TA-50

Department of Energy
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

AUG 25 2003

Carl Will, RCRA Permits Management Program
Hazardous & Radioactive Materials Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

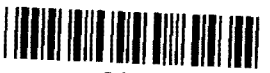
Dear Mr. Will:

Subject: Request for Class 1 Resource Conservation and Recovery Act (RCRA) Permit Modification on Attachment E.3; Closure Plan for Container Storage Unit Technical Area 50, Building 114 (TA-50-114)

The objectives of this letter are to request a Class 1 RCRA Permit Modification to Attachment E.3 of the Department of Energy/University of California (DOE/UC) Hazardous Waste Facility Permit, to transmit the modified Attachment E.3, and to propose a method for alternative demonstration of decontamination as allowed by Section E.3.4 of Attachment E.3. Although Attachment E.3 is written in future tense, decontamination and verification activities at TA-50-114 were conducted from August 23, 2002 to August 29, 2002 in accordance with 20.4.1 NMAC § 264.112(e) [6-14-00] and the "Los Alamos National Laboratory Technical Area 50 Closure Plan for Container Storage Units TA-50-1, Room 59; TA-50-37; and TA-50-114," LA-UR-02-4729, submitted to the New Mexico Environment Department (NMED) in July 2002. Per agreement with NMED, that closure plan was withdrawn in a letter dated June 17, 2003. The closure plans for the interim status units have been separated from those of the permitted units, an individual closure plan is being submitted for the interim status units, and a request for permit modification is being sought together with a notification for implementation of the approved closure plans for the permitted units.

CLOSURE PLAN MODIFICATIONS

Modifications to Attachment E.3 were kept to a minimum. They incorporate a new maximum total inventory of waste in storage, year of closure, and update the names for those that have changed since the closure plan was written. LANL requests that these modifications be a Class 1 permit modification pending NMED approval, according to 20.4.1 NMAC incorporating 40 CFR 270.42. This section states that changes to the expected year of closure and changes to the procedures for decontamination are Class 1 permit modifications with prior approval from NMED.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PROPOSED CLOSURE PROCEDURE

Sampling for nine of the parameters listed in Table E.3.2 was not conducted during the closure of TA-50-114. Those parameters are: Nickel, Beryllium, Phenols, Organochlorine pesticides, Chlorinated herbicides, Cyanides, Ignitability, Reactivity, and pH. It was determined after a review of the unit's operating record that these parameters are not among the hazardous waste constituents of concern at this unit, and therefore not necessary for decontamination verification. Samples collected during the closure were analyzed for RCRA toxic metals, volatile organic compounds, and semi-volatile organic compounds.

As allowed for in Section E.3.4, an alternative demonstration of decontamination is requested to complete the closure of TA-50-114. DOE/UC propose the following alternative demonstrations to complete closure:

- Detectable hazardous waste or hazardous waste constituent concentrations from container storage activities that do not significantly decrease after several wash downs will be allowed to remain if they pose an acceptable risk, as mutually agreed upon with the NMED.
- Analytical results will be compared to the United States Environmental Protection Agency's Region 6 Medium Specific Screening Levels (MSSL) for tap water. If the result is below the MSSL, closure will be considered complete.
- If residual contamination levels found are above the MSSL's, an assessment will be conducted using an occupational risk based scenario.

If you have any comments or questions regarding the information presented in this letter and/or in the enclosure, please contact either Gene Turner, DOE, at (505) 667-5794 or Jack Ellvinger, UC, at (505) 667-0633.

