



Department of Energy
 Albuquerque Operations Office
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED



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Dear Mr. Kieling:

Subject: Transmission of the TA-16 Incinerator Closure Plan

The purpose of this letter is to transmit to you two hard copies and one electronic copy of the closure plan for the incinerator located at Technical Area (TA) 16. This plan explains and follows the strategy that was presented in several monthly meetings between your staff and the Department of Energy/University of California.

Since this RCRA unit was unique in that it was permitted only to burn ignitable, reactive or corrosive wastes, the closure plan addresses this unit based on the materials treated in it. The bulk of the closure plan consists of waste profiles that show that waste treated in this unit were indeed limited to only ignitable, reactive or corrosive.

If you should have any questions concerning this document, please feel free to contact me at (505) 665-5042 or Jack Ellvinger at (505) 667-0633.

Sincerely,

H. L. "Jody" Plum
 Office of Environment

LAAME:4JP-002

Enclosures



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RED LANT TA-16 '99
 TA 16

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**LOS ALAMOS NATIONAL LABORATORY
CLOSURE PLAN**

**TECHNICAL AREA 16
INDUSTRIAL INCINERATOR**

REVISION 0

Prepared by:

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ACRONYMS AND ABBREVIATIONS

20 NMAC 4.1	<i>New Mexico Administrative Code</i> , Title 20, Chapter 4, Part 1
CFR	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
HE	high explosives
HPLC	high performance liquid chromatography
HW	hazardous waste
I-C-R	Ignitable-Corrosive-Reactive
LANL	Los Alamos National Laboratory
LDR	Land Disposal Restrictions
NMED	New Mexico Environment Department
NMSW	New Mexico Special Waste
OB/OD	open burn/open detonation
PPE	personal protective equipment
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
SW-846	U.S. Environmental Protection Agency, <i>Test Methods for Evaluating Solid Waste, Physical/Chemical Methods</i> , third edition and all subsequent updates
SWMU	solid waste management unit
TA	Technical Area
TCLP	toxicity characteristic leaching procedure
WPF	Waste Profile Form

1.0 GENERAL CLOSURE INFORMATION [20 NMAC 4.1, Subpart V, Subpart G]

This closure plan describes closure of the Industrial Incinerator located at Los Alamos National Laboratory (LANL) Technical Area (TA) 16. The Industrial Incinerator was permitted under the LANL Resource Conservation and Recovery Act (RCRA) Facility Operating Permit for incinerating trash potentially contaminated with high explosives (HE). The incinerator will be closed under the provisions of LANL's RCRA Facility Operating Permit pursuant to *New Mexico Administrative Code*, Title 20, Chapter 4, Part 1 (20 NMAC 4.1), Subpart V; 40 Code of Federal Regulations (CFR) §264.112(c), Revised January 1, 1997 [1-1-97]; and Permit Attachment E.1. LANL will recycle the Industrial Incinerator as scrap metal pursuant to 20 NMAC 4.1, Subpart II, 40 CFR §§261.6(a)(3)(iii) and 261.4(a)(13); leave the concrete pad in place, crush for reuse, or dispose of it as nonhazardous solid waste; and reuse or recycle the transportainer. Incinerator components not amenable to recycling will be sampled and analyzed and disposed of appropriately.

This closure plan describes the process (Figure 1) LANL will follow to ensure the Industrial Incinerator is closed under the provisions of LANL's RCRA Facility Operating Permit. LANL has operated the Industrial Incinerator in accordance with Permit Attachment E.1, with Subpart O exemptions. The TA-16 Industrial Incinerator qualified for the Ignitable-Corrosive-Reactive (I-C-R) Exemption found at 20 NMAC 4.1, Subpart V, 40 CFR §264.340 [1-1-97]. In order to qualify, an incinerator must burn only I-C or certain R wastes. Owners/operators of a qualifying incinerator must obtain a RCRA incinerator permit, but the permit is limited to a waste analysis plan and closure plan. No operating or emission standards are imposed and no trial burn is required. Consistent with the I-C-R Exemption, the Regional Administrator (New Mexico Environment Department [NMED]) must exempt an owner/operator applying for a permit from all of the incinerator standards in Subpart O, except waste analysis and closure, if the hazardous waste fed into the incinerator is considered a low risk waste. The criteria for determining a waste as *low risk* are:

- The waste is a hazardous waste listed at 40 CFR Part 261, Subpart D, or identified in Subpart C only for ignitability, corrosivity, or both

OR

- The waste is a hazardous waste listed at 40 CFR Part 261, Subpart D, or identified in Subpart C only for reactivity, and will not be burned with other hazardous wastes.

AND

- The waste does not contain any of the hazardous constituents listed in 40 CFR Part 262, Appendix VIII.

NMED exempted LANL from all the incinerator standards in Subpart O except waste analysis and closure because the ignitable and reactive wastes (D003 and F003) fed into the incinerator were considered low-risk wastes. Therefore, in compliance with the standards established at 20 NMAC 4.1, 40 CFR §264.340 [1-1-97] and as established in Module VII of the LANL RCRA Facility Operating Permit, the Industrial Incinerator has been exempt from Subpart O standards. Waste characterization has been based primarily on process knowledge provided by individual waste generators on LANL's Waste Profile Form (WPF). Process knowledge has been used due to the potential dangers to human health and the environment by unnecessarily handling reactive waste and the lack of a method for characterizing reactive hazardous waste in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (SW-846), Third Edition (EPA 1997).

Beginning in 1996, the treatment residue from incineration was sampled and analyzed using approved SW-846 methods. Waste characterization and analysis records, as required at 20 NMAC 4.1, 40 CFR §264.341(b), [1-1-97] are provided in Attachment A. Analytical records from 1996 to 1999 confirm the absence of characteristic F003(I) waste and D003.

1.1 Closure Performance Standard [20 NMAC 4.1, Subpart V, Section 264.111]

Closure will be considered complete when the incinerator and applicable components (hereafter referred to collectively as incinerator components), concrete pad, and staging transportainer have been decommissioned and closure certification has been submitted to the Secretary of the NMED as described in Section 6.0. This closure plan will be implemented to ensure compliance with 20 NMAC 4.1, Subpart V, 40 CFR §§264.111 through 264.115 [1-1-97] to achieve closure of the incinerator. The term decommission is used in this plan to mean removal from service such that the unit is no longer used to treat hazardous waste identified in the approved Part A (Attachment B).

LANL will close the Industrial Incinerator by decommissioning and removing it from hazardous waste operation. LANL will salvage the incinerator for metal recycling in accordance with 20 NMAC 4.1, Subpart II, 40 CFR §§261.6(a)(1) and 261.6(a)(3)(iii) and 261.4(a)(13). LANL will close the concrete pad and leave

it in place, crush it for use elsewhere, or dispose of it as nonhazardous solid waste. The staging transportainer will be reused to support TA-16 activities or recycled as scrap metal.

Disposition of Industrial Incinerator components as scrap metal and the concrete pad as nonhazardous solid waste is based on the recycling exemption, the absence of reactive and ignitable (D003 and F003) hazardous waste constituents in the incinerator ash (see Attachment A, analytical results), and the classification of the incinerator ash/residue as New Mexico Special Waste (NMSW) pursuant to the *New Mexico Solid Waste Act*, 20 NMAC 9.1, Subpart VII, Section 707. The suitability of the Industrial Incinerator for recycling is based on the recycling exemption.

The following provides regulatory information on the two waste streams, D003 and F003(I), treated in the Industrial Incinerator.

1.1.1 D003 Waste

Waste assigned the U.S. Environmental Protection Agency (EPA) hazardous waste (HW) code D003 is a hazardous waste because it exhibits the characteristic of reactivity, as specified at 40 CFR Part 261 Subpart C. According to the Derived-From Rule, 40 CFR §261.3(c)(2)(i), residues derived from the treatment of characteristic (D003) waste are only hazardous waste if they continue to exhibit a characteristic. Based on historic HE Spot Test results, high performance liquid chromatography (HPLC) results, and process knowledge, the treatment residue no longer carries the D003 code and has been disposed of as nonhazardous in a Subtitle D landfill. By extension, the incinerator components are not considered hazardous because any potential treatment residue remaining is regulated as NMSW, not as RCRA-regulated hazardous waste. Therefore, the incinerator, components, and any potential treatment residue are not hazardous waste.

1.1.2 F003 Waste

Waste assigned the EPA HW code F003(I) is a listed hazardous waste because it is a spent nonhalogenated solvent and/or mixture and exhibits a characteristic of ignitability (I) as specified at 40 CFR Part 261, Subpart D. Typically, residues derived from the treatment of listed waste remain listed waste with minor exceptions. Residues derived from the treatment of F003(I)-listed solvents, however, are exempted under the Mixture Rule, 40 CFR §261.3(a)(2)(iii). Once an F003(I) waste is treated such that it no longer exhibits the characteristic of ignitability, it is no longer a hazardous waste per this rule. Process knowledge indicates that

the treatment residue resulting from incineration is no longer ignitable; therefore, the incinerator components, concrete pad, and any potential residue remaining are not hazardous waste. Process knowledge also indicates that the F003(I) waste consisted solely of rags and kimwipes used to wipe potentially HE-contaminated components. No waste remains in or around the Industrial Incinerator or the staging transportainer, as confirmed through visual examination; therefore, neither the permitted unit or the staging transportainer contain any F003(I) hazardous waste.

1.2 Partial Closure [20 NMAC 4.1, Subpart V, Sections 264.112(b) and (d)]

This closure plan is written for implementation of a “partial closure” as defined in 20 NMAC 4.1 Subpart I, 40 CFR §260.10 [1-1-97] (i.e., closure of one or more units) rather than final closure of the LANL facility.

1.3 General Description [20 NMAC 4.1, Subpart V, Section 264.111]

1.3.1 LANL

LANL is located in north-central New Mexico, approximately 60 miles north-northeast of Albuquerque, and 25 miles northwest of Santa Fe. LANL, which occupies an area of 43 square miles, and associated residential areas of Los Alamos and White Rock, are situated on the Pajarito Plateau. The plateau consists of a series of finger-like mesas separated by deep east-west trending canyons; intermittent streams lie at the bottoms of all of the canyons. The mesa tops range in elevation from approximately 7,800 ft at the flank of the Jemez Mountains, located west of Los Alamos, to about 6,200 ft at their eastern extent, where they terminate above the Rio Grande Valley.

LANL is divided into 51 TAs; 34 of these TAs are developed. Hazardous and mixed wastes are managed at a number of TAs throughout LANL. The Industrial Incinerator is located at TA-16 (Figure 1). TA-16 operations include weapons and nonweapons research and development. TA-16 is a large TA, with more than 200 buildings and structures, divided into separate operational units connected by roads.

1.3.2 TA-16

TA-16 is located on a broad mesa that is bounded on the north by Cañon de Valle and on the south by Water Canyon. The mesa slopes eastward toward branches of Water Canyon and Cañon de Valle. Canyon walls are

steep in this area. TA-16 lies on welded Bandelier tuff. The potentiometric surface of the main aquifer in the Los Alamos area lies at about 6,085 to 6,400 feet above sea level at TA-16. Over 1,000 feet of unsaturated tuff and volcanic rock separate the surface from the aquifer. There is little potential for downward flow from the surface because of the low moisture conditions of the tuff.

The TA-16 burning ground was constructed in 1951 for HE treatment and disposal. The Industrial Incinerator (Figure 3 and 4) is located outdoors in the northeastern part of the TA-16 burning ground (Figure 2). The Industrial Incinerator is surrounded by solid waste management units (SWMUs) and active open burn/open detonation (OB/OD) units.

1.3.3 Industrial Incinerator

LANL is authorized, by the RCRA Facility Operating Permit, to burn potentially HE-contaminated trash in the TA-16 Industrial Incinerator. The incinerator consists of a primary combustion chamber, a secondary combustion chamber, and a settling chamber. Both primary and secondary chambers are equipped with gas/oil-fired burners supplied by small volumes of propane for fuel. The outer shell is fabricated from hot-rolled carbon steel and is mounted on a four-inch thick concrete pad. The interior of the incinerator is lined with tongue and groove refractory brick. The incinerator is batch loaded through a 40-inch by 22-inch door. Ash settles into and is removed manually from the bottom of the combustion chamber. A barometric damper port at the bottom of the stack can also be used to remove ash particles. Although not used for this purpose, the incinerator has provisions for a contaminated waste oil injector system. Attachment C provides Industrial Incinerator specifications. Figures 3, 4, and 5 show the incinerator, concrete pad, hearth, and refractory brick.

1.4 Description of Waste Managed [20 NMAC 4.1, Subpart V, Section 264.112(b)]

The Industrial Incinerator was used to burn trash from TA-16 that was potentially contaminated with HE. This trash consisted of combustible waste such as paper, cardboard, kimwipes, cotton swabs, plastic bags, wooden spoons, cardboard boxes, rags, and packaging material. Although the incinerator is also equipped to burn hydraulic oil and tramp oil from machining operations, it was never used to incinerate these waste streams.

Waste streams designated as D003 and F003(I) were treated at the incinerator. The waste stream designated as D003 waste consisted of potentially HE-contaminated trash. The waste stream designated as F003(I) waste

consisted solely of rags and kimwipes used to wipe potentially HE-contaminated components. Incineration of only D003 and F003(I) waste streams in the Industrial Incinerator is consistent with the LANL RCRA Facility Operating Permit, Module VII.B.(2)(a); the LANL Part A Permit; LANL waste characterization records; and facility operating records. The TA-16 Industrial Incinerator Operating Record is included as Attachment D and details the waste treatment campaigns, the waste treated, and waste feed summary data.

1.5 Waste Inventory [20 NMAC 4.1, Subpart V, Section 264.112(b)]

Waste potentially contaminated with HE were not stored at the Industrial Incinerator, but were held in short-term storage (less than 90 days) at the generation point and moved to a staging transportainer at the site before a scheduled incineration. Process knowledge and characterization of the waste confirm only D003 and F003(I) waste was treated. Waste was carefully loaded, both mechanically and manually, into the incinerator from the staging transportainer. Of the dry waste described above, the maximum waste in treatment at one time was 810 pounds.

2.0 CLOSURE PROCEDURE
[20 NMAC 4.1, Subpart V, Section 264.112]

No potentially HE-contaminated waste remains in the TA-16 Industrial Incinerator. The ash generated from waste incineration was properly packaged and transported to an approved on-site storage facility or permitted off-site treatment and/or disposal facility during the operating life of the incinerator. During the incinerator's operating period, no RCRA-regulated waste or non-RCRA-regulated waste was allowed to remain at the site. Preclosure inspections confirm this. This information will be documented in the final closure report.

The waste management procedures employed during the active period of the Industrial Incinerator (from 1992 to 1998), inspection records, and waste containerization protocols, do not indicate contamination from waste treatment activities in the staging transportainer or on the concrete pad and surrounding areas. The contingency plan was never implemented and there is no indication in the operating record of any incident reports or spills. A review of operational records provides confidence that a release external to the incinerator has not occurred.

The staging transportainer will be reused to support LANL activities, or if no use is found, it will be recycled as scrap metal. The concrete pad will be left in place unless an administrative decision is made to crush and reuse it or dispose of it as nonhazardous solid waste. The Industrial Incinerator will be decommissioned and recycled as scrap metal as described in this closure plan. Incinerator components will be recycled pursuant to 20 NMAC 4.1, Subpart II, 40 CFR §261.6(a)(1), §261.6(a)(3)(iii), and §261.4(a)(13); the refractory brick, will be sampled in accordance with Section 2.2.1, and disposed of or recycled accordingly.

2.1 Preclosure Activities [20 NMAC 4.1, Subpart V, Section 264.112]

Before proceeding with any closure activities, Industrial Hygiene and Safety Group (ESH-5) personnel will determine personal protective equipment (PPE) and monitoring requirements following a field inspection.

2.2 Sampling Procedure [20 NMAC 4.1, Subpart V, Section 264.112(b)]

Refractory brick samples will be obtained following the sample procedures described in Section 2.2.1. The generation of liquids is not anticipated; however any liquids generated will be sampled as described in Section 2.2.3. In all cases, personnel will wear necessary PPE and observe required sampling precautions.

2.2.1 Refractory Brick Samples

Table 2 identifies recommended sample containers, preservation techniques, and holding times for the refractory brick samples. The refractory brick will be sampled using a small chisel to loosen solid material from the brick. Refractory brick samples will be obtained as follows:

1. Samples will be collected and placed in separate, clean sample containers. (Note: At least 100 grams of the refractory brick material must be collected in order to have enough solid to perform toxicity characteristic leaching procedure [TCLP] for metals.)
2. Samples will be collected with appropriate care and immediately placed in the sample container.
3. Containers will be resealed and labeled to identify where the samples were taken, the date and time the samples were taken, and the name of the technician collecting the sample.
4. Sampling information will be recorded in the field logbook (see Section 2.3)
5. A LANL sample analysis request form and chain-of-custody record will be completed for each sample upon collection.
6. Samples will be stored appropriately while in the field and will be transported to the analytical laboratory as soon as possible after field collection. Sample holding times will not be exceeded.
7. Plans are to use new, disposable sampling equipment for collecting all samples.

2.2.2 Liquid Sampling

While decontamination of equipment is not anticipated, if deemed necessary, a glass tube or similar device will be used to sample wash water from any equipment decontamination activities. The tube will be disposed of appropriately after each sample is collected, thus eliminating the potential for cross contamination. Table 3 identifies recommended sample containers, preservation techniques, and holding times for liquid samples. Liquids will be sampled as follows:

1. Clean samplers will be used.
2. The sampler will be inserted into the liquid waste and closed when filled.
3. The sampler will be slowly withdrawn from the container with one hand, while wiping the sampler tube with a disposable cloth with the other hand.
4. The sample will be carefully discharged into a sample container.

5. The sample will be preserved as required (see Table 3), the container capped, a label and seal attached, and the sample placed immediately in an insulated container with ice (if required).
6. Sampling information will be recorded in the field logbook (see Section 2.3).
7. A LANL sample analysis request form and chain-of-custody record will be completed for each sample upon collection.
8. Plans are to use new, disposable sampling equipment for collecting all samples. Unused, disposable samplers may be presumed clean if still in a factory-sealed wrapper.
9. Used rags will be stored in plastic bags for subsequent disposal.

2.3 Sample Handling and Documentation

Each sample will be labeled to prevent misidentification. Sample labels will include a unique sample number; sample collection date and time; specific sample location; and sample type. Each sample container will be sealed with an adhesive seal attached to the container to ensure that the seal will have to be broken to open the container. The seal and sample label will be completed with indelible ink.

All closure and sampling information will be recorded in a field logbook specific to closure of the Industrial Incinerator. Sufficient information will be recorded in order to fully document the sampling activities. The LANL project manager will ensure the field logbook is completed and maintained. The logbook will have bound and consecutively numbered pages. Logbook entries may include (as applicable):

1. Date and time of sample collection
2. Purpose of sample
3. Name of person making log entry
4. Identification, number, and type of sample
5. Description of each sampling location, sampling methodology, equipment used, etc.
6. Diagram of sampling locations, if available or appropriate
7. Field observations, if applicable (e.g., weather conditions)
8. Field measurements, if any
9. Signature of person responsible for the log entry

Sampling situations vary widely, therefore, no general rule can be used to determine the information that must be entered into the logbook. However, sufficient information will be recorded in order to fully document the sampling activities.

Samples will be submitted to a LANL or commercial laboratory for analysis. In either case, each sample will be labeled, sealed, preserved (if required), and accompanied by a chain-of-custody record and a request for analysis form.

The chain-of-custody record is necessary to trace sample possession from the time of collection to analysis and consists of the original and one copy. The original accompanies the sample to the analytical laboratory; sampling personnel transfer the copy to the project manager at LANL for retention. The request-for-analysis form has two parts: a field portion and a laboratory portion. The field portion is completed by the sample collection personnel. The laboratory portion is completed by the analytical laboratory personnel when the sample is received. The analytical laboratory retains the original record and sends a copy to the LANL project manager for retention.

2.4 Analytical Procedure

All samples will be analyzed according to procedures based on SW-846 (current revision and all approved updates) or using alternative methods following the criteria for substitution included in SW-846. Table 1 identifies the RCRA-regulated metals for which refractory brick samples will be analyzed, as necessary. Table 1 provides recommended analytical methods, and instrumentation for the RCRA-regulated metals. Regulatory limits pursuant to 20 NMAC 4.1, 40 CFR Subpart C will be used as laboratory quantification limits.

Calibration, operation, and quality control (QC) requirements for laboratory analyses will be performed as listed in Tables 4 through 7. The laboratory will submit the validated results to the project manager. All laboratory notebooks, log sheets, instrument printouts, charts, and calculations relevant to analyses of these samples will be identified and remain accessible. This information may be requested for independent review and validation.

The analytical laboratory that analyzes samples from the Industrial Incinerator refractory brick will be required to have procedures for minimizing cross contamination of samples and for securing sample custody within the laboratory. The analytical laboratory will provide corresponding laboratory sample identification numbers to the LANL project manager.

2.5 Decontamination Determination

Decontamination of the refractory brick will not be undertaken.

3.0 DECONTAMINATION VERIFICATION
[20 NMAC 4.1, Subpart V, Section 264.112]

A New Mexico-registered, independent professional engineer (PE) will review the administrative record and analytical results to determine if they confirm that the incinerator and associated equipment have been adequately characterized for release to a recycler, disposal, or reuse. As described in Section 2.2, samples will be obtained from the refractory brick and analyzed to confirm that RCRA-regulated metals identified in Table 1 are not present. Appropriate blank samples will be used to establish background levels for analytes.

4.0 QUALITY ASSURANCE/QUALITY CONTROL [20 NMAC 4.1, Subpart V, Section 264.112]

The analytical laboratory that analyzes the samples shall operate under a quality assurance (QA) plan and implementing QC procedures that meet the requirements of SW-846. An independent QA/QC officer will ensure that sampling activities are monitored and comply with this closure plan. The independent QA/QC officer will be responsible for conducting QA reviews and audits of field and laboratory activities and documentation. Field QC activities will include QC sample collection and field documentation of sampling activities. Any field equipment requiring calibration will be calibrated and maintained using the manufacturer's instructions and appropriate standard operating procedures. All samples will be managed to ensure that holding times are not exceeded. Table 8 summarizes field QC sample requirements.

4.1 QC Samples

4.1.1 Blanks

Each time samples are obtained, sufficient blanks must be collected. The required blanks will include:

- *Field Blanks.* A field blank is a sample collected to assess the ambient conditions at the sampling site. Field blanks will consist of one 40 ml vial that is filled with sand free of the analytes listed in Table 1. The field blanks will be prepared when the sampling team arrives at the site and will remain open until all samples are collected. The vials will then be closed and sealed with custody tape and managed the same as the regular samples. Field blanks will be analyzed for the metals identified in Table 1.
- *Equipment Rinsate Blanks.* Plans are to use new, disposable sampling equipment for collecting all samples. Because sampling equipment will not be rinsed in the field or ever reused, LANL does not plan to collect and analyze equipment rinsate blanks. If these plans change and sampling equipment is rinsed for reuse, then appropriate equipment rinsate blanks will be collected and analyzed.

4.1.2 Duplicate (or split) samples

No less than one split (or duplicate) sample will be collected for every 10 locations sampled. A duplicate will consist of a sample being taken from an area immediately adjacent to the original sample.

4.2 Analytical Laboratory QA/QC

The analytical laboratory will operate under its own QA/QC plan, which has been approved for SW-846 methods and EPA Contract Laboratory Procedures through the LANL ESH-19 specifications for LANL contract analytical laboratories.

Laboratory QC samples are required to establish the accuracy and precision of analytical data in order to determine the quality of the data. Tables 4 through 7 list laboratory QC sample procedures.

5.0 CLOSURE SCHEDULE
[20 NMAC 4.1, Subpart V, Section 264.113]

An estimated 180 days will be required to accomplish closure procedures and reporting requirements. The year of closure of the TA-16 Industrial Incinerator is 2000. Closure will observe the schedule provided below.

Closure Schedule

Activity	Maximum Time Required
Notify the NMED	-90 Days
Obtain refractory brick samples	Day 30
Review sample analysis results	Day 60
Submit final report to NMED	Day 180

NOTE: The schedule indicates calendar days. Some activities may be conducted simultaneously.

6.0 CLOSURE CERTIFICATION
[20 NMAC 4.1, Subpart V, Section 264.115]

An independent New Mexico-registered PE and a LANL representative will ensure that the closure follows this plan. Upon completion of closure, the PE and a LANL representative will prepare a letter certifying that the facility has been closed in accordance with this plan. The letter shall be dated and signed by each party and stamped by the PE. The original letter will be maintained by ESH-19. The closure report supporting the PE's certification will be furnished to the Secretary of the NMED with the original certification. Closure certification will be submitted to the Secretary of the NMED in accordance with 20 NMAC 4.1, Subpart V, §264.115 [1-1-97].

7.0 FINANCIAL REQUIREMENTS
[20 NMAC 4.1, Subpart V, Section 264.114(c)]

In accordance with 20 NMAC 4.1, Subpart V, 264.140(c) [1-1-97], LANL, as a federal facility is exempt from the requirements of 20 NMAC 4.1, Subpart V, Part 264, Subpart H [1-1-97] to provide a cost estimate, financial assurance mechanisms, and liability insurance for closure actions.

8.0 FINAL CLOSURE REPORT
[20 NMAC 4.1, Subpart V, Section 264.115]

Upon completion of closure activities, a final closure report will be prepared and submitted to the Secretary of the NMED. The report will document the final closure and contain, at a minimum, the following:

- A. The certification described in Section 6.0
- B. Any variance from the approved activities and the reason for the variance
- C. A tabular summary of the sampling and analytical results
 - 1. Sample identification
 - 2. Sampling location
 - 3. Datum reported
 - 4. Detection limit for each datum
 - 5. A measure of analytical precision (e.g. uncertainty, range, variance)
 - 6. Identification of analytical procedures
 - 7. Identification of analytical laboratory
- D. The location of the file of supporting documentation
 - 1. Field log books
 - 2. Characterization information
- E. Storage or disposal location of all regulated and nonregulated residues, if necessary
- F. A certification of accuracy of the report

TABLES AND FIGURES

Table 1
Summary of Characteristic Methods for Metals Analysis of Refractory Brick
(TCLP Extracts) and Water Samples

EPA SW-846 ^a Method References			
Analyte ^b	Preparative Method(s)	Analytical Method(s)	Instrumentation
Arsenic	1311, 3010/3020/3015/ 3050A/3051	6010A, 7060A	ICP ^c , GFAA ^d
Barium	1311, 3010/3020/3015/ 3050A/3051	6010A, 7081	ICP, GFAA
Cadmium	1311, 3010/3020/3015/ 3050A/3051	6010A, 7131A	ICP, GFAA
Chromium (hexavalent)	1311, 3060A	7196A, 7199	Spectrophotometric, IC ^e
Lead	1311, 3010/3020/3015/ 3050A/3051	6010A, 7421	ICP, GFAA
Mercury	1311, 3010/3020/3015/ 3050A/3051	7470A/7471A	CVAA ^f
Selenium	1311, 3010/3020/3015/ 3050A/3051	6010A, 7740	ICP, GFAA
Silver	1311, 3010/3020/3015/ 3050A/3051	6010A, 7761	ICP, GFAA

^a U.S. Environmental Protection Agency, 1997 and all approved updates, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," *SW-846*. Use most current approved version of methods.

^b Regulatory limits pursuant to 20 NMAC 4.1, 40 CFR Subpart C will be used as laboratory quantification limits.

^c ICP = Inductively coupled plasma emission spectroscopy

^d GFAA = Graphite furnace atomic absorption spectroscopy

^e IC = Ion chromatography

^f CVAA = Cold-vapor atomic absorption spectroscopy

Table 2
Sample Containers, Preservation Techniques, and Holding Times for Refractory Brick Samples

Analyte Group	Sample Size	Container	Preservative	Holding Time ^a
Target analyte metals (except mercury and hexavalent chromium)	200g	P ^b or G ^c	None	6 months
Mercury	200g	P or G	None	28 days
Hexavalent chromium	200g	P or G	None	NA ^d

^a Holding time information was taken from U.S. Environmental Protection Agency, 1997 and all approved updates, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," *SW-846*.

^b P = Polyethylene

^c G = Glass

^d Holding time for the analysis of hexavalent chromium in solid samples has not yet been determined. Analysis as soon as possible is recommended.

Table 3
Sample Containers, Preservation Techniques, and Holding Times for Liquid Samples

Analyte Group	Sample Size	Container	Preservative	Holding Time ^a
Target analyte metals (except mercury and hexavalent chromium)	600 ml	P ^b or G ^c	HNO ₃ ^d to pH<2	180 days
Mercury	400 ml	P or G	HNO ₃ to pH<2	28 days
Hexavalent chromium	400 ml	P or G	Cool to 4°C	24 hours

^a Holding time information was taken from U.S. Environmental Protection Agency, 1997 and all approved updates, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," *SW-846*.

^b P = Polyethylene

^c G = Glass

^d HNO₃ = Nitric acid

Table 4
Summary of Laboratory Quality Control Procedures for Metals Analysis by ICP^a

Quality Control Check ^c	Frequency	Acceptance Criteria ^b	Corrective Action
Instrument calibration	Daily, or each setup		
Initial calibration/verification (ICV)	After each calibration	± 5% of true value	Correct problem, recalibrate
Initial calibration blank (ICB)	After every calibration	< contract-required detection limits	Correct problem; recalibrate
Continuing calibration verification (CCV)	Every 10 samples or every 2 hours and end of run	± 10% of true value	Correct problems; recalibrate and reanalyze all samples since last CCV
Continuing calibration blank (CCB)	Every 10 samples or every 2 hours and end of run	< contract-required detection limit	Correct problem; reanalyze all samples since last blank
Interference check sample (ICS)	Beginning and end of each run or twice per 8-hour shift	± 20% of true value	Correct problem; reanalyze all samples since last ICS
Method blank (digested) (MB)	One per batch	< contract-required detection limit	Re-analyze; redigest associated samples
Duplicate sample analysis (D)	One per field batch per matrix or every 20 samples whichever is more frequent	0–20% difference when > five times detection limit; detection limit otherwise	Flag data
Laboratory control sample (LCS)	One per field batch or each digestion batch	80–120% recovery (use 70–130% silver, antimony)	Correct problem; reanalyze all samples since last LCS; recalibrate
Matrix spike (pre-digestion) (MS)	One per batch	± 25% of spiked value	Flag data
Serial dilution analysis	One per field batch per matrix	± 10% original determination	Flag data
Post digestion spike	One per analytical batch	± 25% of spike added	Flag data
Instrument detection limit	Quarterly	As determined	Not applicable
Interelement corrections	Annually	As determined	Not applicable
Linear range analysis	Quarterly	± 5% of true value	Reanalyze

^a U.S. Environmental Protection Agency, 1997 and all approved updates, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846. Use most current approved version of methods.

^b Laboratory developed in-house control limits must be used if available.

^c Modified QC requirements apply to swipe samples.

Table 5
Summary of Laboratory Quality Control Procedures for Metals Analyses by GFAA^a

Quality Control Check ^c	Frequency	Acceptance Criteria	Corrective Action
Initial calibration	Daily		
Initial calibration verification (ICV)	After every calibration	± 10% of true value	Correct problem, recalibrate
Initial calibration blank (ICB)	After every calibration	< contract-required detection limits	Correct problem; recalibrate
Continuing calibration verification (CCV)	After instrument calibration, every 10 samples	± 20% of true value	Correct problem, recalibrate and reanalyze previous 10 samples
Continuing calibration blank (CCB)	Every 10 samples	< contract-required detection limits	Correct problem; reanalyze previous 10 samples
Method blank (MB)	Each batch of digested samples	< contract-required detection limits	Reanalyze; redigest associated batch
Interference check sample (ICS)	Beginning and end of each run or twice per 8-hour shift	± 20% of true value	Correct problem; reanalyze all samples since last ICS; recalibrate
Matrix spike (MS)	One per analytical batch	± 25% of spike added when sample is > five times detection limit; detection limit otherwise	Flag data
Matrix spike duplicate (MSD)	One per analytical batch	0 – 20% RPD	Flag data
Laboratory control sample (LCS)	One per analytical batch	80–120% recovery (use 70–130% for silver, antimony) ^b	Correct problem; reanalyze all samples since last LCS; recalibrate
MSA (multiple)	As needed		
Serial dilution analysis	One per field batch per matrix	± 10% original determination	Flag data
Recovery test	If serial dilution fails	85–115% recovery	Perform MSA on all samples
Instrument detection limit (IDL)	Quarterly	As determined	Not applicable
Interelement corrections	Annually	As determined	Not applicable
Linear range analysis	Quarterly	± 5% of true value	Reanalyze

^a U.S. Environmental Protection Agency, 1997 and all approved updates, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," *SW-846*. Use most current approved version of methods.

^b Use laboratory generated control limits if available.

^c Modified QC requirements apply to swipe samples.

Table 6
Summary of Laboratory Quality Control Procedures for Hexavalent Chromium Analysis

EPA <i>SW-846</i> ^a Analytical Method	Quality Control Check	Frequency	Acceptance Criteria ^{b,c}	Corrective Action
7196A/7199	Initial calibration	Daily. Minimum of 3 standards and a blank		
	Reagent blank	Every analytical batch	< contract-required detection limits	Flag data
	Check standard	Every 15 samples Every 10 samples	± 20% of true value (7196A) ± 10% of true value (7199)	Reanalyze all samples after last acceptable check standard; recalibrate
	Duplicate	Every 10 samples	0–20% RPD	Flag data
	Matrix verification ^d	One per batch	85–115% of recovery	Dilute; use alternate analysis method
	Alkaline spike recovery ^e	One per batch	85–115% of recovery	Use alternate analysis method
	Method of Standard Addition ^f	One sample per batch	± 10% of original result ^f	Perform MSA on all samples

^a U.S. Environmental Protection Agency, 1997 and all approved updates, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," *SW-846*. Use most current approved version.

^b Blank correction must be applied to standard and sample results for method 7196A.

^c In-house generated control limits should be used if available

^d If alkaline digestion used, soluble and insoluble pre-digestion spikes must be analyzed, according to Section 8.5 of Method 3060A.

^e Not applicable for samples prepared by Method 3060A or analyzed by Method 7199.

^f Acceptance criterion is ± 15% for samples prepared by Method 3060A.

^g Not applicable to analysis by Method 7199.

Table 7
Summary of Laboratory Quality Control Procedures for Mercury Analysis

Parameter	EPA <i>SW-846</i> ^a Analytical Method	Quality Control Check ^c	Frequency	Acceptance Criteria ^b	Corrective Action
Mercury	7470A/7471A	Initial calibration	Daily (5 standards and blank)		
		Initial calibration verification (check standard and blank)	After each calibration	standard \pm 10% of true value blank < contract-required detection limit	Reanalyze, recalibrate
		Continuing calibration verification (CCV)	Every 10 samples	\pm 20% of true value	Reanalyze all samples since last acceptable CCV
		Continuing calibration blank (CCB)	Every 10 samples	< contract-required detection limit	Check for source of contamination; reanalyze all samples after last acceptable CCB
		Matrix spike (MS)	One every analytical batch	\pm 25% of spike	MSA on all samples
		Duplicate (D)	One every analytical batch	0-20% RPD	Flag data

^a U.S. Environmental Protection Agency, 1997 and all approved updates, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," *SW-846*. Use most current approved version.

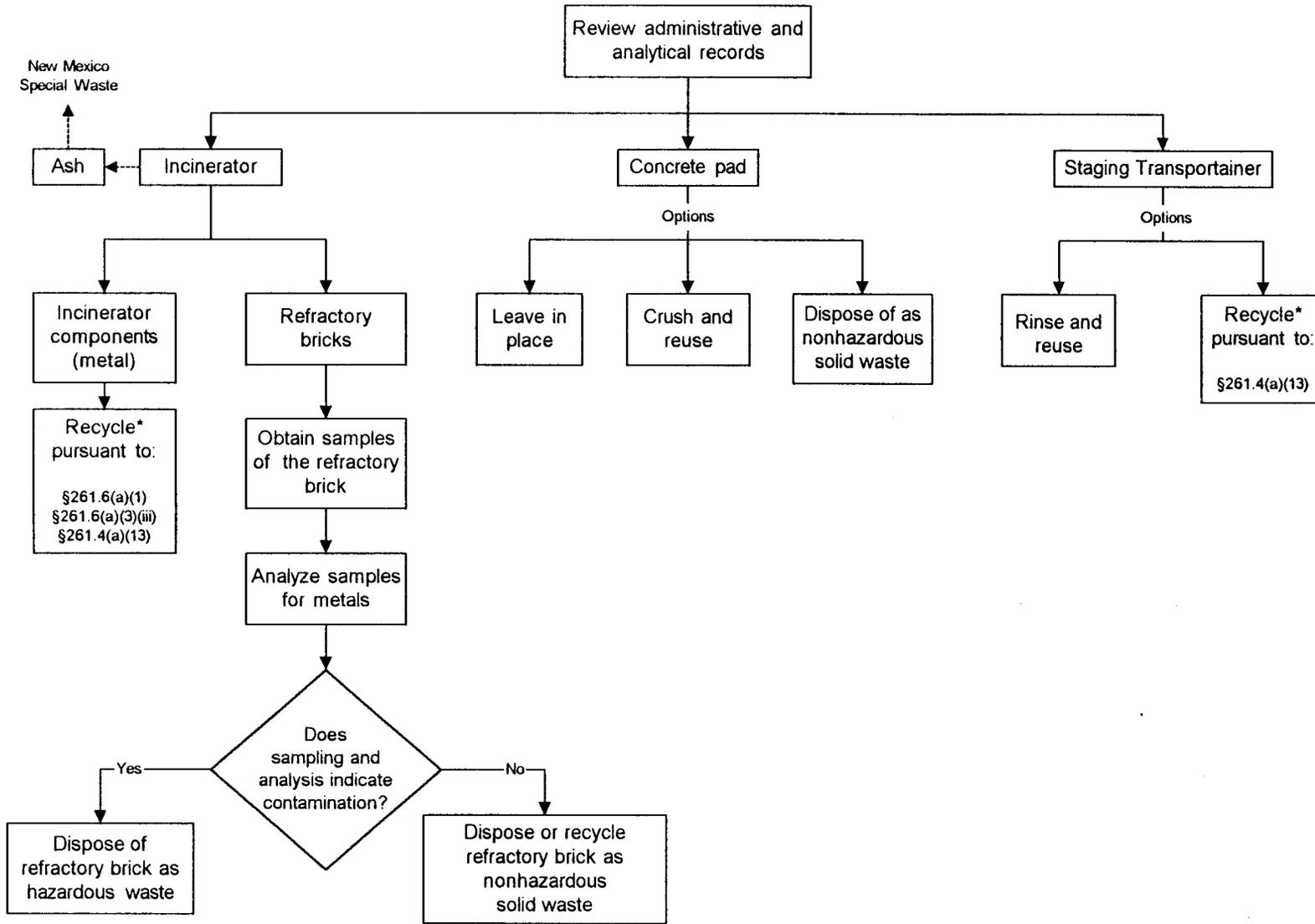
^b In-house generated control limits should be used if available.

^c Modified QC requirements apply to swipe samples.

Table 8
Summary of Field Quality Control Samples

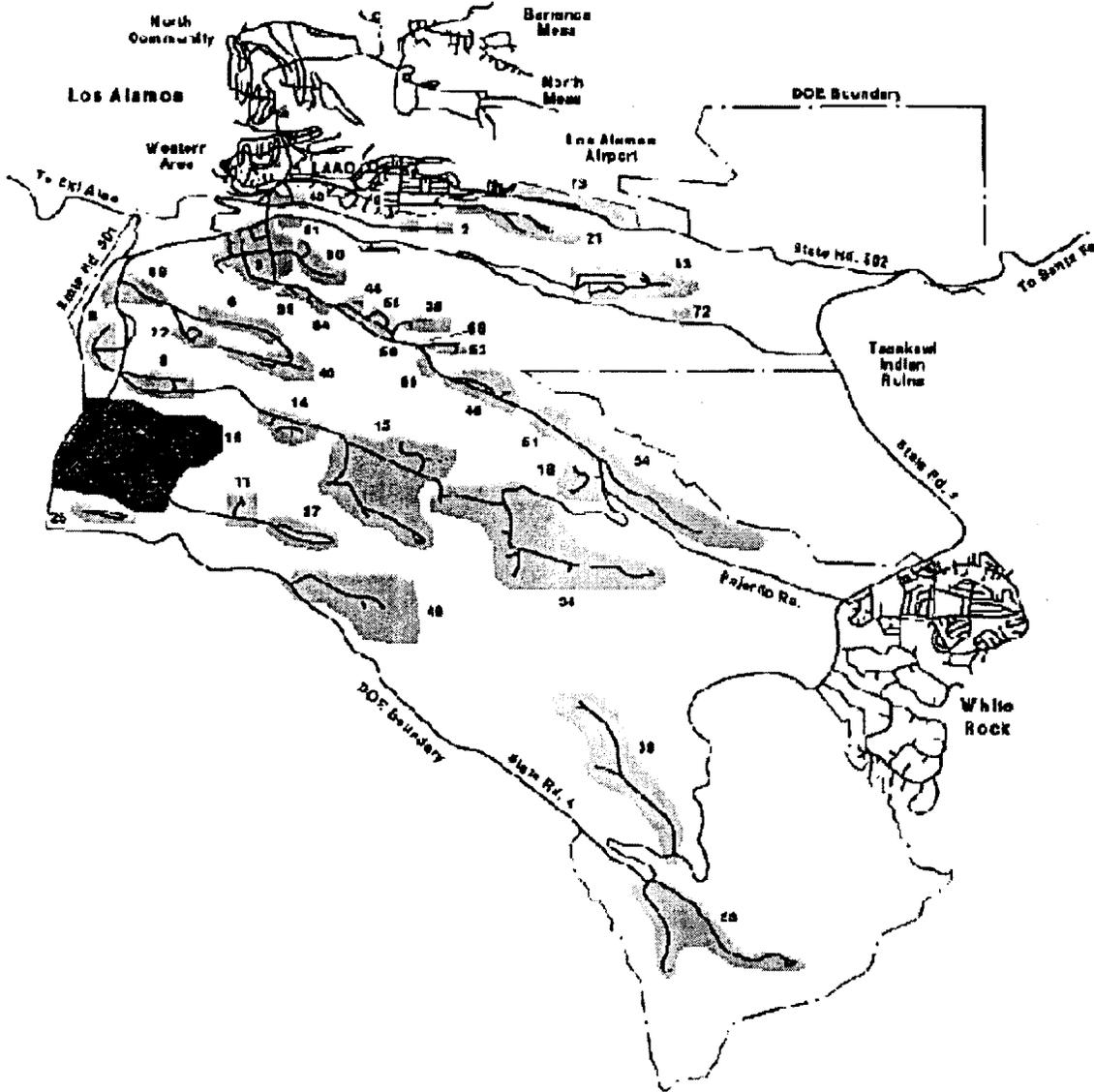
Quality Control Sample Type	Sample Matrix	Applicable Analysis	Frequency	Purpose	Acceptance Criteria	Corrective Action
Field blank	Ash/Water/ Swipe	Metals ^a	One sample daily per analysis	Monitor field sample contamination/ air contamination	< contract-required detection limit	Include impact on data quality in narrative
Field duplicate	Ash/water	Metals	One sample per day per matrix type per 20 samples	Monitor sample variability	Analytical method criteria, if applicable	Include impact on data quality in narrative
Equipment rinsate blank	Water	Metals	One sample per day per 20 samples	Monitor decontamination effectiveness and sample cross contamination	< contract-required detection limit	Include impact on data quality in narrative

^a Includes mercury and hexavalent chromium.



*At 20 NMAC 4.1, Subpart II, 40 CFR §261.4(a)(13) [1-1-97], certain materials, such as scrap metal, that are recycled, as defined at 20 NMAC 4.1, Subpart II, 40 CFR §261.4(a)(13) [1-1-97], are excluded from hazardous waste regulations.

