comply with rules applicable to storage of incompatible wastes for the purpose of safe management such as 40 CFR §§ 264.17, 264.172, 264.177, 264.193(c)(1), 264.199. Characterization to prevent ignition and reaction is necessary to comply with rules applicable to storage of ignitable and reactive wastes for the purpose of safe management such as 40 CFR §§ 264.17, 264.177, 264.198.5.
4. Characterization for free liquids is necessary to comply with rules applicable to storage of wastes containing free liquids in an effort to prevent releases, such as 40 CFR § 264.175(a) and (b).6.
5. Description of the waste generation process is necessary to properly assign hazardous waste numbers and to ensure compliance with the LDR regulations.

Permit Section 2.4.1 would also require use of Department-approved sampling and analysis methods – generally those specified in SW-846, acceptable knowledge, or a combination of the two methods as needed to properly characterize a waste. SW-846 methods are those described in the EPA publication, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (U.S. EPA Publication SW-846), which contains characterization methods that have been approved through a public process. Numerous RCRA provisions call for application of methods contained in SW-846. *See, e.g.,* 40 CFR § §§ 260.11(c)(3), 261.22, 261.24, 268.7. The use of acceptable knowledge is conditioned upon the Applicants' determination that such information provides the data called for by items (1) – (6) above. If such information is insufficient, sampling and analysis would need to be conducted to complete characterization.

Permit Section 2.4.1 would also require that all waste characterization information be kept in the Operating Record as proof that the waste has been or is being properly managed.

PS 2.4.2 – **Sampling and Analysis for Hazardous and Mixed Wastes**: Permit Section 2.4.2 would require that sampling and analysis follow Department-approved procedures, including methods contained in SW-846 and those specified in Permit Attachment C. SW-846 methods are approved by EPA. The requirements that samples be representative of the nature and of the entire volume of a waste, that sampling procedures preserve the original physical form and composition of a waste, and that prevention of contamination and changes in concentration are fundamental principles for obtaining high quality and representative samples.

Permit Section 2.4.2 would also require a quality assurance/quality control (QA/QC) program in accordance with SW-846. The Applicants must retain records of QA/QC procedures and information for purposes of verification and enforceability of this requirement. The condition to analyze method blanks, trip blanks, field blanks, duplicates, and various spike samples identifies specific tests designed to measure the quality of laboratory analysis being conducted under a QA/QC program.

The requirement that any independent contract laboratory operate in accordance with the Permit waste analysis requirements seeks to ensure consistency in characterization methods and quality. Furthermore, Permit Section 2.4.2 would direct, once finalized, the Applicants to submit a written request for permission to use a characterization method other than a SW-846 method in advance of the proposed use in accordance with 40 CFR § 260.21. This requirement is designed to afford the Department the opportunity to analyze the proposal and to compare its effectiveness with the methods already approved.

PS 2.4.3 – **Acceptable Knowledge**: Permit Section 2.4.3 would authorize the Applicants to use acceptable knowledge for waste characterization in addition to, or in place of, sampling and analysis. Such practice is supported by EPA guidance on waste characterization. *Waste Analysis at Facilities That Generate, Treat, Store, and Dispose of Hazardous Wastes—A Guidance Manual*; U.S. Environmental Protection Agency, Research Triangle Park, NC, 1994; EPA-OSWER 9938.4-03. The Permit Section requires acceptable knowledge documentation to include background information assembled and used in the characterization process relevant to the decision to use acceptable knowledge. Further, the Permit Section requires documentation of resolution of any data discrepancies between different sources of acceptable knowledge. Some wastes (*e.g.,* heterogeneous debris) are not amenable to characterization by sampling and are best characterized by acceptable knowledge. Acceptable knowledge is also widely used to characterize explosives wastes. Further, the acceptable knowledge record is to be maintained in form suitable for audit.

PS 2.4.4 – **Waste Characterization Review**: This section would require the Applicants to ensure that the initial characterization of any hazardous or mixed waste is reviewed or repeated according to the frequency established in Permit Attachment C (*Waste Analysis Plan*) to verify that characterization is accurate and up-to-date, as required by 40 CFR § 264.13(b)(4).

PS 2.4.5 – **Wastes Received from Off-Site**: Permit Section 2.4.5 would require that the Applicants obtain from any off-site source that sends waste to SNL characterization information of the waste; the characterization information shall include any acceptable knowledge documentation. Such information is necessary to enable the Applicants to store, treat, or otherwise manage the waste. If Acceptable knowledge is used for the characterization of waste received from off-site, the Applicants would need to require the off-site facility to provide all acceptable knowledge documentation used to characterize the waste. Permit Section 2.4.5 would also require the Applicants to ensure that the waste matches the identity of the waste described in accompanying shipping documents.

PS 2.4.6 – **Treatment-Derived Waste**: Permit Section 2.4.6 would require the Applicants to characterize treatment-derived waste generated onsite. Such requirement is supported by 40 CFR § 268.7(b). Further, the notification and recordkeeping requirements of 40 CFR § 268.7(b)(3)(ii) and the general characterization requirements of Permit Section 2.4.1 would also apply.

PS 2.4.7 – **Procedures to Ensure Compliance with LDR Requirements:** This section would require the Applicants to comply with LDR requirements for wastes through compliant management of wastes subject to LDR storage prohibitions, and through characterization of treated waste for LDR compliance, and preparing applicable LDR certifications and notifications for such treated wastes.

PS 2.4.8 – **Waste Characterization for Compliance with Land Disposal Restrictions**: Permit Section 2.4.8 would require characterization of treatment-generated wastes to meet the Land Disposal Restrictions. The purpose of characterization is to identify any underlying hazardous constituent in a characteristic waste and to ensure compliance with the one-year storage prohibition at 40 CFR § 268.50 and the waste dilution prohibition at 40 CFR § 268.3.

The Applicants would also be required to characterize treatment-derived waste to meet the notification and recordkeeping requirements of 40 CFR § 268.7(b)(3)(ii), the one-time notice rule. Such requirements are directly supported by the regulations. Similarly, the requirement to characterize treatment-derived waste against the criteria in 40 CFR §§ 268.40, 268.45, 268.48, 268.49, 268.7(b)(3)(ii), and 268.2(i) comes directly from the regulations.

PS 2.4.9 – **Waste Characterization for Compliance with RCRA Air Emission Requirements**: Permit Section 2.4.9 would require waste characterization in compliance with 40 CFR Part 264 Subpart CC. It requires a determination of average VOC concentration. The Permit would require annual redetermination of the VOC content and allows use of § 264.1083(a) procedures or acceptable knowledge to determine VOC content. The use of acceptable knowledge to determine VOC concentration is supported by the Department's omnibus authority, 40 CFR § 270.32(b), because in this case there will be many containers that are known to come from waste-generation processes that involve no VOCs. Furthermore, there are exemptions as provided by the regulations:

1. Containers that store mixed waste. (40 CFR § 264.1080(b)(6)).
2. Containers storing wastes with a total capacity of less than 0.1 cubic meters. (40 CFR § 264.1080(b)(2)).

The Applicants would not be required to determine average VOC concentration if pollution control is achieved using container construction specifications and operating requirements of 40 CFR § 264.1086(b).

PS 2.5 – **Waste Minimization Program**: This section would require a waste minimization program to be implemented to reduce the volume and toxicity of hazardous and mixed wastes generated at the Facility as specified at40 CFR § 264.73(b)(9). The requirements are taken from the U.S. EPA's model RCRA Permit, HSWA Module (*see* U.S. EPA letter, Honker to Garcia July 7, 1995), and are similar to requirements in the Applicants' current hazardous waste Permit, under "HSWA module" (Module VIII, Section B.1).

PS 2.6 – **Dust Suppression:** This section would prohibit the Applicants from using waste or used oil or any other material, which is contaminated with dioxin, PCBs, or any other hazardous or mixed waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment (*see* 40 CFR § 266.23(b)).

PS 2.7.1 – **Security**: This section contains security requirements, the purpose of which is to prevent the unknowing entry and minimize the possibility of unauthorized entry of persons or livestock onto permitted units, based on 40 CFR § 264.14(a). Pursuant to 40 CFR § 264.14(b), the section requires a 24-hour surveillance system, or controlled access via gates stations, or other means.

PS 2.7.2 – **Warning Signs**: This section would require warning signs, in accordance with 40 CFR 264.14(c). Signs are to be bilingual in English and Spanish, which exceeds the requirement

of 40 CFR § 264.14(c) (requiring Spanish-language signs for facilities in counties that border Mexico).

PS 2.8 – **General Inspection Requirements**: This section contains general inspection requirements. The first paragraph is taken from 40 CFR § 264.15(a). The next to last paragraph directs implementation of Attachment E (*Inspection Plan*).