Sincerely,

Joseph C. Vozella
Assistant Manager
Office of Facility Operations

OFO:1GT-018

Enclosure

cc:
See Page 3

cc w/enclosure:
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D. Stavert, RRES-EP, LANL, MS-J591
E. Louderbough, LC-ESH, LANL, MS-A187
S. French, FWO-WFM, LANL, MS-J595
R. Lechel, FWO-WFM, LANL, MS-J593
J. Ellvinger, RRES-SWRC, LANL, MS-K490
L. Vigil-Holterman, RRES-SWRC, LANL, MS-K490

ENCLOSURE

MODIFIED CLOSURE PLAN

MODIFIED
CLOSURE PLAN
PERMIT ATTACHMENT E.3
NM 0890010515-1

CLOSURE PLAN
PERMIT ATTACHMENT E.3
NM 0890010515-1

E.3 MODULAR STORAGE UNITS

Some containerized wastes are stored in prefabricated modular storage buildings at various locations in TA-50 and TA-54, Area L. See Figures E.3.1 and E.3.2. These storage units are self-contained and are equipped with chemical resistant walls to provide separation of incompatible wastes, a corrosion resistant fiberglass floor grating, and a polypropylene building sump liner.

E.3.1 Estimate of Maximum Waste in Storage

Each storage unit can store a maximum of thirty 55 gallons drums or a total of 1650 gallons of liquid wastes. The maximum total inventory of waste in storage at any time in the TA-50-114 CSU is 1,210 gallons

E.3.2 Description of Waste Handled

Three waste streams compose the bulk of the waste stored in the modular units at TA-50, although the system is flexible enough to allow storage of other wastes that may be generated through new Laboratory projects. These streams are an acid/base waste that contains copper, chromate plating waste, and waste cyanide plating solutions. These structures may also be used to store any regulated waste while awaiting lab-packing.

The modular units at TA-54, Area L will be used primarily for the storage of labpacked waste. Since six separate cells are available for storage, there may be up to six different categories of waste stored there while waiting treatment or disposal.

E.3.3 Closure Procedures and Decontamination

E.3.3.1 Partial Closure

Partial closure would consist of closure of one unit or more, while leaving other units in service. In such an event, the following procedures would apply to the unit(s) to be closed.

E.3.3.2 Unit Closure

Personnel involved in disassembly and handling of equipment will wear protective equipment, including: acid/solvent-resistant coveralls, head protection, neoprene coated gloves and boots. Wrists and ankles are to be taped to protect against upward and inward splash. As a minimum protection, face shields will be worn. Full-face respirators will be used if specified by the Laboratory's Industrial Hygiene Group, ~~HSE-5~~HSR-5, following a field inspection.

The inside of the unit will be scrubbed and rinsed with a warm solution of Liquinox(@) or Alconox(@) in water. The cleaning solutions will accumulate in the internal sumps and will be pumped into drums with a small manually operated drum pump. Samples of this solution will be taken from the drum to verify

decontamination. Washdown will be repeated until decontamination is verified. The drummed liquid will be transported to TA-54, Area L for sampling, analysis and off site treatment and/or disposal.

The unit will be disassembled by removing all removable walls, grates etc. and then visually inspected. Any residual matter found will be scraped or brushed off the area where the residue occurred, then washed and rinsed. Dry residues will be placed in drums for transport to TA-54, Area L, for storage, sampling and analysis prior to off site disposal at a permitted facility. Liquids from washing and rinsing will be placed in approved Department of Transportation (DOT) containers and transported to TA-54, Area L for sampling, analysis and off site disposal. Cleaned pieces will be removed from the unit and handled as a unregulated waste or reassembled into the unit after decontamination is verified.

Spills occurring during disassembly will be contained in the unit and will picked up with mops. No decontamination of container handling equipment is anticipated during closure because the wastes are inside containers and no contact is expected between wastes and handling equipment. If breeching of any container of hazardous waste or hazardous material occurs, all contaminated equipment will be decontaminated by washing with appropriate cleaning solutions. Spills occurring outside the unit will be picked up with absorbent material such as vermiculite or commercial absorbent. The absorbed material will be swept up, placed in a DOT approved container and disposed of as hazardous waste. The area will be mopped or flushed with Liquinox(@) or Alconox(@) solution, the wash water picked up with absorbent material as above and placed in a container for disposal as a hazardous waste. Each container may be sampled and analyzed for hazardous constituents as listed in HWMR-5, Part II, Appendix VIII. Containers not containing hazardous constituents may be handled as unregulated waste.