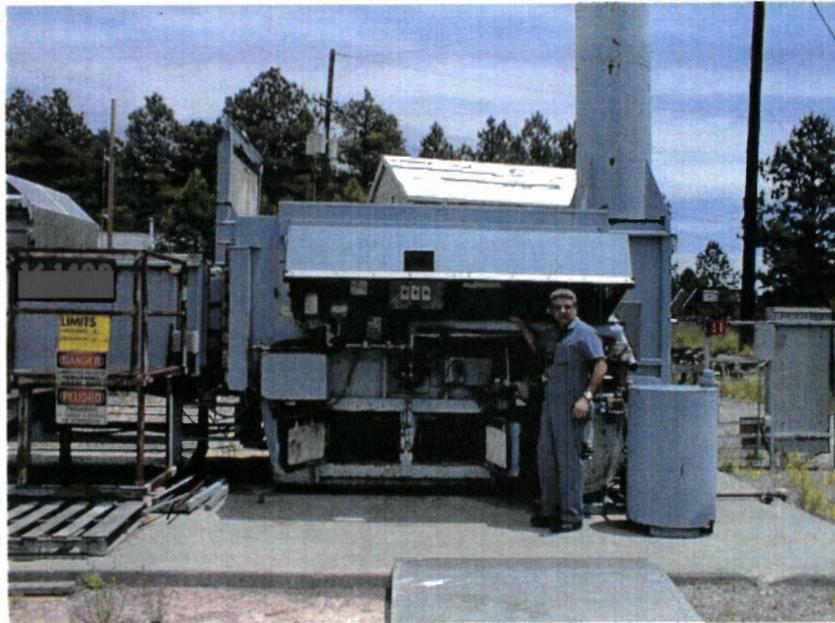
Figure 1. TA-16 Industrial Incinerator Closure Pathway



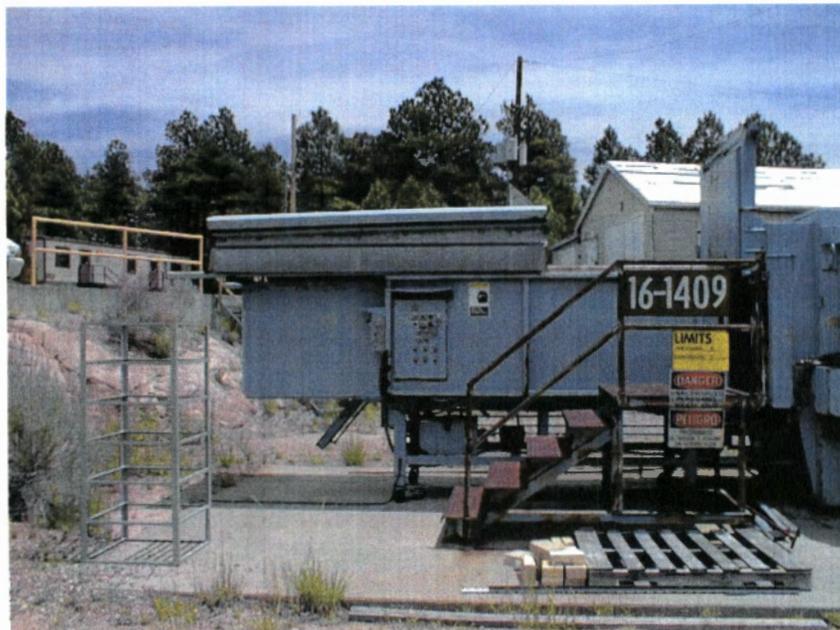
Technical Area Locations

- TA-0 Unassigned Land Reserve
- TA-2 Omega Site
- TA-3 South Mesa Site
- TA-5 Beta Site
- TA-6 Two Mile Mesa Site
- TA-8 Anchor Site West
- TA-9 Anchor Site East
- TA-11 K-Site
- TA-14 O-Site
- TA-15 R-Site
- TA-16 S-Site
- TA-18 Pajarito Laboratory
- TA-21 DP-Site
- TA-22 IC-Site
- TA-28 Magazine Area A
- TA-33 HP-Site
- TA-35 Ten Site
- TA-36 Kappa Site
- TA-37 Magazine Area C
- TA-39 Anchor Canyon Site
- TA-40 DF-Site
- TA-41 W-Site
- TA-43 Health Research Lab & DOE Headquarters
- TA-46 WA-Site
- TA-48 Radiochemistry Site
- TA-49 Frijoles Mesa Site
- TA-50 Waste Management Site
- TA-51 Radiation Exposure Facility
- TA-52 Reactor Development Site
- TA-53 Meson Physics Facility
- TA-54 Waste Disposal Site
- TA-55 Plutonium Facility Rm
- TA-57 Fenton Hill Site
- TA-58 Two Mile North Site
- TA-59 OH-Site

Figure 2. Location Map — Technical Area 16



**Figure 3. TA-16 Industrial Incinerator,
Concrete Pad, Combustion Chamber, and Stack**



**Figure 4. TA-16 Industrial Incinerator,
Concrete Pad, and Feed Box**

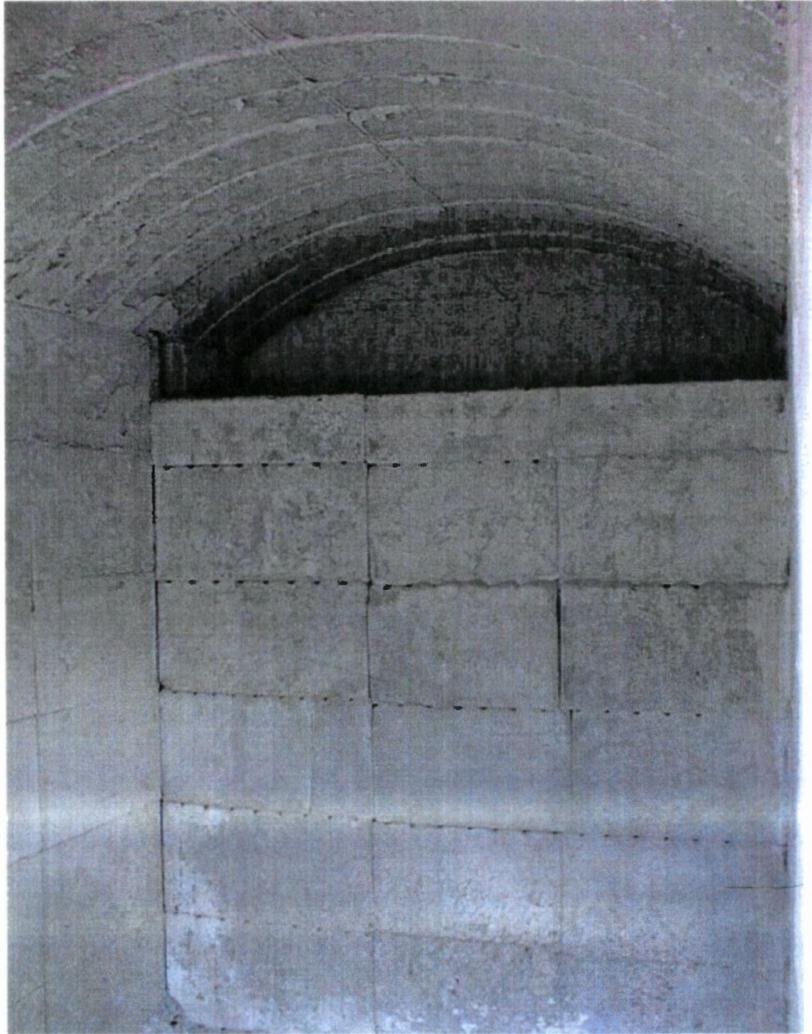


Figure 5. TA-16 Industrial Incinerator Hearth with Firebrick Lining

ATTACHMENT A
Waste Analysis Records and Analytical Results

**Waste Profile Information
TA-16 Industrial Incinerator (Continued)**

Waste Profile Document	Ash Analytical Results	Description of Waste
WPF 09889		<p>Waste Category: Combustible, trace HE, laboratory trash</p> <p>Description: Kimwipes, paper, plastic vials used to hold or clean up HE-(illegible) laboratory; solid, ignitability >200°F, not aqueous, nonreactive, nonradioactive</p> <p>Waste Classification: No solvents, RCRA-regulated solid waste, nonhazardous chemical waste</p> <p>Notes: Could have been incinerated. Handwritten note: Trace amounts of HE. The incinerator ash is disposed of at TA-54 (see WPF 00528).</p>
WPF 09893		<p>Waste Category: Combustible, HE, waste rags, laboratory trash, contaminated soil</p> <p>Description: Solid, >200°F, not aqueous, Class A or B explosive, nonradioactive</p> <p>Waste Classification: D003, RCRA-regulated hazardous waste</p> <p>Notes: Scrap HE and inserts; excess from sampling analysis; kimwipes and paper for cleaning HE; plastic bags used to contain the waste. Handwritten note: Trace HE. No solvents. May have been incinerated.</p>
WPS 20641		<p>Waste Category: Explosive process waste</p> <p>Description: Waste materials used to clean explosives</p> <p>Waste Classification: D003, RCRA-regulated hazardous waste</p> <p>Notes: Incinerator ash is disposed of at TA-54 (see WPF 00528).</p>
WPS 20664		<p>Waste Category: Explosive process waste</p> <p>Description: Waste materials used to clean explosives</p> <p>Waste Classification: D003, RCRA-regulated hazardous waste</p> <p>Notes: Incinerator ash is disposed of at TA-54 (see WPF 00528).</p>

**Waste Profile Information
TA-16 Industrial Incinerator (Continued)**

Waste Profile Document	Ash Analytical Results	Description of Waste
WPS ^c 20665		<p>Waste Category: Explosive process waste</p> <p>Description: Waste materials used to clean explosives</p> <p>Waste Classification: D003, RCRA-regulated hazardous waste</p> <p>Notes: Incinerator ash is disposed of at TA-54 (see WPF 00528).</p>
WPS 22000		<p>Waste Category: Explosive process waste, treated hazardous waste residue</p> <p>Description: Ash from HE burning operation; may contain sand, less than 100 ppm barium</p> <p>Waste Classification: NMSW, nonhazardous chemical waste</p> <p>Notes: New Mexico Special Waste classification. Incinerator ash is disposed of at TA-54 (see WPF 00528).</p>
WPF 22001		<p>Waste Category: Empty container, explosive process waste</p> <p>Description: Potentially HE-contaminated administrative trash</p> <p>Waste Classification: Nonhazardous waste</p> <p>Notes: Incinerator ash is disposed of at TA-54 (see WPF 00528).</p>
WPS 22266		<p>Waste Category: Degreaser, solvent</p> <p>Description: Absorbed liquid, kimwipes or rags moist with ethanol or acetone used primarily for cleaning tooling; kimwipes may also be contaminated with residual plastics raw materials</p> <p>Waste Classification: F003, RCRA-regulated hazardous waste</p> <p>Notes: Constituents: ethanol, acetone. Incinerator ash is disposed of at TA-54 (see WPF 00528).</p>

**Waste Profile Information
TA-16 Industrial Incinerator (Continued)**

Waste Profile Document	Ash Analytical Results	Description of Waste
WPF 23494	April 1996	<p>Waste Category: Explosive process waste, ongoing generation, analytical report</p> <p>Description: Powder/ash</p> <p>Waste Classification: Reported constituents: <i>None, Non-Detect, or Below Regulatory Limit</i></p> <p>Notes: Incinerator ash analytical results attached; metals are totals (mg/kg), not TCLP</p>
(WPF 31275 Replaces WPF 23494)		
WPF 23496	April 1996	<p>Waste Category: Explosive process waste, ongoing generation, analytical report</p> <p>Description: Powder/ash</p> <p>Waste Classification: Reported constituents: <i>None, Non-Detect, or Below Regulatory Limit</i></p> <p>Notes: Incinerator ash analytical results attached; metals are totals (mg/kg), not TCLP</p>
(WPF 31276 Replaces WPF 23496)		
WPF 26159	April 1997	<p>Waste Category: Incinerator ash, analytical report</p> <p>Description: Powder/ash</p> <p>Waste Classification: NMSW Reported constituents: <i>None, Non-Detect, or Below Regulatory Limit</i></p> <p>Notes: Incinerator ash analytical results attached. Incinerator ash collected 03/12/97; analytical report 04/16/97.</p>
WPF 29641	August 1998	<p>Waste Category: Incinerator ash; analytical report</p> <p>Description: Powder/Ash</p> <p>Waste Classification: NMSW Reported constituents: <i>None or Non-Detect</i> except Cadmium: <1.0 ppm (below regulatory limit)</p> <p>Notes: Incinerator ash analytical results attached. Waste category: Organic – analytical is for metals only Incinerator ash collected 07/21/98; analytical report 08/14/98.</p>

**Waste Profile Information
TA-16 Industrial Incinerator (Continued)**

Waste Profile Document	Ash Analytical Results	Description of Waste
WPF 31275		<p>Waste Category: Process waste, spent chemical</p> <p>Description: Powder/Ash</p> <p>Waste Classification: NMSW</p> <p>Notes: Waste profile 31275 replaces waste profile 23494. Ash samples (98D5085) were incorrectly analyzed for total metals on 3/96 and the waste profile 23494 was based on that information. Ash samples were reanalyzed on 4/96 for TCLP characterization method. This waste profile 31275 is generated with the correct information and replaces WPF 23494.</p>
WPF 31276		<p>Waste Category: Process waste, spent chemical</p> <p>Description: Powder/Ash</p> <p>Waste Classification: NMSW</p> <p>Notes: Waste profile 31276 replaces waste profile 23496. Ash samples (98D5084) were incorrectly analyzed for total metals on 3/96 and the waste profile 23496 was based on that information. Ash samples were reanalyzed on 4/96 for TCLP characterization method. This waste profile 31276 is generated with the correct information and replaces WPF 23496.</p>

- ^a WPR = Waste Profile Report
- ^b WPS = Waste Profile System
- ^c WPS = Waste Profile System
- ^d NA = Not applicable

WASTE PROFILE REQUEST

HSE-8 USE ONLY
Reference Number <i>00528</i>

Complete both sides of this form using a black or blue pen. Inadequate information will result in processing delays.
Completed form to: ATTN: WPRF, MS K490

Division/Group <i>KX-3</i>	Telephone <i>7-6591</i>	Mail Stop <i>C-934</i>	Technical Area <i>14</i>	Building <i>389</i>	Room <i>1</i>
-------------------------------	----------------------------	---------------------------	-----------------------------	------------------------	------------------

<input checked="" type="checkbox"/> Knowledge of Process <input type="checkbox"/> MSDS Attached	<input type="checkbox"/> Chemical/Physical Analyses (Specify Below) <input type="checkbox"/> Request For Analysis <input type="checkbox"/> Analysis Attached
--	---

Choose one or more of the items below which best describes your waste:

- | | | | | |
|---|---|---|--|---|
| <input type="checkbox"/> Flammable | <input type="checkbox"/> Pesticide | <input type="checkbox"/> Photographic | <input type="checkbox"/> Spent Coolant | <input type="checkbox"/> Plastics |
| <input type="checkbox"/> Combustible | <input type="checkbox"/> Beryllium | <input type="checkbox"/> Sanitary | <input type="checkbox"/> Aerosol Cans | <input type="checkbox"/> Filter Media |
| <input type="checkbox"/> High Explosive | <input type="checkbox"/> Asbestos | <input type="checkbox"/> Radiochemistry | <input type="checkbox"/> Motor Oil | <input type="checkbox"/> Vacuum Filter Sludge |
| <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Solvent | <input type="checkbox"/> Paint Waste | <input type="checkbox"/> Pump Oil | <input type="checkbox"/> Cement Paste |
| <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Waste Rags | <input checked="" type="checkbox"/> Laboratory Trash <i>trash</i> | <input type="checkbox"/> Capacitor Oil | <input type="checkbox"/> Non-Salvageable |
| <input type="checkbox"/> Cyanide | <input type="checkbox"/> Glass | <input type="checkbox"/> Metallurgic | <input type="checkbox"/> UST Remediation | <input type="checkbox"/> Non-Recyclable |
| <input type="checkbox"/> Heavy Metal | <input type="checkbox"/> Plating Solution | <input type="checkbox"/> Scrap Metal | <input type="checkbox"/> Soils | <input type="checkbox"/> Building Debris |
| <input type="checkbox"/> Corrosive | <input type="checkbox"/> Etchant | <input type="checkbox"/> Medical/Biological | <input type="checkbox"/> Environmental | <input type="checkbox"/> Firing Site Debris |

Additional Description (Optional)

Office trash sent from incinerator

General Description Of Waste (check at least one block for each column):

- | RM | FLASH POINT (°F) | pH | REACTIVITY | PCBs |
|--|---|--|--|---|
| <input checked="" type="checkbox"/> Solid
<input type="checkbox"/> Cemented Sludge
<input type="checkbox"/> Semi-Solid/Sludge
<input type="checkbox"/> Absorbed Liquid
<input type="checkbox"/> Liquid
<input type="checkbox"/> Gas
<input type="checkbox"/> Multi-Layer
<input type="checkbox"/> Suspended Solids
<input checked="" type="checkbox"/> Powder or Ash | <input type="checkbox"/> Less Than 100
<input type="checkbox"/> 100 to 139
<input type="checkbox"/> 140 to 200
<input type="checkbox"/> Greater Than 200
<input checked="" type="checkbox"/> None | <input type="checkbox"/> 2.0 or Less
<input type="checkbox"/> 2.1 to 12.4
<input type="checkbox"/> 12.5 or Greater
<input checked="" type="checkbox"/> Not Applicable | <input type="checkbox"/> Unstable
<input type="checkbox"/> Reacts With Water
<input type="checkbox"/> Cyanides
<input type="checkbox"/> Sulfides
<input type="checkbox"/> Shock Sensitive
<input type="checkbox"/> Class A or B Explosive
<input checked="" type="checkbox"/> Non-Reactive | <input type="checkbox"/> < 50 ppm
<input type="checkbox"/> 50-500 ppm
<input type="checkbox"/> > 500 ppm
<input checked="" type="checkbox"/> No PCBs |

Indicate Known Radioactivity Of Your Waste:

Not Radioactive (Go To Next Section)

- | | |
|---------------------------------------|----------------------------------|
| <input type="checkbox"/> < 2.0 nC/g | <input type="checkbox"/> Alpha |
| <input type="checkbox"/> > 2.0 nC/g | <input type="checkbox"/> Beta |
| <input type="checkbox"/> > 10.0 nC/g | <input type="checkbox"/> Gamma |
| <input type="checkbox"/> > 100.0 nC/g | <input type="checkbox"/> Tritium |

List Known Radioisotopes:

- | | |
|--|---|
| <input type="checkbox"/> Determined By Assay | <input type="checkbox"/> Determined By Estimate |
| Radioisotope 1. _____ | Activity/Unit of Measure _____ |
| Radioisotope 2. _____ | Activity/Unit of Measure _____ |
| Radioisotope 3. _____ | Activity/Unit of Measure _____ |
| Radioisotope 4. _____ | Activity/Unit of Measure _____ |

GENERATOR CERTIFICATION

Based upon my knowledge of the waste, and/or chemical/physical analysis, I certify that the information provided regarding the waste specified on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Print Generator's Name (Last, First Mi) <i>PE VELARDE</i>	Z Number <i>74172</i>	Generator's Signature <i>[Signature]</i>	Date <i>6/24/91</i>
If your Group's Waste Coordinator is the custodian of your waste management documentation, provide the name and mail stop of this person (optional).	Print Group Waste Coordinators Name (Last, First Mi) <i>BARRE MIKE J.</i>		Mail Stop <i>C-934</i>

Heavy Metals (indicate whether the following heavy metals exist in your waste, at the posted concentration):

	Non.	<	>	KOP	Analysis	TCLP	Other
Arsenic	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> > 5.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Barium	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 100.0 ppm	<input type="checkbox"/> > 100.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cadmium	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 1.0 ppm	<input type="checkbox"/> > 1.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chromium	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> > 5.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> > 5.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mercury	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.2 ppm	<input type="checkbox"/> > 0.2 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nickel	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 134.0 ppm	<input type="checkbox"/> > 134.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Selenium	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 1.0 ppm	<input type="checkbox"/> > 1.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Silver	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> > 5.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thallium	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 130.0 ppm	<input type="checkbox"/> > 130.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Organic Compounds (indicate if the following organic compounds exist in your waste, at the posted concentration):

	None	<	>	KOP	Analysis	TCLP	Other
Benzene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> > 0.5 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon Tetrachloride	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> > 0.5 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chlorobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 100.0 ppm	<input type="checkbox"/> > 100.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chloroform	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 6.0 ppm	<input type="checkbox"/> > 6.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cresol	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 200.0 ppm	<input type="checkbox"/> > 200.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1,4-Dichlorobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 7.5 ppm	<input type="checkbox"/> > 7.5 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1,2-Dichloroethane	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> > 0.5 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1,1-Dichloroethylene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.7 ppm	<input type="checkbox"/> > 0.7 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2,4-Dinitrotoluene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.13 ppm	<input type="checkbox"/> > 0.13 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hexachlorobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.13 ppm	<input type="checkbox"/> > 0.13 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hexachlorobutadiene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> > 0.5 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hexachloroethane	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 3.0 ppm	<input type="checkbox"/> > 3.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methyl Ethyl Ketone	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 200.0 ppm	<input type="checkbox"/> > 200.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 2.0 ppm	<input type="checkbox"/> > 2.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pentachlorophenol	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 100.0 ppm	<input type="checkbox"/> > 100.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pyridine	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> > 5.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tetrachloroethylene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.7 ppm	<input type="checkbox"/> > 0.7 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trichloroethylene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> > 0.5 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2,4,5-Trichlorophenol	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 400.0 ppm	<input type="checkbox"/> > 400.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2,4,6-Trichlorophenol	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 2.0 ppm	<input type="checkbox"/> > 2.0 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vinyl Chloride	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.2 ppm	<input type="checkbox"/> > 0.2 ppm	<input type="checkbox"/>	<input type="checkbox"/> → <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CHECK ONE

Additional hazardous components in the waste are listed below:

There are no additional hazardous constituents in this waste.

Compound Name	Concentration	Compound Name	Concentration
1. _____	_____	5. _____	_____
2. _____	_____	6. _____	_____
3. _____	_____	7. _____	_____
4. _____	_____	8. _____	_____

HSE-8/HSE-7 USE ONLY (Do Not Write Below This Line)

WASTE CLASSIFICATION

Non-Radioactive, Non-Hazardous

Radioactive

Hazardous or Mixed

Solid Waste

Low-Level Radioactive Waste

Hazardous Waste

Non-Regulated Chemical Waste

Transuranic Waste

Mixed Low-Level Waste

Sanitary Waste

Special Nuclear Material

Mixed Transuranic Waste

Other Non-Disposable Waste

Hazardous or Mixed Waste Codification:

Waste Code 1	Waste Code 2	Waste Code 3	Waste Code 4	Waste Code 5	Waste Code 6	Waste Code 7

HSE-8 Reviewer's Signature: *Rayner* Date: *6/30/91* Cost Center/Program Code For HSE Analysis Backcharge: _____

EM-7 USE ONLY
VDR Identification Number

MAIL TO: CWDR, MAIL STOP J593

THE CHEMICAL AND MIXED WASTE OPERATIONS OF EM-7 WILL NOT PROCESS THIS FORM UNLESS ALL APPLICABLE BOXES HAVE BEEN COMPLETED, APPROPRIATE DOCUMENTS ATTACHED, AND CERTIFICATION STATEMENTS HAVE BEEN SIGNED. ITEM-BY-ITEM INSTRUCTIONS ARE ON THE LAST PAGE OF THIS FORM. CALL 665-4000 FOR ADDITIONAL ASSISTANCE IN COMPLETING THIS FORM.

1. Division/Group <i>ESA-2</i>	Program Code <i>9603</i>
-----------------------------------	-----------------------------

2. Waste Generated At:	Technical Area <i>16</i>	Building <i>359 DISPOSAL UNIT</i>	Room <i>OUTSIDE</i>
3. Waste Accumulated At:	Technical Area <i>16</i>	Building <i>387 STORAGE AREA</i>	Room <i>OUTSIDE</i>

4. Area Designation: <i>ESA-2 DISPOSAL UNIT (BURNING Ground)</i>			
Is the waste accumulated at:	<input type="checkbox"/> Satellite	<input checked="" type="checkbox"/> Less Than 90 Days (Start Date <i>11/1/92</i>)	<input type="checkbox"/> Other _____
Was the waste generated or accumulated in a Radioactive Materials Management Area (RMMA)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Is waste stored in a security area?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Is waste classified or a property numbered item?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Is waste generated from an environmental restoration project?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
If materials are new or unused, has material recycle been tried?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <i>N/A</i>	
Have waste minimization procedures from Waste Minimization Plan been followed?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <i>N/A</i>	
List volume of waste reduced to date (for calendar year)	<i>N/A</i>		

WASTE GENERATOR CERTIFICATION: To the best of my knowledge, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

5. Generator Name (Print) <i>Peter Velarde</i>		Signature <i>Peter Velarde</i>	
Z Number <i>079172</i>	Telephone <i>7-7570 7-6891</i>	Mail Stop <i>C-930</i>	Date <i>1-24-94</i>

WASTE MANAGEMENT COORDINATOR CERTIFICATION STATEMENT: My signature certifies that all information on this form has been reviewed and is correct to the best of my knowledge.

Waste Coordinator Name (Print) LLOYD W. SCHEMP		Signature <i>Lloyd W. Schemp</i>	
Number <i>104582</i>	Telephone <i>665-5436</i>	Mail Stop <i>C930</i>	Date <i>1/26/94</i>

7. List all "Spent" or "Process" waste(s) requested for pickup below. Attach a WPF for each different waste listed. If you need additional space use the "Spent or Process Waste Continuation Sheet."

I T E M	NUMBER OF CONTAINERS	VOLUME PER CONTAINER	U N I T ¹	GROSS WEIGHT PER CONTAINER	U N I T ²	TYPE OF CONTAINER ³	DESCRIPTION OF WASTES AS DESCRIBED IN WPF	WPF NUMBER
A	4	55	G	300	P	DM	H.E. Ash-sand, possible barium	027444
B	1	55	G	300	P	DM	H.E. Ash-sand, with barium	07193
C	4	55	G	300	P	DM	Office trash ash from incinerator	0805
D								
E								
F								
G								
H								

REFER TO PAGE 4 FOR DETAILED INSTRUCTIONS

8. List all "New" or "Unused" Chemical(s) requested for pickup below. Itemize below by trade-name product or chemical name. If you need additional space use the "New or Unused Waste Continuation Sheet." material is listed as a trade-name product, attach Material Safety Data Sheet.

I T E M	NUMBER OF CONTAINERS	VOLUME PER CONTAINER	U N I T ¹	GROSS WEIGHT PER CONTAINER	U N I T ²	COMPOUND OR PRODUCT NAME	WASTE FORM ⁴					
							S	L	G	FS	A	P
01												
02												
03												
04												
05												
06												
07												
08												
09												
10												
11												
12												
13												
14												
15												
16												
17												

<p>¹ Units for Volume: G = Gallons L = Liters F = Cubic Feet M = Cubic Meters ML = Milliliters FL = Fluid Ounce P = Pint</p>	<p>² Units for Weight: P = Pounds K = Kilograms GR = Grams OZ = Ounce</p>	<p>³ Type of Container: DM = Metal Drum TP = Portable Tank CY = Cylinder CF = Fiber or Plastic Box BG = Glass Bottle or Container O = Other Specify _____</p>	<p>⁴ Waste Form: S = Solid L = Liquid G = Gas FS = Factory Sealed A = Aerosol P = Powder or Ash</p>
--	--	--	--

WASTE PROFILE REQUEST COPY

HSE-8 USE ONLY
Reference Number <u>01582</u>

Complete both sides of this form using a black or blue pen. Inadequate information will result in processing delays.
 Completed form to: ATTN: WPRF, MS K490

Division/Group <u>WX-3</u>	Telephone <u>7-6656</u>	Mail Stop <u>C93B</u>	Technical Area <u>TA-16</u>	Building <u>280</u>	Room <u>1</u>
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Knowledge of Process

MSDS Attached *but only*

Chemical/Physical Analyses (Specify Below)

Request For Analysis

Analysis Attached

No H2 would go to Bq. No solvents. Considered possibly H2 contaminated.
 Choose one or more of the items below which best describes your waste:

- | | | | | |
|---|---|---|--|---|
| <input type="checkbox"/> Flammable | <input type="checkbox"/> Pesticide | <input type="checkbox"/> Photographic | <input type="checkbox"/> Spent Coolant | <input type="checkbox"/> Plastics |
| <input type="checkbox"/> Combustible | <input type="checkbox"/> Beryllium | <input type="checkbox"/> Sanitary | <input type="checkbox"/> Aerosol Cans | <input type="checkbox"/> Filter Media |
| <input type="checkbox"/> High Explosive | <input type="checkbox"/> Asbestos | <input type="checkbox"/> Radiochemistry | <input type="checkbox"/> Motor Oil | <input type="checkbox"/> Vacuum Filter Sludge |
| <input type="checkbox"/> Oxidizer | <input type="checkbox"/> Solvent | <input type="checkbox"/> Paint Waste | <input type="checkbox"/> Pump Oil | <input type="checkbox"/> Cement Paste |
| <input type="checkbox"/> Pyrophoric | <input type="checkbox"/> Waste Rags | <input type="checkbox"/> Laboratory Trash | <input type="checkbox"/> Capacitor Oil | <input type="checkbox"/> Non-Salvageable |
| <input type="checkbox"/> Cyanide | <input type="checkbox"/> Glass | <input type="checkbox"/> Metallurgic | <input type="checkbox"/> UST Remediation | <input type="checkbox"/> Non-Recyclable |
| <input type="checkbox"/> Heavy Metal | <input type="checkbox"/> Plating Solution | <input type="checkbox"/> Scrap Metal | <input type="checkbox"/> Soils | <input type="checkbox"/> Building Debris |
| <input type="checkbox"/> Corrosive | <input checked="" type="checkbox"/> Etchant | <input type="checkbox"/> Medical/Biological | <input type="checkbox"/> Environmental | <input type="checkbox"/> Firing Site Debris |

Additional Description (Optional)

Ethanol ?

General Description Of Waste (check at least one block for each column):

- | | | | | |
|--|--|---|--|---|
| <input type="checkbox"/> Solid | <input type="checkbox"/> FLASH POINT (°F)
Less Than 100 | <input type="checkbox"/> pH
2.0 or Less | <input type="checkbox"/> REACTIVITY
Unstable | <input type="checkbox"/> PCBs
< 50 ppm |
| <input type="checkbox"/> Cemented Sludge | <input type="checkbox"/> 100 to 139 | <input checked="" type="checkbox"/> 2.1 to 12.4 | <input type="checkbox"/> Reacts With Water | <input type="checkbox"/> 50-500 ppm |
| <input type="checkbox"/> Semi-Solid/Sludge | <input type="checkbox"/> 140 to 200 | <input type="checkbox"/> 12.5 or Greater | <input type="checkbox"/> Cyanides | <input type="checkbox"/> > 500 ppm |
| <input type="checkbox"/> Absorbed Liquid | <input type="checkbox"/> Greater Than 200 | <input type="checkbox"/> Not Applicable | <input type="checkbox"/> Sulfides | <input checked="" type="checkbox"/> No PCBs |
| <input checked="" type="checkbox"/> Liquid | <input checked="" type="checkbox"/> None | | <input type="checkbox"/> Shock Sensitive | |
| <input type="checkbox"/> Gas | | | <input type="checkbox"/> Class A or B Explosive | |
| <input type="checkbox"/> Multi-Layer | | | <input checked="" type="checkbox"/> Non-Reactive | |
| <input type="checkbox"/> Suspended Solids | | | | |
| <input type="checkbox"/> Powder or Ash | | | | |

Indicate Known Radioactivity Of Your Waste:

Not Radioactive (Go To Next Section)

- | | |
|---------------------------------------|----------------------------------|
| <input type="checkbox"/> < 2.0 nC/g | <input type="checkbox"/> Alpha |
| <input type="checkbox"/> > 2.0 nC/g | <input type="checkbox"/> Beta |
| <input type="checkbox"/> > 10.0 nC/g | <input type="checkbox"/> Gamma |
| <input type="checkbox"/> > 100.0 nC/g | <input type="checkbox"/> Tritium |

List Known Radioisotopes:

Determined By Assay

Determined By Estimate

- | | |
|-----------------------|--------------------------------|
| Radioisotope 1. _____ | Activity/Unit of Measure _____ |
| Radioisotope 2. _____ | Activity/Unit of Measure _____ |
| Radioisotope 3. _____ | Activity/Unit of Measure _____ |
| Radioisotope 4. _____ | Activity/Unit of Measure _____ |

GENERATOR CERTIFICATION

Based upon my knowledge of the waste, and/or chemical/physical analysis, I certify that the information provided regarding the waste specified on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Generator's Name (Last, First Mi) <u>Wheary, Fred D.</u>	Z Number <u>093574</u>	Generator's Signature <i>[Signature]</i>	Date <u>8-27-91</u>
Your Group's Waste Coordinator is the custodian of your waste management documentation, provide the name and mail stop of this person (optional). <u>Pete Velazquez</u>	Print Group Waste Coordinator's Name (Last, First Mi)	Mail Stop <u>C934</u>	

MATERIAL ANALYSIS

Arsenic	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> 5.0 ppm	<input type="checkbox"/> KOP	<input type="checkbox"/> Analysis	<input type="checkbox"/>
Barium	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 100.0 ppm	<input type="checkbox"/> 100.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cadmium	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 1.0 ppm	<input type="checkbox"/> 1.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chromium	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> 5.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> 5.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mercury	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.2 ppm	<input type="checkbox"/> 0.2 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nickel	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 134.0 ppm	<input type="checkbox"/> 134.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Selenium	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 1.0 ppm	<input type="checkbox"/> 1.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Silver	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> 5.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thallium	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 130.0 ppm	<input type="checkbox"/> 130.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Organic Compounds (indicate if the following organic compounds exist in your waste, at the posted concentration):

Benzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> 0.5 ppm	<input type="checkbox"/> KOP	<input type="checkbox"/> Analysis	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
Carbon Tetrachloride	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> 0.5 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chlorobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 100.0 ppm	<input type="checkbox"/> 100.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chloroform	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 6.0 ppm	<input type="checkbox"/> 6.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cresol	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 200.0 ppm	<input type="checkbox"/> 200.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1,4-Dichlorobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 7.5 ppm	<input type="checkbox"/> 7.5 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1,2-Dichloroethane	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> 0.5 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1,1-Dichloroethylene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.7 ppm	<input type="checkbox"/> 0.7 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2,4-Dinitrotoluene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.13 ppm	<input type="checkbox"/> 0.13 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hexachlorobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.13 ppm	<input type="checkbox"/> 0.13 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hexachlorobutadiene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> 0.5 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hexachloroethane	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 3.0 ppm	<input type="checkbox"/> 3.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methyl Ethyl Ketone	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 200.0 ppm	<input type="checkbox"/> 200.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nitrobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 2.0 ppm	<input type="checkbox"/> 2.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pentachlorophenol	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 100.0 ppm	<input type="checkbox"/> 100.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pyridine	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> 5.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tetrachloroethylene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.7 ppm	<input type="checkbox"/> 0.7 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trichloroethylene	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> 0.5 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2,4,5-Trichlorophenol	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 400.0 ppm	<input type="checkbox"/> 400.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2,4,6-Trichlorophenol	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 2.0 ppm	<input type="checkbox"/> 2.0 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vinyl Chloride	<input checked="" type="checkbox"/>	<input type="checkbox"/> < 0.2 ppm	<input type="checkbox"/> 0.2 ppm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CHECK ONE

Additional hazardous components in the waste are listed below: There are no additional hazardous constituents in this waste.

Compound Name	Concentration	Compound Name	Concentration
1. _____	_____	5. _____	_____
2. _____	_____	6. _____	_____
3. _____	_____	7. _____	_____
4. _____	_____	8. _____	_____

HSE-8/HSE-7 USE ONLY (Do Not Write Below This Line)

WASTE CLASSIFICATION

<input checked="" type="checkbox"/> Non-Radioactive, Non-Hazardous	<input type="checkbox"/> Radioactive	<input type="checkbox"/> Hazardous or Mixed
<input type="checkbox"/> Solid Waste	<input type="checkbox"/> Low-Level Radioactive Waste	<input type="checkbox"/> Hazardous Waste
<input checked="" type="checkbox"/> Non-Regulated Chemical Waste	<input type="checkbox"/> Transuranic Waste	<input type="checkbox"/> Mixed Low-Level Waste
<input type="checkbox"/> Sanitary Waste	<input type="checkbox"/> Special Nuclear Material	<input type="checkbox"/> Mixed Transuranic Waste
<input type="checkbox"/> Other Non-Disposable Waste		

Hazardous or Mixed Waste Codification:

Code 1	Waste Code 2	Waste Code 3	Waste Code 4	Waste Code 5	Waste Code 6	Waste Code 7
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HSE-8 Reviewer's Signature: *[Signature]* Date: 9-11-91 Cost Center/Program Code For HSE Analysis Backcharge: _____

LOS ALAMOS

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

WASTE CHARACTERIZATION FORM

EM-8 USE ONLY

Reference Number

05931

No H₂ - but probably would go to incinerator
Complete both sides of this form using a black or blue pen. Incomplete forms will be rejected. Send form to ATTN: WPF, MS K490.

Division/Group <i>WX-3</i>	Telephone <i>7-6501</i>	Mail Stop <i>C930</i>	Technical Area <i>TA-16</i>	Building <i>410</i>	Room
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Method of Characterization Knowledge of Process (KOP) - OR - Chemical/Physical Analysis (specify below)
 MSDS attached (optional) Request for analysis Analysis attached

Waste Category (Choose one or more of the categories below that most accurately describe your waste)

<input type="checkbox"/> Flammable	<input type="checkbox"/> Pesticide	<input type="checkbox"/> Photographic	<input type="checkbox"/> Spent coolant	<input type="checkbox"/> Plastics
<input type="checkbox"/> Combustible	<input checked="" type="checkbox"/> Beryllium	<input type="checkbox"/> Sanitary	<input type="checkbox"/> Aerosol cans	<input type="checkbox"/> Filter media
<input type="checkbox"/> High explosive	<input type="checkbox"/> Asbestos	<input type="checkbox"/> Radiochemistry	<input type="checkbox"/> Motor oil	<input type="checkbox"/> Vacuum filter media
<input type="checkbox"/> DOT oxidizer	<input type="checkbox"/> Solvent	<input type="checkbox"/> Paint waste	<input type="checkbox"/> Pump oil	<input type="checkbox"/> Cement paste
<input type="checkbox"/> Pyrophoric	<input checked="" type="checkbox"/> Waste rags	<input checked="" type="checkbox"/> Laboratory trash	<input type="checkbox"/> Capacitor oil	<input type="checkbox"/> Nonsalvageable
<input type="checkbox"/> Cyanide	<input type="checkbox"/> Glass	<input type="checkbox"/> Metallurgic	<input type="checkbox"/> UST remediation	<input type="checkbox"/> Nonrecycleable
<input type="checkbox"/> Heavy metal	<input type="checkbox"/> Plating solution	<input type="checkbox"/> Scrap metal	<input type="checkbox"/> Contaminated soils	<input type="checkbox"/> Building debris
<input type="checkbox"/> Corrosive	<input type="checkbox"/> Etchant	<input type="checkbox"/> Medical/Biological	<input type="checkbox"/> Environmental/SWMU	<input type="checkbox"/> Firing site debris

General Description (provide a general description of the waste and/or waste-generating process below)
Foam and phenolic parts, Kimwipes, Rubber gloves in 2 plastic bags each weighing approx 20 lbs. (total 40 lbs.)

Waste Description

Form <input checked="" type="checkbox"/> Solid	Ignitability (F) <input type="checkbox"/> < 100°	Corrosivity (pH) <input type="checkbox"/> 2.0 or less	Reactivity <input type="checkbox"/> Unstable	PCBs <input type="checkbox"/> < 50 ppm
<input type="checkbox"/> Semisolid/sludge	<input type="checkbox"/> 100° to 135°	<input type="checkbox"/> 2.1 to 12.4	<input type="checkbox"/> Water reactive	<input type="checkbox"/> 50 to 500 ppm
<input type="checkbox"/> Absorbed liquid	<input type="checkbox"/> 140° to 200°	<input type="checkbox"/> 12.5 or greater	<input type="checkbox"/> Cyanides	<input type="checkbox"/> > 500 ppm
<input type="checkbox"/> Liquid	<input type="checkbox"/> > 200°	<input checked="" type="checkbox"/> Not aqueous	<input type="checkbox"/> Sulfides	<input checked="" type="checkbox"/> None
<input type="checkbox"/> Gas cylinder or vessel	<input checked="" type="checkbox"/> Not ignitable		<input type="checkbox"/> Shock sensitive	
<input type="checkbox"/> Multilayered			<input type="checkbox"/> Class A or B explosive	
<input type="checkbox"/> Suspended solids			<input checked="" type="checkbox"/> Nonreactive	
<input type="checkbox"/> Powder or ash				

Waste Origination

A. Is this waste generated in a radiation controlled area? Yes No

B. If yes, is the waste generated or accumulated in a properly defined, registered radioactive materials management area (RMMA)? (RMMA # _____) Yes No

C. If A is yes and you have determined that your waste is nonradioactive, provide justification in the additional comments section on the reverse side of this form.

Radioactivity

Nonradioactive Suspect Radioactive

Activity Measure	Radiation Type	Half-life
<input type="checkbox"/> ≤ 2.0 nC/g	<input type="checkbox"/> alpha	<input type="checkbox"/> t _{1/2} < 20 yr
<input type="checkbox"/> > 2.0 nC/g	<input type="checkbox"/> beta	<input type="checkbox"/> t _{1/2} ≥ 20 yr
<input type="checkbox"/> > 10.0 nC/g	<input type="checkbox"/> gamma	
<input type="checkbox"/> > 100 nC/g	<input type="checkbox"/> tritium	

WASTE GENERATOR CERTIFICATION: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Waste Generator's Name (last, first, middle) <i>RANCHEZ GILBERT L</i>	Z Number <i>082757</i>	Signature <i>Gilbert L Sanchez</i>	Date <i>5/26/93</i>
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Your waste management coordinator is the custodian of your waste management documentation, provide the name and mail stop of this person (optional). -->	Name (last, first, middle) <i>SCHEMPP LLOYD W</i>	Mail Stop <i>C930</i>
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Toxic Metals (Indicate if each of the following heavy metals exists in your waste at the posted concentrations)

arsenic	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> ≥ 5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
barium	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	<input type="checkbox"/> ≥ 100.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
cadmium	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	<input type="checkbox"/> ≥ 1.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
chromium	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> ≥ 5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
lead	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> ≥ 5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
mercury	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.2 ppm	<input type="checkbox"/> ≥ 0.2 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
nickel	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 134.0 ppm	<input type="checkbox"/> ≥ 134.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
selenium	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	<input type="checkbox"/> ≥ 1.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
silver	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> ≥ 5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
thallium	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 130.0 ppm	<input type="checkbox"/> ≥ 130.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____

Organic Compounds (Indicate if each of the following organic compounds exists in your waste at the posted concentrations)

benzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> ≥ 0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
carbon tetrachloride	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> ≥ 0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
chlorobenzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	<input type="checkbox"/> ≥ 100.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
chloroform	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 6.0 ppm	<input type="checkbox"/> ≥ 6.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
resol	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 200.00 ppm	<input type="checkbox"/> ≥ 200.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
1,4-dichlorobenzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 7.5 ppm	<input type="checkbox"/> ≥ 7.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
1,2-dichloroethane	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> ≥ 0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
1,1-dichloroethylene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.7 ppm	<input type="checkbox"/> ≥ 0.7 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
2,4-dinitrotoluene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.13 ppm	<input type="checkbox"/> ≥ 0.13 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
hexachlorobenzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.13 ppm	<input type="checkbox"/> ≥ 0.13 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
hexachlorobutadiene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> ≥ 0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
hexachloroethane	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 3.0 ppm	<input type="checkbox"/> ≥ 3.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
methyl ethyl ketone	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 200.0 ppm	<input type="checkbox"/> ≥ 200.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
nitrobenzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 2.0 ppm	<input type="checkbox"/> ≥ 2.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
pentachlorophenol	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	<input type="checkbox"/> ≥ 100.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
pyridine	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	<input type="checkbox"/> ≥ 5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
tetrachloroethylene/perchloroethylene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.7 ppm	<input type="checkbox"/> ≥ 0.7 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
trichloroethylene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	<input type="checkbox"/> ≥ 0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
2,4,5-trichlorophenol	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 400.0 ppm	<input type="checkbox"/> ≥ 400.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
2,4,6-trichlorophenol	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 2.0 ppm	<input type="checkbox"/> ≥ 2.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
vinyl chloride	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.2 ppm	<input type="checkbox"/> ≥ 0.2 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____

Hazardous Constituents (Identify hazardous constituents for F- and K-listed wastes and substances causing waste to exhibit a characteristic)

none

Additional Comments (Provide comments regarding the chemical or radiological nature of the waste)

foam and phenolic parts in plastic bags did not come in contact with Beryllium, kimwipes, rubber gloves were checked and no radioactivity was found even though they were used to clean off beryllium parts.

Do not write in this box - EM-8 use only

Waste Classification

<input type="checkbox"/> Non-RCRA waste	<input checked="" type="checkbox"/> RCRA-regulated solid waste	<input type="checkbox"/> RCRA-regulated hazardous waste	<input type="checkbox"/> Radioactive
<input type="checkbox"/> PCB	<input type="checkbox"/> municipal refuse	<input type="checkbox"/> hazardous waste	<input type="checkbox"/> low-level waste
<input type="checkbox"/> non-PCB TSCA waste	<input checked="" type="checkbox"/> nonhazardous chemical waste	<input type="checkbox"/> mixed low-level waste	<input type="checkbox"/> transuranic waste
<input type="checkbox"/> asbestos	<input type="checkbox"/> administratively controlled waste	<input type="checkbox"/> mixed transuranic waste	
	<input type="checkbox"/> sanitary/industrial sludges		

RCRA Code 1	RCRA Code 2	RCRA Code 3	RCRA Code 4	RCRA Code 5	RCRA Code 6	RCRA Code 7
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8 Reviewer's Signature

Date

Cost Center/Program Code for Analysis

Reference

Michelle Cash 10/3/93

05931

LOS ALAMOS NATIONAL LABORATORY

*Renewed until became
Adm. Controlled waste 22001 in 1994*

WASTE PROFILE FORM

EM-8 USE ONLY
Reference Number <i>06056</i>

Complete both sides of this form using a black or blue pen. Incomplete forms will be rejected. Send form to **ATTN: WPF, MS K490**.

Division/Group <i>WX-3</i>	Telephone <i>7-8393</i>	Mail Stop <i>C930</i>	Technical Area <i>TA-16</i>	Building <i>1150 Incinerator</i>	Room
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Method of Characterization	<input checked="" type="checkbox"/> Knowledge of Process (KOP) <input type="checkbox"/> MSDS attached (optional)	- OR -	<input type="checkbox"/> Chemical/Physical Analysis (specify below) <input type="checkbox"/> Request for analysis <input type="checkbox"/> Analysis attached
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Waste Categories (Choose one or more of the categories below that most accurately describes your waste.)