PS 2.8.1 – **Inspection Schedule**: This section would require the Applicants to conduct inspections often enough to correct problems before they cause harm to human health or the environment. This requirement comes from 40 CFR § 264.15(a).

PS 2.8.2 – **Repair of Equipment and Structures**: This section would require the Applicants to remedy any deterioration or malfunction of equipment or structure that may cause a hazard. This requirement is taken from 40 CFR § 264.15(c).

PS 2.8.3 – **Inspection Logs and Records**: This section would require inspection logs and records of any remedial actions taken. The language of this section is largely from 40 CFR § 264.15(d). This Permit Section would also require that errors found in an inspection record are crossed out with a single line, initialed, and dated by the individual making the correction. The Department includes this condition to ensure the accuracy of inspection records and to improve enforceability. The requirement to record the results of inspections at § 264.15(d) implies a requirement to keep an accurate record. Identifying changes to that record must include an attribution of the change. The Permit would emphasize the need to rely on the inspection logs at closure to identify past spills or releases. To increase confidence that the log or record is accurate, the Permit must contain specific procedures for altering the log or record.

The section also requires that other actions be recorded in the Operating Record, namely: preventive maintenance, malfunctions of equipment or structure, errors potentially affecting waste containment or Permit compliance, cracks or gaps in floors or base material, discharges of hazardous or mixed wastes, hazardous constituents or fire suppression system, and any occurrences causing or exacerbating contamination.

PS 2.9 – **Personnel Training**: This section imposes the requirements of 40 CFR § 264.16 and refers to Attachment F (*Personnel Training Plan*).

PS 2.10 – **Special Requirements for Ignitable, Reactive, Incompatible Waste**: This section reflects the requirements for the management of ignitable, reactive, and incompatible wastes. The first paragraph refers to 40 CFR §§ 264.17, 264.176, and 264.177, which are applicable regulations. The requirement that containers with ignitable or reactive wastes be located 15 meters from the fence restricting access by non-unit personnel, and at the HWHU, 15 meters from the fence along the facility property line reflects the requirement in 40 CFR § 264.176. The Department believes that the intent of 40 CFR § 264.176 is to ensure that persons unaware of the existence or proximity of ignitable or reactive wastes are kept a safe distance from that waste. In the case of Sandia National Laboratories, the boundaries of a permitted unit indicate limits beyond which personnel and members of the public may be present who are likely to be unfamiliar with the risks presented by the wastes within the unit. Thus, the 15 meter buffer zone should apply generally at the boundary of the permitted units to protect human health and the environment. Listed requirements (1) through (7) are based on 40 CFR § 264.17(b).

PS 2.10.1 – **Ignitable and Reactive Waste Precautions**: This Permit Section calls for several precautions in handling ignitable or reactive wastes to prevent accidental ignition or reaction. Requirements include fire response, clearance around hydrants; inspection, testing and monitoring of fire protection equipment; and compatibility of fire suppression equipment. The Permit Section would also require that the Applicants ensure that appropriate lightning protection is provided. The Department includes this permit condition to better ensure protection of human health and the environment.

PS 2.10.2 – **Incompatible Waste Precautions**: This section contains rules for the separation of incompatible wastes. The first paragraph is based on 40 CFR § 264.177(c). The second paragraph requires that incompatible wastes not be stored within or on the same secondary containment. The presence of incompatible wastes in containers that contain free liquids which may leak or spill into the same secondary containment would create an undue risk. The section also prohibits storage of cyanides with acids if a mixture will generate hydrogen cyanide and storage of corrosive (class 8) liquids near flammable (class 4) or oxidizing (class 5) wastes, except where it is known that mixing would not cause danger fire or dangerous evolution of heat or gas.

PS 2.10.3 - **Presence of Liquids in Containers:** This section would require the Applicants to ensure that **c**ontainers with free liquids are stored in areas equipped with secondary containment.

PS 2.11.1 – **Required equipment**: This section contains the requirement to maintain equipment for emergency response. The equipment to be maintained is specified in Attachment D (*Contingency plan*). The requirement is a specific application of the provisions at 40 CFR § 264.32 to this facility.

PS 2.11.2 – **Testing and maintenance of equipment**: This section would require testing and maintenance of emergency response equipment. The Applicants are required to test equipment listed in Attachment D, to ensure proper functionality. Such requirement is in accordance by 40 CFR § 264.33. Regular inspections pursuant to Attachment E (Inspection Plan) are required by 40 CFR § 264.15. The Department has added the requirement that nonfunctioning equipment be promptly repaired, consistent with 40 CFR § 264.15(c), which requires repair of any deterioration or malfunction.

PS 2.11.3 – **Access to communications or alarm system:** This section follows 40 CFR § 264.34 and requires that during hazardous and mixed waste management, all personnel must have access to an alarm or emergency communication device.

PS 2.12.1 – **Preventing Hazards in Loading and Unloading:** This section would require the Applicants to operate in safe manner in loading and unloading areas to protect human health.

PS 2.12.2 – **Preventing Runoff or Flooding:** This permit section would require the Applicants to prevent the spread of contamination by preventing run-on and runoff contaminated with hazardous or mixed waste or constituents.

PS 2.12.3 – **Preventing Contamination of Water Supplies**: This section would require the Applicants to clean up hazardous or mixed waste releases promptly. Releases occurring outside buildings shall be contained promptly.

PS 2.12.4 – **Mitigating Effects of Equipment Failure and Power Outages:** This section would require the Applicants, in the event of a power loss or equipment failure at a Permitted

Unit, to place the affected equipment in a safe state, close or cover open containers of hazardous or mixed wastes that are present and to stop operations until power is restored, or take measures to ensure the failure or outage does not affect human health or the environment.

PS 2.12.5 – **Preventing Undue Exposure**: This section would require the Applicants to make provisions for Facility personnel and visitors at Permitted Units and SWMUs/AOCs undergoing corrective action to use appropriate PPE to protect themselves from hazards.

PS 2.12.6 – **Arrangements with Local Authorities**: The section would direct the Applicants to maintain agreements with local emergency response authorities and medical facilities. Requiring such arrangements is authorized by 40 CFR § 264.37.

PS 2.13.1 – **Implementation of Contingency Plan:** This section would direct the Applicants to implement the Contingency Plan (*Attachment D*) on the occurrence of:

1. a release of a hazardous or mixed waste or hazardous constituent that poses a threat to human health or the environment;
2. an explosion; or
3. a fire.

The conditions for implementing the contingency plan do not require that there be a threat to persons off the site of the Facility. The circumstances calling for implementation of the contingency plan parallel those contained in 40 CFR § 264.52(a) and are clearly supported by the regulation.

PS 2.13.2 – **Distribution**: This section requires that copies of the Contingency Plan be kept at each permitted unit, the Emergency Management and Response Office, and in the Operating Record. The Contingency Plan and all revisions and amendments must also be maintained with the entities which the Applicants have mutual assistance agreements. The Department requires complete and up to date versions of the Contingency Plan be kept at each of these locations to better ensure protection of human health and the environment. The Department believes that protection is enhanced and confusion is reduced if each entity reliant upon the Plan is required to have identical versions. This permit section requires dissemination of the Contingency Plan within 15 days of the effective date of the Permit and within 15 days of receipt of any Department approval to a modification of the Contingency Plan. This permit section also requires that all copies of the Contingency Plan distributed outside the Facility be sent by mail or e-mail and to ensure distribution, that a record of compliance with this requirement be maintained in the Facility Operating Record. This permit section also requires evacuation routes for a permitted unit to be prominently posted at each permitted unit.

PS 2.13.3 – **Amendments to plan:** This section requires a review and amendment, if necessary, of the Contingency Plan. Consistent with 40 CFR § 264.54, the Applicants are to review the Contingency Plan and amend the Plan, if necessary, whenever:

1. The Permit is revised;
2. The Contingency Plan fails during an emergency;
3. The Applicants modify a Permitted Unit in either its design, construction, operation, maintenance, or other circumstances in a manner that materially increases the potential for fires, explosions, or releases of hazardous or mixed wastes or hazardous waste constituents;

4. A change in the Permitted Unit design or operation affects the response necessary in an emergency;
5. The Applicants modify the list of Emergency Coordinators;
6. The Applicants modify the list of emergency response equipment; or
7. The Applicants review and evaluate their emergency response resources and capabilities with respect to hazardous or mixed waste management and find deficiencies.

PS 2.13.4 – **Emergency Coordinator:** This section incorporates the requirements of 40 CFR § 264.55, as to the emergency coordinator, who is to be responsible for coordinating emergency response measures relating to hazardous and mixed waste. Further, the Applicants would be required to inform the Department of changes to the Emergency Coordinator designations. Thus, the Applicants would need to keep an up-to-date list of persons designated as Emergency Coordinators. This requirement is imposed under 40 CFR § 264.52(d), which states that the contingency plan must include a list of persons qualified to act as emergency coordinator and this list must be kept up to date.