Units emplaced over impervious surfaces, concrete or asphalt, need not have the surface sampled for spill residues from past handling practices. Units emplaced over absorbent surfaces will have a minimum of three soil samples to a depth of six inches taken in the area of each access door. The samples will be separately analyzed for the parameters in Table E.3.2. If contamination is discovered, a three foot grid centered on the locus of contaminated points will be sited and samples taken and analyzed to determine the extent of contamination. Analyses for this investigation can be made for the constituent(s) found in the initial survey. All contaminated soil to a depth of six inches will be removed and disposed of at a permitted facility.

Protective clothing, coveralls, face shields, and boots worn during the wash down will be rinsed in clean water while the items are within the unit. The rinse water will be handled with the dirty water from the external wash down. Following internal and external decontamination, the unit will be considered free from regulated wastes if the washwaters do not show any contamination from the constituents listed in Table E.3.2. Protective clothing will be worn by personnel disassembling the unit. The protective clothing and tools used during disassembly will be washed with detergent and water. The wash waster will be collected and analyzed. If the wash water is nonhazardous, the water will be discharged to the industrial waste water sewer. If the wash water contains hazardous constituents, it will be transported off site to a permitted disposal facility. Mops and rags used for cleanup will be placed in drums for transport to Area L, for ultimate off site disposal at a permitted facility. Nondisposable tools, equipment, etc. which come in contact with the dirty wash water will be decontaminated.

E.3.4 Decontamination Verification

Before the first wash down, two samples will be taken of the clean Liquinox(@) or Alconox(@) solution in water and analyzed for the constituents listed in table E.3.2.

One additional clean solution sample will be taken for each additional washdown event. These analytical results provide background data for decontamination verification.

Dirty washdown solutions will also be analyzed for the constituents listed in Table E.3.2. Analytical procedures will conform to methods found in SW-846. Equipment will be considered to contaminated if the used wash solutions show a significant increase in the listed constituents over the clean wash solution.

The constituents listed in Table E.3.2. include regulated constituents normally stored in the units. A scan for volatile and semivolatile organics is performed to ensure that solvents commonly used within the Laboratory have not contaminated the unit.

Successful decontamination is defined as:

1. No detectable hazardous constituents in the final sample, or

2. Detectable hazardous constituents in the final sample are equal to or less than, at the 0.01 confidence level, their concentration in the unused washwater or background sample.

An alternative demonstration of decontamination may be proposed and justified at the time of closure as circumstances indicate. The Director will evaluate the proposed alternative in accordance with the standards and guidance then in effect and, if approved, incorporate by permit modification the alternative into the closure plan.

E.3.5 Closure Schedule

The year of closure for the modular storage units is ~~2100~~2003 for TA-50-114 and 2100 for the various units located at TA-54 Area L. Closure will observe the schedule given in Table E.3.1.

The contract for closure activities is expected to exceed $100,000. Because Laboratory policy requires that the work be put out for bid, 90 days are required to solicit and process the bids. The selection of a contractor will be made before closure begins. Closure is estimated to take 180 days.

E.3.6 Closure Certification

An independent registered professional engineer and the Permittee shall witness the closure and ensure that the closure follows this plan. Upon completion of closure, the engineer and the DOE shall 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, stamped by the registered engineer, and the original copy submitted by the DOE to the Director of ~~NMEID~~NMED. One copy shall be maintained at the DOE office and one copy maintained by the ~~HSE-8~~ Risk Reduction and Environmental Stewardship Division's Solid Waste Regulatory Compliance ~~Section~~Group.

E.3.7 Sampling and Analytical Procedure

The following section defines procedures and methods for sampling, analysis and documentation applicable to closure plans. While the procedures and method are specific, any applicable procedure or method given in SW-846 may be used if conditions or experience shows the alternate method to be more

appropriate. All analytical procedures actually used will be annotated in the final closure report. Disposable samplers may be used.

Samples will be taken, placed in bottles, sealed, tagged, and immediately packed in vermiculite, sawdust, or, if refrigeration is required, an insulated container with ice. One sample for every ten samples will be either duplicated or split. The duplicated or split sample will be identified by a code so that its source is not available to the analytical laboratory, but analytical results can be compared to its twin.