<input type="checkbox"/> Flammable	<input type="checkbox"/> Pesticide	<input type="checkbox"/> Photographic	<input type="checkbox"/> Spent coolant	<input checked="" type="checkbox"/> Plastics
<input checked="" type="checkbox"/> Combustible	<input type="checkbox"/> Beryllium	<input type="checkbox"/> Sanitary	<input type="checkbox"/> Aerosol cans	<input type="checkbox"/> Filter media
<input checked="" type="checkbox"/> High explosive trace	<input type="checkbox"/> Asbestos	<input type="checkbox"/> Radiochemistry	<input type="checkbox"/> Motor oil	<input type="checkbox"/> Vacuum filter media
<input type="checkbox"/> DOT oxidizer	<input type="checkbox"/> Solvent	<input type="checkbox"/> Paint waste	<input type="checkbox"/> Pump oil	<input type="checkbox"/> Cement paste
<input type="checkbox"/> Pyrophoric	<input checked="" type="checkbox"/> Waste rags	<input checked="" type="checkbox"/> Laboratory trash	<input type="checkbox"/> Capacitor oil	<input checked="" type="checkbox"/> Non salvageable
<input type="checkbox"/> Cyanide	<input type="checkbox"/> Glass	<input type="checkbox"/> Metallurgic	<input type="checkbox"/> UST remediation	<input checked="" type="checkbox"/> Nonrecyclable
<input type="checkbox"/> Heavy metal	<input type="checkbox"/> Plating solution	<input type="checkbox"/> Scrap metal	<input type="checkbox"/> Contaminated soils	<input type="checkbox"/> Building debris
<input type="checkbox"/> Corrosive	<input type="checkbox"/> Etchant	<input type="checkbox"/> Medical/Biological	<input type="checkbox"/> Environmental/SWMU	<input type="checkbox"/> Firing site debris

General Description (Provide a general description of the waste and/or waste-generating process below.)

Potentially high explosive contaminated administrative trash to be burned in the TA-16-1150 incinerator. Materials include: paper, coffee cups, kleenwipes, cardboard, tissues, wooden spoons.

Waste Description (Check only one box in each column.)

Form	Ignitability (F)	Corrosivity (pH)	Reactivity	PCBs
<input checked="" type="checkbox"/> Solid	<input type="checkbox"/> < 100°	<input type="checkbox"/> ≤ 2.0	<input type="checkbox"/> Unstable	<input type="checkbox"/> < 50 ppm
<input type="checkbox"/> Semisolid/sludge	<input type="checkbox"/> 100° to 139°	<input type="checkbox"/> 2.1 to 12.4	<input type="checkbox"/> Water reactive	<input type="checkbox"/> 50 to 500 ppm
<input type="checkbox"/> Absorbed liquid	<input type="checkbox"/> 140° to 200°	<input type="checkbox"/> ≥ 12.5	<input type="checkbox"/> Cyanides	<input type="checkbox"/> > 500 ppm
<input type="checkbox"/> Liquid	<input type="checkbox"/> > 200°	<input checked="" type="checkbox"/> Not aqueous	<input type="checkbox"/> Sulfides	<input checked="" type="checkbox"/> None
<input type="checkbox"/> Gas cylinder or vessel	<input checked="" type="checkbox"/> Not ignitable		<input type="checkbox"/> Shock sensitive	
<input type="checkbox"/> Multilayered			<input type="checkbox"/> Class A or B explosive	
<input type="checkbox"/> Suspended solids			<input checked="" type="checkbox"/> Nonreactive	
<input type="checkbox"/> Powder or ash				

Waste Origination A. Is this waste generated in a radiation controlled area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No B. If yes, is the waste generated or accumulated in a properly defined, registered radioactive materials management area (RMMA)? (RMMA # _____) <input type="checkbox"/> Yes <input type="checkbox"/> No C. If the answer to question A is yes and you have determined that your waste is nonradioactive, provide justification in the additional comments section on the reverse side of this form.	Radioactivity <input checked="" type="checkbox"/> Nonradioactive <input type="checkbox"/> Suspect <input type="checkbox"/> Radioactive Activity Measure Radiation Type <input type="checkbox"/> ≤ 2.0 nCi/g <input type="checkbox"/> alpha <input type="checkbox"/> gamma <input type="checkbox"/> > 2.0 nCi/g <input type="checkbox"/> t ^{1/2} < 20-yr <input type="checkbox"/> tritium <input type="checkbox"/> > 10.0 nCi/g <input type="checkbox"/> t ^{1/2} ≥ 20 yr <input type="checkbox"/> > 100.0 nCi/g <input type="checkbox"/> beta
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WASTE GENERATOR CERTIFICATION: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Waste Generator's Name (last, first, middle) <i>Sandoval, Cynthia W.</i>	Z Number <i>096496</i>	Signature <i>Cynthia W. Sandoval</i>	Date <i>6-3-93</i>
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If your waste management coordinator is the custodian of your waste management documentation, provide the name and mail stop of this person (optional). →	Name (last, first, middle) <i>Sandoval, C.W.</i>	Mail Stop <i>C930</i>
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Toxic Metals (Indicate if any of the following toxic metals are present in your waste at the posted concentrations.)

arsenic	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <5.0 ppm	<input type="checkbox"/> ≥5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
barium	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <100.0 ppm	<input type="checkbox"/> ≥100.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
cadmium	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <1.0 ppm	<input type="checkbox"/> ≥1.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
chromium	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <5.0 ppm	<input type="checkbox"/> ≥5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
lead	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <5.0 ppm	<input type="checkbox"/> ≥5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
mercury	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.2 ppm	<input type="checkbox"/> ≥0.2 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
nickel	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <134.0 ppm	<input type="checkbox"/> ≥134.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
selenium	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <1.0 ppm	<input type="checkbox"/> ≥1.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
silver	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <5.0 ppm	<input type="checkbox"/> ≥5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
thallium	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <130.0 ppm	<input type="checkbox"/> ≥130.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other

Organic Compounds (Indicate if any of the following organic compounds are present in your waste at the posted concentrations.)

benzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.5 ppm	<input type="checkbox"/> ≥0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
carbon tetrachloride	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.5 ppm	<input type="checkbox"/> ≥0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
chlorobenzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <100.0 ppm	<input type="checkbox"/> ≥100.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
chloroform	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <8.0 ppm	<input type="checkbox"/> ≥8.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
creosol	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <200.0 ppm	<input type="checkbox"/> ≥200.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
1,4-dichlorobenzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <7.5 ppm	<input type="checkbox"/> ≥7.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
1,2-dichloroethane	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.5 ppm	<input type="checkbox"/> ≥0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
1,1-dichloroethylene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.7 ppm	<input type="checkbox"/> ≥0.7 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
2,4-dinitrotoluene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.13 ppm	<input type="checkbox"/> ≥0.13 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
hexachlorobenzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.13 ppm	<input type="checkbox"/> ≥0.13 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
hexachlorobutadiene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.5 ppm	<input type="checkbox"/> ≥0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
hexachloroethane	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <3.0 ppm	<input type="checkbox"/> ≥3.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
methyl ethyl ketone	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <200.0 ppm	<input type="checkbox"/> ≥200.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
nitrobenzene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <2.0 ppm	<input type="checkbox"/> ≥2.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
pentachlorophenol	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <100.0 ppm	<input type="checkbox"/> ≥100.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
pyridine	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <5.0 ppm	<input type="checkbox"/> ≥5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
tetrachloroethylene/perchloroethylene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.7 ppm	<input type="checkbox"/> ≥0.7 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
trichloroethylene	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.5 ppm	<input type="checkbox"/> ≥0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
2,4,5-trichlorophenol	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <400.0 ppm	<input type="checkbox"/> ≥400.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
2,4,6-trichlorophenol	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <2.0 ppm	<input type="checkbox"/> ≥2.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other
vinyl chloride	<input checked="" type="checkbox"/> None	<input type="checkbox"/> <0.2 ppm	<input type="checkbox"/> ≥0.2 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other

Hazardous Constituents (Identify hazardous constituents for F- and K-listed wastes and substances causing waste to exhibit a characteristic.)

potential trace high explosives.

Additional Comments (Provide comments regarding the chemical or radiological nature of the waste.)

This is trash generated in high explosives operating areas. Due to the potential for high explosive contamination in trace quantities it is incinerated locally at TA-46-1150. The incinerator ash is disposed of by EM-7. (WPF #00528)

Do not write in this box - EM-8 use only

Waste Classification

<input type="checkbox"/> Non-RCRA waste	<input checked="" type="checkbox"/> RCRA-regulated solid waste	<input type="checkbox"/> RCRA-regulated hazardous waste	<input type="checkbox"/> Radioactive waste
<input type="checkbox"/> PCB	<input type="checkbox"/> municipal refuse	<input type="checkbox"/> hazardous waste	<input type="checkbox"/> low-level waste
<input type="checkbox"/> non-PCB TSCA waste	<input type="checkbox"/> nonhazardous chemical waste	<input type="checkbox"/> mixed low-level waste	<input type="checkbox"/> transuranic waste
<input type="checkbox"/> asbestos	<input checked="" type="checkbox"/> administratively controlled waste	<input type="checkbox"/> mixed transuranic waste	
	<input type="checkbox"/> sanitary/industrial sludges		

RCRA Code 1	RCRA Code 2	RCRA Code 3	RCRA Code 4	RCRA Code 5	RCRA Code 6	RCRA Code 7	RCRA Code 8
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EM-8 Reviewer's Signature

[Signature]

Date

6/14/93

Cost Center/Program Code for Analysis

Reference Number

06056

LOS ALAMOS NATIONAL LABORATORY

WASTE PROFILE FORM

EM-8 USE ONLY
Reference Number 9889

Trace HE. No solvents. Could have been incinerated.

Complete both sides of this form using a black or blue pen. Incomplete forms will be rejected. Send form to ATTN: WPE, MS K490.

Division/Group DX-16	Telephone 667-4993	Mail Stop C920	Technical Area TA-16	Building 460	Room 101
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Method of Characterization	<input checked="" type="checkbox"/> Knowledge of Process (KOP)	- OR -	<input type="checkbox"/> Chemical/Physical Analysis (specify below)
	<input type="checkbox"/> MSDS attached (optional)		<input type="checkbox"/> Request for analysis <input type="checkbox"/> Analysis attached

Waste Categories (Choose one or more of the categories below that most accurately describes your waste.)

<input type="checkbox"/> Flammable	<input type="checkbox"/> Pesticide	<input type="checkbox"/> Photographic	<input type="checkbox"/> Spent coolant	<input checked="" type="checkbox"/> Plastic
<input checked="" type="checkbox"/> Combustible	<input type="checkbox"/> Beryllium	<input type="checkbox"/> Sanitary	<input type="checkbox"/> Aerosol cans	<input type="checkbox"/> Filter media
<input checked="" type="checkbox"/> High explosive	<input type="checkbox"/> Asbestos	<input type="checkbox"/> Radiochemistry	<input type="checkbox"/> Motor oil	<input type="checkbox"/> Vacuum filter media
<input type="checkbox"/> DOT oxidizer	<input type="checkbox"/> Solvent	<input type="checkbox"/> Paint waste	<input type="checkbox"/> Pump oil	<input type="checkbox"/> Cement paste
<input type="checkbox"/> Pyrophoric	<input type="checkbox"/> Waste rags	<input checked="" type="checkbox"/> Laboratory trash	<input type="checkbox"/> Capacitor oil	<input type="checkbox"/> Nonselectable
<input type="checkbox"/> Cyanide	<input type="checkbox"/> Glass	<input type="checkbox"/> Metallurgic	<input type="checkbox"/> UST remediation	<input checked="" type="checkbox"/> Nonrecyclable
<input type="checkbox"/> Heavy metal	<input type="checkbox"/> Plating solution	<input type="checkbox"/> Scrap metal	<input type="checkbox"/> Contaminated soils	<input type="checkbox"/> Building debris
<input type="checkbox"/> Corrosive	<input type="checkbox"/> Etchant	<input type="checkbox"/> Medical/Biological	<input type="checkbox"/> Environmental/SWMU	<input type="checkbox"/> Firing site debris

General Description (Provide a general description of the waste and/or waste-generating process below.)

Kimwipes, paper, Plastic vials used to hold or clean up
HE - Ground laboratory.

Waste Description (Check only one box in each column.)

Form	Ignitability (F)	Corrosivity (pH)	Reactivity	PCBs
<input checked="" type="checkbox"/> Solid	<input type="checkbox"/> < 100°	<input type="checkbox"/> ≤ 2.0	<input type="checkbox"/> Unstable	<input type="checkbox"/> < 50 ppm
<input type="checkbox"/> Semisolid/sludge	<input type="checkbox"/> 100° to 130°	<input type="checkbox"/> 2.1 to 12.4	<input type="checkbox"/> Water reactive	<input type="checkbox"/> 50 to 500 ppm
<input type="checkbox"/> Absorbed liquid	<input type="checkbox"/> 140° to 200°	<input type="checkbox"/> ≥ 12.5	<input type="checkbox"/> Cyanides	<input type="checkbox"/> > 500 ppm
<input type="checkbox"/> Liquid	<input checked="" type="checkbox"/> > 200°	<input checked="" type="checkbox"/> Not aqueous	<input type="checkbox"/> Sulfides	<input checked="" type="checkbox"/> None
<input type="checkbox"/> Gas cylinder or vessel	<input type="checkbox"/> Not ignitable		<input type="checkbox"/> Shock sensitive	
<input type="checkbox"/> Multilayered			<input type="checkbox"/> Class A or B explosive	
<input type="checkbox"/> Suspended solids			<input checked="" type="checkbox"/> Nonreactive	
<input type="checkbox"/> Powder or ash				

Waste Origination

A. Is this waste generated in a radiation controlled area? Yes No

B. If yes, is the waste generated, accumulated in a properly defined, registered radioactive materials management area (RMMA)? (RMMA #) Yes No

C. If the answer to question A is yes and you have determined that your waste is nonradioactive, provide justification in the additional comments section on the reverse side of this form.

Radioactivity	<input checked="" type="checkbox"/> Nonradioactive
<input type="checkbox"/> Suspect	<input type="checkbox"/> Radioactive
Activity Measure	Radiation Type
<input type="checkbox"/> ≤ 2.0 nCi/g	<input type="checkbox"/> alpha <input type="checkbox"/> gamma
<input type="checkbox"/> > 2.0 nCi/g	<input type="checkbox"/> t ^{1/2} < 20 yr <input type="checkbox"/> tritium
<input type="checkbox"/> > 10.0 nCi/g	<input type="checkbox"/> t ^{1/2} ≥ 20 yr
<input type="checkbox"/> > 100.0 nCi/g	<input type="checkbox"/> beta

WASTE GENERATOR CERTIFICATION: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Waste Generator's Name (last, first, middle) Archuleta, Jose G.	Z Number 79834	Signature Jose G. Archuleta	Date 10/19/94
If your waste management coordinator is the custodian of your waste management documentation, provide the name and mail stop of this person (optional). -->		Name (last, first, middle)	Mail Stop

RECEIVED OCT 20 1994

Toxic Metals: (Indicate if any of the following toxic metals are present in your waste at the posted concentrations.)

arsenic	<input type="checkbox"/>	None	<input type="checkbox"/>	<5.0 ppm	<input type="checkbox"/>	≥5.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
barium	<input type="checkbox"/>	None	<input type="checkbox"/>	<100.0 ppm	<input type="checkbox"/>	≥100.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
cadmium	<input type="checkbox"/>	None	<input type="checkbox"/>	<1.0 ppm	<input type="checkbox"/>	≥1.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
chromium	<input type="checkbox"/>	None	<input type="checkbox"/>	<5.0 ppm	<input type="checkbox"/>	≥5.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
id	<input type="checkbox"/>	None	<input type="checkbox"/>	<5.0 ppm	<input type="checkbox"/>	≥5.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
mercury	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.2 ppm	<input type="checkbox"/>	≥0.2 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
nickel	<input type="checkbox"/>	None	<input type="checkbox"/>	<134.0 ppm	<input type="checkbox"/>	≥134.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
seelenium	<input type="checkbox"/>	None	<input type="checkbox"/>	<1.0 ppm	<input type="checkbox"/>	≥1.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
silver	<input type="checkbox"/>	None	<input type="checkbox"/>	<5.0 ppm	<input type="checkbox"/>	≥5.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
thallium	<input type="checkbox"/>	None	<input type="checkbox"/>	<130.0 ppm	<input type="checkbox"/>	≥130.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other

Organic Compounds (Indicate if any of the following organic compounds are present in your waste at the posted concentrations.)

benzene	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.5 ppm	<input type="checkbox"/>	≥0.5 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
carbon tetrachloride	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.5 ppm	<input type="checkbox"/>	≥0.5 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
chlorobenzene	<input type="checkbox"/>	None	<input type="checkbox"/>	<100.0 ppm	<input type="checkbox"/>	≥100.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
chloroform	<input type="checkbox"/>	None	<input type="checkbox"/>	<8.0 ppm	<input type="checkbox"/>	≥8.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
creosol	<input type="checkbox"/>	None	<input type="checkbox"/>	<200.0 ppm	<input type="checkbox"/>	≥200.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
1,4-dichlorobenzene	<input type="checkbox"/>	None	<input type="checkbox"/>	<7.5 ppm	<input type="checkbox"/>	≥7.5 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
1,2-dichloroethane	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.5 ppm	<input type="checkbox"/>	≥0.5 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
1,1-dichloroethylene	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.7 ppm	<input type="checkbox"/>	≥0.7 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
2,4-dinitrotoluene	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.13 ppm	<input type="checkbox"/>	≥0.13 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
hexachlorobenzene	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.13 ppm	<input type="checkbox"/>	≥0.13 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
hexachlorobutadiene	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.5 ppm	<input type="checkbox"/>	≥0.5 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
hexachloroethane	<input type="checkbox"/>	None	<input type="checkbox"/>	<3.0 ppm	<input type="checkbox"/>	≥3.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
methyl ethyl ketone	<input type="checkbox"/>	None	<input type="checkbox"/>	<200.0 ppm	<input type="checkbox"/>	≥200.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
nitrobenzene	<input type="checkbox"/>	None	<input type="checkbox"/>	<2.0 ppm	<input type="checkbox"/>	≥2.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
pentachlorophenol	<input type="checkbox"/>	None	<input type="checkbox"/>	<100.0 ppm	<input type="checkbox"/>	≥100.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
pyridine	<input type="checkbox"/>	None	<input type="checkbox"/>	<5.0 ppm	<input type="checkbox"/>	≥5.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
tetrachloroethylene/perchloroethylene	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.7 ppm	<input type="checkbox"/>	≥0.7 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
trichloroethylene	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.5 ppm	<input type="checkbox"/>	≥0.5 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
2,4,5-trichlorophenol	<input type="checkbox"/>	None	<input type="checkbox"/>	<400.0 ppm	<input type="checkbox"/>	≥400.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
2,4,6-trichlorophenol	<input type="checkbox"/>	None	<input type="checkbox"/>	<2.0 ppm	<input type="checkbox"/>	≥2.0 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other
vinyl chloride	<input type="checkbox"/>	None	<input type="checkbox"/>	<0.2 ppm	<input type="checkbox"/>	≥0.2 ppm	<input type="checkbox"/>	TCLP	<input type="checkbox"/>	Other

Hazardous Constituents (Identify hazardous constituents for F- and K-listed wastes and substances causing waste to exhibit a characteristic.)

Additional Comments (Provide comments regarding the chemical or radiological nature of the waste.)

Trace amounts of HE 10/24

Do not write in this box - EPA use only

Waste Classification

<input type="checkbox"/> Non-RCRA waste	<input checked="" type="checkbox"/> RCRA-regulated solid waste	<input type="checkbox"/> RCRA-regulated hazardous waste	<input type="checkbox"/> Radioactive waste
<input type="checkbox"/> PCB	<input type="checkbox"/> municipal refuse	<input type="checkbox"/> hazardous waste	<input type="checkbox"/> low-level waste
<input type="checkbox"/> non-PCB TSCA waste	<input checked="" type="checkbox"/> nonhazardous chemical waste	<input type="checkbox"/> mixed low-level waste	<input type="checkbox"/> transuranic waste
<input type="checkbox"/> asbestos	<input type="checkbox"/> administratively controlled waste	<input type="checkbox"/> mixed transuranic waste	
	<input type="checkbox"/> sanitary/industrial sludges		

RCRA Code 1	RCRA Code 2	RCRA Code 3	RCRA Code 4	RCRA Code 5	RCRA Code 6	RCRA Code 7	RCRA Code 8
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Reviewer's Signature <i>Michelle Cash</i>	Date <i>10/25/94</i>	Cost Center/Program Code for Analysis	Reference Number <i>9589</i>
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Tracer HE. No Solvents. May have been incorporated.

Complete both sides of this form using a black or blue pen. Incomplete forms will be rejected. Send form to **ATTN: WPF, MS K490.**

Division/Group DX-16	Telephone 6674993	Mail Stop C920	Technical Area TA-16	Building 460	Room 102
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Method of Characterization Knowledge of Process (KOP) Chemical/Physical Analysis (specify below)
 MSDS attached (optional) Request for analysis Analysis attached

Waste Categories (Choose one or more of the categories below that most accurately describes your waste.)

<input type="checkbox"/> Flammable	<input type="checkbox"/> Pesticide	<input type="checkbox"/> Photographic	<input type="checkbox"/> Spent coolant	<input checked="" type="checkbox"/> Plastics
<input checked="" type="checkbox"/> Combustible	<input type="checkbox"/> Beryllium	<input type="checkbox"/> Sanitary	<input type="checkbox"/> Aerosol cans	<input type="checkbox"/> Filter media
<input checked="" type="checkbox"/> High explosive	<input type="checkbox"/> Asbestos	<input type="checkbox"/> Radiochemistry	<input type="checkbox"/> Motor oil	<input type="checkbox"/> Vacuum filter media
<input type="checkbox"/> DOT oxidizer	<input type="checkbox"/> Solvent	<input type="checkbox"/> Paint waste	<input type="checkbox"/> Pump oil	<input type="checkbox"/> Cement paste
<input type="checkbox"/> Pyrophoric	<input checked="" type="checkbox"/> Waste rags	<input checked="" type="checkbox"/> Laboratory trash	<input type="checkbox"/> Capacitor oil	<input checked="" type="checkbox"/> Nonseparable
<input type="checkbox"/> Cyanide	<input type="checkbox"/> Glass	<input type="checkbox"/> Metallurgic	<input type="checkbox"/> UST remediation	<input checked="" type="checkbox"/> Nonrecyclable
<input type="checkbox"/> Heavy metal	<input type="checkbox"/> Plating solution	<input type="checkbox"/> Scrap metal	<input checked="" type="checkbox"/> Contaminated soils	<input type="checkbox"/> Building debris
<input type="checkbox"/> Corrosive	<input type="checkbox"/> Etchant	<input type="checkbox"/> Medical/Biological	<input type="checkbox"/> Environmental/SWMU	<input type="checkbox"/> Firing site debris

General Description (Provide a general description of the waste and/or waste-generating process below.)
These items are waste HE, Inerts, combustibles packaged in cardboard boxes 8x8" for disposal at ESA2 Burground.

Waste Description (Check only one box in each column.)

Form <input checked="" type="checkbox"/> Solid	Ignitability (F) <input type="checkbox"/> < 100°	Corrosivity (pH) <input type="checkbox"/> ≤ 2.0	Reactivity <input type="checkbox"/> Unstable	PCBs <input type="checkbox"/> < 50 ppm
<input type="checkbox"/> Semisolid/sludge	<input type="checkbox"/> 100° to 139°	<input type="checkbox"/> 2.1 to 12.4	<input type="checkbox"/> Water reactive	<input type="checkbox"/> 50 to 500 ppm
<input type="checkbox"/> Absorbed liquid	<input type="checkbox"/> 140° to 200°	<input type="checkbox"/> ≥ 12.5	<input type="checkbox"/> Cyanides	<input type="checkbox"/> > 500 ppm
<input type="checkbox"/> Liquid	<input checked="" type="checkbox"/> > 200°	<input checked="" type="checkbox"/> Not aqueous	<input type="checkbox"/> Sulfides	<input checked="" type="checkbox"/> None
<input type="checkbox"/> Gas cylinder or vessel	<input type="checkbox"/> Not ignitable		<input type="checkbox"/> Shock sensitive	
<input type="checkbox"/> Multilayered			<input checked="" type="checkbox"/> Class A or B explosive	
<input type="checkbox"/> Suspended solids			<input checked="" type="checkbox"/> Nonreactive	
<input type="checkbox"/> Powder or ash				

<p>Waste Origination</p> <p>A. Is this waste generated in a radiation controlled area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>B. If yes, is the waste generated or accumulated in a properly defined, registered radioactive materials management area (RMMA)? (RMMA # _____) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>C. If the answer to question A is yes and you have determined that your waste is nonradioactive, provide justification in the additional comments section on the reverse side of this form.</p>	<p>Radioactivity <input checked="" type="checkbox"/> Nonradioactive</p> <p><input type="checkbox"/> Suspect <input type="checkbox"/> Radioactive</p> <p>Activity Measure Radiation Type</p> <p><input type="checkbox"/> ≤ 2.0 nCi/g <input type="checkbox"/> alpha <input type="checkbox"/> gamma</p> <p><input type="checkbox"/> > 2.0 nCi/g <input type="checkbox"/> t^{1/2} < 20 yr <input type="checkbox"/> tritium</p> <p><input type="checkbox"/> > 10.0 nCi/g <input type="checkbox"/> t^{1/2} ≥ 20 yr</p> <p><input type="checkbox"/> > 100.0 nCi/g <input type="checkbox"/> beta</p>
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WASTE GENERATOR CERTIFICATION: Based on my knowledge of the waste and/or chemical/physical analysis, I certify that the information on this form is correct. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Waste Generator's Name (last, first, middle) <i>Archuleta, Jose, G.</i>	Z Number <i>79834</i>	Signature <i>Jose G Archuleta</i>	Date <i>10/19/94</i>
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your waste management coordinator is the custodian of your waste management documentation, provide the name and mail stop of this person (optional). -->	Name (last, first, middle)	Mail Stop
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Toxic Metals (Indicate if any of the following toxic metals are present in your waste at the posted concentrations.)

arsenic	<input type="checkbox"/> None	<input type="checkbox"/> <5.0 ppm	<input type="checkbox"/> ≥5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
barium	<input type="checkbox"/> None	<input type="checkbox"/> <100.0 ppm	<input type="checkbox"/> ≥100.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
cadmium	<input type="checkbox"/> None	<input type="checkbox"/> <1.0 ppm	<input type="checkbox"/> ≥1.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
chromium	<input type="checkbox"/> None	<input type="checkbox"/> <5.0 ppm	<input type="checkbox"/> ≥5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
lead	<input type="checkbox"/> None	<input type="checkbox"/> <5.0 ppm	<input type="checkbox"/> ≥5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
mercury	<input type="checkbox"/> None	<input type="checkbox"/> <0.2 ppm	<input type="checkbox"/> ≥0.2 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
nickel	<input type="checkbox"/> None	<input type="checkbox"/> <134.0 ppm	<input type="checkbox"/> ≥134.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
seelenium	<input type="checkbox"/> None	<input type="checkbox"/> <1.0 ppm	<input type="checkbox"/> ≥1.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
silver	<input type="checkbox"/> None	<input type="checkbox"/> <5.0 ppm	<input type="checkbox"/> ≥5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
thallium	<input type="checkbox"/> None	<input type="checkbox"/> <130.0 ppm	<input type="checkbox"/> ≥130.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____

Organic Compounds (Indicate if any of the following organic compounds are present in your waste at the posted concentrations.)

benzene	<input type="checkbox"/> None	<input type="checkbox"/> <0.5 ppm	<input type="checkbox"/> ≥0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
carbon tetrachloride	<input type="checkbox"/> None	<input type="checkbox"/> <0.5 ppm	<input type="checkbox"/> ≥0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
chlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> <100.0 ppm	<input type="checkbox"/> ≥100.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
chloroform	<input type="checkbox"/> None	<input type="checkbox"/> <8.0 ppm	<input type="checkbox"/> ≥8.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
cresol	<input type="checkbox"/> None	<input type="checkbox"/> <200.0 ppm	<input type="checkbox"/> ≥200.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
1,4-dichlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> <7.5 ppm	<input type="checkbox"/> ≥7.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
1,2-dichloroethane	<input type="checkbox"/> None	<input type="checkbox"/> <0.5 ppm	<input type="checkbox"/> ≥0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
1,1-dichloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> <0.7 ppm	<input type="checkbox"/> ≥0.7 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
2,4-dinitrotoluene	<input type="checkbox"/> None	<input type="checkbox"/> <0.13 ppm	<input type="checkbox"/> ≥0.13 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
hexachlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> <0.13 ppm	<input type="checkbox"/> ≥0.13 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
hexachlorobutadiene	<input type="checkbox"/> None	<input type="checkbox"/> <0.5 ppm	<input type="checkbox"/> ≥0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
hexachloroethane	<input type="checkbox"/> None	<input type="checkbox"/> <3.0 ppm	<input type="checkbox"/> ≥3.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
methyl ethyl ketone	<input type="checkbox"/> None	<input type="checkbox"/> <200.0 ppm	<input type="checkbox"/> ≥200.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
nitrobenzene	<input type="checkbox"/> None	<input type="checkbox"/> <2.0 ppm	<input type="checkbox"/> ≥2.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
perchlorophenol	<input type="checkbox"/> None	<input type="checkbox"/> <100.0 ppm	<input type="checkbox"/> ≥100.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
pyridine	<input type="checkbox"/> None	<input type="checkbox"/> <5.0 ppm	<input type="checkbox"/> ≥5.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
tetrachloroethylene/perchloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> <0.7 ppm	<input type="checkbox"/> ≥0.7 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
trichloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> <0.5 ppm	<input type="checkbox"/> ≥0.5 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
2,4,5-trichlorophenol	<input type="checkbox"/> None	<input type="checkbox"/> <400.0 ppm	<input type="checkbox"/> ≥400.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
2,4,6-trichlorophenol	<input type="checkbox"/> None	<input type="checkbox"/> <2.0 ppm	<input type="checkbox"/> ≥2.0 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____
vinyl chloride	<input type="checkbox"/> None	<input type="checkbox"/> <0.2 ppm	<input type="checkbox"/> ≥0.2 ppm	<input type="checkbox"/> TCLP	<input type="checkbox"/> Other _____

Hazardous Constituents (Identify hazardous constituents for F- and K-listed wastes and substances causing waste to exhibit a characteristic.)

Additional Comments (Provide comments regarding the chemical or radiological nature of the waste.)

Scrap HE and Inerts; excess from sampling analysis.
 Kimwipes + pipes used for cleaning HE. Plastic bags used to contain HE waste.

Do not write in this box - EM-8 use only

Waste Classification

<input type="checkbox"/> Non-RCRA waste	<input type="checkbox"/> RCRA-regulated solid waste	<input checked="" type="checkbox"/> RCRA-regulated hazardous waste	<input type="checkbox"/> Radioactive waste
<input type="checkbox"/> PCB	<input type="checkbox"/> municipal refuse	<input checked="" type="checkbox"/> hazardous waste	<input type="checkbox"/> low-level waste
<input type="checkbox"/> non-PCB TSCA waste	<input type="checkbox"/> nonhazardous chemical waste	<input type="checkbox"/> mixed low-level waste	<input type="checkbox"/> transuranic waste
<input type="checkbox"/> asbestos	<input type="checkbox"/> administratively controlled waste	<input type="checkbox"/> mixed transuranic waste	
	<input type="checkbox"/> sanitary/industrial sludges		

RCRA Code 1 D003	RCRA Code 2	RCRA Code 3	RCRA Code 4	RCRA Code 5	RCRA Code 6	RCRA Code 7	RCRA Code 8
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Reviewer's Signature Michelle Cash	Date 10/25/94	Cost Center/Program Code for Analysis	Reference Number 9593
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**LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM**

WPF #: 20641

05-Dec-1996 01:42 PM

(Version: I)

p.1

Generator: **TRUJILLO, SYLVIA G** MS : **P950** PH: **76728** Z#: **078182**
 WMC: **HARRY, BERT** MS : **C920** PH: **50694** Z#: **100438**
 CSR: **STADELMAIER, ALBERT** MS : **J593** PH: **54000** Z#: **095169**
 Status: **EXPIRE** Activation Date: **11-MAY-95** Expiration Date: **11-MAY-96**

Group : **DX10** TA : **22** Bldg : **000093** Room: **C121**

RMMA : **N/A**
 Waste Accumu : **SATELLITE ACCUMULATION AREA** Site ID# **896**
 Method of Char : **KNOWLEDGE OF PROCESS (KOP)**
MSDS ATTACHED

Waste Type : **PROCESS WASTE/SPENT CHEMICAL**
 Waste Classes: **NON-RADIOACTIVE**
ON-GOING GENERATION
 Assoc Docum: **Process SOP# 54 & 39**
WM SOP# 62

Waste Category: **EXPLOSIVE PROCESS WASTE**

Waste Sources : **MATERIAL PROCESSING**

Waste Matrix : **SOLID**

Matrix Type : **HETEROGENEOUS**

Waste/Proc Desc : **WASTE MATERIALS USED TO CLEAN EXPLOSIVES.**

Ignitability : **NOT IGNITABLE**

Corrosivity : **NOT AQUEOUS**

Reactivity : **EXPLOSIVE**

Boiling Point : **NOT APPLICABLE**

Toxicity Characteristic Metals : **N/A**

Toxicity Characteristic Organic Compounds: **N/A**

Additional Chemical Constituents and Contaminants :

Constituent	CAS NO	MIN	MAX	UOM
KIMWIPES		90	99	%
PETN		0	1	%
RDX		0	1	%
HMX		0	1	%
HNS		0	1	%
TATB		0	1	%
Q-TIPS		1	5	%

Radiological Characteristics: **N/A**

Waste Water Contaminants: **N/A**

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **Non-rad Waste**

**LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM**

WPF #: 20641

05-Dec-1996 01:42 PM

(Version: 1)

p.2

RCRA Category : Hazardous Waste

Misc. Category : N/A

Waste Classification : HAZARDOUS WASTE

EPA Hazardous Waste Code : D003

**LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM**

WPF #: 20664

05-Dec-1996 01:42 PM

(Version: 1)

p.1

Generator : **TRUJILLO, SYLVIA G** MS : **P950** PH : **76728** Z# : **078182**
 WMC : **HARRY, BERT** MS : **C920** PH : **50694** Z# : **100438**
 CSR : **STADELMAIER, ALBERT** MS : **J593** PH : **54000** Z# : **095169**
 Status : **EXPIRE** Activation Date : **08-MAY-95** Expiration Date: **08-MAY-96**
 Group : **DX10** TA : **22** Bldg : **000093** Room: **C111**

RMMA : N/A
 Waste Accumu : **SATELLITE ACCUMULATION AREA** Site ID# 212
 Method of Char : **KNOWLEDGE OF PROCESS (KOP)**
MSDS ATTACHED

Waste Type : **PROCESS WASTE/SPENT CHEMICAL**
 Waste Classes: **NON-RADIOACTIVE**
ON-GOING GENERATION
 Assoc Docum: **Process SOP# 54 & 39**
WM SOP# 62

Waste Category: **EXPLOSIVE PROCESS WASTE**

Waste Sources : **MATERIAL PROCESSING**

Waste Matrix : **SOLID**

Matrix Type : **HETEROGENEOUS**

Waste/Proc Desc : **WASTE MATERIALS USED TO CLEAN EXPLOSIVES.**

Ignitability : **NOT IGNITABLE**

Corrosivity : **NOT AQUEOUS**

Reactivity : **EXPLOSIVE**

Boiling Point : **NOT APPLICABLE**

Toxicity Characteristic Metals : N/A

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants :

Constituent	CAS NO	MIN	MAX	UOM
KIMWIPES		90	99	%
PETN		0	1	%
RDX		0	1	%
HMX		0	1	%
HNS		0	1	%
TATB		0	1	%
Q-TIPS		1	5	%

Radiological Characteristics: N/A

Waste Water Contaminants: N/A

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **Non-rad Waste**

**LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM**

WPF #: 20664

05-Dec-1996 01:42 PM

(Version: 1)

p.2

RCRA Category : Hazardous Waste

Misc. Category : N/A

Waste Classification : HAZARDOUS WASTE

EPA Hazardous Waste Code : D003

**LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM**

WPF #: 20665

05-Dec-1996 01:43 PM

(Version: 1)

p.1

Generator: **TRUJILLO, SYLVIA G** MS : P950 PH : 76728 Z#: 078182
 WMC: **HARRY, BERT** MS : C920 PH : 50694 Z#: 100438
 CSR: **STADELMAIER, ALBERT** MS : J593 PH : 54000 Z#: 095169
 Status: **EXPIRE** Activation Date : 08-MAY-95 Expiration Date: 08-MAY-96

Group : **DX10** TA : 22 Bldg : 000093 Room: C114

RMMA : N/A

Waste Accumu : **SATELLITE ACCUMULATION AREA** Site ID# 218

Method of Char : **KNOWLEDGE OF PROCESS (KOP)**
MSDS ATTACHED

Waste Type : **PROCESS WASTE/SPENT CHEMICAL**

Waste Classes : **NON-RADIOACTIVE**
ON-GOING GENERATION

Assoc Docum : **Process SOP# 54 & 39**
WM SOP# 62

Waste Category: **EXPLOSIVE PROCESS WASTE**

Waste Sources : **MATERIAL PROCESSING**

Waste Matrix : **SOLID**

Matrix Type : **HETEROGENEOUS**

Waste/Proc Desc : **WASTE MATERIALS USED TO CLEAN EXPLOSIVES.**

Ignitability : **NOT IGNITABLE**

Corrosivity : **NOT AQUEOUS**

Reactivity : **EXPLOSIVE**

Boiling Point : **NOT APPLICABLE**

Toxicity Characteristic Metals : N/A

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants :

Constituent	CAS NO	MIN	MAX	UOM
HMX		0	1	%
HNS		0	1	%
KIMWIPES		90	99	%
PETN		0	1	%
Q-TIPS		1	5	%
RDX		0	1	%
TATB		0	1	%

Radiological Characteristics: N/A

Waste Water Contaminants: N/A

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **Non-rad Waste**

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 20665

05-Dec-1996 01:43 PM

(Version: 1)

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RCRA Category : Hazardous Waste

Misc. Category : N/A

Waste Classification : HAZARDOUS WASTE

EPA Hazardous Waste Code : D003

**LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM
WPF #: 22000**

14-Nov-1995 07:22 AM

p.1

Generator: **VELARDE, PETER JR** MS : **C930** PH : **77570** Z#: **074172**
 WMC: **SANDOVAL, CYNTHIA** MS : **C930** PH : **78393** Z#: **096496**
 CSR: **NOLL, MONICA** MS : **J593** PH : **75999** Z#: **115370**
 Status: **ACTIVE** Activated Date: **14-NOV-95** Expired Date: **14-NOV-96**
 Account Info-CC: **8M02** PC: **CM31** CA : WP : VI:
 Group: **ESAWMA** TA : **16** BLDG: **000000** ROOM: **OUTSIDE**

RMMA : **N/A**
 Waste Accumu : **LESS THAN 90 DAY ACCUMULATION AREA** Site ID# **80**
 Method of Char : **ANALYSIS ATTACHED**

Waste Type : **PROCESS WASTE/SPENT CHEMICAL**
 Waste Classes: **NON-RADIOACTIVE**
ON-GOING GENERATION
 Assoc Docum: **Process SOP# 12.1.0**
Other SOP# ESA 12.1.0

Waste Category: **EXPLOSIVE PROCESS WASTE**
TREATED HAZARDOUS WASTE RESIDUE

Waste Sources : **INTERIM/PERMITTED TREATMENT**
MATERIAL PROCESSING
RESEARCH AND DEVELOPMENT

Waste Matrix : **POWDER/ASH**

Matrix Type : **HETEROGENEOUS**

Waste/Proc Desc : **ASH FROM HIGH EXPLOSIVES BURNING OPERATION. MAY CONTAIN SAND. LESS THAN 100 PPM BARIUM.**

Ignitability : **NOT IGNITABLE**

Corrosivity : **NOT AQUEOUS**

Reactivity : **NON REACTIVE**

Boiling Point : **NOT APPLICABLE**

Toxicity Characteristic Metals :

Contaminant	LTR	Min	Max	Unit	Method
BARIUM	Y				TOTA

Toxicity Characteristic Organic Compounds: **N/A**

Additional Chemical Constituents and Contaminants :

Constituent	CAS NO	MIN	MAX	UOM
ASH		75	100	%
SAND		0	25	%

Radiological Characteristics: **N/A**

Waste Water Contaminants: **N/A**

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **NON-RADIOACTIVE**

**LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM
WPF #: 22000**

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Waste Classification : **NON-HAZARDOUS CHEMICAL WASTE
NEW MEXICO SPECIAL WASTE**

EPA Hazardous Waste Code : N/A

Ash

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM
WPF #: 22000

14-Nov-1995 07:22 AM

p.3

Activated Date:	14-NOV-95	Expired Date :	14-NOV-96
Generator :	VELARDE, PETER JR	MS :	C930
WMC :	SANDOVAL, CYNTHIA	MS :	C930
From :	NOLL, MONICA		
Subject :	WASTE PROFILE FORM (WPF)		

The Customer Service Team has reviewed and logged the information you have provided on the attached WPF(s). Based on the information you provided, your waste is:

Waste Classification: NEW MEXICO SPECIAL WASTE

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same and the generator remains the same. Should your waste or generator change, please submit a new WPF to CST Customer Service, and attach a copy of the WPF which is being replaced.

**PLEASE RETAIN THE ATTACHED
WASTE PROFILE FORM FOR YOUR FILES**

**LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM
WPF #: 22001**

20-Aug-1996 08:00 AM

(Version: 1)

p.1

Generator : SANDOVAL, CYNTHIA W MS : C930 PH : 78393 Z# : 096496
 WMC : MARTINEZ, MARY I. A. MS : C928 PH : 76439 Z# : 095492
 CSR : NOLL, MONICA D. MS : J593 PH : 75999 Z# : 115370
 Status : ACTIVE Activation Date : 06-SEP-95 Expiration Date : 06-SEP-96

Group : ESAWMA TA : 16 Bldg : 001150 Room : INCINERATOR

RMMA : N/A

Waste Accumu : LESS THAN 90 DAY ACCUMULATION AREA Site ID# 80

Method of Char : KNOWLEDGE OF PROCESS (KOP)

Waste Type : PROCESS WASTE/SPENT CHEMICAL

Waste Classes : NON-RADIOACTIVE

ON-GOING GENERATION

Assoc Docum : Other SOP# ESA *

Waste Category : EMPTY CONTAINERS

EXPLOSIVE PROCESS WASTE

Waste Sources : INTERIM/PERMITTED TREATMENT

MATERIAL PROCESSING

RESEARCH AND DEVELOPMENT

Waste Matrix : SOLID

Matrix Type : HETEROGENEOUS

Waste/Proc Desc : THIS WASTE IS INCOMING TO THE TA-16 BURN GROUND. POTENTIALLY HIGH EXPLOSIVE CONTAMINATED ADMINISTRATIVE TRASH TO BE TURNED IN THE TA-16-1150 INCINERATOR. MATERIALS INCLUDE: PAPER, COFFEE CUPS, KIMWIPES, CARD BOARD, TISSUES, WOODEN SPOONS, ETC. THIS TRASH IS INCINERATED LOCALLY AS A SAFETY MEASURE DUE TO THE POTENTIAL FOR TRACE HIGH EXPLOSIVE CONTAMINATION. INCINERATOR ASH IS DISPOSED OF THROUGH STANDARD PROCEDURES WITH A CWDR. *12.1.0,12.3.1

Ignitability : NOT IGNITABLE

Corrosivity : NOT AQUEOUS

Reactivity : NON REACTIVE

Boiling Point : NOT APPLICABLE

Toxicity Characteristic Metals : N/A

Toxicity Characteristic Organic Compounds: N/A

Additional Chemical Constituents and Contaminants :

Constituent	CAS NO	MIN	MAX	UOM
CELLULOSE DERIVED MATERIALS		80	100	%
PLASTICS		0	20	%

Radiological Characteristics : N/A

Waste Water Contaminants : N/A

WASTE CHARACTERIZATION INFORMATION

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM
WPF #: 22001

20-Aug-1996 08:00 AM

(Version: 1)

p.2

Radioactivity Category : **Non-rad Waste**

RCRA Category : **Non-hazardous Waste**

Misc. Category : **N/A**

Waste Classification : **NON-HAZARDOUS WASTE**

EPA Hazardous Waste Code : **N/A**

**LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM**

WPF #: 22266

23-Sep-1996 09:19 PM

(Version: 1)

p.1

Generator : **ARMIJO, DIANA P** MS : **C930** PH : **76820** Z# : **096836**
 WMC : **MARTINEZ, MARY I. A.** MS : **C928** PH : **76439** Z# : **095492**
 CSR : **NOLL, MONICA D.** MS : **J593** PH : **75999** Z# : **115370**
 Status : **ACTIVE** Activation Date : **16-OCT-95** Expiration Date : **16-OCT-96**

Group : **ESAWMA** TA : **16** Bldg : **000306** Room : **103**

RMMA : **N/A**

Waste Accumu : **SATELLITE ACCUMULATION AREA** Site ID# **39**
 Method of Char : **KNOWLEDGE OF PROCESS (KOP)**

Waste Type : **PROCESS WASTE/SPENT CHEMICAL**
 Waste Classes : **NON-RADIOACTIVE**
ON-GOING GENERATION
 Assoc Docum : **Other SOP# ESASOP17.3.0**

Waste Category : **DEGREASER**
SOLVENT

Waste Sources : **MATERIAL PROCESSING**
RESEARCH AND DEVELOPMENT

Waste Matrix : **ABSORBED LIQUID**

Matrix Type : **HETEROGENEOUS**

Waste/Proc Desc : **KIMWIPES OR RAGS MOIST WITH ETHANOL OR ACETONE USED PRIMARILY FOR CLEANING TOOLING, KIMWIPES MAY ALSO BE CONTAMINATED WITH RESIDUAL PLASTICS RAW MATERIALS. SEE SECTION 4 ALSO.**

Ignitability : **100 - 139 DEGREES F**

Corrosivity : **NOT AQUEOUS**

Reactivity : **NON REACTIVE**

Boiling Point : **NOT APPLICABLE**

Toxicity Characteristic Metals : **N/A**

Toxicity Characteristic Organic Compounds : **N/A**

Additional Chemical Constituents and Contaminants :

Constituent	CAS NO	MIN	MAX	UOM
ETHANOL		0	20	%
ACETONE		0	10	%
KIMWIPES OR RAGS		70	99	%

Radiological Characteristics : **N/A**

Waste Water Contaminants : **N/A**

Additional Information: **ALSO FOR SAME WASTE DESCRIPTION, SAME GENERATOR, SAME TA: BUILDING 304, ROOM 103, SATELLITE ACCUMULATION AREA 38.**

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **Non-rad Waste**

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 22266

23-Sep-1996 03:19 PM

(Version: 1)

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RCRA Category : **Hazardous Waste**

Misc. Category : **N/A**

Waste Classification : **HAZARDOUS WASTE**

EPA Hazardous Waste Code : **F003**

LOS ALAMOS NATIONAL LABORATORY WASTE PROFILE SYSTEM

WPF #: 31275

19-Aug-1999 09:36 AM

(Version: 1.1)

p.1

Generator : **OLINGER, BARTON W** MS : C930 PH : 76891 Z# : 077332
 WMC : **STADELMAIER, AL** MS : C928 PH : 79746 Z# : 095169
 Contact :
 RCRA Rev : **RAEL, MICHELLE** MS : J595 PH : 54000 Z# : 120950
 Status : **ACTIVE** Activation Date : 17-Aug-1999 Expiration Date: 17-Aug-2000
 Group : **ESAWMM** TA : 16 Bldg : 000386 Room: NA

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same and the generator remains the same. Should your waste or generator change, please submit a new WPF to FWO-SWO Customer Service, and attach a copy of the WPF which is being replaced.