PS 2.13.5.1 - **Immediate Notifications**: This section implements parts of 40 CFR § 264.56. Building or area personnel are designated to activate the alarm, since the Emergency Coordinator may be at a distant location. Notice to local first responders follows 40 CFR § 264.56(a)(2).

PS 2.13.5.2 - **Hazard assessment**: This permit section states that the Emergency Coordinator is to, in the event of a fire, explosion, or release:

1. As soon as practicable, identify the character, source, amount, and areal extent of any released materials. Possible methods are by observation, review of facility records, or by chemical analysis (*see* 40 CFR § 264.56(b)); and
2. Assess possible hazards to human health or the environment that may result from the release, fire, or explosion, considering both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water runoff from water or chemical agents used to control fire and heat induced explosions). (*See* 40 CFR § 264.56(c)).

PS 2.13.5.3 – **Reporting Emergencies:** This section is based on 40 CFR §§ 264.56(d). The specific matters to be reported follow the list in 40 CFR § 264.56(d)(1) – (2**).**

In the event that the Emergency Coordinator determines that there has been a release, fire, or explosion that may threaten human health or the environment outside the boundaries of the Facility, he or she is to report the emergencies as follows:

1. If an assessment indicates that evacuation of local areas may be advisable, he or she is to immediately notify the appropriate local and tribal authorities and is to be available to assist appropriate officials in deciding whether local areas should be evacuated (s*ee* 40 CFR § 264.56(d)(1)); and
2. Immediately notify the New Mexico Department of Public Safety dispatcher (1-505-827-9329), and the National Response Center (1-800-424-8802) (*see* 40 CFR § 264.56(d)(2)).

PS 2.13.5.4 – **Mitigative Measures:** This section is based on 40 CFR § 264.56(e) and states that when the Contingency Plan is implemented under Permit Section 2.13.5, the Emergency

Coordinator is to take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous or mixed wastes at the Facility. These measures are to include, where applicable, stopping processes and operations, collecting and containing released wastes, and removing or isolating containers.

PS 2.13.5.5 – **Monitoring:** The permit section requires that during an emergency, the Emergency Coordinator utilize available air monitoring resources, as appropriate, to measure and characterize any air emissions caused by a fire, explosion, or release. The Department includes this requirement to improve protection.

In the event that the Facility stops operations in response to a fire, release, or explosion, the Emergency Coordinator is to monitor for leaks, pressure buildup, gas generation, or ruptures in containers, valves, pipes, or other equipment as appropriate.

PS 2.13.6 – **Post-Emergency Procedures:** This section provides that immediately after an emergency in which the Contingency Plan was implemented, the Emergency Coordinator is to provide for the treatment, storage, or disposal of recovered wastes, contaminated soils or surface water, or any other material or contaminated environmental media that resulted from the fire, explosion, or release at the Facility (*see* 40 CFR § 264.56(g)).

The Emergency Coordinator is to ensure that in the affected areas of the Facility:

1. No waste that may be incompatible with the released material is treated, stored, or disposed of in the impacted area until cleanup procedures are completed; and
2. All emergency equipment listed in the Contingency Plan is cleaned and fit for its intended use before operations are resumed

(*See* 40 CFR § 264.56(h)).

PS 2.13.7 – **Need for Further Corrective Action:** This section states the Department's authority to determine whether a contaminated area has been entirely remediated and whether corrective action is required pursuant to the requirements under Permit Part 8.

PS 2.13.8 – **Notification and Record Keeping**: This section states that the Applicants would need to notify the Department of implementation of the Contingency Plan pursuant to 40 CFR § 264.56(i) and that the conditions of Permit Section 2.13.6 have been met before operations resume.

PS 2.14 – **Record Keeping and Reporting:** This section would require compliance with all record keeping and reporting requirements contained in the Permit and in 40 CFR § 264.73, which contains a list of items to be placed in the Facility Operating Record.

PS 2.14.1 – **Manifest Systems**: This section incorporates the manifest requirements of 40 CFR §§ 264.71, 264.72, and 264.76.

PS 2.14.2 – **Operating Record:** This section requires maintenance of a Facility Operating Record for each permitted unit until the Department has approved closure or, if the unit is subject to post-closure care, the termination of post-closure care Contents of the Operating Record are also specified in this permit section and largely follow 40 CFR § 264.73(b).

PS 2.14.3 – **Availability of Facility Operating Record**: This section would require that the Facility Operating Record and other records will be reasonably made available by the Applicants

for inspection by the Department. This is based upon 40 CFR § 264.74(a) and NMSA 1978 § 74-4-4.3.

PS 2.14.4 – **Record Retention:** This section requires retention of all records during the pendency of any unresolved enforcement action. *See* 40 CFR § 264.74(b).

## PART 3 – GENERAL CONDITIONS AND STORAGE PROHIBITIONS

PS 3.1 – PS 3.1.1: The container storage provisions would require, overall, that the Applicants comply with 40 CFR Part 264, Subpart I - Use and Management of Containers and Attachment A, Description. Storage of hazardous and mixed waste containers is limited to the units and capacities shown in draft Attachment J, Table J-1.1, and further limited to those waste numbers listed in Attachment B.

PS 3.2 – **Condition of Containers**: This permit section requires that hazardous and mixed waste containers be in good condition and that waste must be transferred from a container in bad condition to a sound container in accordance with 40 CFR § 264.171.

PS 3.3 – **Acceptable Containers**: This section would limit the Applicants to use storage containers that comply with Subpart I of 40 CFR Part 264.

PS 3.4 – **Compatibility of Waste With Containers**: This permit section requires use of containers or containers with liners that are not incompatible with the wastes stored therein, based upon 40 CFR § 264.172.

PS 3.5 – **Management of Containers**: This permit section provides that:

1. The Applicants are to ensure that containers are kept closed during storage except when waste is added to or removed from the container or when a container's contents need to be repackaged (*see* 40 CFR § 264.173(a)), except as provided in 40 CFR § 264.1086(c)(3). The Applicants are not to open, handle, or store a container holding hazardous or mixed waste in a manner that may rupture the container or cause the container to leak. (*See* 40 CFR § 264.173(b)).
2. The Applicants are to mark containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

The Applicants are to ensure that when waste containers are moved during storage, the location of each hazardous or mixed waste and the quantity at each location is documented in accordance with Permit Section 2.12.

PS 3.5.1 – **Storage Configuration and Required Aisle Space:** This section would require the Applicants to maintain adequate aisle space at all times to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment within the permitted units.

PS 3.5.2 - **Outdoor Storage:** This section would require the Applicants to ensure that hazardous and mixed waste containers that are stored outdoors and are not being actively managed are protected from degradation caused by precipitation using weather protective equipment (*e.g.*, secured tarp) or are protected by the design of the equipment.

PS 3.6.1 – **Containers with Free Liquids**: This section provides requirements regarding management of containers holding free liquids, particularly those concerning secondary containment pursuant to 40 CFR § 264.175.

PS 3.6.2 – **Containers that do not Contain Free Liquids:** For containers that do not contain free liquids the Applicants would be required to ensure that the containers are stored in storage areas that are sloped or otherwise designed and operated to drain and remove liquid resulting from precipitation or other liquids (*see* 40 CFR § 264.175(c)(1)).

PS 3.7 – **Inspections:** This section requires inspection of the permitted units for evidence of leaks or deterioration in containment systems, safety equipment, and condition of containers. The requirement follows the language of 40 CFR § 264.174.

PS 3.8 – **Air Emissions**: This section directs that air emissions from containers be controlled in accordance with 40 CFR Subpart CC.

**PART 4 -- TREATMENT OF HAZARDOUS AND MIXED WASTES**

The purpose of Permit Part 4 is to provide for safe and proper treatment of hazardous and mixed wastes in accordance with the applicable requirements of 40 CFR Parts 264 and 268.

PS 4.1 – **General Conditions**: This section would require the Applicants to conduct treatment of hazardous and mixed waste only at the permitted units identified as utilizing waste process code T04 and specified in Attachment J (*Hazardous Waste Management Units*), Table J-1.2 (*Active Portion of the Facility*), where treatment by a permit is required. The Applicants would be authorized to treat only those hazardous and mixed wastes identified by EPA Hazardous Waste Numbers (*Waste Codes*) listed in Attachment B (*Authorized Wastes*). The Applicants could not treat hazardous or mixed waste in excess of the maximum capacities identified in Attachment J, Table J-1.2.

PS 4.2 – **Department Approval:** This section would direct the Applicants that prior to treatment by any method not specified in this Permit, the Applicants must submit to the Department for its review and approval a detailed treatment plan. The treatment plan is to describe the wastes to be treated, the volume, or weight, of the wastes, the method of treatment, and how treatment efficacy will be verified. Such treatment plans are not to include treatment using tanks, incinerators, boilers, industrial furnaces, surface impoundments, or land treatment unless such plans are submitted as a request to modify the Permit.