Sample containers appropriate for the requested analyses will be used for all samples. Sampling will be conducted in accordance with procedures given in *Samplers and Sampling Procedures for Hazardous Waste Streams*, EPA 600/2-80-0 1 8 and/or SW-846.

E.3.7.1 Soil and Solid Residues Sampling

Under normal circumstances the following soil sampling information will be inapplicable. Should however, spills occur outside the modular unit, sampling of the area will be required to verify that no hazardous constituents remain upon closure. The sampling procedures outlined below are used to determine the amount of hazardous material deposited on a particular area of land, or to determine the leaching rate of the material, or determine the residue level on the soil. Adequate preparation ensures that proper sampling is accomplished.

Surface soil samples will be collected with a trowel or scoop. To sample below 3 in. (8 cm), samples will be collected with a Veihmeyer soil sampler. Drums of solid residues will be sampled with a core sampler or Veihmeyer soil sampler. Drums not capable of being sampled will be assumed to be hazardous waste.

E.3.7.1.1 Cleaning of sampler

It is important to clean the samplers after each site is sampled. An unused disposable sampler may be presumed clean if still in a factory sealed wrapper. Unsealed samplers will be cleaned prior to use. The samplers will be washed with a warm Liquinox(@) or Alconox(@) solution, rinsed several times with tap water, rinsed with distilled water, drained of excess water, and air-dried or wiped dry. Prevention of cross contamination is of particular importance in these samples.

E.3.7.1.2 Sampling procedures trowel or scoop

- Take small, equal portions of sample from the surface or near the surface of the material to be sampled.
- Combine the samples in a glass container.
- Cap the container, attach a label and seal, record in field log book, and complete the sample analysis request sheet and chain-of-custody record.

Veihmeyer Sampler

- Assemble the sampler by screwing in the tip and drive head on the sampling tube.
- Insert the tapered handle (drive guide) of the drive hammer through the drive head.

- Place the sampler in a perpendicular position on the material to be sampled.
- With the left hand holding the tube, drive the sampler into the material to the desired sampling depth by pounding the drive head with the drive hammer. Do not drive the tube further than the tip of the hammer's drive guide.
- Record the length of the tube that penetrated the material.
- Move the drive hammer onto the drive head. In this position, the hammer serves as a handle for the sampler.
- Rotate the sampler at least two revolutions to shear off the sample at the bottom.
- Lower the sampler handle (hammer) until it just clears the two ear-like protrusions on the drive head and rotate about 90 degrees.
- Withdraw the sampler from the material by pulling the handle (hammer) upwards. When the sampler cannot be withdrawn by hand, as in deep soil sampling, use a pullerjack and grip.
- Dislodge the hammer from the sampler, turn the sampler tube upside down, tap the head gently against the hammer, and carefully recover the sample from the tube. The sample should slip out easily.
- Store the core sample in a 1,000 or 2,000 ml (1 qt or 1/2 gal) sample container.
- Label the sample, affix the seals, record in the field log book, complete the sample analysis request sheet and chain-of-custody record, and deliver the samples to the laboratory for analysis.

E.3.7.2 Liquid Sampling

A Coliwasa sampler or similar device will be used to sample water solutions in order to determine background parameters before washing the area; it will also be used to sample the dirty wash water used in cleaning equipment. The recommended model of the Coliwasa is shown in Figure E.3.3, the main parts consisting of the sampling tube, the closure-locking mechanism, and the closure system. As an alternative to the Coliwasa, glass tubes may be used to sample liquids. The primary advantage in using a glass tube is that the tube will be disposed of as hazardous waste after each sample is collected, thus eliminating the potential for cross contamination.