Waste Accumu : **Less-than-90-days Storage Area Site ID# 80**

Method of Char : **Analysis/Documents Attached**

Chemical/Physical Analysis Number: 96DS084

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: **RCA Waste - Not RCA Waste**

RAD Waste - Non-rad

Classif/Sensi - N

Waste Category: **Organic**

Waste Sources : **Research/Development/Testing**

Waste Matrix : **Powder/Ash**

Matrix Type : **Homogeneous**

Waste/Proc Desc : **THIS WASTE PROFILE IS BASED ON TCLP CHARACTERIZATION METHOD, IT IS REPLACING WASTE PROFILE #23494 THAT WAS BASED ON TOTALS CHARACTERIZATION METHOD. ASH FROM THE TA-16-1409 BURNGROUND INCINERATOR. ASH SAMPLES (98DS084) WAS INCORRECTLY ANALYZED FOR TOTAL METALS ON 3/96 AND THE WASTE PROFILE WAS WRITTEN BASED ON THAT INFORMATION. WHEN IT WAS REALIZED THAT THE ANALYTICAL METHOD WAS DONE FOR TOTALS INSTEAD OF TCLP'S IT WAS REANALYZED A MONTH LATER. A NEW WASTE PROFILE IS BEING GNERERATED AT THIS TIME WTH THE CORRECT INFORMATION.**

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals :

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	TCLP	Y			PPM
BARIUM	TCLP	Y			PPM
CADMIUM	TCLP	Y			PPM
LEAD	TCLP	Y			PPM
SELENIUM	TCLP	Y			PPM

Toxicity Characteristic Organic Compounds: **N/A**

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM
WPF #: 31275

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(Version: 1.1)

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Additional Chemical Constituents and Contaminants :

CAS NO	Constituent	MIN	MAX	UOM
	ASH	98	100	%

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : NON-RAD

RCRA Category : NON-HAZARDOUS WASTE

Misc. Category : NEW MEXICO SPECIAL WASTE

Waste Classification : NEW MEXICO SPECIAL WASTE

EPA Hazardous Waste Code : N/A

23494

**LANL EMIS NATIONAL LABORATORY
WASTE PROFILE SYSTEM**

WPT# 2494

Generator: **WESTBANK RESEARCH** MS C92 PH 3946 ZZ 07/2/99
 WMC: **STAGEL MAKER, AL** MS C92 PH 7976 ZZ 05/1/99
 Contact:
 RCRA-Reg: **HARRIS, GORDON** MS 195 PH 5000 ZZ 11/90
 Status: **VOID** Activation Date: **09-Apr-1996** Expiration Date: **09-Apr-1998**
 Group: **ROCHELLE** LA: **K** RID: **01000** Room: **8**

You are required to keep a copy of the WPT in your file for at least three years. This WPT is valid for one year as long as the composition of the waste you have characterized remains the same and the generator remains the same. Should your waste or generator change, please submit a new WPT to EMISW Customer Service, and attach a copy of the WPT which is being replaced.

Waste Accumu : **Less-than-90-days Storage Area Site ID# 80**

Method of Char : **Analysis/Documents Attached**

Waste Type: **Process Waste/Spent Chemical/Other**

Waste Classes: **RCA Waste - Not RCA Waste
 RAD Waste - Non-rad**

Waste Category: **Explosive process**

Waste Sources : **Research/Development/Testing**

Waste Matrix : **Powder/Ash**

Matrix Type : **Heterogeneous**

Waste/Proc Desc : **ASH. ANALYSIS ATTACHED. SAMPLE NUMBER 96DS085 4-3-96 DS**

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals :

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	TOTA	Y			PPM
BARIUM	TOTA		1710	2090	PPM
CADMIUM	TOTA		6.8	8.2	PPM
CHROMIUM	TOTA		55	67	PPM
LEAD	TOTA		2750	3690	PPM
SELENIUM	TOTA	Y			PPM
SILVER	TOTA		17	21	PPM

Toxicity Characteristic Organic Compounds: **N/A**

Additional Chemical Constituents and Contaminants :

CAS NO	Constituent	MIN	MAX	UOM
	ASH	99	100	%

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **NON-RAD**

RCRA Category : **HAZARDOUS WASTE**

LOS ALAMOS NATIONAL LABORATORY
WASTE MANAGEMENT
WASTE REPORT

17 Jul 1999 07:39 AM

Misc. Category : N/A

Waste Classification : **HAZARDOUS WASTE**

EPA Hazardous Waste Code : **D005 D008**

WASTE PROFILE FORM

Account Information

For rapid processing, complete all sections in black or blue ink and mail this form to Waste Services Group at MS J579

Reference Number
23494

Waste Generator's Name (Print) <u>Peter Velarde</u>	Znumber <u>074172</u>	Waste Management Coordinator's Name (Print) <u>Albert Stadelmaier</u>	Znumber <u>095169</u>
Generator's Group <u>ESA-WMA</u>	Generator's Telephone <u>7-7570</u>	Generator's Mail Stop <u>0930</u>	Waste Stream Technical Area <u>TA-14</u>
		Building <u>BURN</u>	Room <u>GROUND</u>

Waste Accumulation
Check as many as apply.

<input type="checkbox"/> Satellite accumulation area ->	site no.: _____
<input checked="" type="checkbox"/> Less than 90 day accumulation area ->	site no.: <u>90</u>
<input type="checkbox"/> Radioactive Materials Management Area (RMMA) ->	site no.: _____
<input type="checkbox"/> None of the above	

Method of Characterization
Check as many as apply.

<input type="checkbox"/> Acceptable Knowledge (AK)	<input type="checkbox"/> MSDS attached
<input checked="" type="checkbox"/> Analysis attached -> sample/request no. _____	<input type="checkbox"/> Request for analysis

Section 1- Chemical and Physical Characteristics

For help in completing this section of the form, call 5-WAST or 5-4000.

<p>Waste Type Check only one.</p> <p><input type="checkbox"/> Unused/unspent chemical <small>Check Waste Classes and Associated Documentation Only</small></p> <p><input checked="" type="checkbox"/> Process waste/spent chemical <small>Complete all of Section 1.</small></p>	<p>Waste Category Check as many as apply.</p> <p><input type="checkbox"/> Solvent</p> <p><input type="checkbox"/> Degreaser</p> <p><input type="checkbox"/> Dioxin</p> <p><input type="checkbox"/> Electroplating</p> <p><input type="checkbox"/> Treated hazardous waste residue</p> <p><input checked="" type="checkbox"/> Explosive process waste</p> <p><input type="checkbox"/> Infectious/biological waste</p> <p><input type="checkbox"/> Beryllium</p> <p><input type="checkbox"/> Asbestos-irritable</p> <p><input type="checkbox"/> Asbestos-nonirritable</p> <p><input type="checkbox"/> Empty containers</p> <p><input type="checkbox"/> PCB (<50 ppm)</p> <p><input type="checkbox"/> PCB (50 - 500 ppm)</p> <p><input type="checkbox"/> PCB (> 500 ppm)</p> <p>→ id. no. : _____</p> <p><input type="checkbox"/> Not applicable -> describe below</p>	<p>Waste Sources Check as many as apply.</p> <p><input checked="" type="checkbox"/> Research and development</p> <p><input type="checkbox"/> Maintenance</p> <p><input type="checkbox"/> Construction</p> <p><input type="checkbox"/> Material processing</p> <p><input type="checkbox"/> Decon/decom</p> <p><input type="checkbox"/> Investigation derived</p> <p><input type="checkbox"/> Remediation</p> <p><input type="checkbox"/> UST - petroleum</p> <p><input type="checkbox"/> UST - non-petroleum</p> <p><input type="checkbox"/> Generator treatment</p> <p><input type="checkbox"/> Interim/permited treatment</p> <p><input type="checkbox"/> Industrial sludge</p> <p><input type="checkbox"/> Sanitary sludge</p> <p><input type="checkbox"/> Abatement</p>	<p>Waste Matrix Check only one.</p> <p>Gas</p> <p><input type="checkbox"/> ≤ 1.5 Atmospheres</p> <p><input type="checkbox"/> > 1.5 Atmospheres</p> <p>Liquid</p> <p><input type="checkbox"/> Aqueous</p> <p><input type="checkbox"/> Organic</p> <p><input type="checkbox"/> Inorganic</p> <p>Solid</p> <p><input checked="" type="checkbox"/> Powder/ash</p> <p><input type="checkbox"/> Solid</p> <p><input type="checkbox"/> Absorbed liquid</p>
<p>Waste Classes Check as many as apply.</p> <p><input checked="" type="checkbox"/> On-going generation</p> <p><input type="checkbox"/> One-time generation</p> <p><input type="checkbox"/> Radioactive (complete Sec. 2)</p> <p><input checked="" type="checkbox"/> Non-radioactive</p> <p><input type="checkbox"/> Wastewater (complete Sec. 3)</p> <p><input type="checkbox"/> Classified/Sensitive</p>			<p>Matrix Type Check only one.</p> <p><input type="checkbox"/> Homogeneous</p> <p><input checked="" type="checkbox"/> Heterogeneous -> describe below</p>
<p>Associated Documentation Check as many as apply.</p> <p><input type="checkbox"/> Process SOP -> no.: _____</p> <p><input type="checkbox"/> RMMA OP -> no.: _____</p> <p><input type="checkbox"/> WM SOP -> no.: _____</p> <p><input type="checkbox"/> Other -> _____</p> <p><input checked="" type="checkbox"/> None -> describe below</p>			

Waste/Process Description

Ash. Analysis Attached. Sample number

9005085 H-3-96 DS

↳ this was ungenerous ash.

Note that the metals are total (mg/kg) not TCLP

(mg/L) TCLP appx = total

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REPORT NUMBER: 39845

CST ANALYTICAL REPORT

Prepared by: CAF on 8-Mar-1996

REQUEST NUMBER: 23122 MATRIX: MS ANALYST: DES PROGRAM CODE: CM31

OWNER: Dustie L. Stephens GROUP: ESH-19 MAIL-STOP: K498 PHONE: 5-0792

NOTEBOOK: CST9136 PAGE: 6

CUSTOMER SAMPLES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	AG	ICPES	1.7	0.5	MG/KG	3/08/96	
95DS074	96.01640	BA	ICPES	415.	41.	MG/KG	3/08/96	
95DS074	96.01640	CD	ICPES	3.8	0.4	MG/KG	3/08/96	
95DS074	96.01640	CR	ICPES	55.	5.	MG/KG	3/08/96	
95DS075	96.01641	AG	ICPES	3.2	0.5	MG/KG	3/08/96	
95DS075	96.01641	BA	ICPES	149.	15.	MG/KG	3/08/96	
95DS075	96.01641	CD	ICPES	27.	3.	MG/KG	3/08/96	
95DS075	96.01641	CR	ICPES	76.	8.	MG/KG	3/08/96	
95DS076	96.01642	AG	ICPES	< 0.5		MG/KG	3/08/96	
95DS076	96.01642	BA	ICPES	170.	17.	MG/KG	3/08/96	
95DS076	96.01642	CD	ICPES	0.48	0.25	MG/KG	3/08/96	
95DS076	96.01642	CR	ICPES	6.3	0.6	MG/KG	3/08/96	
95DS077	96.01643	AG	ICPES	< 0.5		MG/KG	3/08/96	
95DS077	96.01643	BA	ICPES	460.	46.	MG/KG	3/08/96	
95DS077	96.01643	CD	ICPES	1.4	0.3	MG/KG	3/08/96	
95DS077	96.01643	CR	ICPES	16.	2.	MG/KG	3/08/96	
95DS078	96.01644	AG	ICPES	< 0.5		MG/KG	3/08/96	
95DS078	96.01644	BA	ICPES	4800.	480.	MG/KG	3/08/96	
95DS078	96.01644	CD	ICPES	1.86	0.25	MG/KG	3/08/96	
95DS078	96.01644	CR	ICPES	62.	6.	MG/KG	3/08/96	
95DS079	96.01645	AG	ICPES	1.2	0.5	MG/KG	3/08/96	
95DS079	96.01645	BA	ICPES	2100.	210.	MG/KG	3/08/96	
95DS079	96.01645	CD	ICPES	1.1	0.3	MG/KG	3/08/96	
95DS079	96.01645	CR	ICPES	27.	3.	MG/KG	3/08/96	
95DS080	96.01646	AG	ICPES	0.9	0.5	MG/KG	3/08/96	
95DS080	96.01646	BA	ICPES	1000.	100.	MG/KG	3/08/96	
95DS080	96.01646	CD	ICPES	1.11	0.25	MG/KG	3/08/96	
95DS080	96.01646	CR	ICPES	13.5	1.3	MG/KG	3/08/96	
95DS081	96.01647	AG	ICPES	< 0.5		MG/KG	3/08/96	
95DS081	96.01647	BA	ICPES	1800.	180.	MG/KG	3/08/96	
95DS081	96.01647	CD	ICPES	< 0.25		MG/KG	3/08/96	
95DS081	96.01647	CR	ICPES	123.	12.	MG/KG	3/08/96	
95DS082	96.01648	AG	ICPES	< 0.5		MG/KG	3/08/96	
95DS082	96.01648	BA	ICPES	920.	92.	MG/KG	3/08/96	
95DS082	96.01648	CD	ICPES	2.6	0.3	MG/KG	3/08/96	
95DS082	96.01648	CR	ICPES	22.	2.	MG/KG	3/08/96	
95DS083	96.01649	AG	ICPES	0.98	0.49	MG/KG	3/08/96	

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
95DS083	96.01649	BA	ICPES	850.	85.	MG/KG	3/08/96	
95DS083	96.01649	CD	ICPES	1.6	0.2	MG/KG	3/08/96	
95DS083	96.01649	CR	ICPES	9.	1.	MG/KG	3/08/96	
95DS084	96.01650	AG	ICPES	2.6	0.5	MG/KG	3/08/96	
95DS084	96.01650	BA	ICPES	740.	74.	MG/KG	3/08/96	
95DS084	96.01650	CD	ICPES	73.	7.	MG/KG	3/08/96	
95DS084	96.01650	CR	ICPES	471.	47.	MG/KG	3/08/96	
95DS085	96.01651	AG	ICPES	19.	2.	MG/KG	3/08/96	
95DS085	96.01651	BA	ICPES	1900.	190.	MG/KG	3/08/96	
95DS085	96.01651	CD	ICPES	7.5	0.7	MG/KG	3/08/96	
95DS085	96.01651	CR	ICPES	61.	6.	MG/KG	3/08/96	

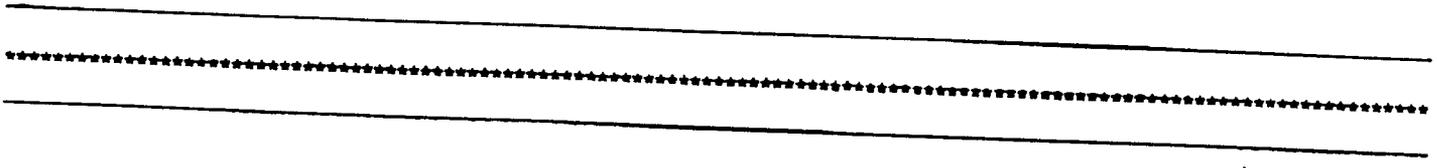


CUSTOMER SAMPLE DUPLICATES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	AG	ICPES	0.9	0.5	MG/KG	3/08/96	
95DS074	96.01640	BA	ICPES	403.	40.	MG/KG	3/08/96	
95DS074	96.01640	CD	ICPES	1.5	0.2	MG/KG	3/08/96	
95DS074	96.01640	CR	ICPES	35.	4.	MG/KG	3/08/96	

MATRIX SPIKES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	AMOUNT SPIKED	AMOUNT RECOVERED	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	AG	ICPES	122.	13.	MG/KG	3/08/96	
95DS074	96.01640	BA	ICPES	976.	549.	MG/KG	3/08/96	
95DS074	96.01640	CD	ICPES	976.	667.	MG/KG	3/08/96	
95DS074	96.01640	CR	ICPES	976.	665.	MG/KG	3/08/96	



REPORT NUMBER: 39845 (continued)

***** CST QUALITY ASSURANCE REPORT *****

Prepared by: CAF on 8-Mar-1996

REQUEST NUMBER: 23122 MATRIX: MS ANALYST: OES PROGRAM CODE: CH31
OWNER: Dustie L. Stephens GROUP: ESH-19 MAIL-STOP: K49B PHONE: 5-0792
NOTEBOOK: CST9136 PAGE: 6

SUMMARY OF CONTROL STATUS OF OPEN (NON-BLIND) QC SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	QC VALUE	QC UNCERTAINTY	COMPLETION DATE	COMMENT
00.30469	AG	18.5	1.9	MG/KG	92.5	49.5	3/08/96	UNDER CONTROL
00.30469	BA	344.	34.	MG/KG	276.	82.5	3/08/96	UNDER CONTROL
00.30469	CD	123.	12.	MG/KG	102.	56.5	3/08/96	UNDER CONTROL
00.30469	CR	185.	18.	MG/KG	154.	73.	3/08/96	UNDER CONTROL

SUMMARY OF CONTROL STATUS OF BLIND QC SAMPLES RUN WITH THIS BATCH

There were no blind Quality Control materials run with the samples reported above for one of the following reasons:

- Only qualitative data requested
- Only Open (non-blind) QC samples run with this sample batch.
- No QC samples run with this sample batch.
- No QC samples for this constituent and matrix type available within CST

REPORT NUMBER: 39845

<u>P. Fedicini</u> Analyst	<u>M. Kelly</u> Reviewer	<u>R. Don</u> Team Leader	_____ QA Officer
<u>3-8-96</u> Date	<u>3/8/96</u> Date	<u>3/4/96</u> Date	_____ Date

No Sample Discrepancies Noted by Sample Management Section

REPORT NUMBER: 40108

***** CST ANALYTICAL REPORT *****

Prepared by: LRB on 1-Apr-1996

REQUEST NUMBER: 23122 MATRIX: MS ANALYST: AAS PROGRAM CODE: CM31

OWNER: Duclie L. Stephens GROUP: ESH-19 MAIL-STOP: K498 PHONE: 5-0792

NOTEBOOK: CST9127 PAGE: 15

CUSTOMER SAMPLES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	AS	ETVAA	6.8	1.4	UG/G	3/12/96	
95DS074	96.01640	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS074	96.01640	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS075	96.01641	AS	ETVAA	98.	20.	UG/G	3/12/96	
95DS075	96.01641	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS075	96.01641	SE	ETVAA	0.4	0.3	UG/G	3/25/96	
95DS076	96.01642	AS	ETVAA	1.	0.5	UG/G	3/12/96	
95DS076	96.01642	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS076	96.01642	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS077	96.01643	AS	ETVAA	1.6	0.5	UG/G	3/25/96	
95DS077	96.01643	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS077	96.01643	SE	ETVAA	0.3	0.3	UG/G	3/25/96	
95DS078	96.01644	AS	ETVAA	1.6	0.5	UG/G	3/25/96	
95DS078	96.01644	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS078	96.01644	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS079	96.01645	AS	ETVAA	2.2	0.5	UG/G	3/25/96	
95DS079	96.01645	HG	CVAA	0.14	0.09	UG/G	3/29/96	
95DS079	96.01645	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS080	96.01646	AS	ETVAA	1.7	0.5	UG/G	3/25/96	
95DS080	96.01646	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS080	96.01646	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS081	96.01647	AS	ETVAA	1.2	0.5	UG/G	3/25/96	
95DS081	96.01647	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS081	96.01647	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS082	96.01648	AS	ETVAA	0.9	0.5	UG/G	3/25/96	
95DS082	96.01648	HG	CVAA	0.43	0.14	UG/G	3/29/96	
95DS082	96.01648	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS083	96.01649	AS	ETVAA	1.	0.5	UG/G	3/25/96	
95DS083	96.01649	HG	CVAA	0.21	0.1	UG/G	3/29/96	
95DS083	96.01649	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS084	96.01650	AS	ETVAA	7.	1.4	UG/G	3/25/96	
95DS084	96.01650	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS084	96.01650	SE	ETVAA	0.8	0.3	UG/G	3/25/96	
95DS085	96.01651	AS	ETVAA	4.2	0.8	UG/G	3/25/96	
95DS085	96.01651	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS085	96.01651	SE	ETVAA	0.8	0.3	UG/G	3/25/96	

COPY

WASTE DATA FORM

Container # : C96067536 *C96067536* WDR # : 3002406 *3002406* DIS/TRE # : 96481 *96481*	WMC : STADELMAIER AL Z # : 095169 Phone : 79746 TA : 16 Building : BURN Room :
---	---

LESS THAN 90 DAYS (START DATE: 27-FEB-96)

Shipping Name : HAZARDOUS WASTE, SOLID, N.O.S. Hazard Class : 9 DOT ID# : NA3077 Packing Group : III Secondary Label : Technical Name : (CONTAINS BARIUM) Additional Desc : Haz Substance : ERG# : 31 LSA/SCO Group :
--

Waste Code : C0 - CHEMICAL WASTE Storage Code : UNSTOR Bldg : Row : Col : Layer :	Other Con # : Container Type : DM Volume : 55G Container Gross Wgt : Net Wgt : 500p
Treat/Disp Loc : KET Transported By : TRISTA Other Document : 95741962 AreaG/J Loc : Treat/Disp By : CWM Treat/Disp Date : 18-JUN-96 TSDf Date : 21-JUN-96 Destruction # : Destruction Date :	Reviewed By : 115370 Data Entry By : 115370 DOT Check By : Accumulation Start Date : 27-FEB-96 Picked Up By/Date&Time : 088896 / 21-MAY-96 10:00 Load Check By/Date : 094923 / 21-MAY-96 Pickup Update Check By : Off-Site Check By/Date : Update By/Date : 111093 / 11-JUL-96 Final Update Check By :

Item 2055831: INCINERATOR ASH, 96D5085
 Generator : VELARDE PETER JR Group : ESAWMA Phone : 79746
 WPN : 23494 Phy_state: S Volume : 55 Gallon Weight : 500 Pound
 EPA Code : D005 BARIUM
 D008 LEAD

COPY

WASTE DATA FORM

Container # : C96067532 *C96067532* WDR # : 3002406 *3002406* DIS/TRE # : 96481 *96481*	WMC : STADELMAIER AL Z # : 095169 Phone : 79746 TA : 16 Building : BURN Room :
--	---

LESS THAN 90 DAYS (START DATE: 27-FEB-96)

Shipping Name : HAZARDOUS WASTE, SOLID, N.O.S.
Hazard Class : 9 DOT ID# : NA3077 Packing Group : III
Secondary Label :
Technical Name : (CONTAINS BARIUM)
Additional Desc :
Haz Substance :
ERG# : 31
USA/SCO Group :

Waste Code : C0 - CHEMICAL WASTE Storage Code : UNSTOR Bldg : Row : Col : Layer :	Other Con # : Container Type : DM Volume : 55G Container Gross Wgt : Net Wgt : 500p
Treat/Disp Loc : KET Transported By : TRISTA Other Document : 95741962 AreaG/J Loc :	Reviewed By : 115370 Data Entry By : 115370 DOT Check By :
Treat/Disp By : CWM Treat/Disp Date : 18-JUN-96 TSDf Date : 21-JUN-96 Destruction # : Destruction Date :	Accumulation Start Date : 27-FEB-96 Picked Up By/Date&Time : 088896 / 21-MAY-96 10:00 Load Check By/Date : 094923 / 21-MAY-96 Pickup Update Check By : Off-Site Check By/Date :
	Update By/Date : 111093 / 11-JUL-96 Final Update Check By :

Item 2055832: INCINERATOR ASH, 96D5085

Generator : VELARDE PETER JR

WPN : 23494

EPA Code : D005

D008

BARJUM

LEAD

Phy_state: S

Group : ESAWMA

Volume : 55 Gallon

Phone : 79746

Weight : 500 Pound

16-Jan-1999 02:52 PM

61/G #: 815052622698; #/ 9/1

CST-17-

6-16-99 : 3:16PM

SENT BY: LANT

**LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM**

WPF #: 31276

06-Oct-1999 09:00 AM

(Version: 1)

p.1

Generator : **OLINGER, BARTON W** MS : **C930** PH : **76891** Z# : **077332**
 WMC : **STADELMAIER, AL** MS : **C928** PH : **79746** Z# : **095169**
 Contact :
 RCRA Rev : **RAEL, MICHELLE** MS : **J595** PH : **54000** Z# : **120950**
 Status : **ACTIVE** Activation Date : **17-Aug-1999** Expiration Date: **17-Aug-2000**
 Group : **ESAWMM** TA : **16** Bldg : **000386** Room: **NA**

You are required to keep a copy of the WPF(s) in your files for at least three years. This WPF(s) is valid for one year or as long as the composition of the waste you have characterized remains the same and the generator remains the same. Should your waste or generator change, please submit a new WPF to FWO-SWO Customer Service, and attach a copy of the WPF which is being replaced.

Waste Accumu : **Less-than-90-days Storage Area** Site ID# **80**

Method of Char : **Analysis/Documents Attached**
Chemical/Physical Analysis

Number: 96DS085

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: **RCA Waste - Not RCA Waste**
RAD Waste - Non-rad
Classif/Sensi - N

Waste Category: **Organic**

Waste Sources : **Research/Development/Testing**

Waste Matrix : **Powder/Ash**

Matrix Type : **Homogeneous**

Waste/Proc Desc : **THIS WASTE PROFILE IS BASED ON TCLP CHARACTERIZATION METHOD, IT IS REPLACING WASTE PROFILE #23496 THAT WAS BASED ON TOTALS CHARACTERIZATION METHOD. ASH FROM THE TA-16-1409 BURNGROUND INCINERATOR. ASH SAMPLES (98DS085) WAS INCORRECTLY ANALYZED FOR TOTAL METALS ON 3/96 AND THE WASTE PROFILE WAS WRITTEN BASED ON THAT INFORMATION. WHEN IT WAS REALIZED THAT THE ANALYTICAL METHOD WAS DONE FOR TOTALS INSTEAD OF TCLP'S IT WAS REANALYZED A MONTH LATER. A NEW WASTE PROFILE IS BEING GENERATED AT THIS TIME WITH THE CORRECT INFORMATION.**

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals :

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	TCLP	Y			PPM
BARIUM	TCLP	Y			PPM
CADMIUM	TCLP	Y			PPM
LEAD	TCLP	Y			PPM
SELENIUM	TCLP	Y			PPM

Toxicity Characteristic Organic Compounds: **N/A**

LOS ALAMOS NATIONAL LABORATORY
WASTE PROFILE SYSTEM

WPF #: 31276

06-Oct-1999 09:00 AM

(Version: 1)

p.2

Additional Chemical Constituents and Contaminants :

CAS NO	Constituent	MIN	MAX	UOM
	ASH	98	100	%

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : NON-RAD

RCRA Category : NON-HAZARDOUS WASTE

Misc. Category : NEW MEXICO SPECIAL WASTE

Waste Classification : NEW MEXICO SPECIAL WASTE

EPA Hazardous Waste Code : N/A

23496

**LOS ALAMOS NATIONAL LABORATORY
WASTE MANAGEMENT SYSTEM**

WPP-2-1998

Generation: **VELEARD, PIERRE JE** MS: **CS23** PH: **7946** ZZ: **09522**
 WPP: **STADIE MARIK AL** MS: **CS23** PH: **7946** ZZ: **095109**
 RCRA RCY: **HARRIS, GORDON** MS: **1998** PH: **7946** ZZ: **11500**
 Name: **VOID** Activation Date: **09 Apr 1998** Expiration Date: **09 Apr 1999**
 Group: **ESADVMA** TA: **16** Bldg: **08B00** Room: **0**

You are required to keep copy of the WPP(s) in your files for at least three years. This WPP(s) is valid for one year as long as the composition of the waste you have characterized remains the same and the generator remains the same. Should your waste or generator change, please submit a new WPP to EM SWO Customer Services, and attach a copy of the WPP which is being replaced.

Waste Accumu : **Less-than-90-days Storage Area Site ID# 80**

Method of Char : **Analysis/Documents Attached**

Waste Type : **Process Waste/Spent Chemical/Other**

Waste Classes: **RCA Waste - Not RCA Waste
RAD Waste - Non-rad**

Waste Category: **Explosive process**

Waste Sources : **Research/Development/Testing**

Waste Matrix : **Powder/Ash**

Matrix Type : **Heterogeneous**

Waste/Proc Desc : **ASH. ANALYSIS ATTACHED. SAMPLE NUMBER 96DS084 4-3-96 DS**

Ignitability : **Not ignitable**

Corrosivity : **Non-aqueous**

Reactivity : **Non-reactive**

Boiling Point : **Not applicable**

Toxicity Characteristic Metals :

Contaminant	Method	Limit	Min	Max	Unit
ARSENIC	TOTA		5.6	8.4	PPM
BARIUM	TOTA		666	814	PPM
+ CADMIUM	TOTA		66	80	PPM
+ CHROMIUM	TOTA		424	518	PPM
+ LEAD	TOTA		452	498	PPM
SELENIUM	TOTA	Y			PPM
SILVER	TOTA	Y			PPM

Toxicity Characteristic Organic Compounds: **N/A**

Additional Chemical Constituents and Contaminants :

CAS NO	Constituent	MIN	MAX	UOM
	ASH	100	100	%

WASTE CHARACTERIZATION INFORMATION

Radioactivity Category : **NON-RAD**

RCRA Category : **HAZARDOUS WASTE**

EHS ALABAMA GENERAL LABORATORY
WASTE REPORT

15 Jun 1999 07:39 AM

Misc. Category : N/A

Waste Classification : **HAZARDOUS WASTE**

EPA Hazardous Waste Code : **D006 D007 D008**

Section 2- Radiological Characteristics

For help in completing this section of the form, call 5-WAST or 5-4000.

	Range		Unit (Ci/g or Ci/l)		Range		Unit (Ci/g or Ci/l)
	minimum	maximum			minimum	maximum	
General				Other			
<input type="checkbox"/> Alpha	_____	to _____	_____	<input type="checkbox"/> None present	_____	to _____	_____
<input type="checkbox"/> Beta	_____	to _____	_____	<input type="checkbox"/> Am-242	_____	to _____	_____
<input type="checkbox"/> Gamma	_____	to _____	_____	<input type="checkbox"/> Bi-207	_____	to _____	_____
TRU radionuclides				<input type="checkbox"/> Bi-210	_____	to _____	_____
<input type="checkbox"/> None present	_____	to _____	_____	<input type="checkbox"/> Cf-250	_____	to _____	_____
<input type="checkbox"/> Am-241	_____	to _____	_____	<input type="checkbox"/> Cf-252	_____	to _____	_____
<input type="checkbox"/> Am-243	_____	to _____	_____	<input type="checkbox"/> Cm-244	_____	to _____	_____
<input type="checkbox"/> Cf-249	_____	to _____	_____	<input type="checkbox"/> H-3	_____	to _____	_____
<input type="checkbox"/> Cf-251	_____	to _____	_____	<input type="checkbox"/> Po-231	_____	to _____	_____
<input type="checkbox"/> Cm-243	_____	to _____	_____	<input type="checkbox"/> Po-210	_____	to _____	_____
<input type="checkbox"/> Cm-245	_____	to _____	_____	<input type="checkbox"/> Pu-238	_____	to _____	_____
<input type="checkbox"/> Cm-247	_____	to _____	_____	<input type="checkbox"/> Pu-241	_____	to _____	_____
<input type="checkbox"/> Pu-238	_____	to _____	_____	<input type="checkbox"/> Ra-226	_____	to _____	_____
<input type="checkbox"/> Pu-239	_____	to _____	_____	<input type="checkbox"/> Ra-228	_____	to _____	_____
<input type="checkbox"/> Pu-240	_____	to _____	_____	<input type="checkbox"/> Th-230	_____	to _____	_____
<input type="checkbox"/> Pu-242	_____	to _____	_____	<input type="checkbox"/> Th-232	_____	to _____	_____
Fission products				<input type="checkbox"/> U-232	_____	to _____	_____
<input type="checkbox"/> None present	_____	to _____	_____	<input type="checkbox"/> U-233	_____	to _____	_____
<input type="checkbox"/> Be-140	_____	to _____	_____	<input type="checkbox"/> U-234	_____	to _____	_____
<input type="checkbox"/> Ce-144	_____	to _____	_____	<input type="checkbox"/> U-235	_____	to _____	_____
<input type="checkbox"/> Ce-134	_____	to _____	_____	<input type="checkbox"/> U-238	_____	to _____	_____
<input type="checkbox"/> Ce-137	_____	to _____	_____	<input type="checkbox"/> U-236	_____	to _____	_____
<input type="checkbox"/> I-129	_____	to _____	_____	<input type="checkbox"/> U-238	_____	to _____	_____
<input type="checkbox"/> I-133	_____	to _____	_____	<input type="checkbox"/> U-238	_____	to _____	_____
<input type="checkbox"/> Kr-85	_____	to _____	_____	Add'l radionuclides			
<input type="checkbox"/> Nb-95	_____	to _____	_____	<input type="checkbox"/> No additional radionuclides present	_____	to _____	_____
<input type="checkbox"/> Ru-106	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Sb-125	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Sr-90	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Tc-99	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Zr-93	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Zr-95	_____	to _____	_____	_____	_____	to _____	_____
Activation products				_____	_____	to _____	_____
<input type="checkbox"/> None present	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> As-74	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Be-7	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> C-14	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Co-58	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Co-57	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Co-58	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Co-60	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Cr-51	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Eu-152	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Mn-52	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Mn-54	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Nb-94	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Ni-59	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Ni-63	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Pb-210	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Pb-214	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Se-75	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Sr-82	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Sr-86	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> V-48	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Y-88	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Zn-65	_____	to _____	_____	_____	_____	to _____	_____
<input type="checkbox"/> Zr-88	_____	to _____	_____	_____	_____	to _____	_____

Contamination Type: Check as many as apply.

- Volume Contamination
- Surface Contamination

***** CST ANALYTICAL REPORT *****

Prepared by: CAF on 8-Mar-1996

REQUEST NUMBER: 23122 MATRIX: MS ANALYST: OES PROGRAM CODE: CM31
 OWNER: Dustie L. Stephens GROUP: ESM-19 MAIL-STOP: K498 PHONE: 5-0792
 NOTEBOOK: CST9136 PAGE: 6

CUSTOMER SAMPLES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	AG	ICPES	1.7	0.5	MG/KG	3/08/96	
95DS074	96.01640	BA	ICPES	415.	41.	MG/KG	3/08/96	
95DS074	96.01640	CD	ICPES	3.8	0.4	MG/KG	3/08/96	
95DS074	96.01640	CR	ICPES	55.	5.	MG/KG	3/08/96	
95DS075	96.01641	AG	ICPES	3.2	0.5	MG/KG	3/08/96	
95DS075	96.01641	BA	ICPES	149.	15.	MG/KG	3/08/96	
95DS075	96.01641	CD	ICPES	27.	3.	MG/KG	3/08/96	
95DS075	96.01641	CR	ICPES	76.	8.	MG/KG	3/08/96	
95DS076	96.01642	AG	ICPES	< 0.5		MG/KG	3/08/96	
95DS076	96.01642	BA	ICPES	170.	17.	MG/KG	3/08/96	
95DS076	96.01642	CD	ICPES	0.48	0.25	MG/KG	3/08/96	
95DS076	96.01642	CR	ICPES	6.3	0.6	MG/KG	3/08/96	
95DS077	96.01643	AG	ICPES	< 0.5		MG/KG	3/08/96	
95DS077	96.01643	BA	ICPES	460.	46.	MG/KG	3/08/96	
95DS077	96.01643	CD	ICPES	1.4	0.3	MG/KG	3/08/96	
95DS077	96.01643	CR	ICPES	16.	2.	MG/KG	3/08/96	
95DS078	96.01644	AG	ICPES	< 0.5		MG/KG	3/08/96	
95DS078	96.01644	BA	ICPES	4800.	480.	MG/KG	3/08/96	
95DS078	96.01644	CD	ICPES	1.86	0.25	MG/KG	3/08/96	
95DS078	96.01644	CR	ICPES	62.	6.	MG/KG	3/08/96	
95DS079	96.01645	AG	ICPES	1.2	0.5	MG/KG	3/08/96	
95DS079	96.01645	BA	ICPES	2100.	210.	MG/KG	3/08/96	
95DS079	96.01645	CD	ICPES	1.1	0.3	MG/KG	3/08/96	
95DS079	96.01645	CR	ICPES	27.	3.	MG/KG	3/08/96	
95DS080	96.01646	AG	ICPES	0.9	0.5	MG/KG	3/08/96	
95DS080	96.01646	BA	ICPES	1000.	100.	MG/KG	3/08/96	
95DS080	96.01646	CD	ICPES	1.11	0.25	MG/KG	3/08/96	
95DS080	96.01646	CR	ICPES	13.5	1.3	MG/KG	3/08/96	
95DS081	96.01647	AG	ICPES	< 0.5		MG/KG	3/08/96	
95DS081	96.01647	BA	ICPES	1800.	180.	MG/KG	3/08/96	
95DS081	96.01647	CD	ICPES	< 0.25		MG/KG	3/08/96	
95DS081	96.01647	CR	ICPES	123.	12.	MG/KG	3/08/96	
95DS082	96.01648	AG	ICPES	< 0.5		MG/KG	3/08/96	
95DS082	96.01648	BA	ICPES	920.	92.	MG/KG	3/08/96	
95DS082	96.01648	CD	ICPES	2.6	0.3	MG/KG	3/08/96	
95DS082	96.01648	CR	ICPES	22.	2.	MG/KG	3/08/96	
95DS083	96.01649	AG	ICPES	0.98	0.49	MG/KG	3/08/96	

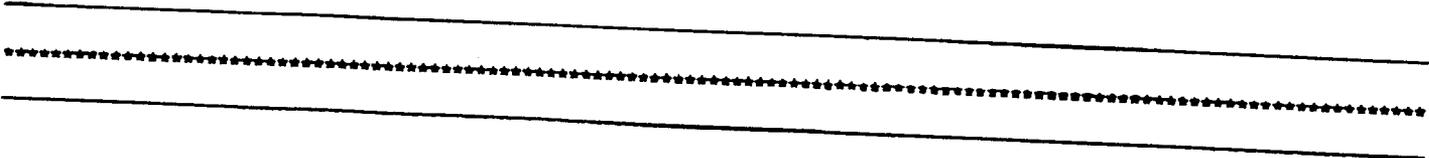
95DS083	96.01649 BA	ICPES	850.	85.	MG/KG	3/08/96
95DS083	96.01649 CD	ICPES	1.6	0.2	MG/KG	3/08/96
95DS083	96.01649 CR	ICPES	9.	1.	MG/KG	3/08/96
95DS084	96.01650 AG	ICPES	2.6	0.5	MG/KG	3/08/96
95DS084	96.01650 BA	ICPES	740.	74.	MG/KG	3/08/96
95DS084	96.01650 CD	ICPES	73.	7.	MG/KG	3/08/96
95DS084	96.01650 CR	ICPES	471.	47.	MG/KG	3/08/96
95DS085	96.01651 AG	ICPES	19.	2.	MG/KG	3/08/96
95DS085	96.01651 BA	ICPES	1900.	190.	MG/KG	3/08/96
95DS085	96.01651 CD	ICPES	7.5	0.7	MG/KG	3/08/96
95DS085	96.01651 CR	ICPES	61.	6.	MG/KG	3/08/96

CUSTOMER SAMPLE DUPLICATES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640 AG		ICPES	0.9				
95DS074	96.01640 BA		ICPES	403.	0.5	MG/KG	3/08/96	
95DS074	96.01640 CD		ICPES	1.5	40.	MG/KG	3/08/96	
95DS074	96.01640 CR		ICPES	35.	0.2	MG/KG	3/08/96	
					4.	MG/KG	3/08/96	

MATRIX SPIKES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	AMOUNT SPIKED	AMOUNT RECOVERED	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640 AG		ICPES	122.	13.	MG/KG	3/08/96	
95DS074	96.01640 BA		ICPES	976.	549.	MG/KG	3/08/96	
95DS074	96.01640 CD		ICPES	976.	667.	MG/KG	3/08/96	
95DS074	96.01640 CR		ICPES	976.	665.	MG/KG	3/08/96	



REPORT NUMBER: 39845 (continued)

***** CST QUALITY ASSURANCE REPORT *****

Prepared by: CAF on 8-Mar-1996

REQUEST NUMBER: 23122 MATRIX: MS ANALYST: OES

PROGRAM CODE: CM31

OWNER: Dustie L. Stephens GROUP: ESH-19 MAIL-STOP: K498 PHONE: 5-0792

NOTEBOOK: CST9136 PAGE: 6

SUMMARY OF CONTROL STATUS OF OPEN (NON-BLIND) QC SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	QC VALUE	QC UNCERTAINTY	COMPLETION DATE	COMMENT
00.30469	AG	18.5	1.9	MG/KG	92.5	49.5	3/08/96	UNDER CONTROL
00.30469	BA	344.	34.	MG/KG	276.	82.5	3/08/96	UNDER CONTROL
00.30469	CD	123.	12.	MG/KG	102.	56.5	3/08/96	UNDER CONTROL
00.30469	CR	185.	18.	MG/KG	154.	73.	3/08/96	UNDER CONTROL

SUMMARY OF CONTROL STATUS OF BLIND QC SAMPLES RUN WITH THIS BATCH

There were no blind Quality Control materials run with the samples reported above for one of the following reasons:

- Only qualitative data requested
- Only Open (non-blind) QC samples run with this sample batch.
- No QC samples run with this sample batch.
- No QC samples for this constituent and matrix type available within CST

REPORT NUMBER: 39845

C. Fedicini
Analyst

M. Mulvey
Reviewer

A. L. Don
Team Leader

QA Officer

3-8-96
Date

3/8/96
Date

3/2/96
Date

Date

No Sample Discrepancies Noted by Sample Management Section

REPORT NUMBER: 39935

***** CST ANALYTICAL REPORT *****

Prepared by: CAF on 20-Mar-1996

REQUEST NUMBER: 23122 MATRIX: MS ANALYST: IMS PROGRAM CODE: CWS1

OWNER: Dustie L. Stephens GROUP: ESH-19 MAIL-STOP: K498 PHONE: 5-0792

NOTEBOOK: CST9130 PAGE: 69

CUSTOMER SAMPLES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	PB	ICPMS	104.	5.	UG/G	3/19/96	
95DS075	96.01641	PB	ICPMS	147.	4.	UG/G	3/19/96	
95DS076	96.01642	PB	ICPMS	2.95	0.39	UG/G	3/19/96	
95DS077	96.01643	PB	ICPMS	5.99	0.77	UG/G	3/19/96	
95DS078	96.01644	PB	ICPMS	11.	1.	UG/G	3/19/96	
95DS079	96.01645	PB	ICPMS	16.5	1.9	UG/G	3/19/96	
95DS080	96.01646	PB	ICPMS	6.46	0.99	UG/G	3/19/96	
95DS081	96.01647	PB	ICPMS	4.77	1.31	UG/G	3/19/96	
95DS082	96.01648	PB	ICPMS	43.1	5.6	UG/G	3/19/96	
95DS083	96.01649	PB	ICPMS	8.27	0.71	UG/G	3/19/96	
95DS084	96.01650	PB	ICPMS	475.	23.	UG/G	3/19/96	
95DS085	96.01651	PB	ICPMS	3220.	470.	UG/G	3/19/96	

CUSTOMER SAMPLE DUPLICATES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	PB	ICPMS	35.	1.	UG/G	3/19/96	

MATRIX SPIKES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	AMOUNT SPIKED	AMOUNT RECOVERED	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	PB	ICPMS	98.	0.0	UG/G	3/19/96	120 4/2/96

REPORT NUMBER: 39935 (continued)

***** CST QUALITY ASSURANCE REPORT *****

Prepared by: CAF on 20-Mar-1996

REQUEST NUMBER: 23122 MATRIX: MS ANALYST: IMS PROGRAM CODE: CM31

OWNER: Dustie L. Stephens GROUP: ESH-19 MAIL-STOP: K698 PHONE: 5-0792

NOTEBOOK: CST9130 PAGE: 69

SUMMARY OF CONTROL STATUS OF OPEN (NON-BLIND) QC SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	QC VALUE	QC UNCERTAINTY	COMPLETION DATE	COMMENT
00.30469	PB	178.	22.	MG/KG	147.	73.5	3/20/96	UNDER CONTROL

SUMMARY OF CONTROL STATUS OF BLIND QC SAMPLES RUN WITH THIS BATCH

There were no blind Quality Control materials run with the samples reported above for one of the following reasons:

- Only qualitative data requested
- Only Open (non-blind) QC samples run with this sample batch.
- No QC samples run with this sample batch.
- No QC samples for this constituent and matrix type available within CST

REPORT NUMBER: 39935

<u>C. Fedrini</u> Analyst	<u>W. M. M. K.</u> Reviewer	<u>[Signature]</u> Team Leader	_____ QA Officer
<u>3-20-96</u> Date	<u>3/20/96</u> Date	<u>4/3/96</u> Date	_____ Date

No Sample Discrepancies Noted by Sample Management Section

The control status of the preceding data was evaluated using the standard statistical criteria set forth in 'Quality Assurance for Health and Environmental Chemistry: 1992,' LA-12790-MS, Vol. 1, pp. 19-20.