PS 4.3 – **Containment Systems:** This section directs the Applicants that containers in which treatment is conducted under this Permit Part 4 shall be subject to the requirements of Permit Section 3.6 (*Containment Systems*).

PS 4.4 – **Physical Treatment:** This section states that hazardous and mixed wastes may be treated physically at the RMWMU and AHCU to reduce waste volume and change the physical character of the waste to make it more amenable to subsequent treatment or storage, or both. This section also states the types of physical treatment that would be allowed.

PS 4.5 – **Macroencapsulation**: This section would authorize the Applicants to perform macroencapsulation in containers. Macroencapsulation consists of completely encasing waste within a polymer coating or concrete, or within a jacket of inert inorganic materials to immobilize wastes by completely surrounding the waste with a leach-resistant coating. Solid

hazardous and mixed waste items, including debris, are treated by macroencapsulation at the RMWMU and AHCU to immobilize hazardous waste constituents.

PS 4.6 – **Stabilization and Solidification**: This section would authorize the Applicants to perform stabilization at the RMWMU and AHCU in containers. Treatment is to take place within a fume hood when possible. Stabilization consists of binding hazardous metals so that the metals become chemically a part of the matrix or are physically bound within the matrix to immobilize toxicity characteristic metals.

PS 4.7 – **Waste Treated by Chemical Deactivation**: This section would authorize the Applicants to perform chemical deactivation of hazardous and mixed wastes at the RMWMU and the AHCU to remove the hazardous waste characteristics of ignitability, corrosivity, and/or reactivity.

PS 4.8 – **Waste Treated by Thermal Deactivation**: This section would authorize the Applicants to treat hazardous and mixed wastes by thermal deactivation. Such wastes are treated to remove the hazardous waste characteristic of reactivity.

PS 4.9 – **Waste Treated by Amalgamation**: This section would authorize the Applicants to treat mixed waste consisting of liquid elemental mercury by amalgamation at the RMWMU to immobilize elemental mercury into a solid, leach-resistant form that has minimal potential for emission of mercury vapor.

**PART 5 – TREATMENT BY OPEN BURNING**

PS 5.1 – **Authorization of the TTU:** The Permit would authorize the Applicants to treat by open burning hazardous waste at the Thermal Treatment (TTU) located at the northern part of TA-III in accordance with Permit Part 5, 40 CFR Part 264, Subparts X and BB, and 40 CFR § 268.7(b) and the current Open Burn Permit issued by the City of Albuquerque Environmental Health Department.

The Applicants are to provide the Department a copy of its open burn permit issued by the City of Albuquerque by February 1st of each year or within 30 days of receipt of the permit.

The Applicants would be authorized to treat at the TTU only silver acetylide/silver nitrate (SASN) and SASN mixed with only the solid and hazardous wastes identified in Table 5-1 of this Permit Part, and only if these wastes are generated by the Facility operations in Building 6715. Wastes that are not mixed with SASN at the point of generation cannot be mixed with SASN for the purpose of generating a hazardous waste that is authorized for treatment at the TTU.

A burn event encompasses the duration of a burn, and begins upon ignition of the propane fuel that is used to sustain a burn at the TTU, and ends upon deliberate extinguishment of the flame regardless of whether the flame is a result of the burning of propane, waste or both. More than one burn event may take place during treatment operations, and more than one burn event may take place during a given day, subject to the requirements of the Permit.

Treatment operations may last more than one working day, and include all waste management and other activities required to prepare for a burn event(s), the burn event(s), and all waste management and other activities that must be conducted following the burn event(s) to comply with the requirements of the Permit. Treatment operations occur periodically and are initiated when wastes requiring treatment at the TTU are generated in Building 6715. For each treatment

operation, burn events are to be conducted to treat all waste, kick-out, and treatment residues generated during that operation as expeditiously as practicable.

PS 5.2 – **Waste Prohibited From Treatment At The TTU:** This section would limit the Applicants to treat only the waste types contained in Attachment B and Table 5-1 of Permit Part 5. The waste types and amounts are shown in Table 5-1 of Permit Part 5.

PS 5.3 – **Maximum Quantity of Waste to be Treated**: This section describes the maximum amounts of waste to be treated at the TTU per burn event, as shown in Table 5-1 of the Permit. It also indicates the maximum amount of waste that can be treated in a calendar year.

PS 5.4 – **Preventing Exposure:** This section would require the Applicants to conduct treatment on the day waste is loaded at the TTU, subject to the requirements of the Permit. If any conditions arise that prohibit commencement of treatment operations on the day waste is loaded at the TTU, treatment operations shall begin as soon as conditions allow for treatment in compliance with the Permit.

1. Treatment operations are to be conducted on the day waste is loaded at the TTU, subject to the requirements of Permit Part 5. If any conditions arise that prohibit commencement of treatment operations on the day waste is loaded at the TTU, treatment operations shall begin as soon as conditions allow for treatment in compliance with this Permit Part.
2. When wastes are present in the burn pan, the Applicants are to keep the burn pan closed by lowering the lid, except when wastes are being loaded into or unloaded from the pan or when treatment is occurring.
3. The TTU is to be operated remotely during burn events from a control console inside Building 6715. Operating personnel are to observe burn events using a video camera.
4. The TTU is to have a warning bell or buzzer. The sound produced by the warning bell or buzzer shall be louder than the TTU propane burners. Building 6715 or the TTU shall be equipped with a warning light in a visible location for personnel that are hearing impaired.

PS 5.5.1—**Pre-Burn Operations**: This section specifies the activities that are to take place prior to beginning treatment operations. The Applicants are to notify their Emergency Management & Response organization personnel and the Kirtland Air Force Base Fire Department of anticipated treatment operations. Before treatment operations begin, the Applicants are to inspect the TTU burn pad and pan, and its associated equipment, within 24 hours preceding a burn event; inspect the camera located in Building 6715 to ensure it is functional before waste is transferred to the TTU for a burn event; check the area in the vicinity of the TTU immediately preceding burn events to ensure that no unauthorized personnel are present in or around the TTU; ensure that vegetation and other combustible substances within a 50-feet radius of the Burn Pan are removed before conducting any burn events, including keeping the grounds and berms within the perimeter fence clear of dry or dead weeds, or any other combustible substances; and are not to store waste at the TTU prior to treatment operations for longer than 24 hours, except as provided under Section 5.4.1(1) of the Permit.

PS 5.5.2.1 – **General Requirements** (for Treatment Operations**)**: This section requires that no person shall be permitted to enter the TTU fenced area during a burn event, and a minimum of two people shall be present during burn events. Additionally:

1. Gates within the perimeter fence that surrounds the TTU are to be closed and locked during burn events and for a four-hour cool-down period after each burn event to prevent the entry of unauthorized personnel into the area.
2. A sign indicating that a burn event is underway is to be placed on the Building 6715 access gate. The sign is to be on the gate prior to the start of burn events and remain during burn events and during the four-hour cool down period following burn events.
3. A minimum of four hours must elapse between burn events before reuse or inspection of the burn pan.
4. The TTU burn pan is to be covered with the lid except during burn events, during loading or unloading of wastes or treatment residues, or when inspections, maintenance, or repairs are taking place.
5. Only non-sparking tools are to be utilized at the TTU when waste is present.
6. Following a burn event, the TTU Operator is responsible for determining whether or not it is safe to approach the burn pan area. The TTU is to be closed for a minimum of four hours after a burn event before anyone is permitted to approach the burn pan area.
7. All wastes are to be treated on the same day waste is placed into the TTU burn pan, provided that if any conditions arise that prohibit commencement of a burn event, the burn event shall begin as soon as conditions allow for treatment.
8. No fuel other than propane is to be used to support open burning of waste.
9. Treatment operations are not to be conducted if there is an uncontrolled range fire within one mile from the TTU.

PS 5.5.2.2 – **Solid Items**: This section describes how solid items should be handled at the TTU. Authorized solid items, saturated (i.e., wetted or submerged) in water shall be containerized and carried to the TTU burn pan by personnel trained and qualified to manage the waste.

PS 5.5.2.3 – **Liquids**: This section describes how liquids are to be handles at the TTU. It requires that authorized liquids to be transferred to the burn pan through the waste transfer system or hand carried to the burn pan. The operator at the control console in Building 6715 shall operate the pump remotely.

PS 5.5.2.4 – **Hours of Operation:** This permit section requires that burn events at the TTU be initiated only during the time period beginning one hour after astronomical sunrise and ending one hour before astronomical sunset. Burn events may continue beyond sunset as necessary to complete treatment already in progress.