E.3.7.2.1 Cleaning of sampler

The sampler must be clean before use. An unused disposable sampler may be presumed clean if still in a factory sealed wrapper. Unsealed samplers will be cleaned prior to use. The used sampler must be washed with a warm detergent solution (Liquinox(@) or Alconox(@)), rinsed several times with tap water, rinsed with distilled water, drained of excess water, and air-dried or wiped dry. A necessary piece of equipment for cleaning the tube of the Coliwasa is a bottle brush that fits tightly inside the diameter of the tube. The brush is connected to a rod of sufficient length to reach the entire length of the sampler tube. Using the ramrod and fiber reinforced paper towels, the Coliwasa tube may be quickly cleaned. Improper cleaning of sample equipment will cause cross contamination of samples. Prevention of contamination is

of particular importance in these samples. Clean samplers should be stored in polyethylene plastic tubes or bags in a clean an protected area.

E.3.7.2.2 Sampling procedures

- Assemble the Coliwasa sampler.
- Make sure that the Coliwasa sampler is clean.
- Check to make sure the sampler is functioning properly. Adjust the locking mechanism, if necessary, to make sure the neoprene rubber stopper provides a tight closure.
- Wear necessary protective clothing and gear and observe required sampling precautions.
- Put the sampler in the open position by placing the stopper rod handle in the T-position and pushing the rod down until the handle sits against the sampler's locking block.
- Slowly lower the Coliwasa sampler into the liquid at a rate that permits the levels of the Liquid inside and outside the sampler tube to be about the same. If the level of the liquid in the sampler tube is lower than that outside the sampler, the sampling rate is too fast and will result in a nonrepresentative sample.
- When the sampler stopper hits the bottom of the liquid container, push the sampler tube downward against the stopper to close the sampler. Lock the sampler in the closed position by turning the T-handle until it is upright and one end rests tightly on the locking block.
- Slowly withdraw the sampler from the container with one hand while wiping the sampler tube with a disposable cloth with the other hand.
- Carefully discharge the sample into a glass container by slowly opening the sampler. This is done by slowly pulling the lower end of the T-handle away from the locking block while the lower end of the sampler is positioned in the glass container.
- Cap the glass container, attach a label and seal, record in the field log book, and complete the sample analysis request sheet and chain-of-custody record.
- Unscrew the T-handle of the sampler and disengage the locking block. Clean the sampler on site or store the contaminated parts of the sampler in a plastic storage tube or bag for subsequent cleaning. Store used rags in plastic bags for subsequent disposal.

E.3.7.3 Sample Handling and Documentation

Soil and liquid samples will be analyzed either at LANL or at a commercial laboratory. In either case, each sample will be labeled, sealed, and accompanied by a chain-of-custody and a sample analysis request form.

The sample container must be sealed with a gummed paper seal attached to the container in such a way that the seal must be broken in order to open the container. The seal and sample tag must be completed with a waterproof pen. An example of a sample seal is shown in Figure E.3.4.

The sample label is necessary to prevent misidentification of samples and shall include, if applicable, the grid number referenced to positions staked on the site perimeter. The "field information" in the case of soil sampling, shall include observations such as the soil texture and surface appearance, ambient temperature and cloud cover at time of sampling, and precipitation conditions 24 hours before sampling. An example of a sample label is shown in Figure E.3.5.

The chain-of-custody form is necessary to trace sample possession from the time of collection and must accompany every sample. This record becomes especially important when the sample is to be introduced as evidence in litigation. This is a two-page record with the original accompanying shipment and the "copy" retained by the Laboratory. An example of this form is shown in Figure E.3.6.

A separate closure sampling field log book will be kept and will contain all information pertinent to field surveys and sampling. The log book shall have bound and consecutively numbered pages in 8-1/2 by 11-inch format. Minimum entries include:

a. Purpose of sample (routine sampling, special sampling);

b. Location of sampling (coordinates referenced to staked field points, if soil sample);

c. Name and address of person making log entry;

d. Type of process producing waste;

e. Number and volume of sample;

f. Description of each sampling location, sampling methodology, equipment used, etc.;

g. Date and time of sample collection;

h. Sample destination and transporter's name (name of laboratory, UPS, etc);

i. Map or photograph of the sampling site, if any;

j. Field observations (ambient temperature, sky conditions, past 24-hour precipitation, etc);

k. Field measurements, if any (pH, flammability, conductivity, explosivity, etc);

l. Collector's sample identification number(s); and

m. Signature of person responsible for the log entry.