REPORT NUMBER: 40108

***** CST ANALYTICAL REPORT *****

Prepared by: LRB on 1-Apr-1996

REQUEST NUMBER: 23122 MATRIX: MS ANALYST: AAS PROGRAM CODE: C431

OWNER: Dustie L. Stephens GROUP: ESH-19 MAIL-STOP: K498 PHONE: 5-0792

NOTEBOOK: CST9127 PAGE: 15

CUSTOMER SAMPLES:

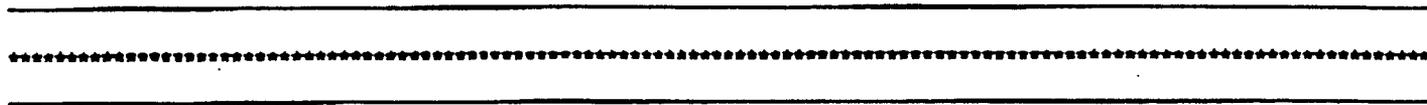
CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	AS	ETVAA	6.8	1.4	UG/G	3/12/96	
95DS074	96.01640	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS074	96.01640	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS075	96.01641	AS	ETVAA	98.	20.	UG/G	3/12/96	
95DS075	96.01641	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS075	96.01641	SE	ETVAA	0.4	0.3	UG/G	3/25/96	
95DS076	96.01642	AS	ETVAA	1.	0.5	UG/G	3/12/96	
95DS076	96.01642	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS076	96.01642	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS077	96.01643	AS	ETVAA	1.6	0.5	UG/G	3/25/96	
95DS077	96.01643	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS077	96.01643	SE	ETVAA	0.3	0.3	UG/G	3/25/96	
95DS078	96.01644	AS	ETVAA	1.6	0.5	UG/G	3/25/96	
95DS078	96.01644	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS078	96.01644	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS079	96.01645	AS	ETVAA	2.2	0.5	UG/G	3/25/96	
95DS079	96.01645	HG	CVAA	0.14	0.09	UG/G	3/29/96	
95DS079	96.01645	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS080	96.01646	AS	ETVAA	1.7	0.5	UG/G	3/25/96	
95DS080	96.01646	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS080	96.01646	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS081	96.01647	AS	ETVAA	1.2	0.5	UG/G	3/25/96	
95DS081	96.01647	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS081	96.01647	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS082	96.01648	AS	ETVAA	0.9	0.5	UG/G	3/25/96	
95DS082	96.01648	HG	CVAA	0.43	0.14	UG/G	3/29/96	
95DS082	96.01648	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS083	96.01649	AS	ETVAA	1.	0.5	UG/G	3/25/96	
95DS083	96.01649	HG	CVAA	0.21	0.1	UG/G	3/29/96	
95DS083	96.01649	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS084	96.01650	AS	ETVAA	7.	1.4	UG/G	3/25/96	
95DS084	96.01650	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS084	96.01650	SE	ETVAA	0.8	0.3	UG/G	3/25/96	
95DS085	96.01651	AS	ETVAA	4.2	0.8	UG/G	3/25/96	
95DS085	96.01651	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS085	96.01651	SE	ETVAA	0.8	0.3	UG/G	3/25/96	

CUSTOMER SAMPLE DUPLICATES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	AS	ETVAA	11.	2.	UG/G	3/12/96	
95DS074	96.01640	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS074	96.01640	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS074	96.01640	SE	ETVAA	< 0.3		UG/G	3/25/96	
95DS075	96.01641	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS075	96.01641	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS076	96.01642	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS076	96.01642	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS077	96.01643	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS077	96.01643	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS078	96.01644	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS078	96.01644	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS079	96.01645	HG	CVAA	0.1	0.1	UG/G	3/29/96	
95DS079	96.01645	HG	CVAA	0.09	0.09	UG/G	3/29/96	
95DS080	96.01646	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS080	96.01646	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS081	96.01647	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS081	96.01647	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS082	96.01648	HG	CVAA	0.35	0.14	UG/G	3/29/96	
95DS082	96.01648	HG	CVAA	0.29	0.14	UG/G	3/29/96	
95DS083	96.01649	HG	CVAA	0.23	0.1	UG/G	3/29/96	
95DS083	96.01649	HG	CVAA	0.22	0.1	UG/G	3/29/96	
95DS084	96.01650	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS084	96.01650	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS085	96.01651	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	
95DS085	96.01651	HG	CVAA	< 0.1	0.1	UG/G	3/29/96	

MATRIX SPIKES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	AMOUNT SPIKED	AMOUNT RECOVERED	UNITS	COMPLETION DATE	COMMENT
95DS074	96.01640	AS	ETVAA	10.	21.6	UG/L	3/12/96	
95DS074	96.01640	HG	CVAA	0.85	0.93	UG/G	3/29/96	
95DS074	96.01640	SE	ETVAA	10.	8.3	UG/L	3/25/96	



REPORT NUMBER: 40108 (continued)

***** CST QUALITY ASSURANCE REPORT *****

Prepared by: LRB on 1-Apr-1996

REQUEST NUMBER: 23122 MATRIX: NS ANALYST: AAS PROGRAM CODE: CN31
 OWNER: Dustie L. Stephens GROUP: ESH-19 MAIL-STOP: K498 PHONE: 5-0792
 NOTEBOOK: CST9127 PAGE: 15

SUMMARY OF CONTROL STATUS OF OPEN (NON-BLIND) QC SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	QC VALUE	QC UNCERTAINTY	COMPLETION DATE	COMMENT
00.30469	AS	74.	15.	MG/KG	128.	71.	3/25/96	UNDER CONTROL
00.30469	HG	4.67	0.1	MG/KG	4.85	2.4	3/29/96	UNDER CONTROL
00.30469	SE	56.	12.	MG/KG	101.	55.	3/25/96	UNDER CONTROL

SUMMARY OF CONTROL STATUS OF BLIND QC SAMPLES RUN WITH THIS BATCH

There were no blind Quality Control materials run with the samples reported above for one of the following reasons:

- Only qualitative data requested
- Only Open (non-blind) QC samples run with this sample batch.
- No QC samples run with this sample batch.
- No QC samples for this constituent and matrix type available within CST

REPORT NUMBER: 40108

W. Brooker
Analyst

William Kelly
Reviewer

J. J. Doorn
Team Leader

QA Officer

April 1, 1996
Date

4/1/96
Date

4/2/96
Date

Date

No Sample Discrepancies Noted by Sample Management Section

COPY

WASTE DATA FORM

Container #: C96067530 *C96067530* WDR #: 3002406 *3002406* DIS/TRE #: 96481 *96481*	WMC : STADELMAIER AL Z # : 095169 Phone : 79746 TA : 16 Building: BURN Room:
--	---

LESS THAN 90 DAYS (START DATE: 27-FEB-96)

Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S. Hazard Class: 9 DOT ID#: NA3077 Packing Group: III Secondary Label: Technical Name: (CONTAINS CADMIUM, LEAD) Additional Desc: Haz Substance: ERG#: 31 ESA/SCO Group:

Waste Code: C0 - CHEMICAL WASTE Storage Code: UNSTOR Bldg: Row: Col: Layer:	Other Con #: Container Type: DM Volume: 55G Container Gross Wgt: Net Wgt: 500p
Treat/Disp Loc: KET Transported By: TRISTA Other Document: 95741962 AreaG/J Loc: Treat/Disp By: CWM Treat/Disp Date: 18-JUN-96 TSDF Date: 21-JUN-96 Destruction #: Destruction Date:	Reviewed By: 115370 Data Entry By: 115370 DOT Check By: Accumulation Start Date: 27-FEB-96 Picked Up By/Date&Time: 088896 / 21-MAY-96 10:00 Load Check By/Date: 094923 / 21-MAY-96 Pickup Update Check By: Off-Site Check By/Date: Update By/Date: 111093 / 11-JUL-96 Final Update Check By:

Item 2055834: INCINERATOR ASH, 96D5084
 Generator: VELARDE PETER JR Group: ESAWMA Phone: 79746
 WPN: 23496 Phy_state: S Volume: 55 Gallon Weight: 500 Pound
 EPA Code: D006 CADMIUM
 D007 CHROMIUM
 D008 LEAD

COPY

WASTE DATA FORM

Container # : C96067531 *C96067531* WDR # : 3002406 *3002406* DIS/TRE # : 96481 *96481*	WMC : STADELMAIER AL Z # : 095169 Phone : 79746 TA : 16 Building : BURN Room :
---	---

LESS THAN 90 DAYS (START DATE: 27-FEB-96)

Shipping Name : HAZARDOUS WASTE, SOLID, N.O.S.
Hazard Class : 9 DOT ID# : NA3077 Packing Group : III
Secondary Label : (CONTAINS CADMIUM, LEAD)
Technical Name : (CONTAINS CADMIUM, LEAD)
Additional Desc : ERG# : 31
Haz Substance : ESA/SCO Group :

Waste Code : C0 - CHEMICAL WASTE Storage Code : UNSTOR Bldg : Row : Col : Layer :	Other Con # : Container Type : DM Volume : 55G Container Gross Wgt : Net Wgt : 500p
Treat/Disp Loc : KET Transported By : TRISTA Other Document : 95741962 AreaG/J Loc : Treat/Disp By : CWM Treat/Disp Date : 18-JUN-96 TSDP Date : 21-JUN-96 Destruction # : Destruction Date :	Reviewed By : 115370 Data Entry By : 115370 DOT Check By : Accumulation Start Date : 27-FEB-96 Picked Up By/Date&Time: 088896 / 21-MAY-96 10:00 Load Check By/Date: 094923 / 21-MAY-96 Pickup Update Check By : Off-Site Check By/Date : Update By/Date : 111093 / 11-JUL-96 Final Update Check By :

Item 2055833: INCINERATOR ASH, 96D5084
 Generator : VELARDE PETER JR Group : ESAWMA Phone : 79746
 WPN : 23496 Phy_state: S Volume : 55 Gallon Weight : 500 Pound
 EPA Code : D006 CADMIUM
 D007 CHROMIUM
 D008 LEAD

Accurate Information

For rapid processing, complete all sections in black or blue ink and mail this form to Waste Services Group at MS J579

Reference Number
26159

Waste Generator's Name (Print) Robert Garcia		Number 076368	Waste Management Coordinator's Name (Print) Albert Stadelmaier		Number 095169
Generator's Group ESA-WMM	Generator's Telephone 7-6891	Generator's Mail Stop C-930	Waste Stream Technical Area 16	Building 302	Room outside
Waste Accumulation Check as many as apply.			Site no.:		
<input type="checkbox"/> Satellite accumulation area →			site no.: 80 per WMC 78		
<input checked="" type="checkbox"/> Less than 90 day accumulation area →			site no.:		
<input type="checkbox"/> Radioactive Materials Management Area (RMMA) →			site no.:		
<input type="checkbox"/> None of the above					
Method of Characterization Check as many as apply.			<input type="checkbox"/> MSDS attached		
<input type="checkbox"/> Acceptable Knowledge (AK)			<input type="checkbox"/> Request for analysis		
<input checked="" type="checkbox"/> Analytical → serological no. _____					

Section 1 - Chemical and Physical Characteristics

For help in completing this section of the form, see S-WAST or S-400.

<p>Waste Type Check only one.</p> <p><input type="checkbox"/> Unused/transport chemical <small>Check Waste Characterization and Associated Documentation Only</small></p> <p><input checked="" type="checkbox"/> Process waste/transport chemical <small>Complete all of Section 1.</small></p>	<p>Waste Category Check as many as apply.</p> <p><input type="checkbox"/> Solvent</p> <p><input type="checkbox"/> Degreaser</p> <p><input type="checkbox"/> Dye</p> <p><input type="checkbox"/> Electroplating</p> <p><input type="checkbox"/> Toxic hazardous waste <small>residue</small></p> <p><input type="checkbox"/> Synthetic process waste</p> <p><input type="checkbox"/> Microbiological waste</p> <p><input type="checkbox"/> Polymer</p> <p><input type="checkbox"/> Acetone-triable</p> <p><input type="checkbox"/> Acetone-ventilable</p> <p><input type="checkbox"/> Empty containers</p> <p><input type="checkbox"/> PCB (< 50 ppm)</p> <p><input type="checkbox"/> PCB (50 - 500 ppm)</p> <p><input type="checkbox"/> PCB (> 500 ppm)</p> <p>IL No.:</p> <p><input checked="" type="checkbox"/> Not applicable → describe below</p>	<p>Waste Source Check as many as apply.</p> <p><input checked="" type="checkbox"/> Research and development <small>per WMC 78</small></p> <p><input type="checkbox"/> Maintenance</p> <p><input type="checkbox"/> Construction</p> <p><input type="checkbox"/> Material processing</p> <p><input type="checkbox"/> Color/Ink</p> <p><input type="checkbox"/> Investigation derived</p> <p><input type="checkbox"/> Remedial</p> <p><input type="checkbox"/> UST - petroleum</p> <p><input type="checkbox"/> UST - non-petroleum</p> <p><input type="checkbox"/> Generator treatment</p> <p><input type="checkbox"/> Interim/parallel treatment</p> <p><input type="checkbox"/> Industrial sludge</p> <p><input type="checkbox"/> Sanitary sludge</p> <p><input type="checkbox"/> Abstrant</p>	<p>Waste Matrix Check only one.</p> <p>Gas</p> <p><input type="checkbox"/> ≤ 1.5 Atmospheres</p> <p><input type="checkbox"/> > 1.5 Atmospheres</p> <p>Liquid</p> <p><input type="checkbox"/> Aqueous</p> <p><input type="checkbox"/> Organic</p> <p><input type="checkbox"/> Inorganic</p> <p>Solid</p> <p><input checked="" type="checkbox"/> Powder/ash</p> <p><input type="checkbox"/> Solid</p> <p><input type="checkbox"/> Absorbed liquid</p>
<p>Waste Classes Check as many as apply.</p> <p><input checked="" type="checkbox"/> On-going generation</p> <p><input type="checkbox"/> One-time generation</p> <p><input type="checkbox"/> Radioactive (complete Sec. 2)</p> <p><input checked="" type="checkbox"/> Non-radioactive</p> <p><input type="checkbox"/> Wastewater (complete Sec. 3)</p> <p><input type="checkbox"/> Classified/Sensitive</p>	<p>Associated Documentation Check as many as apply.</p> <p><input type="checkbox"/> Process SOP → no. _____</p> <p><input type="checkbox"/> RMMA OP → no. _____</p> <p><input type="checkbox"/> WMI SOP → no. _____</p> <p><input type="checkbox"/> Other → _____</p> <p><input checked="" type="checkbox"/> None → describe below</p>		<p>Matrix Type Check only one.</p> <p><input type="checkbox"/> Homogeneous</p> <p><input checked="" type="checkbox"/> Heterogeneous → describe below</p>

Waste/Process Description

Incinerator ash collected on 3-12-97

Sample number 97DS100 4-16-97DS

Section 1- Chemical and Physical Characteristics (continued)

Ignitability (degrees F.) Check only one. <input type="checkbox"/> < 73 <input type="checkbox"/> 73-99 <input type="checkbox"/> 100-139 <input type="checkbox"/> 140-200 <input type="checkbox"/> > 200 <input type="checkbox"/> Ignitable solid <input type="checkbox"/> DOT oxidizer <input checked="" type="checkbox"/> Not ignitable	Corrosivity (pH) Check only one. <input type="checkbox"/> ≤ 2.0 <input type="checkbox"/> 2.1-4.0 <input type="checkbox"/> 4.1-6.0 <input type="checkbox"/> 6.1-8.0 <input type="checkbox"/> 8.1-12.4 <input type="checkbox"/> ≥ 12.5 <input type="checkbox"/> Liquid corrosive to steel <input checked="" type="checkbox"/> Not aqueous	Reactivity Check as many as apply. <input type="checkbox"/> Unstable <input type="checkbox"/> Water reactive <input type="checkbox"/> Pyrophoric <input type="checkbox"/> Cyanide bearing <input type="checkbox"/> Sulfide bearing <input type="checkbox"/> Shock sensitive <input type="checkbox"/> Explosive - class _____ <input checked="" type="checkbox"/> Non-reactive	Boiling Point (degrees F.) Check only one. <input type="checkbox"/> ≤ 95 <input type="checkbox"/> > 95 <input checked="" type="checkbox"/> Not applicable
--	---	---	--

Identify presence of constituents.		Minimum	Maximum	Unit (ppm or % only)	Analytical method
Toxicity Characteristic Metals					
Arsenic	<input type="checkbox"/> None	<input type="checkbox"/> < 2.0 ppm	_____	_____	<input type="checkbox"/> Total
Barium	<input type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	_____	_____	<input type="checkbox"/> Total
Cadmium	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____	_____	<input type="checkbox"/> Total
Chromium	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____	_____	<input type="checkbox"/> Total
Lead	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____	_____	<input type="checkbox"/> Total
Mercury	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____	_____	<input type="checkbox"/> Total
Selenium	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____	_____	<input type="checkbox"/> Total
Silver	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____	_____	<input type="checkbox"/> Total
Toxicity Characteristic Organic Compounds					
Benzene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____	_____	<input type="checkbox"/> Total
Carbon tetrachloride	<input type="checkbox"/> None	<input type="checkbox"/> < 2.5 ppm	_____	_____	<input type="checkbox"/> Total
Chlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	_____	_____	<input type="checkbox"/> Total
Chloroform	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____	_____	<input type="checkbox"/> Total
Cresol	<input type="checkbox"/> None	<input type="checkbox"/> < 200.0 ppm	_____	_____	<input type="checkbox"/> Total
1,4-Dichlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 7.5 ppm	_____	_____	<input type="checkbox"/> Total
1,2-Dichloroethane	<input type="checkbox"/> None	<input type="checkbox"/> < 2.5 ppm	_____	_____	<input type="checkbox"/> Total
1,1-Dichloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.7 ppm	_____	_____	<input type="checkbox"/> Total
2,4-Dichloropheno	<input type="checkbox"/> None	<input type="checkbox"/> < 0.15 ppm	_____	_____	<input type="checkbox"/> Total
Hexachlorobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.15 ppm	_____	_____	<input type="checkbox"/> Total
Hexachlorocyclopentadiene	<input type="checkbox"/> None	<input type="checkbox"/> < 2.5 ppm	_____	_____	<input type="checkbox"/> Total
Hexachloroethane	<input type="checkbox"/> None	<input type="checkbox"/> < 1.0 ppm	_____	_____	<input type="checkbox"/> Total
Methyl ethyl ketone	<input type="checkbox"/> None	<input type="checkbox"/> < 2.0 ppm	_____	_____	<input type="checkbox"/> Total
Nitrobenzene	<input type="checkbox"/> None	<input type="checkbox"/> < 100.0 ppm	_____	_____	<input type="checkbox"/> Total
Perchloroethane	<input type="checkbox"/> None	<input type="checkbox"/> < 5.0 ppm	_____	_____	<input type="checkbox"/> Total
Pyridine	<input type="checkbox"/> None	<input type="checkbox"/> < 0.7 ppm	_____	_____	<input type="checkbox"/> Total
Perchloroethylene or tetrachloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> < 2.5 ppm	_____	_____	<input type="checkbox"/> Total
Trichloroethylene	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____	_____	<input type="checkbox"/> Total
2,4,5-Trichloropheno	<input type="checkbox"/> None	<input type="checkbox"/> < 2.5 ppm	_____	_____	<input type="checkbox"/> Total
2,4,6-Trichloropheno	<input type="checkbox"/> None	<input type="checkbox"/> < 2.5 ppm	_____	_____	<input type="checkbox"/> Total
Vinyl chloride	<input type="checkbox"/> None	<input type="checkbox"/> < 0.5 ppm	_____	_____	<input type="checkbox"/> Total

Additional Chemical Constituents and Contaminants (for hazardous constituents, see AIR 10-6, Appendix A)
 List all other constituents (including isomers) not identified above and attach any applicable analysis.

Name of constituent	CAS no. (optional)	Minimum	Maximum	Unit (ppm or % only)
Dash		98	100	0%
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

REPORT NUMBER: 43571

***** CST ANALYTICAL REPORT *****

Prepared by: MRC

REQUEST NUMBER: 24572

MATRIX: SE

ANALYST:

13

OWNER: Dustie L. Stephens

GROUP: ESH-19

NOTEBOOK: 51002L PAGE: 52

CUSTOMER SAMPLES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
97DS100	97.02250	AS	ETVAA	7.	13.	UG/L	4/01/97	
97DS100	97.02250	HG	CVAA	< 0.2		UG/L	3/28/97	
97DS100	97.02250	SE	ETVAA	< 6.		UG/L	4/03/97	
97DS101	97.02251	AS	ETVAA	< 3.		UG/L	4/01/97	
97DS101	97.02251	HG	CVAA	< 0.2		UG/L	3/28/97	
97DS101	97.02251	SE	ETVAA	< 6.		UG/L	4/03/97	
97DS102	97.02252	AS	ETVAA	< 3.		UG/L	4/01/97	
97DS102	97.02252	HG	CVAA	< 0.2		UG/L	3/28/97	
97DS102	97.02252	SE	ETVAA	< 6.		UG/L	4/03/97	
97DS103	97.02253	AS	ETVAA	< 3.		UG/L	4/01/97	
97DS103	97.02253	HG	CVAA	0.4	0.2	UG/L	3/28/97	
97DS103	97.02253	SE	ETVAA	< 6.		UG/L	4/03/97	

CUSTOMER SAMPLE DUPLICATES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
97DS100	97.02250	AS	ETVAA	12.	6.	UG/L	4/01/97	TCLP DUPLICATE
97DS100	97.02250	AS	ETVAA	< 7.		UG/L	4/01/97	
97DS100	97.02250	HG	CVAA	< 0.2		UG/L	3/28/97	
97DS100	97.02250	SE	ETVAA	< 6.		UG/L	4/03/97	
97DS100	97.02250	SE	ETVAA	< 6.		UG/L	4/03/97	TCLP DUPLICATE
97DS101	97.02251	HG	CVAA	< 0.2		UG/L	3/28/97	
97DS102	97.02252	HG	CVAA	< 0.2		UG/L	3/28/97	
97DS103	97.02253	HG	CVAA	0.3		UG/L	3/28/97	

MATRIX SPIKES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	AMOUNT SPIKED	AMOUNT RECOVERED	UNITS	COMPLETION DATE	COMMENT
97DS100	97.02250	AS	ETVAA	11.1	7.	UG/L	4/01/97	SPIKE NEAR DL
97DS100	97.02250	HG	CVAA	2.	1.9	UG/L	3/28/97	
97DS100	97.02250	SE	ETVAA	11.1		UG/L	4/03/97	SPIKE NEAR DL

REPORT NUMBER: 43571 (continued)

***** CST QUALITY ASSURANCE REPORT *****

Prepared by: MBG on 3-Apr-1997

REQUEST NUMBER: 24572 MATRIX: SE ANALYST: AAS

PROGRAM CODE: X413

OWNER: Dustie L. Stephens GROUP: ESH-19 MAIL-STOP: K498 PHONE: 5-0792

NOTEBOOK: S100ZL PAGE: 52

SUMMARY OF CONTROL STATUS OF OPEN (NON-BLIND) QC SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	QC VALUE	QC UNCERTAINTY	COMPLETION DATE	COMMENT
00.35703	AS	140.	12.	UG/L	147.	21.	4/01/97	UNDER CONTROL
00.35703	HG	14.	0.8	UG/L	15.3	2.5	3/28/97	UNDER CONTROL
00.35703	SE	135.	24.	UG/L	129.	18.	4/03/97	UNDER CONTROL

SUMMARY OF CONTROL STATUS OF BLIND QC SAMPLES RUN WITH THIS BATCH

There were no blind Quality Control materials run with the samples reported above for one of the following reasons:

- Only qualitative data requested
- Only Open (non-blind) QC samples run with this sample batch.
- No QC samples run with this sample batch.
- No QC samples for this constituent and matrix type available within CST

REPORT NUMBER: 43571

Michelle B. Gross
Analyst

[Signature]
Reviewer

[Signature]
Team Leader

NK for MAG
QA Officer

4-3-97
Date

4/3/97
Date

4/2/97
Date

4/9/97
Date

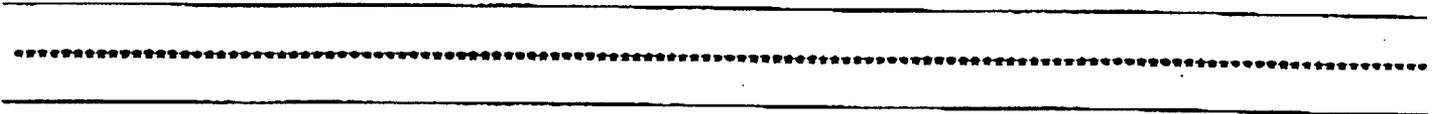
No Sample Discrepancies Noted by Sample Management Section

SENT BY:LANL

: 3-17-99 : 2:33PM :

CST-17→

1 505 667 5734:# 4/11



REPORT NUMBER: 43482

CST ANALYTICAL REPORT

Prepared by: KLAO

on 26-Mar-1997

REQUEST NUMBER: 24572 MATRIX: SE ANALYST: IMS

PROGRAM CODE: x413

OWNER: Dottie L. Stephens

GROUP: ESH-19

MAIL-STOP: K498

PHONE: 5-0792

NOTEBOOK:

PAGE:

CUSTOMER SAMPLES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
97DS100	97.02250 PB		ICPMS	75.	27.	UG/L	3/24/97	
97DS101	97.02251 PB		ICPMS	< 27.		UG/L	3/24/97	
97DS102	97.02252 PB		ICPMS	< 27.		UG/L	3/24/97	
97DS103	97.02253 PB		ICPMS	< 27.		UG/L	3/24/97	

CUSTOMER SAMPLE DUPLICATES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
97DS100	97.02250 PB		ICPMS	47.	27.	UG/L	3/24/97	TCLP DUP
97DS100	97.02250 PB		ICPMS	72.	27.	UG/L	3/24/97	

MATRIX SPIKES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	AMOUNT SPIKED	AMOUNT RECOVERED	UNITS	COMPLETION DATE	COMMENT
97DS100	97.02250 PB		ICPMS	11.1	12.	UG/L	3/24/97	

REPORT NUMBER: 43482 (continued)

***** CST QUALITY ASSURANCE REPORT *****

Prepared by: KLAB on 26-Mar-1997

REQUEST NUMBER: 24572 MATRIX: SE ANALYST: IMS PROGRAM CODE: X413

OWNER: Dustie L. Stephens GROUP: ESH-19 MAIL-STOP: K498 PHONE: 5-0792

NOTEBOOK: PAGE:

SUMMARY OF CONTROL STATUS OF OPEN (NON-BLIND) QC SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	QC VALUE	QC UNCERTAINTY	COMPLETION DATE	COMMENT
00.35703	PB	348.	27.	UG/L	353.	43.	3/24/97	UNDER CONTROL

SUMMARY OF CONTROL STATUS OF BLIND QC SAMPLES RUN WITH THIS BATCH

There were no blind Quality Control materials run with the samples reported above for one of the following reasons:

- Only qualitative data requested
- Only Open (non-blind) QC samples run with this sample batch.
- No QC samples run with this sample batch.
- No QC samples for this constituent and matrix type available within CST

REPORT NUMBER: 43482

[Signature]
Analyst

[Signature]
Reviewer

[Signature]
Team Leader

[Signature]
QA Officer

[Signature]
Date

[Signature]
Date

[Signature]
Date

[Signature]
Date

No Sample Discrepancies Noted by Sample Management Section

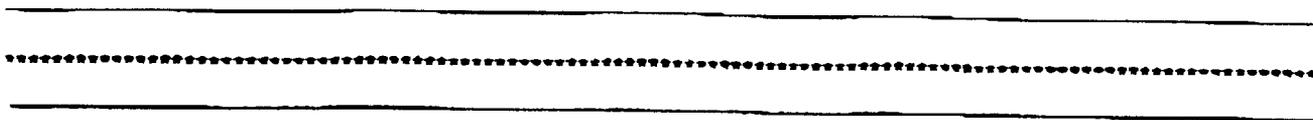
The control status of the preceding data was evaluated using the standard statistical criteria set forth in 'Quality Assurance for Health and Environmental Chemistry: 1992,' LA-12790-MS, Vol. I, pp. 19-20.

SENT BY:LANL

: 3-17-99 : 2:34PM :

CST-17→

1 505 667 5734:# 7/11



REPORT NUMBER: 43487

***** CST ANALYTICAL REPORT *****

Prepared by: J.A. KENNISON on 26-Mar-1997

REQUEST NUMBER: 24572 MATRIX: SE ANALYST: OES PROGRAM CODE: X413

OWNER: Duatie L. Stephens GROUP: ESH-19 MAIL-STOP: K498 PHONE: 5-0792

NOTEBOOK: 9224 PAGE: 34

CUSTOMER SAMPLES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
97DS100	97.02250	AG	ICPES	< 0.01		MG/L	3/25/97	
97DS100	97.02250	BA	ICPES	4.8	0.02	MG/L	3/25/97	
97DS100	97.02250	CD	ICPES	0.007	0.007	MG/L	3/25/97	
97DS100	97.02250	CR	ICPES	< 0.007		MG/L	3/25/97	
97DS101	97.02251	AG	ICPES	< 0.01		MG/L	3/25/97	
97DS101	97.02251	BA	ICPES	2.2	0.01	MG/L	3/25/97	
97DS101	97.02251	CD	ICPES	< 0.007		MG/L	3/25/97	
97DS101	97.02251	CR	ICPES	0.007	0.007	MG/L	3/25/97	
97DS102	97.02252	AG	ICPES	< 0.01		MG/L	3/25/97	
97DS102	97.02252	BA	ICPES	2.4	0.002	MG/L	3/25/97	
97DS102	97.02252	CD	ICPES	< 0.007		MG/L	3/25/97	
97DS102	97.02252	CR	ICPES	0.01	0.007	MG/L	3/25/97	
97DS103	97.02253	AG	ICPES	< 0.01		MG/L	3/25/97	
97DS103	97.02253	BA	ICPES	10.	0.1	MG/L	3/25/97	
97DS103	97.02253	CD	ICPES	< 0.007		MG/L	3/25/97	
97DS103	97.02253	CR	ICPES	0.018	0.007	MG/L	3/25/97	

CUSTOMER SAMPLE DUPLICATES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	COMPLETION DATE	COMMENT
97DS100	97.02250	AG	ICPES	< 0.01		MG/L	3/25/97	
97DS100	97.02250	BA	ICPES	4.9	0.005	MG/L	3/25/97	
97DS100	97.02250	CD	ICPES	0.007	0.007	MG/L	3/25/97	
97DS100	97.02250	CR	ICPES	< 0.007		MG/L	3/25/97	

MATRIX SPIKES:

CUSTOMER NUM	SAMPLE NUM	ANALYSIS	ANALYTICAL TECHNIQUE	AMOUNT SPIKED	AMOUNT RECOVERED	UNITS	COMPLETION DATE	COMMENT
97DS100	97.02250	AG	ICPES	0.055	0.053	MG/L	3/25/97	
97DS100	97.02250	BA	ICPES	0.055	0.139	MG/L	3/25/97	
97DS100	97.02250	CD	ICPES	0.055	0.05	MG/L	3/25/97	

SENT BY:LANL

: 3-17-99 : 2:35PM :

CST-17-

1 505 667 5734:# 9/11

97DS100

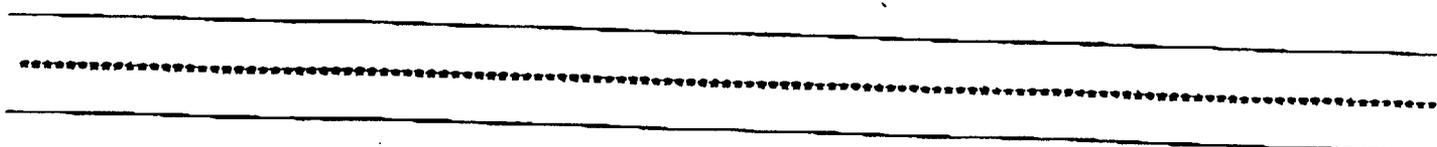
97.02250 CR

ICPES

0.055

0.052 MG/L

3/25/97



REPORT NUMBER: 43487 (continued)

***** CST QUALITY ASSURANCE REPORT *****

Prepared by: J.A. KENNISON on 26-Mar-1997

REQUEST NUMBER: 24572 MATRIX: SE ANALYST: OES PROGRAM CODE: X413

OWNER: Duatie L. Stephens GROUP: ESH-19 MAIL-STOP: K498 PHONE: 5-0792

NOTEBOOK: 9224 PAGE: 34

SUMMARY OF CONTROL STATUS OF OPEN (NON-BLIND) QC SAMPLES RUN WITH THIS BATCH

SAMPLE NUM	ANALYSIS	ANALYTICAL RESULT	ANALYTICAL UNCERTAINTY	UNITS	QC VALUE	QC UNCERTAINTY	COMPLETION DATE	COMMENT
00.35703	AG	50.	10.	UG/L	64.7	7.7	3/25/97	UNDER CONTROL
00.35703	BA	370.	6.	UG/L	406.	49.	3/25/97	UNDER CONTROL
.35703	CD	69.	7.	UG/L	82.4	9.9	3/25/97	UNDER CONTROL
00.35703	CR	470.	12.	UG/L	529.	63.	3/25/97	UNDER CONTROL

SUMMARY OF CONTROL STATUS OF BLIND QC SAMPLES RUN WITH THIS BATCH

There were no blind Quality Control materials run with the samples reported above for one of the following reasons:

- Only qualitative data requested
- Only Open (non-blind) QC samples run with this sample batch.
- No QC samples run with this sample batch.
- No QC samples for this constituent and matrix type available within CST

REPORT NUMBER: 43487

J.A. Kennison
Analyst

Mark L. ...
Reviewer

A. ...
Team Leader

NK/MAG
QA Officer

3/26/97
Date

3/26/97
Date

4/2/97
Date

4/9/97
Date

No Sample Discrepancies Noted by Sample Management Section

The control status of the preceeding data was evaluated using the standard statistical criteria set forth in
'Quality Assurance for Health and Environmental Chemistry: 1992,' LA-12790-MS, Vol. 1, pp. 19-20.

.....

WASTE PROFILE FORM

29641

Contact (if other than given below)

For rapid processing complete all section in black or blue ink and mail to:
EM-SWO at MS J595.
For assistance with completing this form, call EM-SWO at 5-4000.

Reference Number
(For EM-SWO Use Only)

Generator's Z Number 076368	Waste Generator's Name (print) Robert Garcia	WMC's Z Number 095169	WMC's Name (print) Albert Stadelmaier		
Generator's Telephone 7-6891	Generator's Mail Stop C-930	Waste Generating Group ESA-WMM	Waste Stream Technical Area 16	Building 386	Room NA

Waste Accumulation (Check only one)

<input type="checkbox"/> Satellite Accumulation Area	Site No.: _____
<input checked="" type="checkbox"/> Less-than-90-day Storage Area	Site No.: 1217
<input type="checkbox"/> TSDF	Site No.: _____
<input type="checkbox"/> Universal Waste Storage Area	Site No.: _____
<input type="checkbox"/> None of the above	

ER Use Only ER Site PRS #: _____

Method of Characterization (Check as many as apply)

<input checked="" type="checkbox"/> Analysis/Documents Attached	<input checked="" type="checkbox"/> Chemical / Physical Analysis	Sample # <u>DS98459</u>
<input type="checkbox"/>	<input type="checkbox"/> Radiological Analysis	Sample # _____
<input type="checkbox"/>	<input type="checkbox"/> PCB Analysis	Sample # _____
<input type="checkbox"/>	<input type="checkbox"/> Acceptable Knowledge Documentation	Documentation # _____
<input type="checkbox"/>	<input type="checkbox"/> MSDS	

Section I - Chemical and Physical Information

Waste Type (Check only one)	Waste Category (Check as many as apply)	Waste Sources (Check only one)	Waste Matrix (Check only one)
<input type="checkbox"/> Unused/Unspent Chemical (Complete all sections as appropriate) <input checked="" type="checkbox"/> Process Waste/Spent Chemical/ other (Complete all of sections) <input type="checkbox"/> "Green is Clean" Waste (Complete all sections as appropriate)	<input type="checkbox"/> Inorganic <input checked="" type="checkbox"/> Organic Volatile Organics <input type="checkbox"/> < 500 ppm <input type="checkbox"/> ≥ 500 ppm <input type="checkbox"/> Solvent * <input type="checkbox"/> Degreaser * <input type="checkbox"/> Dioxin <input type="checkbox"/> Electroplating <input type="checkbox"/> Treated hazardous waste residue <input type="checkbox"/> Explosive process <input type="checkbox"/> Infectious/Medical <input type="checkbox"/> Biological <input type="checkbox"/> Beryllium <input type="checkbox"/> Empty Container (See Instructions) <input type="checkbox"/> Battery (See Instructions) Asbestos <input type="checkbox"/> friable <input type="checkbox"/> non-friable PCB Source Concentration <input type="checkbox"/> PCB < 50 ppm <input type="checkbox"/> PCB ≥ 50 - < 500 ppm <input type="checkbox"/> PCB ≥ 500 ppm <input type="checkbox"/> Other (Describe below)	Routine Waste <input type="checkbox"/> Decon <input checked="" type="checkbox"/> Material Processing/Production <input type="checkbox"/> Research/Development/Testing <input type="checkbox"/> Scheduled Maintenance <input type="checkbox"/> Housekeeping - Routine <input type="checkbox"/> Spill Cleanup - Routine <input type="checkbox"/> Sampling - Routine Monitoring <input type="checkbox"/> Other (Describe below) Non-Routine Waste <input type="checkbox"/> Abatement <input type="checkbox"/> Construction/Upgrades <input type="checkbox"/> Demolition <input type="checkbox"/> Decon/Decom <input type="checkbox"/> Investigation derived <input type="checkbox"/> Orphan/Legacy <input type="checkbox"/> Remediation/Restoration <input type="checkbox"/> Repacking (Secondary) <input type="checkbox"/> Unscheduled Maintenance <input type="checkbox"/> Housekeeping - Non-routine <input type="checkbox"/> Spill Cleanup - Non-routine <input type="checkbox"/> UST - Non-petroleum <input type="checkbox"/> UST - Petroleum <input type="checkbox"/> Other (Describe below)	Gas <input type="checkbox"/> ≤ 1.5 Atmosperes Pressure <input type="checkbox"/> > 1.5 Atmosperes pressure <input type="checkbox"/> Liquefied compressed gas Liquid <input type="checkbox"/> Aqueous <input type="checkbox"/> Non-aqueous <input type="checkbox"/> Suspended Solids/aqueous <input type="checkbox"/> Suspended Solids/non-aqueous Solid <input checked="" type="checkbox"/> Powder/Ash <input type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Absorbed liquid
Waste Classes Radiological Information Was Waste Generated in a RCA ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Non-radioactive <input type="checkbox"/> Radioactive <input type="checkbox"/> Low-Level <input type="checkbox"/> Transuranic	* Concentrations 10% or greater before use.		Matrix Type (Check only one) <input checked="" type="checkbox"/> Homogeneous <input checked="" type="checkbox"/> Heterogeneous (Describe below)
Wastewater Information <input type="checkbox"/> Wastewater for SWSC (TA-46) (Complete Attachment 1) <input type="checkbox"/> Wastewater for RLWTF (TA-50/TA-21) (Complete Attachment 2) <input type="checkbox"/> Wastewater for TA-16 (HE)			
Classification Information <input checked="" type="checkbox"/> Unclassified <input type="checkbox"/> Classified/Sensitive			

Waste/Process Description (Chemical formulas may be used in this field)

Incenerator ash. analytical DS98459

Section 2 - Characteristics

Flammability (Check only one.)		Corrosivity (Check only one.)		Reactivity (Check as many as apply.)		Boiling Point (Check only one.)	
(°F)	(°C)	(pH)				(°F)	(°C)
<input type="checkbox"/> < 73	<input type="checkbox"/> < 22.8	<input type="checkbox"/> ≤ 2.0	<input type="checkbox"/> ≤ 2.0	<input type="checkbox"/> RCRA Unstable	<input type="checkbox"/> RCRA Unstable	<input type="checkbox"/> ≤ 95	<input type="checkbox"/> ≤ 35
<input type="checkbox"/> 73 - 99	<input type="checkbox"/> 22.8 - 37.2	<input type="checkbox"/> 2.1 - 4.0	<input type="checkbox"/> 2.1 - 4.0	<input type="checkbox"/> Water Reactive	<input type="checkbox"/> Water Reactive	<input type="checkbox"/> > 95	<input type="checkbox"/> > 35
<input type="checkbox"/> 100 - 139	<input type="checkbox"/> 37.8 - 59.4	<input type="checkbox"/> 4.1 - 6.0	<input type="checkbox"/> 4.1 - 6.0	<input type="checkbox"/> Cyanide Bearing (>250 ppm)	<input type="checkbox"/> Cyanide Bearing (>250 ppm)		
<input type="checkbox"/> 140 - 200	<input type="checkbox"/> 60.0 - 99.3	<input type="checkbox"/> 6.1 - 9.0	<input type="checkbox"/> 6.1 - 9.0	<input type="checkbox"/> Sulfide Bearing (>500 ppm)	<input type="checkbox"/> Sulfide Bearing (>500 ppm)		
<input type="checkbox"/> > 200	<input type="checkbox"/> > 99.3	<input type="checkbox"/> 9.1 - 12.4	<input type="checkbox"/> 9.1 - 12.4	<input type="checkbox"/> Pyrophoric	<input type="checkbox"/> Pyrophoric		
<input type="checkbox"/> EPA Ignitable - Non-liquid		<input type="checkbox"/> ≥ 12.5	<input type="checkbox"/> ≥ 12.5	<input type="checkbox"/> Shock Sensitive	<input type="checkbox"/> Shock Sensitive		
<input type="checkbox"/> DOT Flammable Gas		<input type="checkbox"/> Liquid corrosive to steel	<input type="checkbox"/> Liquid corrosive to steel	<input type="checkbox"/> Explosive - DOT Div. _____	<input type="checkbox"/> Explosive - DOT Div. _____		
<input type="checkbox"/> DOT Oxidizer		<input checked="" type="checkbox"/> Non-aqueous	<input checked="" type="checkbox"/> Non-aqueous	<input checked="" type="checkbox"/> Non-reactive	<input checked="" type="checkbox"/> Non-reactive	<input checked="" type="checkbox"/> Not applicable	<input checked="" type="checkbox"/> Not applicable
<input checked="" type="checkbox"/> Not ignitable							

Identify for all contaminants listed.	Characterization Method			Concentration of Contaminants			
	AK	TCLP	Total	None or Non-Detect	Present Below Regulatory Limit	Above Regulatory Limit	
						Minimum	Maximum
Toxicity Characteristic Metals						(Concentration in ppm only)	
Arsenic	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 5.0 ppm	to	ppm
Barium	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 100.0 ppm	to	ppm
Cadmium	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	< 1.0 ppm	to	ppm
Chromium (Total)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 5.0 ppm	to	ppm
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 5.0 ppm	to	ppm
Mercury	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.2 ppm	to	ppm
Selenium	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 1.0 ppm	to	ppm
Silver	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 5.0 ppm	to	ppm
Toxicity Characteristic Organics							
Benzene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.5 ppm	to	ppm
Carbon tetrachloride	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.5 ppm	to	ppm
Chlorodane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.03 ppm	to	ppm
Chlorobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 100.0 ppm	to	ppm
Chloroform	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 6.0 ppm	to	ppm
o - cresol	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 200.0 ppm	to	ppm
m - cresol	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 200.0 ppm	to	ppm
p - cresol	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 200.0 ppm	to	ppm
Cresol - mixed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 200.0 ppm	to	ppm
2,4-D	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 10.0 ppm	to	ppm
1,4-Dichlorobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 7.5 ppm	to	ppm
1,2-Dichloroethane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.5 ppm	to	ppm
1,1-Dichloroethylene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.7 ppm	to	ppm
2,4-Dinitrotoluene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.13 ppm	to	ppm
Endrin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.02 ppm	to	ppm
Heptachlor (& its epoxide)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.008 ppm	to	ppm
Hexachlorobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.13 ppm	to	ppm
Hexachlorobutadiene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.5 ppm	to	ppm
Hexachloroethane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 3.0 ppm	to	ppm
Lindane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.4 ppm	to	ppm
Methoxychlor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 10.0 ppm	to	ppm
Methyl ethyl ketone	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 200.0 ppm	to	ppm
Nitrobenzene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 2.0 ppm	to	ppm
Pentachlorophenol	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 100.0 ppm	to	ppm
Pyridine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 5.0 ppm	to	ppm
Tetrachloroethylene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.7 ppm	to	ppm
Toxaphene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.5 ppm	to	ppm
Trichloroethylene	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.5 ppm	to	ppm
2,4,5-Trichlorophenol	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 400.0 ppm	to	ppm
2,4,6-Trichlorophenol	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 2.0 ppm	to	ppm
2,4,5- TP (Silvex)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 1.0 ppm	to	ppm
Vinyl chloride	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	< 0.2 ppm	to	ppm



ASSAIGAI ANALYTICAL LABORATORIES, INC.