PS 5.5.2.5 – **Weather Conditions:** This permit section requires that Burn events at the TTU shall not be initiated when an electrical storm (with or without precipitation) exists within 10 miles of the TTU, or the following inclement weather conditions;1) sustained winds greater than 20 mph; 2) wind gusts exceeding 35 mph; 3) tornado watches or warnings; 4) snowstorms with visibility less than 2000 feet; 5) rain with accumulation rates greater than 0.3 inches per hour; and 6) hail, sleet, or ice storms.

PS 5.5.3 – **Post-Burn Operations**: The section specifies the activities that are to take place at the conclusion of treatment operations. This section would require that the Applicants operate

the burners for at least 30 minutes after observing evidence that all wastes have been completely combusted. It also describes removal of treatment residues.

PS 5.5.4 – **Management of Treatment Residues** : This section would require that the Applicants clean the burn pan, lid and other waste containment devices of any treatment residues within one working day of a burn event unless another burn event is to take place within one day, or one or more adverse weather conditions as defined in Section 5.5.2.2 is present. It also describes what procedures to follow to handle any untreated waste or waste residue.

PS 5.5.5 – **Alternative Treatment Assessment**: This section requires that the Applicants submit an open burn alternative treatment assessment report to the Department no later than the eighth anniversary of the effective date of the Permit.

PS 5.6.1 – **Accumulated Precipitation:** This section requires that if the burn pan lid is open during precipitation, any standing water in the burn pan is to be removed within one business day of a precipitation event, containerized, characterized in accordance with Permit Attachment C, and managed accordingly. It also requires a hazardous waste determination of water drained from the pad.

PS 5.6.2 – **Mitigation of Spills**: This section would require that spills of solid items on the ground or on the TTU pad be wetted as needed to stabilize any unreacted explosive. Spills of solid or liquids are to be wiped or scooped up and placed in the burn pan or containerized for treatment and disposal.

PS 5.6.3 – **Maintenance and Repair Activities**: This section would require that the Applicants check the surfaces of the burn cage, the pad, and the surrounding area with a portable propane burner before maintenance and repair activities that involve hot work or friction (e.g., cutting, welding, or grinding) to ensure that residual or untreated waste, treatment residue requiring further treatment at the TTU, or kick-out are not present to cause a hazard to workers.

PS 5.7 – **Waste Analysis Plan**: This section would require the Applicants to comply with the requirements of Section 2.4 of Permit Part 2 and Permit Attachment C (*Waste Analysis Plan*) for characterizing wastes to be treated at the TTU.

PS 5.8 – **Run-On and Run-Off Controls**: This section would also require the Applicants to inspect the TTU monthly, and on the day of and prior to treatment, and maintain as necessary, the surface water run-on and runoff control features

PS 5.9 – **Soil Monitoring Requirements**: This section requires a soil sampling and analysis program to monitor for hazardous constituents released to soils during treatment events. The Department requires soil sampling to establish a specific and enforceable application of the 40 CFR § 264.601(b) requirement to prevent any releases that may have an adverse effect to soils or surface waters. The Department also requires this soil sampling to establish existing contaminant levels to use as a basis for future measurements (baseline) and to determine whether conditions constitute acceptable human health. This section requires soil monitoring for the following constituents; silver, SVOCs, polyaromatic hydrocarbons and dioxin/furan compounds.

PS 5.9.1 – **Sampling and Analysis**: This section would require the Applicants to collect soil samples no later than August 1 of each year sampling is required, beginning no later than the first August after the effective date of this Permit. Samples are also to be collected no later than August 1 of the next year (year two) and of years four, seven, and nine after the effective date of

the Permit. Results of the soil sampling are to be compared to the Department's soil screening levels for industrial land use.

PS 5.9.2 – **Reporting of Sampling Results and Risk Assessment**: This section would require the Applicants to apply the risk assessment screening method outlined in the most current New Mexico Soil Screening Guidance (NMED 2012 or current) for assessing the risks to human health. Results are to be reported to the Department by October 1 of each year that sampling occurs.

**PART 6 -- CLOSURE**

PS 6.1 – **Introduction**: This section contains a general description of the regulatory framework for closure. For the purpose of closure, Permitted Units may consist of structures, equipment, outdoor storage pads and driving surfaces, and environmental media. During closure activities these components of a Permitted Unit are to undergo decontamination and verification sampling unless they are removed from the site at closure.

PS 6.2 – **Closure Performance Standards**: This section states the closure performance standards that are required to be achieved at closure. Permit Section 6.2.1 states the criteria for "clean closure." Permit Section 6.2.1(1) states that all hazardous and mixed waste must be removed to attain closure. Permit Section 6.2.1(2) would require that the Applicants ensure that contaminated environmental media (*i.e.*, soils, groundwater) do not contain concentrations of hazardous waste or constituents greater than the cleanup levels established in accordance with Permit Section 8.4 and 8.5. These cleanup levels address both human health and ecological risk. For soils the human health cleanup levels are to be established based on residential use. For clean closure, the Applicants will also need to demonstrate that there is no potential to contaminate groundwater. Such demonstration requires showing that leaching of contaminants from the vadose zone to groundwater is not going to occur to levels that could exceed a water quality standard.

PS 6.2.2 – **Inability to Achieve Clean Closure**: Further requirements apply in the event that the Applicants are not able to attain clean closure. If the Applicants are unable to achieve clean closure of a Permitted Unit under the provisions of Permit Section 6.2.1, they are to implement post-closure care pursuant to Permit Part 7 and comply with 40 CFR §§ 264.117-264.120. The Applicants are also required to prepare a post-closure care plan and submit the plan to the Department within 90 days from the date that the Applicants or the Department determine that clean closure will not be or has not been achieved. Additionally, prior to the commencement of the post closure period, the Closure Plan is to be amended to implement the procedures that are necessary to meet all of the closure performance standards under Permit Section 6.2.

PS 6.3.1 – **Notification of Closure**: This section would require the Applicants to initiate closure by notifying the Department in writing that a Permitted Unit will undergo closure.

PS 6.3.2 – **Time Allowed for Closure**: This section provides that the Applicants are to complete all closure activities no later than 180 days after initiating closure. However, the time allowed for closure may be extended if an extension is approved by the Department (*see* 40 CFR § 264.113(b)(1) and (2)) or it is necessary to amend the closure plan in accordance with Permit Section 6.6. If a closure plan is to be amended, the Applicants are to complete all closure activities in accordance with the schedule in the Department-approved closure plan, including all amendments.

PS 6.3.3 – **Closure Schedule**: Closure of each Permitted Unit is to comply with the schedule presented in Permit Part 6, Table 6.1 (*Closure Schedule*) and the additional requirements in each Unit-specific closure plan in Permit Attachment G.

PS 6.3.4 – **Removal of Waste**: This section provides that within 90 days of initiating closure at a permitted unit, the Applicants are to remove from the unit all hazardous and mixed waste. This condition is based upon 40 CFR § 264.113(a).

PS 6.3.5 – **Records Review and Structural Assessment**: This section provides that the Applicants are to conduct a records review for and a structural assessment of each permitted unit prior to closure, as follows.

**Records Review**: The Applicants are to review the permitted unit's Facility Operating Record and as a result of the review, update the list of hazardous constituents in the sampling and analysis plan (SAP), as necessary, to accurately reflect at the time of closure the constituents of concern managed at the unit. In this review, the Applicants are to determine whether any spills or releases, defects, deterioration, or damage has occurred. If the records indicate any such incidents, the Applicants are to include the locations of the incidents for sampling via an updated SAP. This review is necessary as there may be incidents that reflect possible releases to the unit that were not covered in the initial SAP. In addition, operations at the permitted units will continue after the closure plans are submitted; therefore, a full records review must be conducted to evaluate whether a release, or possible release, has occurred since their submission and whether different hazardous waste were stored or treated at the unit since operations began. Such occurrences should be included in an updated SAP, which forms part of the closure plan and is subject to public comment in the amendment process.

**Structural Assessment**: This section states that a structural assessment is to be conducted to evaluate a permitted unit's physical condition at closure. The Applicants shall notify the Department at least 30 days prior to conducting the assessment to provide the Department the opportunity to participate in the unit's assessment If the assessment reveals any evidence of a release (*e.g.*, stains) or damage (*e.g.*, cracks, gaps), the Applicants are to incorporate their locations for sampling in an updated SAP.

PS 6.3.6 – **Decontamination and Removal of Structures and Equipment**: This section provides that the Applicants are to decontaminate or remove all contaminated structures and equipment. To protect human health and the environment, 40 CFR § 264.114 contemplates appropriate disposal or decontamination of equipment, structures, and soils. In addition, 40 CFR § 264.112(b)(4) also requires that the closure plan contain a detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils. The Department deems the requirements of this Permit Section necessary to effectuate decontamination and disposal and to satisfy the closure performance standards in Permit Section 6.2.

**Decontamination**: This section provides that the Applicants are to decontaminate by pressure-washing or steam-cleaning the floor, walls, windows, doors, and ceiling (up to 11 feet from the floor) at the unit undergoing closure. The Department's basis for this requirement is found in 40 § CFR 264.112(b)(4). The height of 11 feet was determined based on the historical and permitted practices as to container stacking heights. The height of two 55-gallon drums including two pallets equals approximately eight feet. To ensure the protection of human health

and the environment, an extra 3 feet were added to account for any possible splashing of waste if containers were to fall or otherwise be disturbed. Thus the Department finds the height of 11 feet to be practical and protective.

This section also covers decontamination of equipment and small tools.

**Removal**: This section states that the Applicants are to ensure that structures and related equipment that cannot be decontaminated are removed. The requirement is supported by 40 CFR § 264.114.

PS 6.3.7 – **Verification Sampling of Structures and Equipment**: The Applicants are to, after decontamination, collect samples to verify that the surfaces of structures and equipment to remain in place at a Permitted Unit have been decontaminated to meet the clean closure criteria specified at Permit Section 6.2.1. The Applicants are to collect the type and quantity of samples at the locations required under Permit Part 6 and as specified in the sampling and analysis plans (SAPs) in the Unit-specific closure plans in draft Attachment G.

Wet-wipe sampling is to be used to verify surface decontamination of structures and equipment and is to be conducted in accordance with Permit Section 6.3.10.1. For all constituents of concern, the clean closure criteria will be considered achieved when wet-wipe sample analyses demonstrate constituent concentrations do not exceed background levels or are shown by risk assessment under a variance (see Permit Section 6.7) that the level of decontamination accomplished is protective of human health and the environment.

If the first-time decontamination verification analysis associated with structures and equipment reveals concentrations that fail to meet the aforementioned criteria, the Applicants are to again decontaminate the associated component and again verify that decontamination. If after two attempts to decontaminate a particular component, verification analysis still fails to meet the aforementioned criteria, the Applicants may petition the Department for a variance under Permit Section 6.7, remove the component from the Facility, or comply with Permit Section 6.2.2.

Except as provided below for volatile organic compounds (VOCs), decontamination verification samples shall be collected and analyzed for all of the constituents of concern listed in the SAP for each of the Permitted Unit-specific closure plans.

To verify decontamination for VOCs, the Applicants may decontaminate the surfaces of structures and equipment a minimum of two times in lieu of conducting sampling and analysis for VOCs.

PS 6.3.8 – **Sampling of Soil and Base Material**: This section states that at closure the Applicants are to sample native soils to determine the presence and concentrations of constituents of concern. Base materials associated with (*i.e.*, located above) a soil sample found to be contaminated are to be considered contaminated, except as provided for asphalt pavement.

Soils are to undergo laboratory analysis to determine concentrations of constituents of concern relative to the clean closure criteria of Permit Section 6.2.1 for environmental media.

Base materials found to be contaminated with constituents of concern are subject to the clean up levels and risk assessment procedures for soil specified at Permit Sections 8.4.3, 8.4.4, and 8.4.5, to determine if they should be removed or otherwise remediated to protect human health and the environment.

If a release of hazardous or mixed waste or a hazardous constituent is discovered in soil or base materials, the Applicants are to abide by the release notification requirements at Permit Section 8.3.3 and the closure plan amendment requirements of Permit Section 6.6.

PS 6.3.9 – **Removal of Contaminated Soil or Base Materials:**

The Applicants are to ensure that soils and base materials that are contaminated with constituents of concern that pose an unacceptable risk to human health or the environment based on the closure performance standards in Permit Section 6.2 are removed. The complete removal of such soil and base materials is to be verified by sampling and analysis.

If removal of the contaminated soil or other environmental media that pose an unacceptable risk to human health or the environment is impracticable, the soil or other environmental media will be subject to corrective action under Permit Section 6.8 and Permit Part 8.

PS 6.3.10 – **Other Methods and Procedures:** This section would require the Applicants to collect and analyze wet-wipe and soil samples and document soil sampling by the procedures described therein.

PS 6.4 – **Closure Plans:** The Unit-specific closure plans are located in Permit Attachment G (*Closure Plans*). Closure plans for the Permitted Units are to include the steps necessary for each Unit to be closed in accordance with Permit Part 6 and 40 CFR §§ 264.112(b)(4), 264.114, 264.178 as applicable, and 264.601 through 264.603 as applicable. Closure Plans are to contain the information specified at 40 CFR § 264.112(b).

PS 6.5 – **Sampling and Analysis Plans**: This section provides the required contents for a sampling and analysis plan (SAP). Each SAP is to verify that all structures and equipment have been decontaminated and whether a release of hazardous waste or constituents to environmental media has occurred. All SAPs are required to include 1) A list of hazardous and mixed waste or hazardous constituents to be sampled and analyzed for; 2) the Site Plan for Decontamination Verification and Soil Samples; 3) The type of samples to be collected (*e.g*., wipe, soil) at each sampling location; 4) the sampling and analytical methods; 5) the quality assurance and quality control (QA/QC) procedures to be used; 6) A description of methods for decontamination of re-usable sampling equipment; and 7) A description of the management of waste derived from the sampling activities. SAPs are to be designed to obtain representative samples and measurements as required under Permit Section 1.9.8 and 40 CFR § 270.30(j)(1).

PS 6.6 – **Amendment to Closure Plan**: This section states that the Applicants are to submit a permit modification request to seek authorization of a change in the approved closure plan upon the occurrence of events listed in 40 CFR §§ 264.112(c)(2). Amendment is required when new hazardous constituents or sampling locations are to be added to the sampling and analysis plan of the closure plan, or if clean closure cannot be achieved.

PS 6.7 – **Petition for a Variance to Clean Closure Criteria:** This section would authorize the Applicants to seek a variance to the decontamination requirements for organic and inorganic constituents of concern. The purpose is to account for sampling results that are biased high because a substance in the materials used to produce structures or equipment is contributing to the concentrations found in the samples. The Department would consider a risk-based demonstration of attainment if the level of risk for organic and inorganic constituents of concern is based on an unrestricted human exposure scenario.

PS 6.8 – **Corrective Action:** This section would provide that if after removal of contaminated soil or base materials the Applicants find the soil or other materials (*e.g.*, base materials) continue to pose an unacceptable risk to human health and the environment, the Applicants must initiate and conduct corrective action in accordance with Permit Section 8.8.5, and are to amend the applicable closure plan in accordance with Permit Section 6.6 to describe the proposed corrective action.

PS 6.9 – **Waste Generated During Closure**: This section would require that the Applicants manage any structures, equipment, soil, or base materials in compliance with all applicable state, federal, and local requirements (*see* 40 CFR § 264.114).

PS 6.10 – **Closure Report and Certification**: This section would require that the Applicants submit a certification that is signed by them and by an independent New Mexico licensed professional engineer (*see* 40 CFR § 264.115). A closure report and the certification are to be submitted to the Department within 60 days after completion of closure. The report is required to include information on all investigations, the management of remediation waste, decontamination, verification sampling, and results of all chemical analyses and characterization activities. Any variance from the closure plan is to be noted.

**PART 7 – POST-CLOSURE CARE**

PS 7.1 – **General Provisions for Post-Closure Care:** Permit Part 7 would regulate post-closure care at units that cannot be clean closed or are closed with waste in place. Part 7 principally follows the regulations at 40 CFR §§ 264.117 through 264.120.

PS 7.1.1 – **Post-Closure Care Plan**: This section specifies the content of the post-closure care plan, in accordance with 40 CFR 264.118. The Applicants are to ensure that the post-closure plan identifies all the activities after closure of each Permitted Unit for which clean closure is not achieved, and the frequency of these activities, including but not limited to:

1. A description of the planned monitoring activities and frequencies at which they will be performed to comply with 40 CFR Part 264, Subparts F, N, S, and X;
2. A description of the planned maintenance activities, and frequencies at which they will be performed to ensure, at a minimum:
    a. the integrity of the cap and final cover or other containment systems, if applicable, in accordance with the requirements of 40 CFR Part 264, Subparts F, N, S, and X;
    b. the function of the monitoring equipment in accordance with the requirements of 40 CFR Part 264, Subparts F, N, S, and X;
3. The name, address and phone number of the person(s) or office to contact regarding the unit during the post-closure care period;
4. Sampling and analysis of waste, contaminated media, or both, during the post-closure period;
5. Security requirements during the post-closure period;
6. Inspection requirements, including schedules;
7. Alternative requirements, if any, under 40 CFR § 264.110(c), that apply to the closed unit, or a reference to the enforceable document containing those requirements; and

8. Post-closure plans are to define the beginning date and duration of post-closure care in accordance with this Permit Section 7.1.