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LOS ALAMOS NATIONAL LABS
attn: DUSTIE STEPHENS
MAIL STOP K491/ESH-19
LOS ALAMOS, NM 87545

* explanation of codes	
B	analyte detected in Method Blank
E	result is estimated
H	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-9	see footnote

Assaigai Analytical Laboratories, Inc.
Certificate of Analysis

Client: **LOS ALAMOS NATIONAL LABS**
Project: **9807182 MR3C 2541 H832 0000**

William P. Biava
William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client Sample ID: **98DS458** *He ASH 2 401-406* Sample Matrix: **MIXED_SOLID** Sample Collected: **07/21/98 13:00:00**

Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit *	Sequence	Run Date
Test: TCLP SW846-6010 ICP								
9807182-01A	M98581	7440-38-2	Arsenic	ND	mg / L	10	0.4	MW.1998.1080-21 08/12/98
	M98581	7440-39-3	Barium	869	mg / L	20	0.5	MW.1998.1080-22
	M98581	7440-43-9	Cadmium	ND	mg / L	10	0.02	MW.1998.1080-21
	M98581	7440-47-3	Chromium	ND	mg / L	10	0.02	MW.1998.1080-21
	M98581	7782-49-2	Selenium	0.50	mg / L	10	0.05	MW.1998.1080-21
	M98581	7440-22-4	Silver	ND	mg / L	10	0.04	MW.1998.1080-21
Test: TCLP SW846-7000 series AA-FL								
9807182-01A	M98581	7439-92-1	Lead	ND	mg / L	1	0.1	MW.1998.1084-32 08/13/98
Test: TCLP SW846-7470								
9807182-01A	M98575	7439-97-6	Mercury	ND	mg / L	1	0.002	MW.1998.1048-28 08/06/98

Client Sample ID: **98DS459** *INCORPORATION ASH 1* Sample Matrix: **MIXED_SOLID** Sample Collected: **07/21/98 13:00:00**

Fraction	QC Group	CAS #	Result	Units	Dilution Factor	Detection Limit *	Sequence	Run Date
Test: TCLP SW846-6010 ICP								
9807182-02A	M98567	7440-38-2	Arsenic	ND	mg / L	1	0.4	MW.1998.1056-56 08/07/98
	M98567	7440-39-3	Barium	ND	mg / L	1	0.5	MW.1998.1056-56
	M98567	7440-43-9	Cadmium	0.030	mg / L	1	0.02	MW.1998.1056-56
	M98567	7440-47-3	Chromium	ND	mg / L	1	0.02	MW.1998.1056-56



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Assaigai Analytical Laboratories, Inc.
Certificate of Analysis

CI **LOS ALAMOS NATIONAL LABS**
 Project: **9807182 MR3C 2541 H832 0000**

9807182-02A	M98567	7439-92-1	Lead	ND	mg / L	1	0.05	1	MW.1998.1056-56	08/07/98
	M98567	7782-49-2	Selenium	ND	mg / L	1	0.05		MW.1998.1056-56	
	M98567	7440-22-4	Silver	ND	mg / L	1	0.04	1	MW.1998.1056-56	
Test: TCLP SW846-7470										
9807182-02A	M98575	7439-97-6	Mercury	ND	mg / L	1	0.002		MW.1998.1048-27	08/06/98

*** Sample specific analytical Detection Limit is determined by multiplying the sample Dilution Factor by the listed method Detection Limit. ***
 *** Results relate only to the items tested. ***

footnote

This sample was utilized for the matrix spike and duplicate. Please note that the recoveries were outside of QC criteria, suggesting matrix interference problems. This should be taken into account when reviewing the data.

Quality Control Summary

Client: LOS ALAMOS NATIONAL LABS
 P t: 9807182 MR3C 2541 H832 0000

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

QC Type **LCS: Lab Control Spike** QC Matrix **TCLP**

QC Group	Run ID	Result	Units	*	Sequence	Run Date
<i>Test: TCLP SW846-6010 ICP</i>						
M98567	M98567-004	Arsenic	113	(%) Recov	MW.1998.1056-54	08/07/98
M98581	M98581-004	Arsenic	117	(%) Recov	MW.1998.1077-30	08/11/98
M98567	M98567-004	Barium	92	(%) Recov	MW.1998.1056-54	08/07/98
M98581	M98581-004	Barium	93	(%) Recov	MW.1998.1077-30	08/11/98
M98567	M98567-004	Cadmium	103	(%) Recov	MW.1998.1056-54	08/07/98
M98581	M98581-004	Cadmium	105	(%) Recov	MW.1998.1077-30	08/11/98
M98567	M98567-004	Chromium	96	(%) Recov	MW.1998.1056-54	08/07/98
M98581	M98581-004	Chromium	98	(%) Recov	MW.1998.1077-30	08/11/98
M98567	M98567-004	Lead	95	(%) Recov	MW.1998.1056-54	08/07/98
M98581	M98581-004	Selenium	103	(%) Recov	MW.1998.1056-54	08/11/98
M98567	M98567-004	Selenium	103	(%) Recov	MW.1998.1077-30	08/11/98
M98567	M98567-004	Silver	98	(%) Recov	MW.1998.1056-54	08/07/98
M98581	M98581-004	Silver	99	(%) Recov	MW.1998.1077-30	08/11/98
<i>Test: TCLP SW846-7000 series AA-FL</i>						
M98581	M98581-004	Lead	90	(%) Recov	MW.1998.1084-30	08/13/98
<i>Test: TCLP SW846-7470</i>						
M98575	M98575-002	Mercury	100	(%) Recov	MW.1998.1048-9	08/06/98

QC Type **LCSD: Lab Control Spike Duplicate Accuracy** QC Matrix **TCLP**

QC Group	Run ID	Result	Units	*	Sequence	Run Date
<i>Test: TCLP SW846-6010 ICP</i>						
M98567	M98567-005	Arsenic	113	(%) Recov	MW.1998.1056-55	08/07/98
M98581	M98581-005	Arsenic	108	(%) Recov	MW.1998.1077-31	08/11/98
M98567	M98567-005	Barium	94	(%) Recov	MW.1998.1056-55	08/07/98
M98581	M98581-005	Barium	86	(%) Recov	MW.1998.1077-31	08/11/98
M98567	M98567-005	Cadmium	104	(%) Recov	MW.1998.1056-55	08/07/98
M98581	M98581-005	Cadmium	97	(%) Recov	MW.1998.1077-31	08/11/98
M98567	M98567-005	Chromium	97	(%) Recov	MW.1998.1056-55	08/07/98
M98581	M98581-005	Chromium	91	(%) Recov	MW.1998.1077-31	08/11/98
M98567	M98567-005	Lead	100	(%) Recov	MW.1998.1056-55	08/07/98
M98581	M98581-005	Selenium	101	(%) Recov	MW.1998.1056-55	08/11/98
M98567	M98567-005	Selenium	96	(%) Recov	MW.1998.1077-31	08/11/98
M98567	M98567-005	Silver	99	(%) Recov	MW.1998.1056-55	08/07/98
M98581	M98581-005	Silver	92	(%) Recov	MW.1998.1077-31	08/11/98
<i>Test: TCLP SW846-7000 series AA-FL</i>						
M98581	M98581-005	Lead	92	(%) Recov	MW.1998.1084-31	08/13/98

Quality Control Summary

Client: LOS ALAMOS NATIONAL LABS
 Contract: 9807182 MR3C 2541 H832 0000

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Test: TCLP SW846-7470

M98575	M98575-003	Mercury	100	(%) Recov		MW.1998.1048-10	08/06/98
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QC Type: **LCSD: Lab Control Spike Duplicate Precision** QC Matrix: **TCLP**

QC Group	Run ID	Result	Units	*	Sequence	Run Date
Test: TCLP SW846-6010 ICP						
M98567	M98567-005	Arsenic	< 1	(%) RPD	MW.1998.1056-55	08/07/98
M98581	M98581-005	Arsenic	7	(%) RPD	MW.1998.1077-31	08/11/98
M98567	M98567-005	Barium	2	(%) RPD	MW.1998.1056-55	08/07/98
M98581	M98581-005	Barium	7	(%) RPD	MW.1998.1077-31	08/11/98
M98567	M98567-005	Cadmium	1	(%) RPD	MW.1998.1056-55	08/07/98
M98581	M98581-005	Cadmium	8	(%) RPD	MW.1998.1077-31	08/11/98
M98567	M98567-005	Chromium	1	(%) RPD	MW.1998.1056-55	08/07/98
M98581	M98581-005	Chromium	7	(%) RPD	MW.1998.1077-31	08/11/98
M98567	M98567-005	Lead	5	(%) RPD	MW.1998.1056-55	08/07/98
	M98567-005	Selenium	2	(%) RPD	MW.1998.1056-55	
M98581	M98581-005	Selenium	6	(%) RPD	MW.1998.1077-31	08/11/98
M98567	M98567-005	Silver	1	(%) RPD	MW.1998.1056-55	08/07/98
M98581	M98581-005	Silver	8	(%) RPD	MW.1998.1077-31	08/11/98
Test: TCLP SW846-7000 series AA-FL						
M98581	M98581-005	Lead	3	(%) RPD	MW.1998.1084-31	08/13/98
Test: TCLP SW846-7470						
M98575	M98575-003	Mercury	< 1	(%) RPD	MW.1998.1048-10	08/06/98

QC Type: **MB: Method Blank** QC Matrix: **TCLP**

QC Group	Run ID	Result	Units	*	Sequence	Run Date
Test: TCLP SW846-6010 ICP						
M98567	M98567-001	Arsenic	ND		MW.1998.1056-51	08/07/98
	M98567-002	Arsenic	ND		MW.1998.1056-52	
	M98567-003	Arsenic	ND		MW.1998.1056-53	
M98581	M98581-001	Arsenic	ND		MW.1998.1077-27	08/11/98
	M98581-002	Arsenic	ND		MW.1998.1077-28	
	M98581-003	Arsenic	ND		MW.1998.1077-29	
M98567	M98567-001	Barium	ND		MW.1998.1056-51	08/07/98
	M98567-002	Barium	ND		MW.1998.1056-52	
	M98567-003	Barium	ND		MW.1998.1056-53	
M98581	M98581-001	Barium	ND		MW.1998.1077-27	08/11/98
	M98581-002	Barium	ND		MW.1998.1077-28	
	M98581-003	Barium	ND		MW.1998.1077-29	
M98567	M98567-001	Cadmium	ND		MW.1998.1056-51	08/07/98
	M98567-002	Cadmium	ND		MW.1998.1056-52	

Quality Control Summary

Client: **LOS ALAMOS NATIONAL LABS**
 Project: **9807182 MR3C 2541 H832 0000**

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

M98567	M98567-003	Cadmium	ND	mg / L		MW.1998.1056-53	08/07/98
M98581	M98581-001	Cadmium	ND	mg / L		MW.1998.1077-27	08/11/98
	M98581-002	Cadmium	ND	mg / L		MW.1998.1077-28	
	M98581-003	Cadmium	ND	mg / L		MW.1998.1077-29	
M98567	M98567-001	Chromium	ND	mg / L		MW.1998.1056-51	08/07/98
	M98567-002	Chromium	ND	mg / L		MW.1998.1056-52	
	M98567-003	Chromium	ND	mg / L		MW.1998.1056-53	
M98581	M98581-001	Chromium	ND	mg / L		MW.1998.1077-27	08/11/98
	M98581-002	Chromium	ND	mg / L		MW.1998.1077-28	
	M98581-003	Chromium	ND	mg / L		MW.1998.1077-29	
M98567	M98567-001	Lead	ND	mg / L		MW.1998.1056-51	08/07/98
	M98567-002	Lead	ND	mg / L		MW.1998.1056-52	
	M98567-003	Lead	ND	mg / L		MW.1998.1056-53	
	M98567-001	Selenium	ND	mg / L		MW.1998.1056-51	
	M98567-002	Selenium	ND	mg / L		MW.1998.1056-52	
	M98567-003	Selenium	ND	mg / L		MW.1998.1056-53	
M98581	M98581-001	Selenium	ND	mg / L		MW.1998.1077-27	08/11/98
	M98581-002	Selenium	ND	mg / L		MW.1998.1077-28	
	M98581-003	Selenium	ND	mg / L		MW.1998.1077-29	
M98567	M98567-001	Silver	ND	mg / L		MW.1998.1056-51	08/07/98
	M98567-002	Silver	ND	mg / L		MW.1998.1056-52	
	M98567-003	Silver	ND	mg / L		MW.1998.1056-53	
M98581	M98581-001	Silver	ND	mg / L		MW.1998.1077-27	08/11/98
	M98581-002	Silver	ND	mg / L		MW.1998.1077-28	
	M98581-003	Silver	ND	mg / L		MW.1998.1077-29	

Test: TCLP SW846-7000 series AA-FL

M98581	M98581-001	Lead	ND	mg / L		MW.1998.1084-27	08/13/98
	M98581-002	Lead	ND	mg / L		MW.1998.1084-28	
	M98581-003	Lead	ND	mg / L		MW.1998.1084-29	

Test: TCLP SW846-7470

M98575	M98575-001	Mercury	ND	mg / L		MW.1998.1048-8	08/06/98
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QC Type: **MS: Matrix Spike** QC Matrix: **TCLP**

QC Group	Run ID	Result	Units	*	Sequence	Run Date
Test: TCLP SW846-6010 ICP						
M98567	M98567-007	Arsenic	97	(%) Recov	MW.1998.1056-57	08/07/98
M98581	M98581-009	Arsenic	99	(%) Recov	MW.1998.1080-27	08/12/98
M98567	M98567-007	Barium	20	(%) Recov	MW.1998.1056-57	08/07/98
M98581	M98581-009	Barium	< 1	(%) Recov	MW.1998.1080-27	08/12/98
M98567	M98567-007	Cadmium	96	(%) Recov	MW.1998.1056-57	08/07/98
M98581	M98581-009	Cadmium	94	(%) Recov	MW.1998.1080-27	08/12/98
M98567	M98567-007	Chromium	93	(%) Recov	MW.1998.1056-57	08/07/98
M98581	M98581-009	Chromium	84	(%) Recov	MW.1998.1080-27	08/12/98
M98567	M98567-007	Lead	39	(%) Recov	MW.1998.1056-57	08/07/98
	M98567-007	Selenium	97	(%) Recov	MW.1998.1056-57	
M98581	M98581-009	Selenium	61	(%) Recov	MW.1998.1080-27	08/12/98

Quality Control Summary

Client: LOS ALAMOS NATIONAL LABS
 RC: 9807182 MR3C 2541 H832 0000

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

M98567	M98567-007	Silver	19	(%) Recov		MW.1998.1056-57	08/07/98
M98581	M98581-009	Silver	54	(%) Recov		MW.1998.1080-27	08/12/98
Test: TCLP SW846-7000 series AA-FL							
M98581	M98581-009	Lead	< 1	(%) Recov	D	MW.1998.1084-35	08/13/98

QC Type: **MSD: Matrix Spike Duplicate Accuracy** QC Matrix: **TCLP**

QC Group	Run ID	Result	Units	*	Sequence	Run Date
Test: TCLP SW846-6010 ICP						
M98567	M98567-008	Arsenic	100	(%) Recov		MW.1998.1056-58 08/07/98
M98581	M98581-010	Arsenic	107	(%) Recov		MW.1998.1080-28 08/12/98
M98567	M98567-008	Barium	57	(%) Recov		MW.1998.1056-58 08/07/98
M98581	M98581-010	Barium	< 1	(%) Recov	D	MW.1998.1080-28 08/12/98
M98567	M98567-008	Cadmium	97	(%) Recov		MW.1998.1056-58 08/07/98
M98581	M98581-010	Cadmium	114	(%) Recov		MW.1998.1080-28 08/12/98
M98567	M98567-008	Chromium	95	(%) Recov		MW.1998.1056-58 08/07/98
M98581	M98581-010	Chromium	104	(%) Recov		MW.1998.1080-28 08/12/98
M98567	M98567-008	Lead	67	(%) Recov		MW.1998.1056-58 08/07/98
M98567	M98567-008	Selenium	100	(%) Recov		MW.1998.1056-58 08/07/98
M98581	M98581-010	Selenium	94	(%) Recov		MW.1998.1080-28 08/12/98
M98567	M98567-008	Silver	22	(%) Recov		MW.1998.1056-58 08/07/98
M98581	M98581-010	Silver	89	(%) Recov		MW.1998.1080-28 08/12/98
Test: TCLP SW846-7000 series AA-FL						
M98581	M98581-010	Lead	< 1	(%) Recov	D	MW.1998.1084-36 08/13/98

QC Type: **MSD: Matrix Spike Duplicate Precision** QC Matrix: **TCLP**

QC Group	Run ID	Result	Units	*	Sequence	Run Date
Test: TCLP SW846-6010 ICP						
M98567	M98567-008	Arsenic	2	(%) RPD		MW.1998.1056-58 08/07/98
M98581	M98581-010	Arsenic	7	(%) RPD		MW.1998.1080-28 08/12/98
M98567	M98567-008	Barium	95	(%) RPD		MW.1998.1056-58 08/07/98
M98581	M98581-010	Barium	193	(%) RPD	D	MW.1998.1080-28 08/12/98
M98567	M98567-008	Cadmium	< 1	(%) RPD		MW.1998.1056-58 08/07/98
M98581	M98581-010	Cadmium	19	(%) RPD		MW.1998.1080-28 08/12/98
M98567	M98567-008	Chromium	2	(%) RPD		MW.1998.1056-58 08/07/98
M98581	M98581-010	Chromium	21	(%) RPD		MW.1998.1080-28 08/12/98
M98567	M98567-008	Lead	52	(%) RPD		MW.1998.1056-58 08/07/98
M98567	M98567-008	Selenium	2	(%) RPD		MW.1998.1056-58 08/07/98
M98581	M98581-010	Selenium	44	(%) RPD		MW.1998.1080-28 08/12/98
M98567	M98567-008	Silver	14	(%) RPD		MW.1998.1056-58 08/07/98
M98581	M98581-010	Silver	48	(%) RPD		MW.1998.1080-28 08/12/98

Quality Control Summary

Client: **LOS ALAMOS NATIONAL LABS**
Project: **9807182 MR3C 2541 H832 0000**

* explanation of codes	
D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

Test: *TCLP SW846-7000 series AA-FL*

M98581	M98581-010	Lead	120	(%) RPD	D	MW.1998.1084-36	08/13/98
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Chain of Custody Record

ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8964

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

Lab job no.: _____ Date _____

Page _____ of _____

Client LAMC Project Manager / Contact _____

Address _____ Telephone No. _____

City / State / Zip Los Alamos, NM Fax No. _____

Project Name / Number TR-140 (B...) Samplers: (Signature) _____

Contract / Purchase Order / Quote _____

No. of Containers	Analysis Required										Remarks	

AAL FRACTION NUMBER	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation	
						Temp.	Chemical
1A	98DS458	7/21/98	1:00				
2A	98DS459	"	"				

Relinquished by: [Signature]
Signature _____
Printed Douglas L. [Signature]
Company LAMC
Reason Analysis

Date _____
Time 2:00

Received by: _____
Signature _____
Printed _____
Company _____
Reason _____

Relinquished by: _____
Signature _____
Printed _____
Company _____
Reason _____

Date _____
Time _____

Received by: _____
Signature _____
Printed _____
Company _____
Reason _____

Method of Shipment: _____
Shipment No. _____
Special Instructions: _____

Comments: _____

- After analysis, samples are to be:
- Disposed of (additional fee)
 - Stored (30 days max)
 - Stored over 30 days (additional fee)
 - Returned to customer

ATTACHMENT B

LANL Facility Part A

EPA I.D. Number (Enter from Page 1)

NM0890010515

Secondary ID Number (Enter from Page 1)

<input type="checkbox"/>										
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XIV. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES			
				(1) PROCESS CODES (Enter code)		(2) PROCESS DESCRIPTION (if a code is not entered in D(1))	
Technical Area 16							
1	D001	10,000	P	S01			Hazardous Waste
2	D005						Included With Above.
3	D008						Included With Above.
4	D009						Included With Above.
5	D030						Included With Above.
6	THIS LINE INTENTIONALLY LEFT BLANK						
7	D001	10,000	P	S01			Mixed Low-Level Waste
8	D005						Included With Above.
9	D008						Included With Above.
10	D009						Included With Above.
11	D030						Included With Above.
12	THIS LINE INTENTIONALLY LEFT BLANK						
13	D001	2,500	P	T03			Hazardous Waste
14	D002						Included With Above.
15	D003						Included With Above.
16	F003						Included With Above.
17	THIS LINE INTENTIONALLY LEFT BLANK						
18	D003	600,000	P	X01			High explosive (HE)-contaminated water, potentially contaminated with trace solvents and/or metals
19	D005						Included With Above.
20	D006						Included With Above.
21	D007						Included With Above.
22	D008						Included With Above.
23	D009						Included With Above.
24	D011						Included With Above.
25	D018						Included With Above.
26	D022						Included With Above.
27	D030						Included With Above.
28	D035						Included With Above.
29	D036						Included With Above.
30	D038						Included With Above.
31	F002						Included With Above.
32	F003						Included With Above.
33	F004						Included With Above.

EPA I.D. Number (Enter from Page 1)

NM0890010515

Secondary ID Number (Enter from Page 1)

<input type="checkbox"/>													
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XII. Process Codes and Design Capabilities (Continued)

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

Line Number	A. Process Code (From list above)				B. PROCESS DESIGN CAPACITY		C. Process Total Number Of Units	For Official Use Only			
	1. Amount (Specify)	2. Unit Of Measure (Enter code)									
X 1	S	0	2	533.788	G	001					
Technical Area 16											
	1	S	0	1	275	G	001				
	2	X	0	1	40,000	See Line 9	002*				
	3	X	0	1	1,000	See Line 11	001				
	4	X	0	1	100/250	See Line 12	002*				
	5	X	0	1	1,000	See Line 11	002				
	6	T	0	3	810	J	001				
	7	D	8	0	2	See Line 13	001**				
	8										
	9				Pounds per burn per unit.						
1	0				*One of these units will be closed in accordance with New Mexico Administrative Code, Title 20, Chapter 4, Part 1 (20 NMAC 4.1), Subpart V (3-1-97), requirements. See Section TA-16, page 16-2.						
1	1				Pounds per burn.						
1	2				Gallons per burn at Burn Trays 388 and 394, respectively.						
1	3				**The Material Disposal Area P (MDA P) landfill (Line 7) is currently undergoing closure in accordance with New Mexico Administrative Code, Title 20, Chapter 4, Part 1, Subpart VI (3-1-97), requirements. Permitted status is not requested for this landfill. Unit of measure for the MDA P landfill capacity is in acres.						
1	3										

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

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

Line Number (Enter # in w/XII)	A. Process Code (From list above)				B. PROCESS DESIGN CAPACITY		C. Process Total Number Of Units	D. Description Of Process			
	1. Amount (Specify)	2. Unit Of Measure (Enter code)									
X 1	T	0	4					In-situ Vitrification			

ATTACHMENT C
Industrial Incinerator Specifications

APPENDIX U
TA-16 INDUSTRIAL INCINERATOR
SPECIFICATIONS

- 1.0 SCOPE
- 2.0 DETAIL SPECIFICATIONS
- 3.0 CONTROLS
- 4.0 ADDITIONAL INFORMATION REQUIRED WITH PROPOSAL
- 5.0 DOCUMENTATION REQUIRED AFTER ORDER PLACEMENT
- 6.0 OPTIONS

A	<i>REC</i>	ORIGINAL ISSUE			-	-	-	-	
REVISION LETTER	CLASS REVIEW	REVISIONS			DATE	CHANGED BY	CHECKED BY	APPROVED BY	
<h1 style="margin: 0;">Los Alamos</h1> <p style="margin: 0;">Los Alamos National Laboratory Los Alamos, New Mexico 87545 <small>An Affirmative Action/Equal Opportunity Employer</small></p>				CLASSIFICATION OF DRAWING:					
				PART:		TITLE BLOCK:			
DESIGN INTENT:				<p style="font-size: 1.2em; margin: 0;">INCINERATOR</p>					
	SIGNATURE	DATE	GROUP	NO. RECD.		NEXT ASSY.			
ORIGINATED	<i>R. TAYLOR</i>	<i>8/21/86</i>	<i>WX-12</i>						
DRAWN	<i>G. Strimtz</i>	<i>8/21/86</i>	<i>WX-12</i>	PART NO.					
CHECKED	<i>E. M. Hule</i>	<i>8/21/86</i>	<i>WX-12</i>						
PROJ. ENGR.	<i>D. M. [unclear]</i>	<i>21 AUG 86</i>	<i>WX 12</i>	SCALE		TOTAL SHEETS		DRAWING NO.	
APPROVED	<i>RE [unclear]</i>	<i>8/21/86</i>	<i>WX-12</i>					13Y-191968	
								SIZE	SHEET NO
								A	- 1

1.0 SCOPE

This specification defines the requirements for an outdoor installed and operated, concrete pad or steel skid mounted, industrial two stage incinerator. The incinerator shall be capable of reducing 81 cubic feet (three cubic yards) of Type "zero" waste to a maximum of five percent of its original volume during each cycle of operation. Trash shall be loaded by a Laboratory supplied front-end loader through a large access door of the primary chamber. The entire 81 cubic feet of trash shall be loaded in the cold primary chamber prior to incinerator start up. Controls are to be remote or unattended time delayed, as well as local manual controls. Fuel for the burners shall be propane. Residue removal will be done using hoes, shovels, or other common hand tools. All incinerator components, construction, and controls shall meet or exceed current NFPA standards. The incinerator will be installed and operated at 7,500 feet above sea level and within an ambient temperature range of -20 to 90 degrees F. The incinerator and all components shall be designed to operate properly under these conditions. Emissions from the incinerator shall conform to Federal and State EPA (Clean Air Act) standards operating at specified conditions.

2.0 DETAIL SPECIFICATIONS

2.1 Waste

2.1.1 Type

Trash, a mixture of highly combustible waste such as paper, cardboard cartons, wood boxes, and combustible floor sweepings from industrial activities. The mixture contains up to ten percent by weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags, and plastic or rubber scraps. This type of trash corresponds to Type zero waste as defined by the Incinerator Institute of America. Pieces of scrap metal may be in the trash. The largest item expected to be incinerated is a 2'x 2'x 5' item weighing a maximum of eighty pounds.

2.1.2 Quantity

Trash is generated at the rate of 81 cubic feet (three cubic yards) per 24 hour day. The trash is loosely compacted, weighing approximately ten pounds per cubic foot. This amounts to 810 pounds of trash per day.

2.2 Incinerator Performance

2.2.1 Burn Rate

The incinerator shall be capable of burning 81 cubic feet (three cubic yards) of the previously specified trash within each burn cycle. This assumes a cold start with a loaded (81 cubic feet of Type zero trash) primary chamber.

2.2.2 Recharge

The incinerator shall be capable of being recharged within a maximum time of twenty hours from the last burn cycle. A burn cycle is defined as removing residue, loading 81 cubic feet of trash, start up, incineration, and cool down. As a safety requirement, the first stage chamber shall not exceed a temperature of 220 degrees F at end of cycle.

2.2.3 Residue

The incinerator shall reduce the type and quantity of trash as previously specified, except for occasionally introduced scrap metal, to residue amounting to a maximum of five percent of original load volume.

2.2.4 Emission Requirements

Incinerator emissions shall comply with Federal and New Mexico State EPA (Clean Air Act) standards at time of delivery.

2.2.5 Noise Levels

Noise level shall be such that wearing protective ear devices is not required in the vicinity of the operating incinerator for a continuous eight hour exposure.

2.3 Physical Characteristics

2.3.1 Waste Loading

The Laboratory intends to use a one-half yard front-end loader to load the entire three cubic yards of trash into a cold primary chamber. The bucket size of the loader is 3-1/2 feet by 2 feet. The construction of the primary chamber shall be configured so that this loading technique can be used.

2.3.2 Provisions for Automatic Waste Feeding

Provisions shall be made so that an automatic mechanical loader (one cubic yard minimum capacity) can be added to the primary chamber at a future date. This provision shall not interfere with the large primary chamber access door to be used for loading.

2.3.3 Incinerator

2.3.3.1 Wind Load

The incinerator shall be capable of withstanding an eighty MPH wind.

2.3.3.2 Chamber Cooling

Cooling required for the incinerator shall be by ambient air. Ambient air temperature range is -20 to 90 degrees F.

2.3.3.3 Primary Chamber Access Door

The chamber access door shall accept a front-end loader scoop, three and one-half feet wide by two feet high.

2.3.3.4 Secondary Chamber Access Door

An access door shall be provided for inspection and residue removal.

2.3.3.5 Ash Removal Door

A primary chamber door shall be provided for residue removal and inspection. Residue removal will be done using hoes, shovels, or other common hand tools.

NOTE: This door may not be required if the primary chamber access door performs these functions

2.3.3.6 Construction and Materials

All contractor supplied material, equipment and means of construction shall comply with and be certified to meet existing NFPA codes and standards at the time of delivery

2.3.4 Utilities

2.3.4.1 Power

The Laboratory will furnish 460-V, three phase, sixty Hz power to one location for the incinerator. The contractor (seller) shall furnish transformer/power supplies to produce other voltages as required.

2.3.4.2 Fuel

The Lab shall furnish all required equipment and material to connect the incinerator to a Laboratory supplied propane tank. In proposal, bidder shall state total rate of fuel consumption per burn at previously specified conditions.

2.3.4.3 Burners

Burners shall be convertible to use natural gas at a later date.

3.0 CONTROLS

An integrated control system shall be furnished to provide proper operation. The following or equivalent features shall be included:

3.1 Temperature Controller(s)

3.1.1 Primary Chamber

This chamber shall be equipped with a temperature sensor connected to a controller that controls the primary burner.

3.1.2 Secondary Chamber

This chamber shall be equipped with a temperature controller connected to temperature sensor located in the outlet gas stream of the secondary chamber. This controller shall control the secondary chamber burner.

3.1.3 Safety

Adequate safety controls shall be incorporated to safely control all systems in case of over-temperature, flame-out, etc.

3.2 Timers

The following timers or equivalent means shall be included as a part of or in addition to other operating or safety controls:

3.2.1 Pre-Purge Timer

A pre-purge timer shall be furnished to insure safe ignition of the burners.

3.2.2 Burn Timer

A burn timer shall allow the burners to operate for up to four hours after the load enters the incinerator.

3.3 Status Indicators

The control panel shall have individual status indicator lights to show the status of the incinerator during a burn cycle.

3.4 NEMA Rating

All furnished switches, controls, and instrumentation shall be mounted in NEMA rated enclosures and suitably protected from outdoor weather.

3.5 Incinerator Controls

The incinerator controls shall provide for two mode of operation:

3.5.1 Automatic

The automatic cycle shall be controlled by a timer, interlocked with limit switches. The automatic cycle shall be initiated by a single control that delays incinerator ignition up to thirty minutes. This delay period allows time for the incinerator operator to leave the area.

3.5.2 Manual

During manual mode of incinerator operation, the action of the burners and other equipment shall be individually operable.

4.0 ADDITIONAL INFORMATION REQUIRED WITH PROPOSAL

4.1 Refractory

Explanation of refractory type, installation, recommended maintenance, and repair shall be stated in proposal.

4.2 Drawings

Plan and elevation drawings of incinerator showing access doors, ash removal door, location of future automatic ram type feeder, and location of inspection doors or plates.

4.3 Operating Procedure

Sequence and explanation of operation, including status indicators, control steps, timers, ignition, etc.

4.4 Installation

Bidder shall quote installation costs including factory representatives, operator training, etc. if required.

4.5 Warranties

All specific warranties are to be stated together with any conditions affecting their validity.

5.0 DOCUMENTATION REQUIRED AFTER ORDER PLACEMENT

5.1 Manuals and Drawings

The contractor (seller) shall furnish five complete sets of operating manuals and maintenance manuals, including electrical schematics, circuit diagrams, control diagrams, mechanical assembly and subassembly drawings, and parts list at the time of delivery. Foundation plan and electrical drawings are needed as soon as possible after order is placed.

6.0 OPTIONS

The bidders shall furnish a separate quotation for each of the following *options*:

6.1 Small Quantities of Liquid Waste Disposal

Liquid waste, consisting of machine tool lubricants and hydraulic oils contaminated with trace amounts of combustible

organic compounds. Quantity is expected to be from zero to a few gallons per burn. Bidder shall indicate whether pump or gravity fed.

6.2 Large Quantities of Liquid Waste Disposal

Same as 6.1 except in quantities of 55 gallons per burn. .

6.3 Additional Residue Removal

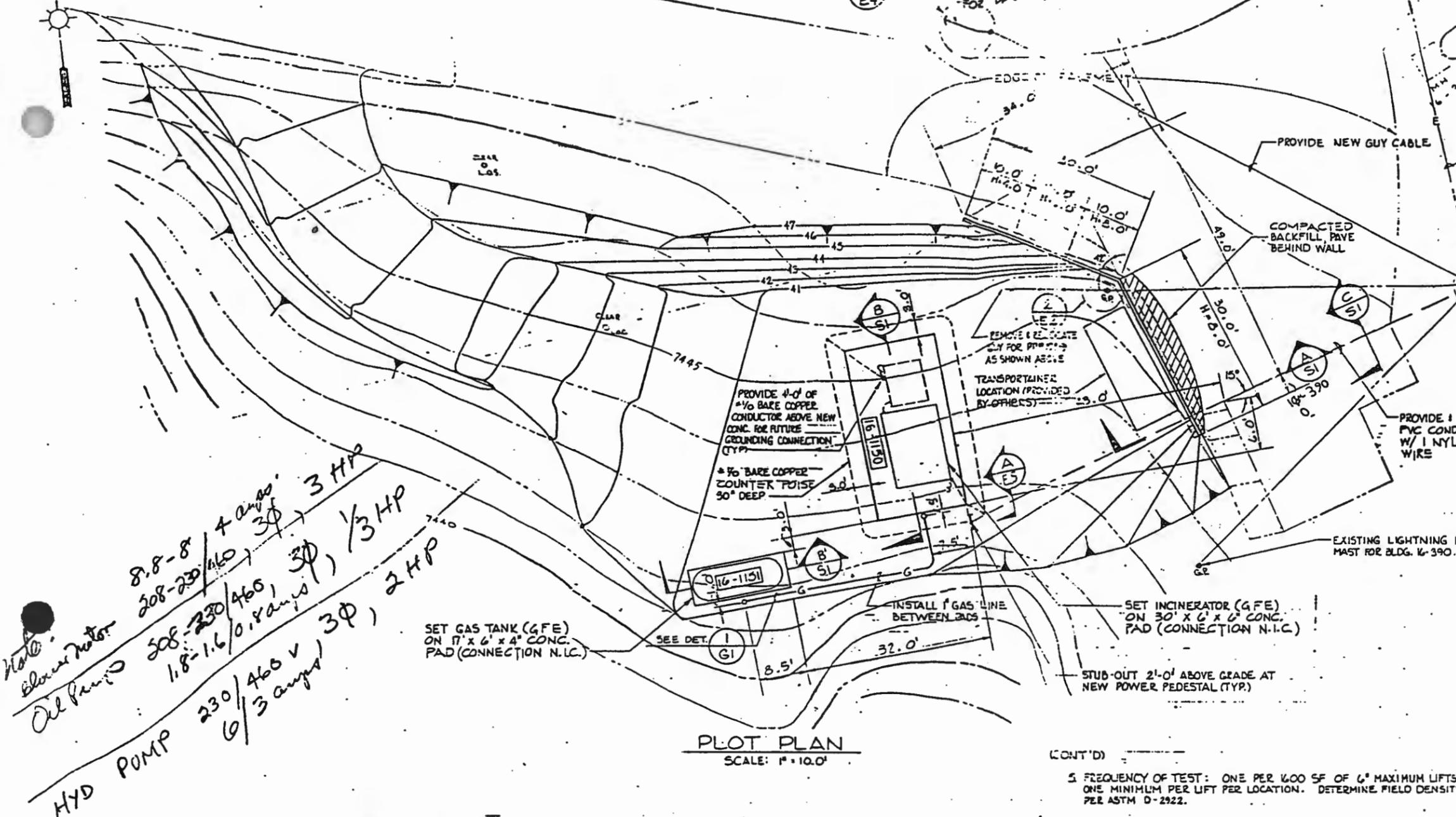
Bidder provided means of removing residue from primary chamber by mechanical or other means.

6.4 Three Cubic Yard Automatic Ram Type Feeder

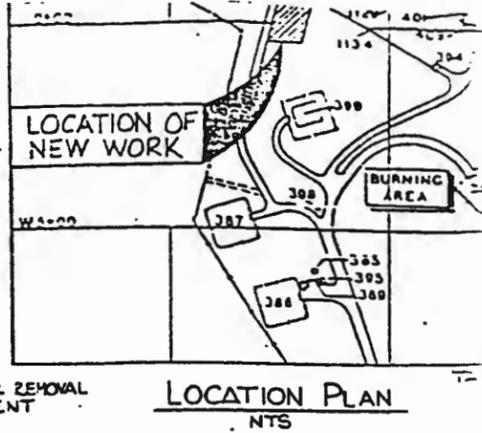
Bidder to supply a three cubic yard per stroke automatic trash charging system for addition to the quoted incinerator.

6.5 One Cubic Yard Automatic Ram Type Feeder

Same as 6.4 except capacity of one cubic yard.



Note:
 Oil fan 8.8-8' 208-230/460 3φ 4 amps 3 HP
 508-230/460 3φ 1/3 HP
 1.8-1.6' 230/460 3φ 0.8 amps
 HYD PUMP 230/460 3φ 6/3 amps 2 HP

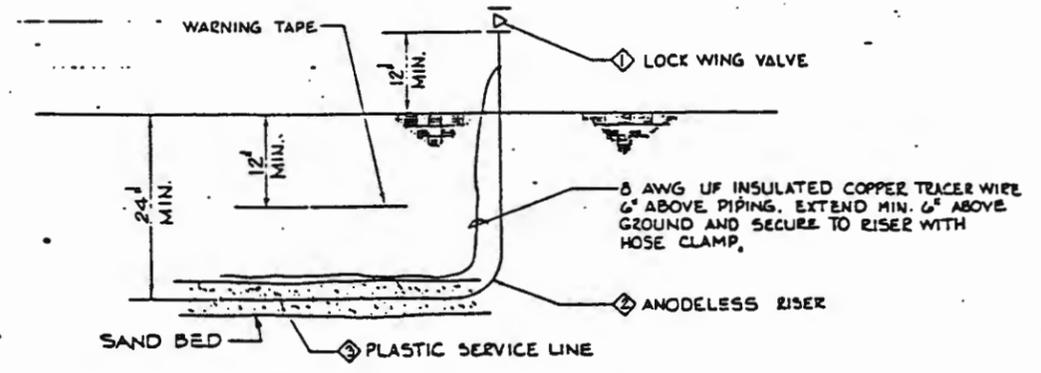


GENERAL NOTES

- A. GENERAL:**
1. LOCATION OF EXISTING UTILITIES SHOWN MAY NOT BE ACCURATE OR COMPLETE. FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
 2. PERFORM ALL EXCAVATION, TRENCHING, AND BACKFILL WORK TO LINES, DIMENSIONS, AND ELEVATIONS INDICATED ON THE DRAWING.
 3. DO NOT SCALE DRAWINGS FOR CONSTRUCTION DIMENSIONS.
 4. REPAIR ALL AREAS DAMAGED DURING CONSTRUCTION TO MATCH EXISTING ADJACENT AREAS.
 5. KEEP WORK SITE IN AN ORDERLY CONDITION DURING CONSTRUCTION. SITE IS TO BE KEPT FREE DRAINING. AT COMPLETION, REMOVE ALL WASTE. LEAVE WORK SITE IN A CONDITION ACCEPTABLE TO THE ENG-5 INSPECTOR. DISPOSE OF REMOVED MATERIALS AS DIRECTED BY THE INSPECTOR, UNLESS NOTED OTHERWISE.
 6. ALL WORK IS NEW UNLESS OTHERWISE INDICATED TO BE "EXISTING" OR "RELOCATED".
- B. EARTHWORK**
1. OBTAIN AN EXCAVATION PERMIT IN ACCORDANCE WITH LOS ALAMOS NATIONAL LABORATORY CIVIL STANDARDS MANUAL, SEC. 302 ("EXCAVATION PERMIT PROCEDURE")
 2. EARTHWORK SHALL NOT BE DONE IN FROZEN OR WET SOIL.
 3. FILL MATERIAL SHALL BE CLEAN, FREE OF ORGANIC MATTER, FERTILIZER, TRASH, ROCK GREATER THAN 3", CLAY, AND OTHER DELETERIOUS SUBSTANCES. THE FILL MATERIAL SHALL BE NATIVE OR SOIL HAVING A LIQUID LIMIT NOT EXCEEDING 25 AND A PLASTIC INDEX OF NOT MORE THAN 6 WHEN DETERMINED IN ACCORDANCE WITH AASHTO T-99 AND T-90 RESPECTIVELY.
 4. COMPACT MATERIAL IN 6" MAX. LIFTS TO THE FOLLOWING PERCENTAGE: MAXIMUM DENSITY PER ASTM D-1557.
 95% - UNDER PAVEMENT AND CONCRETE SLABS (BASE COURSE & SUBGRADE)
 90% EMBANKMENTS
 85% GENERAL AREA GRADING

PLOT PLAN
 SCALE: 1" = 10.0'

- (CONT'D)
5. FREQUENCY OF TEST: ONE PER 1000 SF OF 6" MAXIMUM LIFTS OR ONE MINIMUM PER LIFT PER LOCATION. DETERMINE FIELD DENSITY PER ASTM D-2922.
 6. REMOVE EXCESS EXCAVATED MATERIAL FROM JOB SITE TO AN AREA APPROVED BY THE ENG-5 INSPECTOR.



TYPICAL GAS RISER DETAIL
 NTS

LEGEND

- NEW CONSTRUCTION
- - - EXIST. CONSTRUCTION
- G — GAS LINE
- - - EXIST. CONSTRUCTION TO BE REMOVED
- E — ELECTRICAL CONDUIT
- - - HIDDEN CONSTRUCTION UNLESS OTHERWISE NOTED
- ▲ EMBANKMENT SLOPE

THIS JOB SHALL BE INSPECTED BY:
 _____ ENG-5

PHONE: _____ PAGE: _____

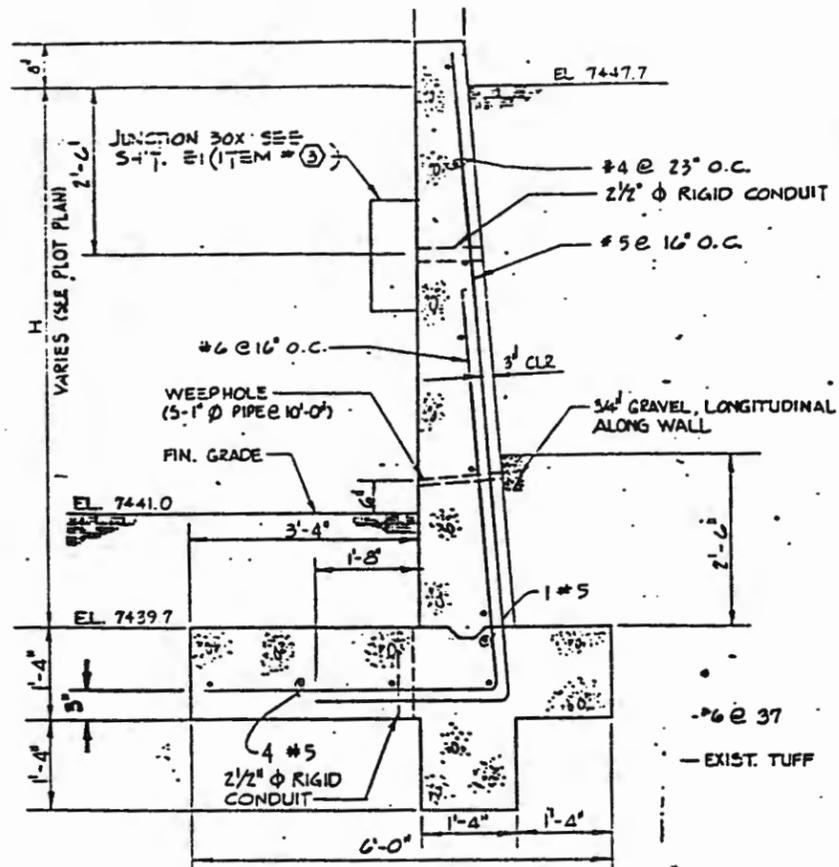
ANY CHANGES SHALL BE APPROVED BY:
 ED MOYH ENG-3 PHONE: 7-6237

NO.	DATE	CLASS. REV.	REVISIONS	OWN	DES	CHKD	REC'D	DC	
FACILITIES ENGINEERING DIVISION									
ACCESS ROAD & INCINERATOR INSTALLATION								DRAWN	S-
CIVIL: PLOT PLAN, UTILITIES, & WALL ELEVATION								DESIGN	E
BLDG. 16-1150, 16-1151								CHECKED	
SUBMITTED								RELEASED	
RECOMMENDED								DATE	
APPROVED									

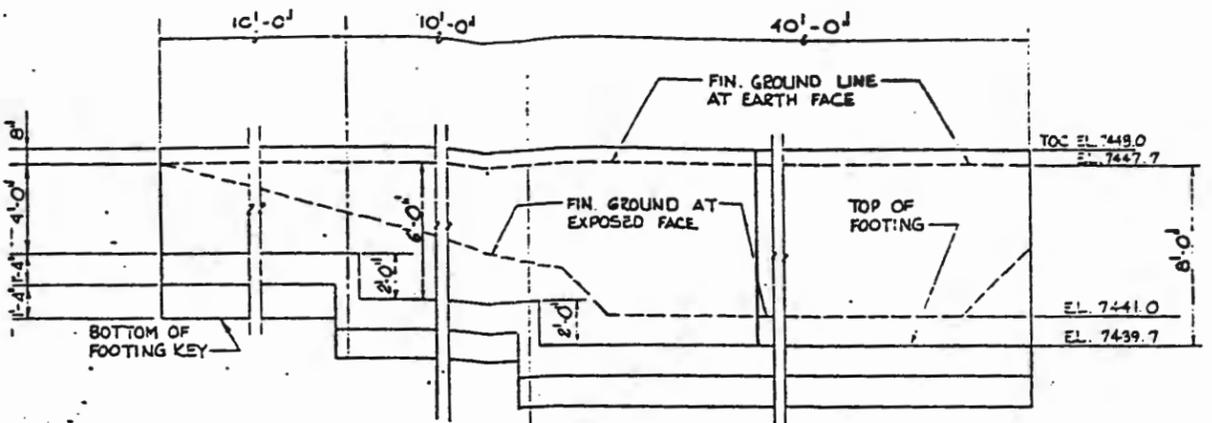
LOS ALAMOS Los Alamos, New Mexico 87545		SHEET G1
CLASSIFICATION (C) REVIEWER <i>SKL</i>	REQUESTING DIVISION/LAB JOB NO. WX-DO	DATE 3c
REQUESTING GROUP WX-12	DRAWING NO. 9059-16 ENG-C45280	

- CONCRETE (ACI 318-83).
- CONCRETE CONSTRUCTION SHALL BE PERFORMED ACCORDING TO ACI 302, ACI 305, ACI 307, AND ACI 308, LATEST EDITIONS.
 - STRUCTURAL CONCRETE SHALL BE 5% - 6% AIR ENTRAINED, HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.55, AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI (UNLESS OTHERWISE NOTED ON THE DRAWINGS). CONCRETE SHALL BE PROPORTIONED USING TYPE I CEMENT.
 - THE CONTRACTOR SHALL SUBMIT CERTIFICATIONS OF CONFORMITY FOR MATERIALS USED IN CONCRETE MIX AND SHALL SUBMIT A MIX DESIGN WHICH IS DESIGNED IN ACCORDANCE WITH ACI-318.1-77.
 - ONE SET OF SIX STANDARD CYLINDERS SHALL BE TAKEN FOR EACH 50 CUBIC YARDS OR OF EACH DAY'S POUR. TEST SPECIMENS SHALL BE MADE IN ACCORDANCE WITH ASTM C39 TESTED IN ACCORDANCE WITH ASTM C39.
 - FOR FURTHER GUIDANCE ON REINFORCED CONCRETE, SEE LAB STANDARD SPECIFICATION AND 03300.