PS 7.1.2 – **Amendment of Post-Closure Plan**: At any time during the post-closure care period, the Applicants may submit a written request to the Department to approve a permit modification to amend the requirements of Permit Part 6 or the requirements of an approved post-closure plan. The Applicants are to shall submit a written request for such a permit modification whenever modifications are needed because of changes in regulatory requirements or if modifications are needed to ensure protection of human health or the environment.

The Permittees are to submit a request for a permit modification in accordance with 40 § CFR 264.118(d). The written request is to include a copy of the proposed amended post-closure plan for review and approval by the Department. Such terms directly follow the language of 40 § CFR 264.118(d).

PS 7.2.1 – **Notification Requirements**: This section would require the Applicants to maintain copies of documentation submitted to the local zoning authority. Under 40 CFR § 264.119 the owner or operator must submit to the local zoning authority and to the Department a record of the type, location, and quantity of hazardous waste and hazardous constituents remaining at the permitted unit

PS 7.2.2 – **Record Requirements**: This section would require the Applicants to maintain documentation of closure of the Permitted Units. This section would also require recording of a deed notation or other instrument that is normally examined during a title search that will notify any potential new owners in perpetuity that the land has been used for hazardous waste management, its use is restricted under RCRA regulations, and the survey plat and records of waste management has been filed with the Department. This requirement is supported by 40 CFR § 264.119(b).

PS 7.2.3 – **Completion of Post-Closure Care Requirements**: This section would require the Applicants to submit to the Department, no more than 60 days after completion of post-closure care, a certification that post-closure care was performed in accordance with the post-closure care plan. Supporting documentation is required. This requirement is supported by 40 CFR § 264.120 and 270.32(b)(2).

PS 7.3 – **Post-Closure Care of the CAMU:** This section would require the Applicants to comply with the requirements at 40 CFR § 264.552(e)(6)(v) as well as those in Permit Part 7. As part of the requirements, the Applicants are to conduct the following activities at the CAMU to protect human health and the environment:

1. Maintain the integrity and effectiveness of the final cover by making repairs as necessary to correct the effects of settling, subsidence, erosion, plant or animal intrusion, or other events that compromise the final cover;
2. Maintain and monitor the LCRS and the VZMS as specified herein;
3. Use engineering controls to minimize erosion damage to the final cover from run-on and run-off of surface water;
4. Maintain fencing, security signs, and locks;
5. Maintain training, operating, inspection and monitoring, and other required records; and
6. Submit an annual report to the Department in accordance with Permit Attachment H, Section H.9.

## PART 8 - CORRECTIVE ACTION

PS 8.1 – **Corrective Action Requirements under the Consent Order:** This section recites that the Department and the Applicants have agreed to a Compliance Order on Consent (Consent Order) dated April 29, 2004, which is an enforceable document pursuant to 20.4.1.500 NMAC incorporating 40 CFR § 264.90(f), and 20.4.1.900 NMAC incorporating 40 CFR § 270.1(c)(7). The Consent Order requires the Applicants to conduct corrective action at all solid waste management units (SWMUs) and Areas of Concern (AOCs) at the Facility to fulfill the requirements of 40 CFR § 264.101.

PS 8.1.1 – **Integration with Consent Order:** This section would require the Applicants to conduct corrective action under the Permit (or other enforceable document) rather than the Consent Order, in the following circumstances:

1. New releases and newly discovered releases of hazardous waste or hazardous waste constituents from hazardous waste management units at the Facility;
2. At units undergoing closure and post closure care;
3. Implementation of the controls, including long-term monitoring, for any Solid Waste Management Unit (SWMU), Area of Concern (AOC), or hazardous management unit on Attachment K, Table K-3;
4. Releases of hazardous or hazardous constituents that occur or are discovered after the date on which the Consent Order terminates.

(See § III.W.1 of the Consent Order)

The Applicants would be required to conduct corrective action as necessary to protect human health and the environment from any releases of hazardous waste or hazardous waste constituents pursuant to the Permit and in accordance with §§ 74-4-4(A)(5)(h) and (i) and 74-4-4.2(B) of the HWA and Section 3004(u) and (v) of RCRA, 42 U.S.C. § 6924(u) and (v) and 40 C. F. R. Part 264, Subparts F and G. Corrective action for releases from hazardous waste management units that commingle with releases originating from other sources undergoing corrective action under the Consent Order are to be conducted under the Consent Order. Any SWMU or AOC for which corrective action is required that is not subject to corrective action under the Consent Order is to be subject to corrective action under Permit Part 8 and 40 CFR §§ 264.100 and 264.101

PS 8.2.1 **– Identification and status of SWMUs, AOCs and Hazardous and Mixed Waste Management Units:** This section refers to Attachment K, Table K-1 which lists the SWMUs and AOCs at the Facility for which corrective action is required under the Consent Order; and Attachment K, Table K-2 which identifies the SWMUs, AOCs, and hazardous and mixed waste management units for which corrective action is required under the Permit. Table K-1 will be modified as appropriate to include any newly identified SWMUs, AOCs, and releases from management units for tracking purposes. Attachment K, Table K-3 lists the SWMUs, AOCs, and hazardous waste management units for which corrective action is complete with controls. Permit Attachment K, Table K-4 provides a listing of the SWMUs, AOCs, and hazardous waste management units for which corrective action is complete without controls.

PS 8.3.1 – **Corrective Action Beyond the Facility Boundary**: This section would direct the Applicants to conduct corrective action beyond the Facility boundary as necessary to protect human health and the environment. Such action is authorized by 40 CFR § 264.101(c).

PS 8.3.2 – **Off-site Access**: This section would require the Applicants to use their best efforts to obtain access for themselves and for the Department to off-site property that should be subject to corrective action. The requirement for the Applicant is supported by 40 CFR § 264.101(c).

PS 8.3.3 – **Newly Discovered Releases**: This section would require notice to the Department of any newly discovered release of hazardous waste or hazardous constituents. Such notice will enable the Department to determine whether further investigation or corrective action is needed. (*See* EPA Proposed Rule, Corrective Action for Solid Waste Management Units, 55 Fed. Reg. 30789, 30804, 30849 (July 27, 1990 (Subpart S)).

PS 8.3.4 – **Field Activities**: This section would require the Applicants to notify the Department no fewer than15 days in advance of any field activities, such as sampling, so that the Department may participate. Such notice is supported by the draft 40 CFR Part 264 Subpart S at 30810 (calling for a "high level of interaction between the Applicants and the agency").

PS 8.3.5 – **Health and Safety Plans**: This section requires all field activities to be covered by a health and safety plan.

PS 8.3.6 – **Recordkeeping:** This section would require retention of any data assembled in the course of investigating and carrying out corrective action for a minimum period of three years after the end of the operating life of the Facility or of the post-closure care period of any unit affected by the corrective action.

PS 8.4 – **Cleanup Levels**: This section contains the cleanup levels specified by the Department as targets for the conduct of corrective action. The overall human health target risk levels are $10^{-5}$ for carcinogens and a Hazard Index of 1.0 for non-carcinogens. (See Subpart S at 30825-28). In addition, ecological risk is to be measured in accordance with the Department's published guidance.

PS 8.4.1 – **Groundwater Cleanup Levels**: Contaminant cleanup levels are based, where possible, upon:

1. WQCC groundwater quality standards, 20.6.2.3103 NMAC.
2. Toxic pollutant cleanup levels in 20.6.2.7.WW of 20.4.2 NMAC.
3. Maximum Contaminant Levels (MCLs) adopted by EPA under the Safe Drinking Water Act, 42 USC 300f to 300j-26 or the New Mexico Environmental Improvement Board (EIB), 20.7.10 NMAC.

These cleanup standards are all contained in regulations issued pursuant to public process. See Subpart S at 30800.

The most recent version of the Department's Tap Water Screening Levels listed in Table A-1 of *Technical Background Document for Development of Soil Screening Levels* (as updated) is to be used to establish the cleanup level if either a WQCC standard or an MCL has not been established for a specific substance. In the absence of a Department tap water screening level, the EPA *Regional Screening Levels for Chemical Contaminants at Superfund Sites* (RSLs) for tap water is to be used. If no WQCC groundwater standard or MCL has been established for a

contaminant for which toxicological information is published, the Applicants are to use a target excess cancer risk level of $10^{-5}$ for carcinogenic substances and a HI of 1.0 for non-carcinogenic substances as the basis for proposing a cleanup level for the contaminant. If the background concentration of an inorganic constituent exceeds the standard then the cleanup level is the background concentration for that specific substance. Any cleanup level based on a risk assessment is to be submitted to the Department for review and approval.