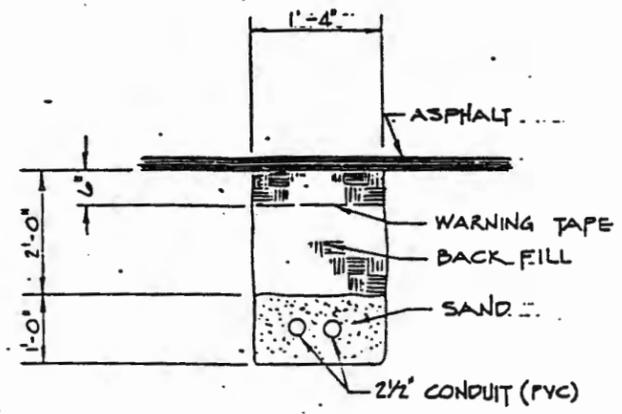
- REINFORCING STEEL
- ALL DETAILING FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI 315 DETAILING MANUAL.
 - REINFORCING BARS SHALL CONFORM TO ASTM SPECIFICATION A615-S1 AND SHALL BE GRADE 60.
 - EXCEPT AS NOTED ON THE DRAWINGS, MINIMUM CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI 318.
 - AT SPLICES IN CONCRETE, RETAINAGE BARS SHALL LAP AT LEAST 36 DIAMETERS.
 - PROVIDE ALL ACCESSORIES (NONMETALLIC) NECESSARY TO SUPPORT REINFORCEMENT AT POSITIONS SHOWN ON THE DRAWINGS.
 - FOR FURTHER GUIDANCE ON REINFORCING STEEL, SEE LAB STANDARD SPECIFICATION 03.



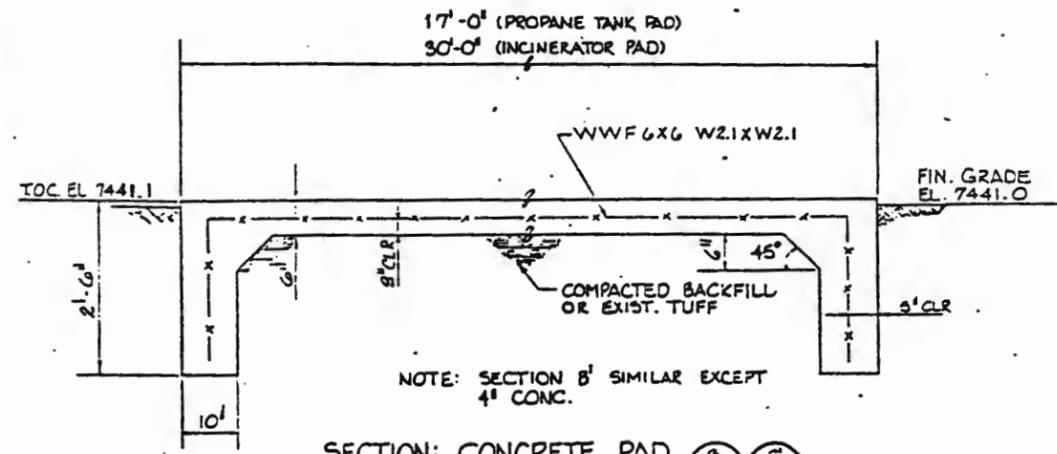
SECTION: RETAINING WALL (A)
SCALE: 3/4" = 1'-0"



WALL ELEVATION
SCALE: 1/2" = 1'-0"



SECTION (C)
SCALE: 3/4" = 1'-0"



SECTION: CONCRETE PAD (B)
SCALE: 3/4" = 1'-0"

NO.	DATE	CLASS. REV.	REVISIONS	OWN	DES	CHKD	APPROV	DATE
FACILITIES ENGINEERING DIVISION								
ACCESS ROAD & INCINERATOR							DRAWN	F
INSTALLATION							DESIGN	E
STRUCT: SECTION, DETAIL, & WALL							CHECKED	
ELEVATION							RELEASED	
SUBMITTED							RECOMMENDED	APPROVED
Los Alamos							Los Alamos National Laboratory Los Alamos, New Mexico 87545	
CLASSIFICATION U							REVIEWER	DATE 7-
REQUESTING DIVISION WX-DO							LAB JOB NO.	DRAWING NO.
REQUESTING GROUP 9059-16							ENG-045250	

CONSTRUCTION:

The Incinerator is suitable for outdoor or indoor operation. The Incinerator consists of a primary combustion chamber, a secondary combustion chamber, and a settling chamber. Primary and secondary chambers are equipped with power burners.

Outer shell is fabricated from hot rolled carbon structural quality steel plates and 3 inch vertical buck-stays designed to minimize thermal stresses. The shell is structurally reinforced to support burners, stack and other components.

MOUNTING:

The Incinerator is mounted on structural steel 4 inch I-beams securely welded to the outer shell, which provides clearance of 4 inches between the bottom of the shell and mounting surface.

REFRACTORY:

Castable refractory pre-casted into blocks and sprung arches, thickness depends on Incinerator model. Tongue and groove design enables structural independence from outer shell. Breaching and stack lining is 2 inch insulated castable refractory.

ANCHOR:

Tongue and groove design eliminates anchors to support refractory materials. The design allows sufficient flexibility to compensate for expansion and contraction of the refractory material used.

PRIMARY CHAMBER:

Each Incinerator model is so designed in size, to accommodate the hourly combustion. Solid hearth pre-cast of hi-heat refractory, dished shaped to prevent leakage of waste fluids.

POWER BURNERS:

Natural gas, LP gas or oil:
Each incinerator is equipped with necessary power burners, for proper incineration. The burners will provide auxiliary heat at start up and during incineration. Burners will be located so the flame impinges directly on waste material. Burners are electrically ignited and controlled by manually set automatic timers.

ELECTRIC:

Should always be specified, so burners can be equipped with proper voltage and phase. Gas Burners operate on low pressure 8 to 13" W.C. If high pressure is the only available gas, a regulator must be INSTALLED BEFORE BURNERS.

SECONDARY CHAMBER:

Designed to consume partially oxidized gases and particles. Burner, designed in size to maintain continuous minimum temperature of 1400°F.

INSULATION:

Hi-temperature insulation impaled on outer shell, with an air chamber between insulation and refractory.



SPRONZ INCINERATOR CORP.

MECHANICAL SPECIFICATIONS

CONSTRUCTION:

The incinerator is suitable for outdoor or indoor operation. The incinerator consists of a primary combustion chamber, a secondary combustion chamber, and a settling chamber. Primary and secondary chambers are equipped with gas or oil fired power burners.

Outer shell is fabricated from hot rolled carbon structural quality steel plates .104 inch, (12 Ga.) and 4 inch vertical buck stays designed to minimize thermal stresses. The shell is structurally reinforced to support burners, stack and other components. Steel specifications enclosed.

MOUNTING:

The incinerator is mounted on structural steel 4 inch "H" beams securely welded to the outer shell, which provides clearance of 4 inches between the bottom of the shell and mounting surface.

REFRACTORY:

Castable refractory pre-casted into blocks and sprung arches 5 inches thick. Tongue and groove design enables structural independence from the outer shell. Breeching and stack lining is 2 and 3 inch castable refractory. Refractory specifications enclosed.

ANCHOR:

Tongue and groove design eliminates anchors to support refractory material. The design allows sufficient flexibility to compensate for expansion and contraction of the refractory material used.

PRIMARY CHAMBER:

It is designed in size to accommodate the hourly combustion rate of type waste specified. Solid hearth pre-cast of hi-heat refractory surface with fire brick, dish shaped to prevent leakage of waste fluids.

BURNERS:

Two (2) Beckett oil burners Model "SF" or two (2) Barber Smoke Abater gas burners, one (1) in primary chamber and one (1) in secondary chamber. The burners will provide auxiliary heat at start up and as required to complete incineration process. Burners will be located so that flame impinges directly on waste materials. Burners are electrically ignited and regulated by timers. Burner controls incorporated FM approved components, cad cell and relays for 100% shut off for burners and pilots. Burner specification enclosed.

SECONDARY CHAMBER:

Designed to consume partially oxidized gases and particles.

BURNER SECONDARY CHAMBER:

Burner designed in size to maintain continuous minimum temperature of 1600° F. Burner regulated by set-point indicator-controller adjustable from 0° to 2500° F. Graduations on the indicator scale not greater than 100° F. Burner and pyrometer specifications enclosed.

INSULATION:

As specified in Federal specifications MH-I-558B. Form B, Type I, class 8, 24 inches wide x 48 inches long x 2 inch thick. Specifications enclosed.

STACK:

Stack meets NFPA 211. Stack is 14 inches inner diameter and 18 inches outer diameter. It is insulated and fabricated in 30 inch length sections for ease of handling and erection. The stack is lined throughout with 2 inches of castable refractory securely anchored in place. Appropriate vertical and lateral supports will be furnished to withstand wind forces to 75 miles per hour. Stack will be provided with a spark arrestor fabricated from 0.06 inch of heat resisting stainless steel. Stack will be fabricated to height desired. Weather cap supplied and S.S. spark arrestor.

MOTORS:

Low voltage and thermally protected. Specifications enclosed.

FRACTIONAL HORSEPOWER:

Specifications enclosed.

INTEGRAL HORSEPOWER:

CLEANOUT DOORS:

Will be provided in readily accessible locations to permit complete removal of residue of noncombustible material from the settling chamber. None required in secondary chamber. Doors and frame will be fabricated from steel plate #12 gauge. Door will be faced with hi-temperature Fiberfrax Durablanket insulation. Specifications enclosed.

CHARGING METHODS:

Manually charged.

MANUAL CHARGE:

Incinerator designed for front loading, door dimension 40 inches x 22

MANUAL CHARGE: (continued)

inches. The system is designed to operate at negative air pressure when loading door is opened to prevent injury to operator and the escape of smoke and gases. The door is insulated and lined with Hi-temperature Fiberfax Durablanket insulation. The manual charging door is counterbalanced for ease of opening and closing. This door travels on explosive proof guides. Door bar for opening and closing is at the bottom of door and not in direct contact with heat. Gloves not necessary.

CONTROLS:

Full operation by means of a single switch.

IDENTIFICATION PLATE:

Yes

NAME PLATE:

Yes

INSTRUCTION PLATE:

Card

COMPONENTS:

Standard U.S.A. manufactured.

INSTRUCTION MANUAL:

Yes

WARRANTY:

One year.

GENERAL PROFESSIONAL WORKMANSHIP:

Yes

PAINT:

Exterior paint rated at 1000°F service.

TOOLS:

HOE, POKER, and TOOL RACK.

NOISE:

Noise level at one foot from incinerator shall not exceed 85 decibels.

WEIGHT REDUCTION OF WASTE:

Reduce weight did not exceed 9% of charge weight.

COMBUSTION RATE:

Incinerator is capable of consuming full rated capacity of type 4 waste, or 50% type 4 waste, and the remainder a mixture of type 0 through type 4.

EMISSION STANDARDS:

Federal test results 0.1 grains per SCF of dry gas adjusted to 12% CO₂.

TEST METHODS:

Test were conducted in accordance with "Specifications for Incinerator Testing". Compliance of Federal facilities under the code, of Federal regulations Title 42, Chapter I, Sub chapter F, part 76.

SHELL TEMPERATURE:

Test show incinerator operated under normal load conditions for a period longer than two hours, during which the temperature readings of the outer shell were taken, in random locations, and averaged 81° to 112° F.

EMISSION RATE:

Emissions were measured in accordance with Section 7 through 11, "Specifications for Incinerator Testing". Test results submitted December 1, 1980.

PREPARATION FOR DELIVERY:

Incinerator will be packed and packaged, loaded in truck under the supervision of the manufacturer. Refractory blocks will be placed in the incinerator along with burner tubes. Incinerator will arrive assembled, ready for placement. Equipped with 4 lifting lugs.

Shipping will be marked in accordance with any special markings required.

THE IMPROVED QUALITY BURNER

Model IBB-750 "Smoke-Abater" Gas Incinerator Burners, with modern styling and convenient installation features, have the longest, most luminous flame of comparable burners.

This new series of "Smoke-Abater" burners is a result of demands for burners with pilot stability, and that long, hot, powerful flame. A need for dependable, economical equipment with simplicity of installation has resulted in the introduction of the new Model IBB-750 "Smoke-Abater" Gas Incinerator Burners. A number of variables and options are available to fit any specifications.

Keeping all the basic functional features of the former IBB-600 series, which are field proven, the IBB-750 has been streamlined and upgraded to provide input ratings ranging from 100,000 BTU/HR. to 750,000 BTU/HR. for use with natural or LP gases.

Manufacturers of incinerators have cooperated in this program and their vast experience has supplemented our engineering effort.

FOR PRIMARY BURNERS AND AFTER BURNERS

The burner in the primary chamber assures incineration at full capacity — frequently helping a small incinerator do the job of a large one.

The burner in the secondary chamber assures combustion of smoke and odors not burned in the primary chamber — essential in complying with most smoke abatement laws.

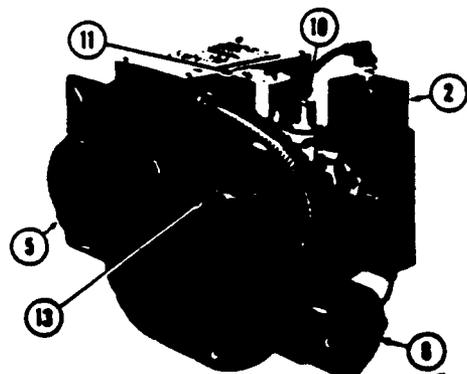
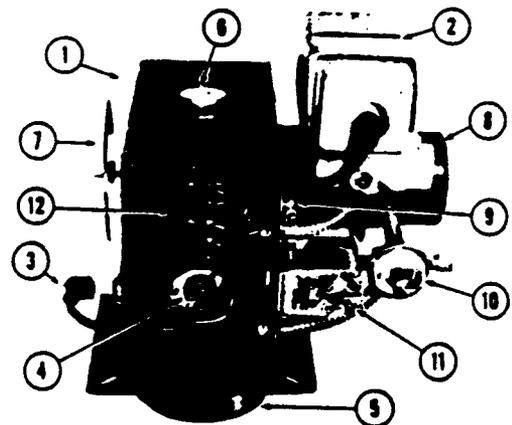
Incinerator manufacturers recognize the "Smoke-Abater" as the quality burner and include it as a component of their incinerator when it is specified. Over 50 years of gas burner development and manufacture assures you of dependability when you specify any Barber gas burner.

LATEST IMPROVED FEATURES ON THE "SMOKE-ABATER" BURNERS

- A.G.A. and UL listed gas and electrical controls.
- Powered pilot: stronger, more stable against draft and back pressure. It is recessed for protection against fly-ash and heat.
- All components are mounted on the burner housing and are accessible from the outside.
- Housing produces higher rate of air flow. Volute is located below the heat zone.
- Enclosed motor housing assures trouble free fan operation. Centrifugal switch monitor system to prevent flow of main gas until fan motor is operating normally.
- Simple wiring.
- Easy installation.

OTHER FEATURES:

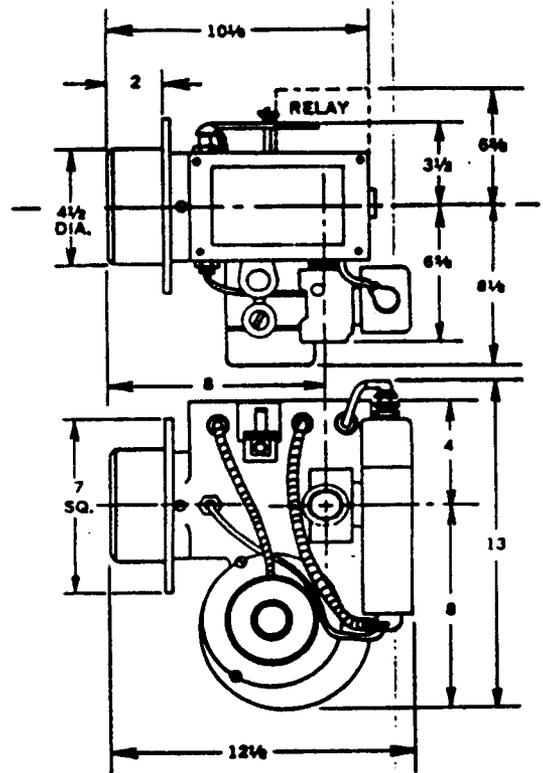
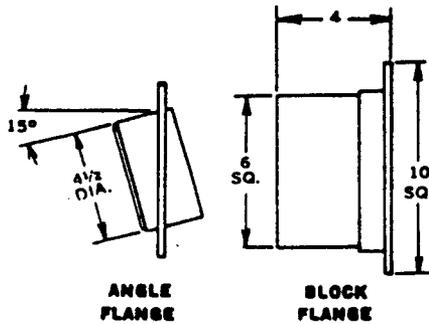
1. Light and durable one-piece cast aluminum burner housing and electrical box.
2. Combination transformer and automatic main gas control valve. ("G" system includes a safety pilot switch.)
3. Spark plug positioned onto the burner head for positive ignition.
4. Heat switch — more effective over temperature protection — located on top of burner housing. Protects from internal overheating when burner is not operating by motorizing fan.
5. Straight tube flange or 15° angle flange for down firing as standard. Block flange available as optional equipment. These various flange options provide flexible burner mounting and the recessed ignition zone is protected from exploding aerosol cans and bottles.
6. Adjustable orifice — after removing cap, adjust orifice clockwise to reduce input rating; counter-clockwise to increase input rating. (Factory adjustment is at minimum input rating.)
7. Air control permits easy air regulation.
8. 1650 RPM motor with safety switch monitor. 115 volts A.C., 60 cycle, single phase.
9. On-off switch, manual. (See wiring diagrams)
10. Pilot gas regulator assures stable pilot flame.
11. Automatic pilot gas valve controls the gas supply to the pilot when system is energized.
12. Easy to wire with terminal connections. (For "C" system terminal connectors are located in the electronic relay box.)
13. Thermocouple pilot flame sensing device. (Flame rod utilized with electronic relay "C" system.)



DIMENSIONS:

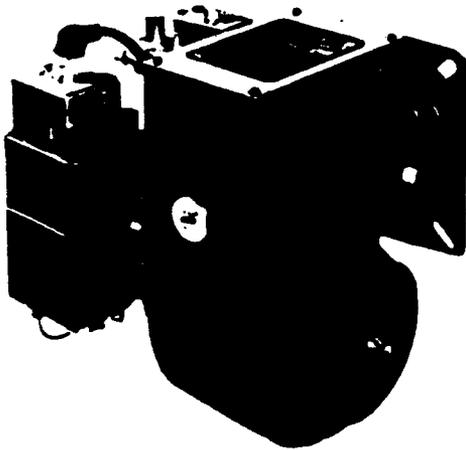
TUBE FLANGE MOUNTING HOLES ON 6" CENTERS

BLOCK FLANGE MOUNTING HOLES ON 7½" CENTERS

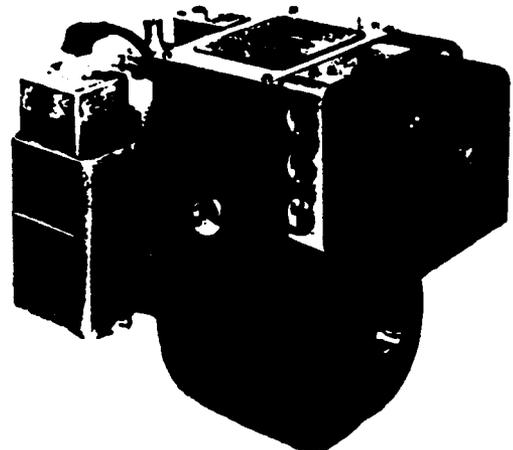


INPUT RATING

MODEL	NAT. GAS @ 5.0" W.C.		LP GAS @ 11.0" W.C.	
	Minimum	Maximum	Minimum	Maximum
IBB-750	100,000	750,000	100,000	750,000



IBB-750-G



IBB-750-C ✓

CONTROL SYSTEMS

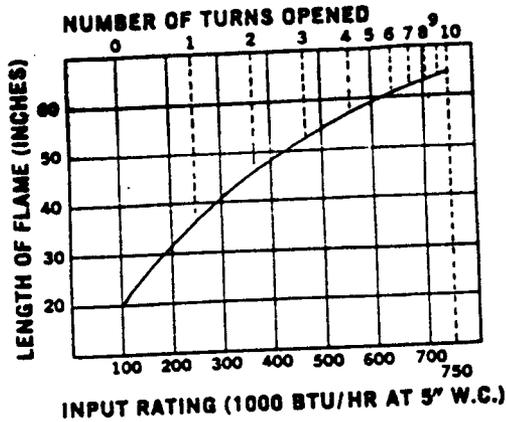
G SYSTEM (for lighting from remote station by operator, timer or temperature controller) thermo electric pilot safety with constant spark igniter. Sequence of operation: Operator, timer, or temperature controller energizes system, which starts blower motor, ignition transformer and opens automatic pilot valve. When pilot flame is established (sensed by thermocouple) main gas valve opens in about 30 seconds. If pilot is extinguished main gas valve closes in about 30 seconds.

STANDARD VOLTAGE: 120 volts, A.C., 60 cycle, single phase.

GAS PRESSURE: 5"-6.0" w.c. natural gas; 11"-13.0" w.c. LP gas at inlet of gas valve. (See "Piping").

C SYSTEM (for lighting from remote station by operator, timer or temperature controller). Instantaneous Electronic Pilot Safety with Intermittent Spark Igniter. Sequence of operation: On call for heat, blower motor starts, pilot gas valve opens and transformer energizes spark which lights pilot. Flame rod senses presence of pilot flame and opens main gas valve immediately. If pilot is extinguished for any reason, electronic relay closes main gas valve and pilot valve in 3 seconds.

FLAME LENGTH CHART FOR NATURAL GAS



AIR DELIVERY

Air Shutter Adjustment	CFM
closed	91.0
2 turns open	97.2
4 turns open	105.0
6 turns open	109.0
8 turns open	114.0
10 turns open	116.5
12 turns open	118.0
14 turns open	119.0

PIPING

NATURAL GAS — The burner should be connected to a gas supply line containing pressures between 4" w.c. to 14" w.c. pressure. Pressures under 5" w.c. but not less than 3½" w.c. will result in dependable operation but at reduced capacities. When pressures higher than 6" w.c. are encountered a suitable regulator for the main gas supply must be installed.

LP GAS — A properly sized LP gas tank must be supplied along with a suitable gas pressure regulator to hold the inlet pressure to the gas valve at 11.0" to 13.0" w.c.

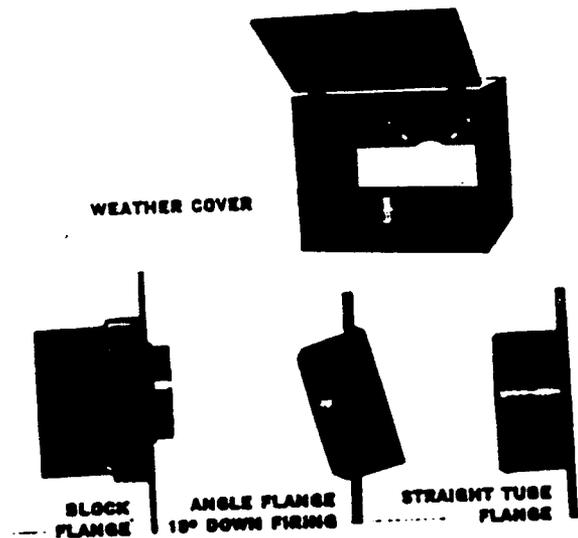
PIPING CHART

LENGTH OF PIPE METER TO BURNER	SIZE OF PIPE	
	NAT.	LP
15'	1-1/4"	1"
30'	1-1/2"	1"
45'	1-1/2"	1-1/4"
60'	2"	1-1/4"

OPTIONAL EQUIPMENT

- Weather cover of heavy gage enameled metal to protect burner from the elements in exposed locations. For use with either straight tube flange, 15° angle flange or block flange. The rear mounting plate of the weather cover may be installed on to the top two mounting studs of the burner flange during installation of the burner or afterwards. The weather cover is then engaged on to the mounting plate and locked into position with two wingnuts, holding the cover secure. Hinged front door permits access to the burner when timer or controller is located under the cover. Provisions are made to permit locking the door.
- 0 - 1 hour manual timer.
- 0 - 6 hour manual timer.
- 0 - 12 hour manual timer.
- 0 - ½ hour automatic timer, sequence.
- 0 - 1 hour automatic timer, sequence.
- 24 hour automatic timer.
- 7 day automatic timer (usually used in conjunction with the 0 - 1 hour automatic timer). Note . . . timers unassembled, shipped loose.

For Further Information Contact:



THE *Barber* MANUFACTURING COMPANY

22901 AURORA ROAD • BEDFORD HEIGHTS, OHIO 44146 • PHONE: 216 - 439-1680

Printed in the U.S.A. SPX-MAN-188-760 5/

PATHOLOGICAL INCINERATOR CLASSIV

SPRONZ INCINERATOR CORP.
ROCHESTER, NEW YORK 14611 U.S.A.

PRICE SHEET

January 1, 1986

MODELS	BURNING CAPACITY PER HOUR	PRICE	APPROX.
RL-10-P	75 - 100# CONTINUOUS BURNING	6400.00	5000
RL-20-HDP	150# " "	8000.00	10,000
RL-40-P	190# " "	9500.00	14,000
RL-60-P	285# " "	17,500.00	18,000
RL-80-P	385# " "	24,000.00	22,000

INCINERATORS ARE EQUIPPED WITH POWER BURNERS, NATURAL GAS, LP GAS OR OIL
15 FT. OF REFRACTORY LINED STACK, SPARK ARRESTOR AND BAROMETRIC DAMPER
AND ALL NECESSARY APPURTENANCES.

ALL OUR UNITS ARE GEOMETRICALLY SIMILAR.

NO SALES TAX INCLUDED IN THIS PRICE.

ONE YEAR GUARANTEE ON ALL WORKMANSHIP AND PARTS, WHEN OPERATED ACCORDING
TO DIRECTIONS.

ALL PRICES F.O.B. ROCHESTER, NEW YORK, U.S.A.

1. To Start the System
 - 1.1 Turn the "burner" selector switch (2SS) to the desired fuel ("gas" or "oil"),
 - (System with motorized valve) (8858Z use 1.1.2 only)
 - 1.1.1 The control motor on the air control valve drives to the high position.
 - 1.1.2 On systems with fuel only control, the control motor on the fuel control valve drives to the low position.
 - (System with manual control valve (8858FZ or UZ use 1.1.2 only)
 - 1.1.1 On systems with air primary control, manually drive the air control valve to the high position.
 - 1.1.2 On systems with fuel control, manually drive the fuel control valve to the low position.
 - 1.2 Reset any manual reset limits,
 - 1.3 On systems with the combustion air blower used during purge,
 - 1.3.1 Manually start the blower if it is not automatically started.
 - 1.4 *With all the pre-start limits made, and the combustion air blower being used for purge
 - 1.4.1 The "Limits Complete" lamp (13LT) is energized.

*NOTE: If the alarm (5AHR) sounds when the "limits complete" lamp (13LT) is on, the SS heater switch in the RA890 flame relay may be tripped. Press "Reset" button.

2. Purge Cycle
 - 2.1 With the limits complete, and the purge switch made,
 - 2.1.1 The purge timer begins timing,
 - 2.1.2 The "purging" lamp (10LT) is energized.
 - 2.2 At the end of a pre-set purge time,
 - 2.2.1 The "purging" lamp (10LT) is de-energized, and the combustion air blower is started if it was not used for purge.
 - (Systems with motorized control valve) (not used for 8858Z)
 - 2.2.2 On systems with air primary control, the control motor on the air control valve is driven to the low fire start position.
 - (Systems with manual control valve) (not used for 8858Z)
 - 2.2.2 On systems with air primary control, manually drive the air control valve to the low fire start position.

3. Burner start cycle for direct spark ignited systems (System will purge before every burner start cycle)
 - 3.1 With the purge complete and the low fire start switch made, the burner circuit is powered. The RA890 makes its safe start check (3 to 30 sec),
 - 3.1.1 The ignition transformer and ignition timer are energized. (Systems with direct spark ignition)
 - 3.1.2 The main fuel valves are energized. (Systems with spark ignited pilot)
 - 3.1.3 The pilot valve is energized. (8858Z systems only)

DR. RTF	7-16-84
CK. GNS	7-23-84
AP. JI	"
SCALE	"
MATL	"
REFERENCE	



SEQUENCE OF OPERATION
8858-F, -U, -FZ & UZ
NORTH AMERICAN MFG. CO.
CLEVELAND, OH 44105 USA

SHEET 1 of 2

DWG. NO.	Q 23-2310	REV	0
ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED			
TOLERANCE UNLESS OTHERWISE SPECIFIED			
DECIMALS	FRACTIONS	ANGLES	
± .002	± 1/64"	± 1/2°	

PART NO.

- 3.1.2 The low fire valve is energized.
- 3.2 When the ignition timer times out,
 - 3.2.1 The ignition transformer is de-energized.
 - 3.2.2 The main fuel delay timer is energized.
- 3.3 With the flame detector sensing flame, and the main fuel delay timer timed out,
 - (Systems with spark ignition)
 - 3.3.1 The main fuel valves will remain energized.
 - (Systems with spark ignited pilot and 8858Z systems)
 - 3.3.1 The main fuel valves will be energized.
- 3.4 When the end switch on the main fuel valve makes,
 - 3.4.1 The low fire hold timer is energized.
- 3.5 When the low fire hold timer times out,
 - (Systems with spark ignited pilot)
 - 3.5.1 The pilot valve is de-energized.
 - (Systems with motorized control valve)
 - 3.5.2 The control motor is released to the temperature circuit.
 - (Systems with manual control valve).
 - 3.5.2 Manually drive the control valve to the desired temperature position.

4. Burner Shutdown

- 4.1 Burner will shut down on,
 - 4.1.1 Power failure (alarm will not sound).
 - 4.1.2 Limit failure (Alarm will not sound).
 - 4.1.3 Flame failure (alarm will sound on flame failure only)

DR	CK	AP.	SCALE	MATL	REFERENCE
PSF	6/16				
7-16/4	7-23 R				



NORTH AMERICAN MFG. CO.
CLEVELAND, OH 44105 USA

SEQUENCE OF OPERATION
8858-F, -U, -FZ & UZ

SHEET 2 OF 2

Q	A23-2310	0
ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED		
TOLERANCE UNLESS OTHERWISE SPECIFIED		
DECIMALS	FRACTIONS	ANGLES
± .002	± 1/32	± 1/2°

PART NO.

NORTH AMERICAN MFG. CO.

DISTRICT OFFICE BUFFALO

PL BY S DZC

DATE 12-30-86

SPRONZ INCINERATOR

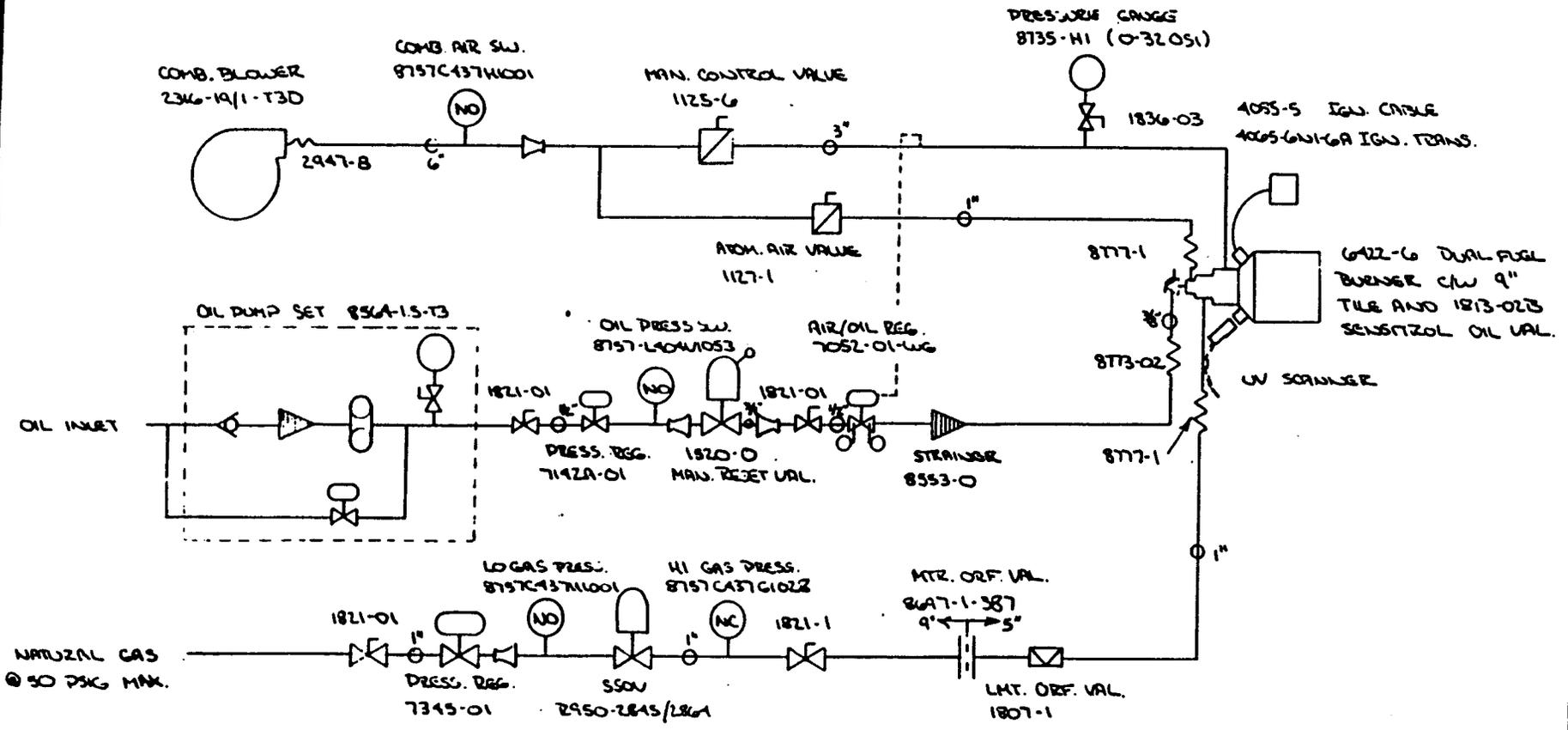
DISTRICT OFFICE NO.

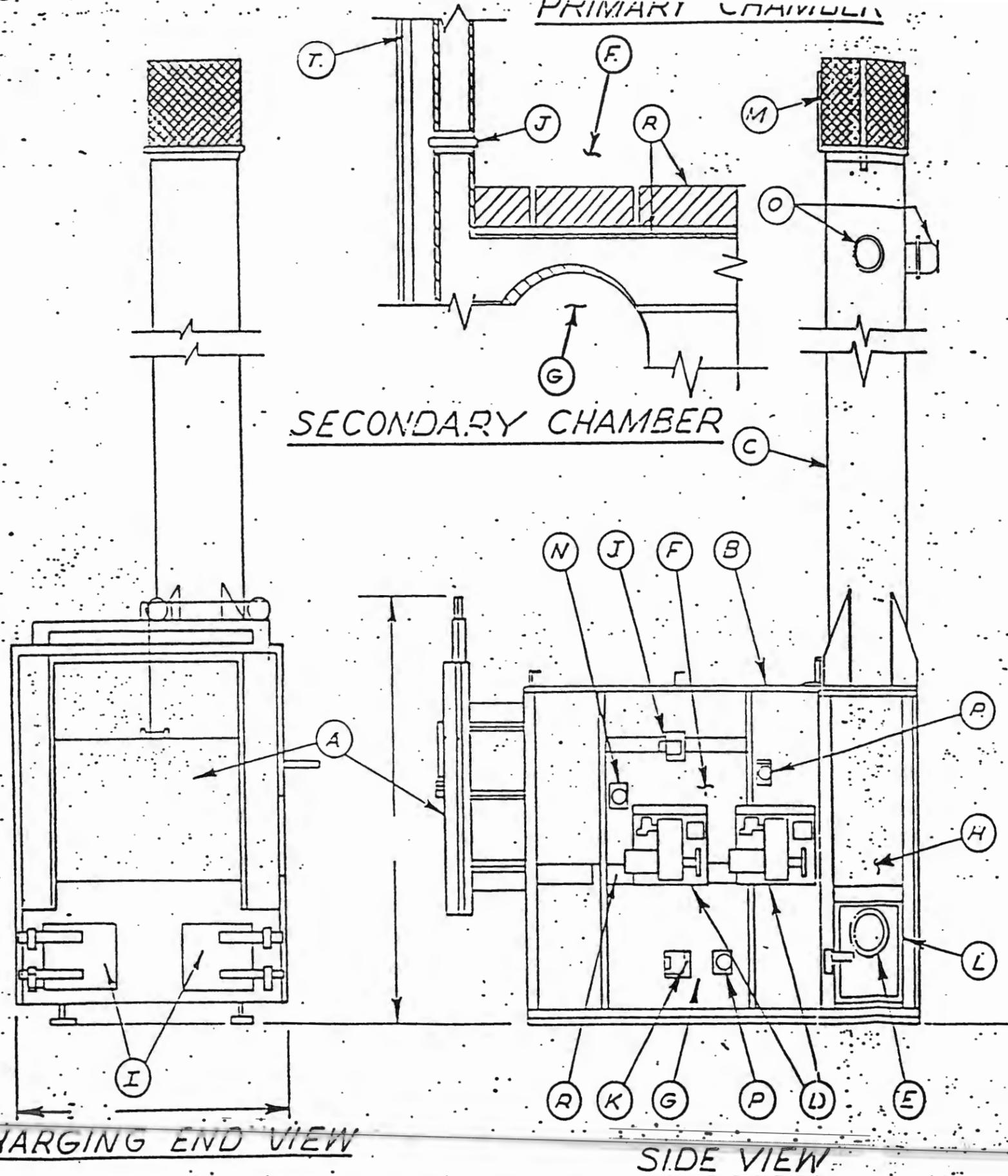
BU-86-1104

29064-00240

REVISED R1-3-30-87

NOTE: STARTUP: ADJUST MAN. CONTROL VALUE
SO PRESSURE GAUGE READS 10.51
RUN: ONCE BURNER IS LIT ADJUST
MAN. CONTROL VALUE SO PRESS.
GAUGE READS 10.051 MAX.
ATOMIZING AIR - FULL OPEN





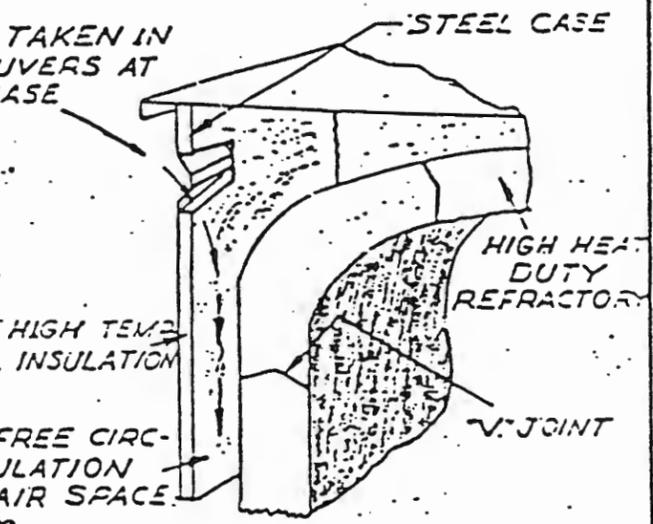
SPECIFICATIONS:

- A. GUILLOTINE CHARGING DOOR 42" x 30"
- B. STEEL JACKET
- C. SELF SUPPORTING STACK 22 I.D. 26 O.D.
- D. BURNERS & WEATHERHOODS
- E. BAROMETRIC DAMPER
- F. PRIMARY CHAMBER
- G. SECONDARY CHAMBER
- H. SEDIMENT CHAMBER
- I. ASH REMOVAL DOORS
- J. AIR BLOWER/PRIMARY CHAMBER
- K. AIR BLOWER/SECONDARY CHAMBER
- L. CLEANOUT DOOR UNDER STACK
- M. SPARK ARRESSTOR
- N. SIGHT GLASS
- O. STACK TEST PORTS
- P. THERMOCOUPLES
- R. HEARTH W/ FIREBRICK LINING
- S. INCINERATOR DIMENSIONS: 166" L x 84" W x 73" H
- T. 1" BLANKET INSULATION
- U. BURNING CAPACITY 380 LBS/HR. 0-4 WASTES
- V. ELEC. REQ. 115/120 VOLTS AC, 60 H_z, SINGLE PHASE

COOL AIR TAKEN IN THRU LOUVERS AT TOP OF CASE

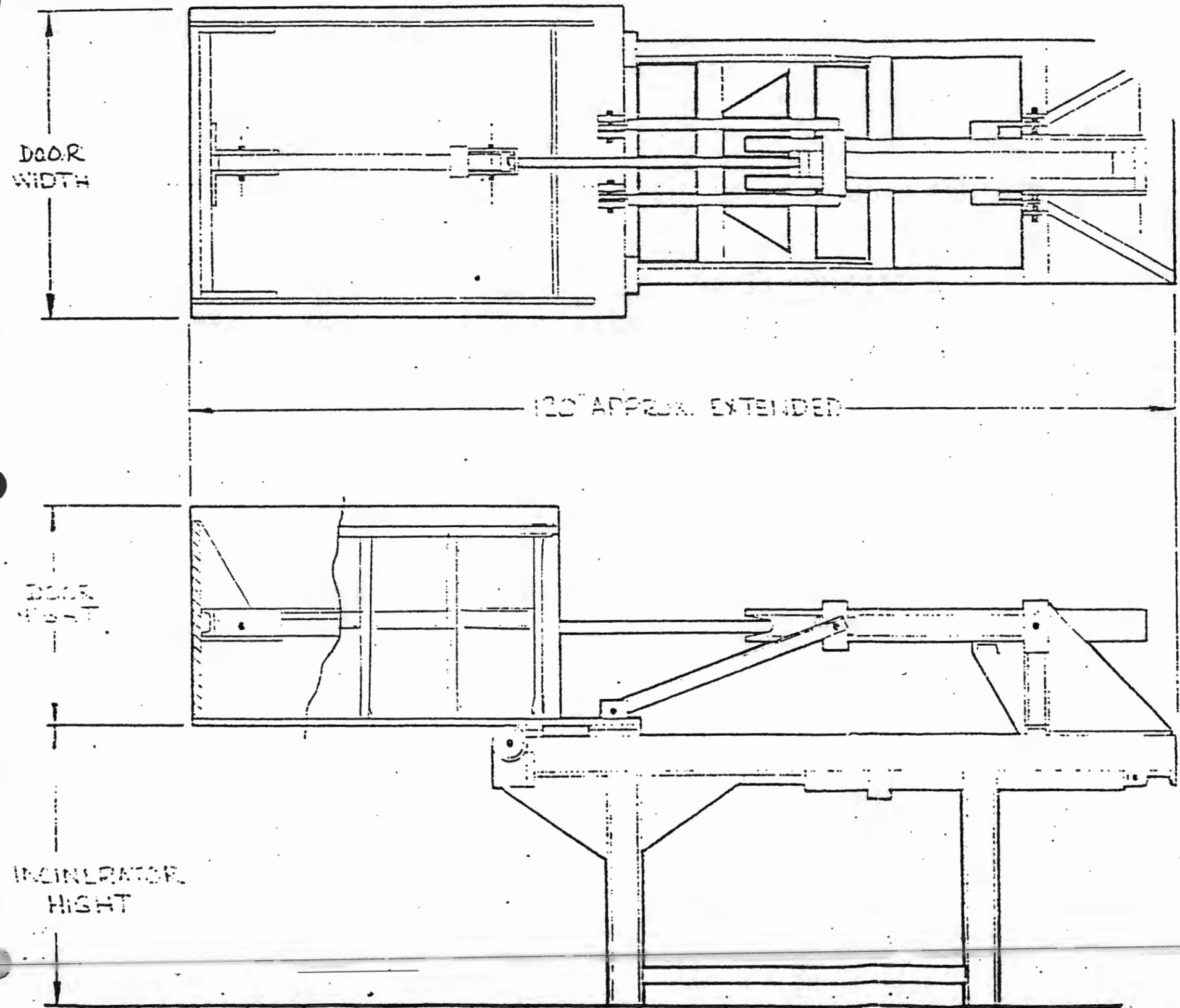
"V JOINT" refractory lining

The SPRONZ exclusive "V Joint" refractory lining assures longer incinerator life. High heat duty refractory is cast into V joint blocks which allow for expansion and contraction of the refractory as the temperature of the incinerator raises and lowers. This prevents cracking and spalling assuring far longer lining life than monolithic cast walls or fire brick walls. This exclusive design also permits faster erection thus cutting on-the-job time.



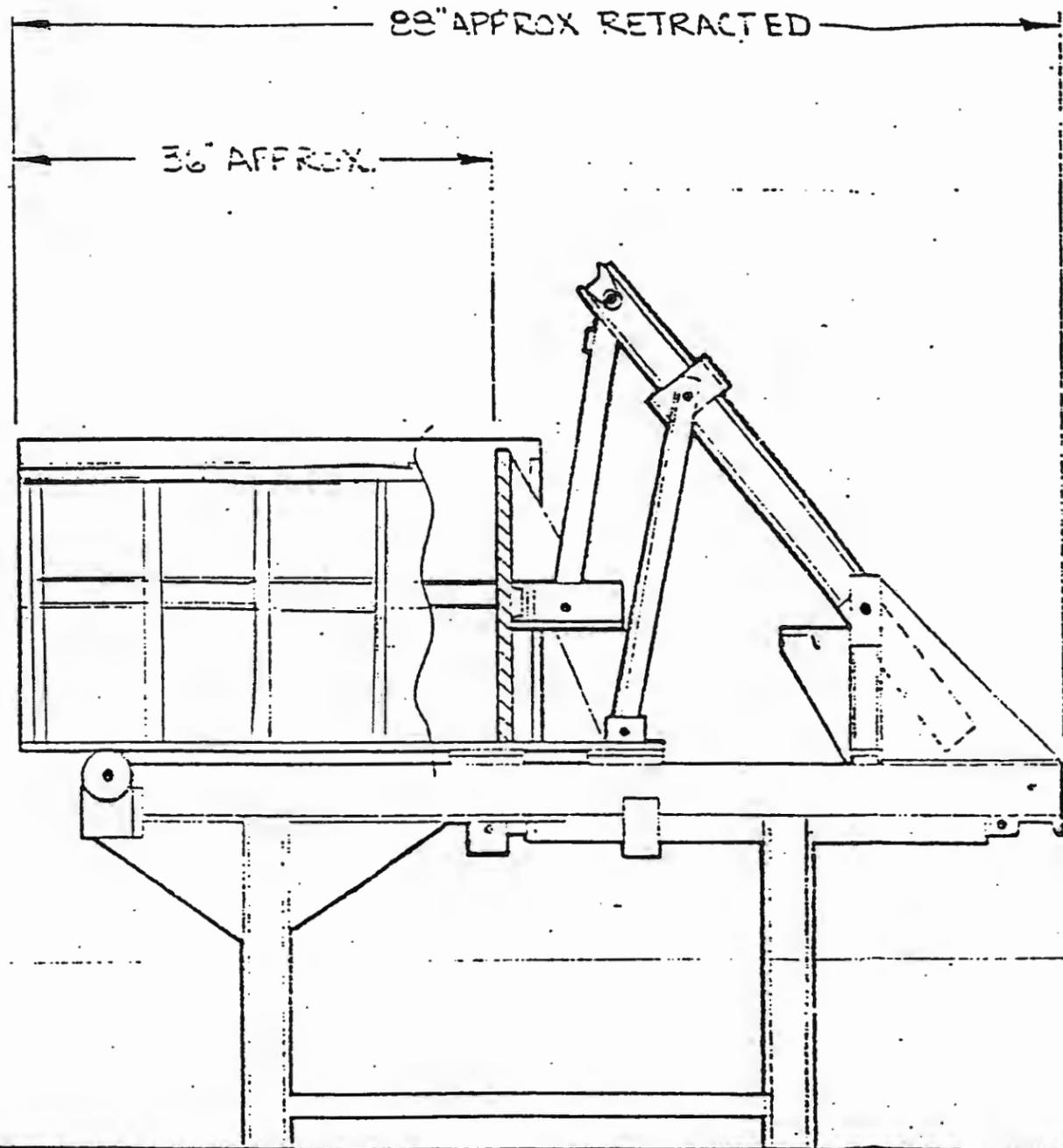
TOLERANCES (EXCEPT AS NOTED)	SPRONZ INCINERATOR CORP. ROCHESTER, NEW YORK 14611		
DECIMAL	SCALE NONE	DRAWN BY QMD	
FRACTIONAL	APPROVED BY		
ANGULAR	TITLE INCINERATOR		
	DATE 8-22-85	DRAWING NUMBER RL-80-P	

DATE	SYM	REVISION	DESIGN	104



TOLERANCES (EXCEPT AS NOTED)	SPRONZ INCINERATOR CORP. ROCHESTER, NEW YORK		
DECIMAL	SCALE	DRAWN BY <i>C.M.L.</i>	
FRACTIONAL	NONE	APPROVED BY	
ANGULAR	DATE	DRAWING NUMBER	
	3-86		
		TITLE AUTO-LOADER	

PUNING 40 11



TOLERANCES EXCEPT AS NOTED	SPRONZ INCINERATOR CORP. ROCHESTER, NEW YORK	
DECIMAL		SCALE
FRACTIONAL	TITLE	
ANGULAR	DATE	DRAWING NUMBER
	3-86	
	AUTO LOADER	

Spronz Incinerator Corp.*Complete Line Incinerators*

1262-68 Plymouth Ave. South Rochester, New York 14611

235-4877

November 13, 1986

Los Alamos National Laboratory
David Nochumson, HSE-8, MS K490
Los Alamos, New Mexico 87545

Re: HSE 8-86-1229

Mr. Nochumson:

In reply to your letter of October 30th, 1986.

- Para. 1 Burning capacity 810 lbs./hr. (within One hour)
2. Auxiliary fuel per hour during the incineration of type "0" waste.
- | | | | |
|----------------------|--------------------|-------------------|------|
| Three Power Burners: | | | |
| Nat. Gas | | Cubic feet/hour | 1714 |
| 1,800,000 BTU/HR. | (1050 BTU/CU. FT.) | | |
| Propane L.P. | | Cubic feet/hour | 705 |
| 1,800,000 BTU/HR. | | (2550 BTU/CU FT.) | |
3. Temperature of gas existing stack °F 1200
- Volumetric flow rate ACFM 2906
- $\frac{22 \times 81}{7 \times 1} = \frac{254.57}{144} = \text{Stack Area } 1.77 \text{ FT}^2$
- $1644 \text{ FT/MIN} \times 1.77 \text{ FT}^2 = 2906.4 \text{ ACFM}$
4. Estimated stack elevation above ground ft. level 30
5. Stack I.D. Inches 18
6. Emission in pounds per ton of type "0" waste for the following air pollutants.
- | | | | |
|------------------|-----------------------------------|----------|---------------|
| Nitrogen oxide | NO | | None measured |
| Nitrogen dioxide | NO ₂ | | " |
| Sulfur dioxide | SO ₂ | | " |
| Particulates | .708 lbs./hr @ 800 lbs./waste/hr. | lbs./ton | 1.77 |
| Hydro Carbons | HC | | None Measured |
| Carbon Monoxide | C | | " |
7. Ringlemann smoke readings None visible

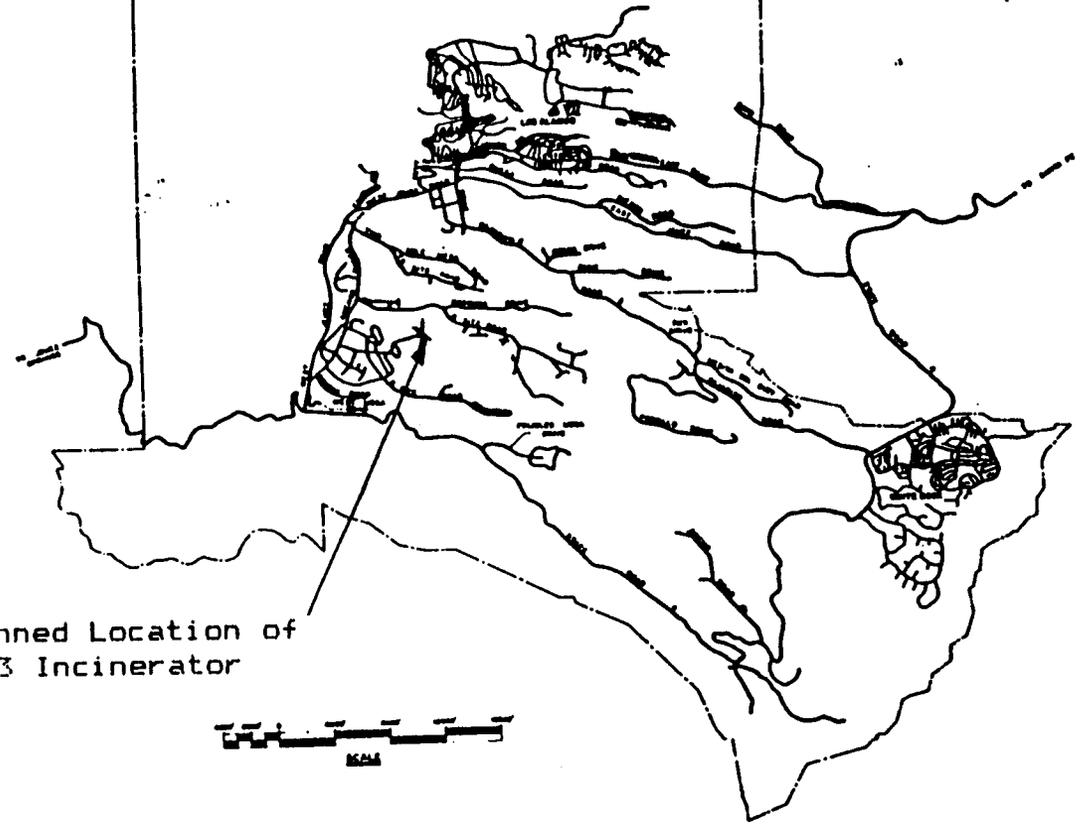
Sincerely

Spronz Incinerator Corp.


 Francis V. Spronz

EXHIBIT III

LOS ALAMOS COUNTY



Planned Location of
WX-3 Incinerator



UNIVERSITY OF CALIFORNIA Los Alamos		Los Alamos National Laboratory Los Alamos, New Mexico 87545	
FACILITIES ENGINEERING DIVISION			
TECHNICAL	AREA	ROADS	
DATE: 10-9-63		DESIGNED BY: J. O. JR.	ENG. NO. 101

EXHIBIT IV

Concentration Estimates Versus
Standards or Occupational Exposure Limits

Pollutant -----	Controlling Averaging Time -----	Ambient Standard ug/m**3 -----	Estimated Concentration Percent of Standard	
			ug/m**3 -----	-----
Sulfur Dioxide	3 hours (1)	1300	1.82	0.140
Total Suspended Particulates	30 day (2)	90	0.19	0.213
Carbon Monoxide	1 hour (2)	15258	7.09	0.046
Nitrogen Dioxide	24 hour (2)	191	1.60	0.839
Non-Methane Hydrocarbons	3 hour (2)	127	0.03	0.021
Hydrogen Chloride	instantaneous (3)	7000	5.45	0.078

(1) The National and New Mexico Ambient Air Quality Standard for this averaging time are the most stringent standard for this pollutant.

2) New Mexico Ambient Air Quality Standard for this averaging time is the most stringent standard for this pollutant.

(3) There are no ambient air quality standards for this pollutant. The occupational exposure limit, threshold limit value-ceiling is reported (Threshold Limit Values and Biological Exposure Indices for 1986-87, American Conference of Governmental Industrial Hygienists).

ATTACHMENT D
Operating Record

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998

Waste Description: Solid trash generated in high explosives operating areas, potentially contaminated with high explosives in trace quantities. Materials include: combustible laboratory trash (paper, kimwipes, cardboard, tissues, wooden spoons, cotton swabs), plastics, and waste rags. Waste is nonradioactive and free of lead, beryllium, oil, PCBs, and asbestos.

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
03/19/92	-----	-----	10 dumpsters delivered to transportainer for burn.
03/23/92	1	500	Good burn
03/24/92	1	500	OK
03/24/92	1	500	OK
03/25/92	1	500	OK
03/25/92	-----	-----	1 dumpster delivery
03/26/92	1	500	
04/01/92	1	500	
04/08/92	-----	-----	Paul Moore WX-12 replaced faulty timer for primary burner
04/15/92	1	400	OK
04/28/92	-----	-----	Area dumpster pick-up (4 ea.)
05/11/92	1	300	
05/13/92	-----	-----	Ashes removed (2 drum)
05/13/92	2	500	
05/13/92	-----	-----	Ashes removed, 2 barrels
05/21/92	-----	-----	Area dumpster picked up.

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
06/01/92	----	----	Met with M. Barn (name is hard to read) to discuss burner control change. Discussed pre-burn checklist, thermocouple checks, etc.
06/03/92	2	600	
06/04/92	1	400	OK
06/08/92	1	400	OK
06/10/92	1	400	OK
06/15/92	1	400	OK
06/15/92	----	----	Ashes removed - 1 barrel
06/25/92	1	400	
07/06/92	1	400	Thermocouples OK
07/07/92	1	400	
07/08/92	1	400	OK
07/14/92	1	400	OK
07/16/92	----	----	Ashes removed - 1.5 barrels
07/27/92	----	----	Dumpster pick up (10)
07/29/92	1	400	OK
08/03/92	1	400	OK
08/10/92	1	400	OK
08/18/92	1	400	OK
08/25/92	1	400	OK

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
09/08/92	1	400	OK
09/15/92	1	400	OK
----- (cannot read)	----- (cannot read)	----- (cannot read)	(Can only read the last part of a comment:) '...regarding pre-burn checklist, was advised to keep wx-12, informed about thermocouples performance, OK!'
10/13/92	1	400	OK (Thermo. OK)
11/10/92	1	400	OK
11/12/92	1	450	OK
12/01/92	1	300	
12/07/92	1	300	
12/09/92	1	300	Checked thermo. OK
12/01/92	1	400	OK
01/14/93	1	400	OK
02/09/93	1	400	OK
02/16/93	-----	-----	(Nothing else written for this date.)
02/17/93	1	400	OK
03/04/93	6	1200	OK
03/08/93	5	1000	OK
03/09/93	1	400	OK (Thermo. OK)

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
Late Entry: 06/10/92	-----	-----	Spent 4 hrs. training for J. Maestas on emission evaluation. As of this date, J. Maestas (03/09/93) has approx. 18 hrs. of emission evaluation experience. Trained by R. Velarde, Disposal Unit LDR.
04/20/93	-----	-----	10 ea. Dumpster pick-up TA-16
04/21/93	2	600	Checked thermocouple - visually OK
04/22/93	1	300	
04/28/93	2	600	
04/29/93	-----	-----	Meeting was held concerning SOP revision and comments on rough draft were discussed. All explosives unit personnel were present and consider the meeting a training session. WX-12 order was put in to fix limit switch on door to prevent ignition of burner if door is not completely closed.
05/03/93	1	300	
05/10/93	2	500	
05/12/93	1	300	
05/13/93	1	300	
05/26/93	-----	-----	7 ea. dumpster pick up TA-16 & TA-(illegible)
06/14/93	-----	-----	Ashes removed from incinerator (1 drum)
06/14/93	1	400	Thermocouple checked, visually (temp. gauge) OK
06/17/93	1	300	
06/24/93	-----	-----	8 ea. dumpster pick up TA-16

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
07/12/93	1	300	
07/14/93	1	300	
07/27/93	1	400	Received OK from group office (L. Hatler) to burn.
08/05/93	----	----	9 ea. dumpster pick up TA-16
08/17/93	2	600	HE cont. combustibles from TA-22 (2 boxes) “ ” “ ” 430 (3 boxes) “ ” “ ” 340 (1 box) “ ” “ ” 460 (0.5 barrel)
08/24/93	1	300	
08/30/93	1	100	Matl. was wet
09/09/93	----	----	Thermocouples visually checked (OK)
09/09/93	1	150	OK to burn per D. Hemphill
09/14/93	----	----	Dumpster pick-up TA-16 8 ea.
09/27/93	1	300	This load inspected for prohibited items
09/28/93	1	300	Entered into PC 10/27/93
09/30/93	1	300	Insp. for prohibited items. Entered into PC 10/27/93
10/06/93	1	300	Insp. for prohibited items. SD waste burn. Entered into PC 10/27/93
10/19/93	----	----	Ashes removed from incinerator (2 drums). Entered into PC 10/27/93
10/20/93	1	300	SD waste burn. OK to burn per L. Hatler. Entered into PC 10/27/93

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
10/28/93	-----	-----	8 ea. dumpster pick up TA-16 Area
11/10/93	1	300	SD waste burn. David Jardine here for evaluation of incinerator burn. Great burn. Entered in PC.
11/18/93	1	300	SD waste burn. Checked thermocouples visually (OK). Checked load to be burned for prohibited items. Entered in PC.
11/22/93	1	300	SD waste burn. Entered in PC.
11/29/93	1	300	SD waste burn. This load checked for prohibited items. Prohibited items removed. Entered in PC.
11-30-93	1	300	SD waste burn. Checked for Prohibited items. Prohibited items removed. Entered in PC.
12/08/93	1	300	SD waste burn. Prohibited items removed. Entered in PC.
12/09/93	1	300	SD waste burn. Prohibited items removed. Entered in PC
12/14/93	-----	-----	Ashes removed from incinerator. 2 ea. 55 gal. drums.
12/14/93	-----	-----	8 ea. dumpster pick-up TA-16 area.
01/04/94	1	200	SD waste burn. Checked for and removed prohibited items. Thermocouples visually checked. OK. David Jardine notified of this burn 01/03/94. Entered in PC.
01/11/94	1	200	SD waste burn. Checked for and removed prohibited items. David Jardine (EM 8) notified of this burn 01/10/94. Entered in PC.
01/24/94	1	200	SD waste burn. Checked for and removed prohibited items. David Jardine (EM 8) notified of this burn 01/20/94. Entered in PC.

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
01/25/94	-----	-----	7 ea. dumpster pick up TA-16 area.
03/1/94	1	200	SD waste burn. Checked for and removed prohibited items. David Jardine (EM 8) notified of this burn 02/28/94. Entered in PC.
03/15/94	1	200	SD waste burn. This burn was set up to check secondary burner. Secondary burner is turning on and off. Paul Moore here to check it. Called work order in to Cora Roybal to have temp controls worked on. Checked for and removed prohibited items. Entered in PC.
03/22/94	1	200	SD waste burn. Checked for and removed prohibited items - cans, foam, wood, etc. Notified D. Jardine (EM-8) of this burn 03/21/94. Entered in PC.
03/24/94	-----	-----	6 ea. dumpster pick up TA-16 area.
05/18/94	1	250	SD waste burn. Checked for and removed prohibited items. Notified Jardine (EM 8) - answering machine - of this burn on 05/17/94. Entered in PC.
05/19/94	1	250	SD waste burn. Checked for and removed prohibited items. Same as above information.
05/25/94	-----	-----	8 ea. dumpster pick up TA-16 area.
06/01/94	-----	-----	Ashes removed from incinerator. 1 ea. 55 gal drum.
06/23/94	1	250	SD waste burn. Checked and removed prohibited items. Notified D. Jardine (EM-8) of this burn on 06/22/94. Thermocouples visually checked (OK). Entered in PC.

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
08/30/94	1	250	SD waste burn. Checked for and removed prohibited items, cans, foam, wood, electrical wire, etc. Notified D. Jardine, EM 8 of this burn on 08/29/94.
08/31/94	1	250	SD waste burn. Same as above.
09/01/94	1	250	SD waste burn. Same as above.
09/22/94	1	250	SD waste burn. Checked for and removed prohibited items. Notified D. Jardine, EM 8 of this burn on 09/21/94.
10/06/94	-----	-----	7 ea. dumpster pick up TA-16 area
10/27/94	1	250	SD waste burn. Checked for and removed prohibited items. Notified D. Jardine, EM 8 of this burn on 10/26/94.
11/08/94	1	250	SD waste burn. Checked for and removed prohibited items. D. Jardine, on vacation. Notified Leland Maes, ESH-8 of this burn on 11/07/94.
11/09/94	1	250	SD waste burn. Same as above.
11/15/94	1	250	SD waste burn. Same as above. Notified L. Maes, of this burn on 11/14/94.
11/16/94	1	250	SD waste burn. Same as above.
11/22/94	1	250	SD waste burn. Checked for and removed prohibited items. Notified Leland Maes, ESH-8, of this burn on 11/21/94.
11/29/94	-----	-----	5 ea. dumpster pick up TA-16 area.
11/30/94	1	250	SD waste burn. Checked for and removed prohibited items. Notified D. Jardine, ESH-8 of this burn on 11/29/94. Thermocouples visually checked (OK).

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
12/15/94	-----	-----	Propane tank refilled (850 gals.)
01/04/95	1	250	SD Waste burn. Notified D. Jardine, ESH-8 of this burn on 01/03/95 (voice machine)
01/24/95	1	250	SD Waste burn. Notified D. Jardine, ESH-8 of this burn on 01/23/95 (voice machine)
01/25/95	1	250	SD Waste burn. Same as above paragraph.
02/22/95	1	250	SD Waste burn. Checked for prohibited items. Notified D. Jardine, ESH-8 of this burn on 02-21-95.
02/23/95	1	250	SD Waste burn. Same as the above paragraph.
02/28/95	1	250	SD Waste burn. Checked for prohibited items. Notified D. Jardine, ESH-8 of this burn on 02/27/95. Thermocouples visually checked (OK).
03/02/95	-----	-----	8 ea. dumpster pick up TA-16 area.
03/07/95	1	250	SD Waste burn. Checked for and removed prohibited items. Notified David Jardine, ESH-17 of this burn (voice machine) on 03/06/95.
03/08/95	1	250	SD waste burn. Same as above paragraph.
03/09/95	1	250	SD waste burn. Same as above.
04/04/95	-----	-----	5 ea. dumpster pick up from TA-16 area.
04/26/95	1	250	SD waste burn. Checked for and removed prohibited items. Notified David Jardine, ESH-17, of this burn on 04/25/95.
04/27/95	1	250	SD waste burn. Same as above paragraph.
05/01/95	-----	-----	Ashes removed from incinerator.

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
05/02/95	1	250	SD waste burn. Checked for and removed prohibited items. Notified David Jardine, ESH-17, of this burn on 05/01/95. Thermocouples visually checked (OK).
05/04/95	1	250	SD waste burn. Same as above paragraph.
05/08/95	----	----	8 ea. dumpster pick up from TA-16 area.
05/10/95	1	250	SD waste burn. Notified David Jardine, ESH-17, of this burn on 05/09/95.
05/17/95	1	250	SD waste burn. Notified David Jardine, ESH-17, of this burn on 05/17/95. Removed prohibited items.
05/18/95	1	250	SD waste burn. Same as above paragraph.
06/14/95	----	----	7 ea. dumpster pick up from TA-16 area.
06/22/95	----	----	Removed ashes from incinerator.
06/26/95	1	250	SD waste burn. Thermocouples visually checked OK. Prohibited items removed.
06/28/95	1	250	SD waste burn. Notified D. Jardine, ESH-17, of this burn on 06-27-95.
06/29/95	1	250	SD waste burn. Same as above paragraph.
07/05/95	1	250	SD waste burn. Checked for and removed prohibited items.
07/12/95	----	----	8 ea. dumpster pick up from TA-16 area.
07/20/95	1	250	SD waste burn. Notified D. Jardine, ESH-17, of this burn. Removed prohibited items.

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
08/01/95	1	250	SD waste burn. Notified D. Jardine, ESH-17, of this burn on 07/31/95 - voice message - thermocouples visually checked -OK.
08/05/95	----	----	Ashes removed from incinerator.
08/06/95	1	250	SD waste burn. Notified D. Jardine, ESH-17, of this burn on 08/05/95.
09/06/95	1	250	SD waste burn. Same as above paragraph. Removed prohibited items.
09/12/95	1	250	SD waste burn. Notified D. Jardine, ESH-17, of this burn on 09/11/95.
10/11/95	----	----	7 ea. dumpster pick up from TA-16 area.
10/17/95	1	250	SD waste burn. Notified D. Jardine of these burns (3) on 10/16/95.
10/18/95	1	250	SD waste burn. Removed prohibited items.
10/19/95	1	250	SD waste burn.
10/26/95	1	250	SD waste burn. Notified D. Jardine of this burn on 10/24/95. Thermocouples visually checked - OK.
10/31/95	----	----	Ashes removed from incinerator.
11/07/95	1	250	SD waste burn. Notified D. Jardine of these burns (2) on 11/06/95. Checked and removed prohibited items.
11/08/95	1	250	SD waste burn.
12/04/95	----	----	5 ea. dumpster pick up from TA-16 area.
12/06/95	1	250	SD waste burn. Notified D. Jardine of this burn on 12/04/95

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
12/12/95	1	250	SD waste burn. Notified D. Jardine of this burn on 12/11/95. Checked for and removed prohibited items.
01/25/96	1	250	SD waste burn. Notified D. Jardine on 01/24/96 of this burn. Checked for prohibited items. Everything OK - thermocouples visually checked -OK-
01/29/96	----	----	Dumpster pick up from TA-16 area.
01/30/96	----	----	Removed ashes from incinerator.
01/30/96	1	250	SD waste burn. Notified D. Jardine, ESH, of this burn on 01/29/96. Checked for and removed prohibited items.
01/31/96	1	250	SD waste burn. Same as above paragraph.
02/01/96	1	250	SD waste burn. Same as above paragraph.
04/02/96	----	----	Removed ashes from incinerator.
04/02/96	1	250	SD waste burn. Notified D. Jardine, ESH, of this burn on 04/01/96. Checked for and removed prohibited items. Thermocouples visually checked -OK-
04/03/96	1	250	SD waste burn. Same as above paragraph.
04/09/96	1	250	SD waste burn. Notified D. Jardine, ESH, of this burn on 04/08/96. Checked for prohibited items. Everything OK.
04/10/96	1	250	SD waste burn. Last burn from dumpsters. Same as above.
11/21/96	1	200	TA-16 H.E. contaminated solid waste burn. Notified D. Jardine of this burn on 11/21/96. Everything OK.

TA-16 Industrial Incinerator Operating Record Summary, 1992 — 1998 (Continued)

Date	Number of Burns	Quantity (lbs)	Additional Operating Information
12/19/96	1	75	TA-16 H.E. contaminated solid waste burn. Notified D. Jardine of this burn. Everything OK.
08/07/97	?? (doesn't specify number of burns)	250	H.E. cont. combustibles burn - packing materials, kimwipes, rags, boxes. Notified D. Jardine (courtesy call). Harold Martinez here to observe burn - everything OK. Material from TA-16, TA-22.
10/23/97	??	200	H.E. cont. combustibles burn - (HE boxes, paper bags) from Bldg 430.
12/07/97	??	100	HIGH temperature incinerator used burned material from 430.
04/02/98	??	200	H.E. cont. combustibles burn (paper, cardboard boxes, packaging material, etc.) TA-16.
04/08/98	-----	-----	Removed ashes from incinerator.
08/26/98	??	75	H.E. cont. combustibles burn. (Paper, cardboard boxes, oily rags from TA-16.)

**Copy of
TA-16 Industrial Incinerator
Log Book**

10/13/92	made 1 burn	400 lbs	OK (Thermo. OK)
11/1/92	1 burn	400 lbs	
11/12/92	1 burn	450 lbs	OK 18.7% opac.
12-1-92	1 burn	300 lbs	14.8%
12-7-92	1 burn	300 lbs	14.29%
12-9-92	1 burn	300	checked thermo OK 14.7% opac.
12-1-93	1 burn	400 lbs	OK
1-14-93	1 Burn	400 lbs	OK 21.1%
2/9/93	1 burn	400 lbs	OK 20%
2-16-93			
2/17/93	1 burn	400 lbs	OK
3-4-93	6 burns	1200 lbs	OK
3/8/93	5 burns	1000 lbs	OK
3/9/93	1 burn	400 lbs	OK (Thermo. OK)

late entry 6-10-92 Spent 4 hrs training
for J. MAESTAS on EMISSION EVALUATION.
As of this date, J. MAESTAS (3-9-93) has approx.
18 hrs. of emission evaluation experience
trained by P. UCLARDE, DISPOSAL UNIT LDR.

4-20-93	10 EA. DUMPSTER PICK UP	TA-16	
4-21-93	2 BURNS X 300 LBS = (600 LBS)		OPACITY 17.86%
4-22-93	<u>CHECKED THERMOCOUPLE - VISUALLY OK</u>		
4-22-93	1 BURN	300 LBS	15.6%
4-28-93	2 BURN	300 LBS (600)	13.19
4-29-93	Meeting was held concerning SOP revision and comments on rough draft were discussed. All disposal unit personnel were present and consider the meeting a training session. WX-12 order was put in to fit limit switch on door to prevent ignition of burners if door is not completely closed.		
5-3-93	1 ea Incinerator Burn	300 lbs	19.1
5-10-93	2 ea " Burns	250 lbs (ea) = 500 lbs	18.4
5-12-93	1 ea " " "	300 lbs	16%
5-13-93	1 ea " " "	300 lbs	15.86

5-26-93 7 EA. DUMPSTER PICK UP TA-16 + TA-17
6-14-93 Ashes removed from Incinerator (1 Burn)

6-14-93 1 BURN 400 LBS 21.4%
 Thermocouples checked visually (Temp. 580) OK
 6-17-93 1 BURN 300 LBS 18.5%
 6-24-93 8 Ea. DUMPSTER PICK UP TA-16
 7-12-93 1 BURN 300 LBS. 13.56
 7-14-93 1 BURN 300 LBS. 25
 7-27-93 1 BURN 400 LBS. 19.7%
 Received OK from group office (L Hatler) to burn.

8-5-93 9 Ea. DUMPSTER PICK UP TA-16

8-17-93 2 burns 600 lbs
 H.C. cont. combustibles from TA-22 (2 boxes)
 " " " " 430 (3 boxes)
 " " " " 340 (1 box)
 " " " " 460 (1/2 barrel)

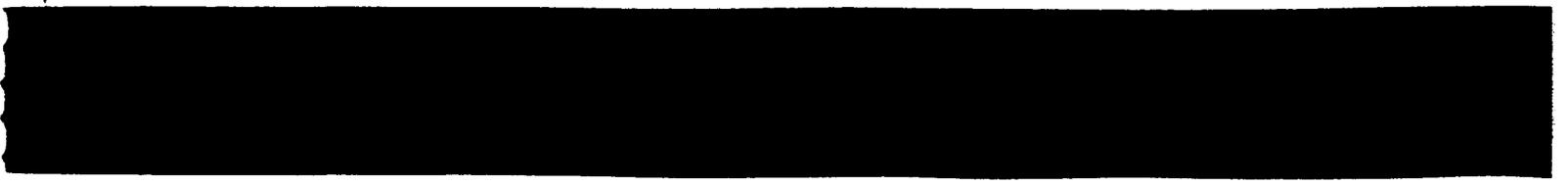
8-24-93 1 ea burn 300 lbs 15.3%
 8-30-93 1 ea " 100 lbs 20.2 (matt. was wet)
 9-9-93 Thermocouples visually checked (OK)
 9-9-93 1 Ea burn 150 LBS. 17.4%
 (OK to Burn per D Hemphill)

9-15-93 8 Ea. DUMPSTER PICK UP TA-16

9-27-93 1 ea burn 300 lbs 13.19
 This load inspected for prohibited items.
 9-28-93 1 Ea. burn 300 LBS. 18.2%
 9-30-93 1 ea burn 300 LBS 18.5 (Entered in PC)
 10-6-93 Insp. for prohibited items.
 1 Ea. SI Waste Burn 300 LBS. 16.2% (10-27)

10-14-93 Ashes removed from Incinerator (2 Drums)
 10-20-93 1 Ea SI Waste Burn 300 LBS. 17.4%
 OK to burn per L Hatler

10-28-93 8 Ea Dumpster Pick-up TA-16 AREA



31-AT 700 4019 931294441 .03 8 EP-15-2
11-10-93 1 Ea 51) Waste burn 300 LBS.
David Gardine here for evaluation of
incinerator burn. His opacity reading
was 1%. Great burn.

Entered
in
RC.
11-18-93 1 Ea 51) Waste burn 300 LBS. 5.4%
" Checked thermocouples visually (OK)
Thermocouples visually checked OK
31-AT 700 4019 931294441 .03 8 EP-15-2
Checked load to be burned for prohibited items.
11-22-93 1 Ea 51) Waste burn 300 LBS. 6.2%

11-29-93 1 Ea 51) Waste burn 300 LBS. 8.13%
This load checked for prohibited items. Prohibited
items removed.

11-30-93 1 Ea 51) Waste burn 300 LBS. 12.56%
Checked for prohibited items. Prohibited
items removed.

Entered
in
PC
12-8-93 1 Ea 51) Waste burn 300 LBS. 4.7%
Prohibited items removed

12-9-93 1 Ea 51) Waste burn 300 LBS. 4.6%
Prohibited items removed

12-14-93 Ashes removed from Incinerator
2 Ea 55 Gal. Drums

12-14-93 8 Ea. Dumpster Pickup TA-16 Area

1994

Entered
in
PC

1-4-94 1 Ea SD Waste burn - 200 LBS.
Checked for and removed prohibited items 5.07
Thermocouples visually checked.
OK. David Gardine notified of this burn 1-3-94 -

1-11-94 1 Ea SD Waste burn - 200 LBS. 6.57
Checked for and removed prohibited items. Notified David Gardine EM 8 of this burn on 1-10-94 -

1-24-94 1 Ea SD Waste burn 200 LBS 5.19
Checked for and removed prohibited items. Notified David Gardine EM 8 of this burn on 1-20-94 -

1-25-94 7 Ea. Dumpster Pick-up
TA-16 AREA -

Entered
in
PC

3-1-94 1 Ea. SD Waste burn 200 LBS 11.06
Checked for and removed prohibited items. Notified David Gardine, EM 8 of this burn on 2-28-94 -

3-15-94 1 Ea. SD Waste burn 200 LBS, 8.8
This burn was set up to check secondary burner. Secondary burner is turning on and off. Paul Moore here to check it. Called work order in to Cora Roybal to have temp controls worked on. Checked for and removed prohibited items.

3-22-94 1 Ea. 5D Waste burn - 200 LBS. 9.17
Checked for and removed prohibited items - cans, foam, wood, etc.
Notified D. Jardine EM 8 of this burn on 3-21-94 -
Entered in PC

3-24-94 6 Ea Dumpster Pick-up
TA-16 Area

5-18-94 1 Ea } 5D Waste burn - 250 LBS
Checked for + removed prohibited items. Notified Jardine EM 8 -
answering machine L of this burn on 5-17-94
Entered in PC

5-19-94 1 Ea } 5D Waste burn - 250 LBS.
Checked for + removed prohibited items. Same as above information

5-25-94 8 Ea Dumpster Pick-up
TA-16 Area

6-1-94 Ashes removed from incinerator
1 Ea 55 Gal Drum

6-23-94 1 Ea 5D Waste burn - 250 LBS.
Checked for and removed prohibited items. Notified D Jardine
EM-8 of this burn on 6-22-94
Thermocouples visually checked (OK)
Entered in PC

- 1.970
- ✓ 8-30-94 1 Ea S1) Waste burn - 250 LBS.
Checked for and removed prohibited items, cans, foam, wood, electrical wire, etc. Notified R. Gardine, EM 8 of this burn on 8-29-94
- ✓ 8-31-94 1 Ea. S1) Waste burn - 250 LBS.
Same as above
- ✓ 9-1-94 1 Ea S1) Waste burn - 250 LBS
Same as above
- ✓ 9-22-94 1 Ea. S1) Waste burn - 250 LBS.
Checked for and removed prohibited items. Notified R Gardine EM 8 of this burn on 9-21-94
- 10-6-94 7 Ea Dumpster Pick-up
TA-16 Area
- ✓ 10-27-94 1 Ea S1) Waste burn 250 LBS
Checked for and removed prohibited items. Notified R Gardine of this burn on 10-26-94
- ✓ 11-8-94 1 Ea S1) Waste burn. 250 LBS
Checked for and removed prohibited item. D Gardine on 11-7-94.
Notified J. Lee M. Esq. EST-8 of this burn on 11-7-94
- ✓ 11-9-94 1 Ea S1) Waste burn 250 LBS
Same as above
- ✓ 11-15-94 1 Ea S1) Waste burn 250 LBS
Same as above -
Notified L. Males of this burn on 11-14-94
- ✓ 11-16-94 1 Ea S1) Waste burn - 250 LBS
Same as above

- 11-22-94 1 Ea 51) Waste burn - 250 LBS.
Checked for and removed prohibited items. Notified Leland Maes, ESH-8, of this burn on 11-21-94 ✓
- 11-29-94 5 EA Dumpster Pick-up
TA-1B Area ✓
- 11-30-94 1 Ea 51) Waste burn - 250 LBS.
Checked for and removed prohibited items. Notified D. Gardine, ESH-8, of this burn on 11-29-94 ✓
Thermocouples visually checked (OK)
- 2-15-94 Propane tank re-filled (850 gals.) ✓

1995

- 1-4-95 1 Ea 51) Waste burn - 250 LBS.
Notified D. Gardine, ESH-8 of this burn on 1-3-95 ✓
(Voice machine)
- 1-24-95 1 Ea 51) Waste burn - 250 LBS
Notified D. Gardine, ESH-8 of this burn on 1-23-95 ✓
(voice machine) Capacity 3.6%
- 1-25-95 1 Ea 51) Waste burn - 250 LBS
Same as above paragraph ✓
- 2-22-95 1 Ea 51) Waste burn - 250 LBS.
Checked for prohibited items. Notified D. Gardine, ESH-8, of this burn on 2-21-95 ✓
- 2-23-95 1 Ea 51) Waste burn - 250 LBS.
Same as above paragraph ✓
- 2-28-95 1 Ea 51) Waste burn - 250 LBS.
Checked for prohibited items. Notified D. Gardine, ESH-8 of this burn on 2-27-95 ✓
Thermocouples visually checked (OK)
- 3-2-95 8 Ea. Dumpster Pick-up ✓

Thermocouples usually checked OK

- ✓ 3-7-95 1 Ea 51) Waste burn - 250 LBS.
Checked for and removed prohibited items. Notified David Gardine, ESH-17 of this burn (voice machine) on 3-6-95
- ✓ 3-8-95 1 Ea 51) Waste burn - 250 LBS
Same as above paragraph -
- ✓ 3-9-95 1 Ea 51) Waste burn - 250 LBS
Same as above
- 4-4-95 5 Ea Dumpster pick up from TA-16 Area.
- ✓ 4-26-95 1 Ea. 51) Waste burn - 250 LBS.
Checked for and removed prohibited items. Notified David Gardine, ESH-17, of this burn on 4-25-95. Opacity 4.8%
- ✓ 4-27-95 1 Ea. 51) Waste burn 250 LBS.
Same as above paragraph
- ✓ (5-1-95 Ashes removed from incinerator)
5-2-95 1 Ea 51) Waste burn 250 LBS
Checked for and removed prohibited items. Notified David Gardine, ESH-17, of this burn on 5-1-95. Thermocouples usually checked (OK)
- ✓ 5-4-95 1 Ea 51) Waste burn 250 LBS.
Same as above paragraph.
- 5-8-95 8 Ea. Dumpster pick-up from TA-16 Area
- ✓ 5-10-95 1 Ea 51) Waste burn - 250 LBS.
Notified David Gardine, ESH-17, of this burn on 5-9-95
- 5-17-95 1 Ea 51) Waste burn - 250 LBS.
Notified David Gardine ESH-17, of this burn on 5-17-95
Removed prohibited items.
- ✓ 5-18-95 1 Ea 51) Waste burn - 250 LBS
Same as above Paragraph

6-14-95 7 Ea. Dumpster Pick-up from
T.A-16 Area.

6-22-95 Removed ashes from incinerator!

6-26-95 1 Ea SD Waste burn - 250 LBS.
Thermocouples, visually checked
OK. Prohibited items removed.

6-28-95 1 Ea SD Waste burn - 250 LBS.
Notified D. Gardine, ESH-17, of
this burn on 6-27-95
Took opacity reading. 3.19%

6-29-95 1 Ea SD Waste burn - 250 LBS.
Same as above paragraph

7-5-95 1 Ea. SD Waste burn - 250 LBS.
Checked for and removed prohibited items

7-12-95 8 EA Dumper Pick up from T.A. 16
Area

7-20-95 1 Ea. SD Waste burn - 250 LBS.
Notified D Gardine, ESH-17 of
this burn. Removed prohibited
items.

8-1-95 1 Ea. SD Waste burn - 250 LBS.
Notified D. Gardine, ESH-17 of
this burn on 7-31-95 -
voice message - Thermocouples
visually checked - OK

8-5-95 Ashes removed from Incinerator!

8-6-95 1 Ea. SD Waste burn - 250 LBS.
Notified D Gardine ESH-17 of
this burn on 8-5-95

9-6-95 1 Ea. SD Waste burn - 250 LBS.
Same as above paragraph
Removed prohibited items.

9-12-95 1 EA SD waste burn - 250 Lbs
Notified D Gardine ESH-17
of this burn on 9-11-95

- 10-11-95 7 Ea Dumpster Pick up
from TA-16 Area
- ✓ 10-17-95 1-SI Waste burn - 250 LBS.
Notified O Gardine of this burn (3)
on 10-16-95. Took opacity reading - 5.1%
- ✓ 10-18-95 1-SI Waste burn - 250 LBS.
Removed prohibited items.
- ✓ 10-19-95 1-SI Waste burn - 250 LBS.
- ✓ 10-26-95 1-SI Waste burn - 250 LBS.
Notified O Gardine of this burn
on 10-24-95 - Thermocouples visually
checked - OK
- 10-31-95 Ashes removed from incinerator
- ✓ 11-7-95 1 Ea SI Waste burn - 250 LBS.
Notified O Gardine of this burn (2)
on 11-6-95. Checked for and removed
prohibited items.
- ✓ 11-8-95 1 Ea SI Waste burn - 250 LBS.
- 12-4-95 5 Ea Dumpster Pick-up
from TA-16 Area -
- ✓ 12-6-95 1 Ea SI Waste burn - 250 LBS.
Notified O Gardine of this
burn on 12-4-95
- ✓ 12-12-95 1 Ea SI Waste burn - 250 LBS.
Notified O Gardine of this
burn on 12-11-95 - Checked
for and removed prohibited items

1996

- ✓ 1-25-96 1 Ea SI Waste burn - 250 LBS.
Notified O Gardine on 1-24-96
of this burn. Checked for
prohibited items. Everything OK
Thermocouples visually checked - OK

- 1-29-96 Dumpster pick up from TA-16-Area ✓
- ✓ 1-30-96 Removed ashes from incinerator —
- 1-30-96 1 Ea SD Waste burn - 250 LBS. ✓
 Notified D Gardine, ESH, of this burn on 1-29-96
 Checked for and removed prohibited items -
- ✓ 1-31-96 1 Ea SD Waste burn - 250 LBS. ✓
 Same as above paragraph
- ✓ 2-1-96 1 Ea SD Waste burn - 250 LBS. ✓
 Same as above.
- ✓ 4-2-96 Removed Ashes from incinerator —
- 4-2-96 1 Ea SD Waste burn - 250 LBS ✓
 Notified D Gardine, ESH, of this burn on 4-1-96 -
 Checked for and removed prohibited items. Thermocouples usually checked - OK -
- ✓ 4-3-96 1 Ea SD Waste burn - 250 LBS. ✓
 Same as above paragraph
- ✓ 4-9-96 1 Ea SD Waste burn - 250 LBS ✓
 Notified D Gardine, ESH, of this burn on 4-8-96
 Checked for prohibited items
 Everything OK -
- ✓ 4-10-96 1 Ea SD Waste burn - 250 LBS ✓
 Last burn from Dumpsters Same as above -

- ✓ 11-21-96 1 Ea TA-16 H.E. contaminated solid (200 LBS) waste burn. Notified D Gardine of this burn on 11-21-96 ✓
 Everything OK -
- ✓ 12-19-96 1 Ea TA-16 H.E. contaminated solid (75 LBS) waste burn. Notified D Gardine of this burn ✓
 Everything OK -
 Opacity reading 6.5%

1997

✓ 8-7-97

(250 LBS.)
H.E. cont. combustibles burn - Packing materials, Kimwipes, rags, boxes
Notified D Gardens (courtesy call) Harold Monterey here to observe burn - everything OK - Material from TA-10, TA-22

✓ 10-23-97

H.E. cont. combustibles burn - (HE boxes, paper bags) from Bldg 430 (200 LBS)

✓ 12-7-97

HIGH temperature INCERATOR used burned material from 430. (100 LBS.)

✓ 4-2-98

1998
H.E. cont combustibles burn (Paper, cardboard BXS, packing matl, etc) TA-16 (200 LBS)

4-8-98

Removed ashes from incinerator -

✓ 8-26-98

H.E. cont. combustibles burn - (Paper, cardboard boxes, paper bags from TA-16) (75 LBS)