PS 8.4.2 – **Soil and Sediment**: This section specifies that the cleanup level for soils and sediments are to be the levels established under Section 8.4.3 of the Permit. Further, it provides that if the Applicants are unable to attain the stated cleanup levels, they are to conduct a risk assessment pursuant to PS 8.10.4 and 8.10.5.

PS 8.4.3 – **Soil Cleanup Levels:** This section provides that the soil cleanup levels are the soil screening levels specified by the Department based on the risk levels cited in Section 8.4. Where some migration of contaminants may have occurred, the Department may call for use of a dilution-attenuation factor of one, which attributes no impact to dilution or attenuation. Based on the future land use, cleanup may be based on a risk assessment using the risk levels cited in Permit Section 8.4.

PS 8.4.4 – **Cleanup Levels for Polychlorinated Biphenyls**: This section contains the requirement for the Applicants to use as a cleanup level a default concentration of 1 mg/kg total PCBs or the Department's *Risk-based Remediation of Polychlorinated Biphenyls at RCRA Corrective Action Sites* (as updated)).

PS 8.4.5 – **Surface Water Cleanup Levels**: Permit Section 8.4.5 would require the Applicants to comply with the surface water quality standards outlined in the Clean Water 20 Act (33 U.S.C. §§ 1251 to 1387), the New Mexico WQCC Regulations (20.6.2 NMAC), and the State of New Mexico Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC). The Consent Order contains the same requirement in Section VI.K.3.

PS 8.5 – **Ecological Risk Evaluation**: This section requires that screening for ecological risk is to be conducted using U.S. EPA's ECO-SSLs with the Department approval. The Applicants are to derive a screening level using the methodology in the Department's Guidance for Assessing Ecological Risks Posed by Chemicals: Screening-Level Ecological Risk Assessment (as updated). Ecological risk at each site is to be evaluated in a manner consistent with the Department's Guidance for Assessing Ecological Risks Posed by Chemicals: Screening-Level Ecological Risk Assessment (as updated) and, if appropriate, Assessing Ecological Risks Posed by Radionuclides: Screening-Level Radioecological Risk Assessment (as updated). Provided that any changes to the document are approved in advanced by the Department, procedures in the document Predictive Ecological Risk Assessment Methodology, Environmental Restoration Project, Sandia National Laboratories, NM, developed by SNL may be used instead of the ecological screening levels cited in the guidance above. If no scientifically valid toxicological studies exist for a particular receptor or contaminant, the contaminant and receptor combination are to be addressed using qualitative methods.

PS 8.6 – **Variance from Cleanup Levels**: This section governs applications for variances from cleanup levels.

PS 8.6.1 – **Water Quality Standards**: This section states that the Applicants may seek an alternative abatement standard pursuant to the WQCC regulations, 20.6.2.4103.E and F NMAC.

PS 8.6.2 – **Other Cleanup Levels**: This section provides that the Applicants may present a case to the Department, showing that the attainment of a cleanup level is impracticable. Proposed alternative cleanup levels must be based on a showing of a proposed action and a site-specific risk assessment. Risk assessments are discussed further in Permit Section 8.10.4 through 8.10.6.1.

PS 8.7 – **Permit Modification for Corrective Action Complete**: This section states that the Applicants may seek to move a unit from the listing of "corrective action required" to "corrective action complete", using a Class 3 permit modification.

PS 8.7.1 – **Long-term Monitoring and Maintenance of SWMUs and AOCs**: This section provides that when a SWMU or AOC is classified as Corrective Action Complete with Controls, the Applicants are to present for approval as part of the Class 3 permit modification required by Section 8.7 of the Permit a plan for long-term maintenance and monitoring. Such a plan is to describe any future on-site efforts required, such as maintenance of engineered controls, maintenance of access controls, or continued environmental monitoring of media. The requirement to submit a plan for long-term maintenance and monitoring applies to SWMUs and AOCs undergoing corrective action both under the Permit and under the Consent Order. All long-term maintenance and monitoring plans will be included in the Permit at Attachment M.

PS 8.8 – **Corrective Action Procedures**: This section lays out the procedure for conducting corrective action at sites where a release has occurred. The process includes the following steps:

1. Release assessment report (Permit Section 8.8.1.1).
2. Requirement to Proceed by the Department (Permit Section 8.8.1.2)
3. Interim Measures, where necessary to minimize or prevent migration of hazardous constituents (Permit Section 8.8.2)(see Subpart S at 30838-40).
4. Emergency Interim Measures, where necessary to address an immediate threat of harm (Permit Section 8.8.3; 8.8.4, 8.8.4.1.i - iii).
5. Corrective Action Investigations (Permit Section 8.8.5 through 8.8.5.3)(see Subpart S at 30810-12).
6. Corrective Measures Evaluation (Permit Section 8.8.6 through 8.8.6.7). These provisions require an evaluation of remedy alternatives based upon four threshold criteria:

    a. be protective of human health and the environment;
    b. attain media cleanup standards;
    c. control the source of releases so that further releases are reduced or eliminated to the extent practicable; and
    d. comply with standards for waste management.

    (See Subpart S at 30823). In addition, each remedy alternative is to be evaluated by a balancing approach under the following criteria:

        i. long-term reliability and effectiveness.
        ii. reduction of toxicity, mobility, or volume.
        iii. short-term effectiveness.
        iv. implementability
        v. cost.

(See Subpart S at 30824). The Corrective Measures Evaluation is supported by the EPA draft regulation on corrective measures studies, Subpart S at 30813-14, 30821-23, 30875-77. The Department will select a remedy, publish a Statement of Basis, and receive public comment on a proposed remedy. A public hearing may be held.

7. Corrective Measures Implementation (Permit Section 8.8.7 through 8.8.7.4)(see Subpart S at 30834-36).
8. Remedy Completion (Permit Section 8.8.8 through 8.8.8.1)(see Subpart S at 30837-38).
9. Accelerated Cleanup Process (Permit Section 8.8.9 through 8.8.9.2). The Permit refers in Permit Section 8.8.9 to "presumptive remedies" to be accomplished through an accelerated corrective measures process. "Presumptive remedies are preferred technologies for common categories of sites, based on historical patterns of remedy selection and EPA's scientific and engineering evaluation of performance data on technology implementation." (61 Fed. Reg. at 19430-40)(May 1, 1996). Section 8.8.9 further narrows the application of such remedies to small-scale and relatively simple sites where groundwater contamination is not an issue. The Department would expect that "presumptive remedies" will be used where there is not likely to be any dispute and where the remedy is fully effective and promptly resolves the contamination. See EPA's Guidance documents, *Presumptive Remedies: Policies and Procedures; Presumptive Remedy for CERCLA Municipal Landfill Sites; Presumptive Remedies: Site Characterization and Technology Selection for CERCLA Sites with Volatile Organic Compounds in Soils;* and *Presumptive Remedies for Soils, Sediments and Sludges at Wood Treating Sites*.

PS 8.8.10 – **Well Completion Report**: This section requires well completion reports for each monitoring well or piezometer completed under the Permit. The report is to be submitted to the Department within 90 days of completing installation, and is to include a construction log and diagram, a boring log, and a development log. The construction log and diagram and the boring log are to contain at a minimum the information required under Permit Section 8.11.

PS 8.9 – **Approval of Submittals**: This section references Permit Section 1.14, which provides that all documents required are to be subject to the review and approval procedures described in Permit Section 1.14.

PS 8.10 – **Methods and Procedures**: This section specifies the requirements of work plans, reports and submittals used in conducting corrective action. The site-specific work plans are to include the methods to be used to conduct all activities at each site or unit and are to be prepared in accordance with the format described in the Permit Section 8.12 (*Reporting Requirements*). The Applicants are to provide notification to the Department of field activities a minimum of 15 days prior to commencing the activity.

The methods used to conduct investigation, remediation, and monitoring activities are to be sufficient to fulfill the requirements of the Permit and to provide accurate data for the evaluation of site conditions, the nature and extent of contamination and contaminant migration, and for remedy selection and implementation, where necessary. The methods presented are minimum requirements for environmental investigation and sampling, and are not intended to include all methods that may be necessary to fulfill the requirements of the Permit. In cases where alternative methods are required due to site conditions, such methods are to be specified in a site-specific work plan or other plan approved by the Department. The methods for conducting investigations,

corrective actions, and monitoring at the Facility are to be determined based on the conditions and contaminants that exist at each site or unit.

PS 8. – **Monitoring Well Construction Requirements**: This section discusses the installation and abandonment of monitoring wells. Permit Section 8.11 follows Consent Order § VIII (Monitoring Well Construction Requirements). The overall requirement is that the drilling method allow for the collection of representative groundwater samples.

PS 8.12 – **Reporting Requirements**: This section outlines the requirements for Applicants to provide reports that contain detailed information concerning the results of investigations, corrective actions, monitoring, risk assessments, and corrective measures evaluations using the formats contained in Permit Section 8.12.