Sampling situations vary widely. No general rule can be given as to the extent of information that must be entered in the log book. A good rule, however, is to record sufficient information so that someone can reconstruct the sampling situation without relying on the collector's memory.

The sample shipment and chain-of-custody record is accompanied by a sample analysis request sheet. The request sheet has two parts: field and laboratory. The field portion of this form must be completely by the person collecting the sample and include most of the pertinent information noted in the log book. The laboratory portion is intended to be completed by the laboratory personnel when the sample is received.

E.3.8 Quality Assurance/Quality Control

The Permittee shall designate a qualified individual or individuals to independently oversee the closure activities and report directly to senior management on the quality of the performance of this closure. This individual will personally observe a portion of the key activities, assure that sample blanks are used and analyzed and review the analysis reports for accuracy and adequacy. A written QA/QC plan in accordance with SW-846 guidance shall be prepared and followed, with variations from the plan documented and explained. The designated individual shall prepare a written statement for the final report commenting on the adequacy of the analysis showing decontamination.

E.3.9 Final Closure Report

Upon completion of the closure activities, the Permittee shall submit a Final Closure Report to the Director. The report shall document the final closure and contain, at a minimum, the following:

A. The certification described in paragraph E.3.6.

B. Any variance from the approved activities and the reason for the variance.

C. A tabular summary of all sampling results, showing:

   1. Sample identification,

   2. Sampling location,

   3. The datum reported,

   4. Detection limit for each datum,

   5. A measure of analytical precision (e.g. uncertainty, range, variance),

   6. Identification of analytical procedure, and

   7. Identification of analytical laboratory.

D. A QA/QC statement on the adequacy of the analyses and the decontamination determination.

E. The location of the file of supporting documentation:

   1. Field log books,

   2. Laboratory sample analysis reports,

3. The QA/QC documentation, and

4. Chain of custody records.

F. Disposal location of all regulated and nonregulated residues.

G. A certification of accuracy of the report.

TABLE E.3.1.
CLOSURE SCHEDULE

Activity	Maximum Time Required
Notify ~~EID~~NMED of closure	-90 Days
Advertise for proposals	-90 Days
Receive proposals	-30 Days
Select contractor and award contract	-10 Days
Begin closure activities	Day 0
Internal wash down complete	Day 30
External wash down complete	Day 50
Unit disassembly as required	Day 80
Floor wash down	Day 100
Final clean up	Day 120
Decontamination verification	Day 150
Submit final report to ~~EID~~NMED	Day 180

NOTES: The calendar days given above are completion dates for each activity. In some cases more than one activity may occur simultaneously.

This schedule is applicable to either partial or final closure.

TABLE E.3.2.
ANALYTICAL PARAMETERS

Metals	Organics	Other
Arsenic	Halogenated volatile organics	Cyanides
Barium	Nonhalogenated volatile organics	Ignitability
Cadmium	Acid-extractable semivolatile organics	Reactivity
Selenium	Base-neutral extractable semivolatile organics	pH
Lead	Phenols	
Mercury	Organochlorine pesticides	
Nickel	Chlorinated herbicides	
Beryllium		
Chromium		
Silver		

NOTES: Analytical methods are taken from *Test Methods for Evaluating Solid Waste*, EPA SW-846, and may be superseded by more current methods from SW-846 or alternate EPA-approved methods.

Metals may be analyzed for total content. Any metal whose total concentration exceeds the standard for Extraction Procedure Toxicity shall be analyzed by Extraction Procedure Toxicity procedures. Both data shall be reported in the final report.

TABLE E.3.3.
SAMPLING SUMMARY

Material Sampled	Metals	Organics	Other
Soil sampling[a]	X	X	X
Solid wastes & residues	X	X	X
Washwater before use	X	X	X
Washwater after use	X	X	X
Protective clothing washwater		X	

NOTES: Analytical parameters are given in Table E.3.2.

[a]For units placed over permeable surfaces.

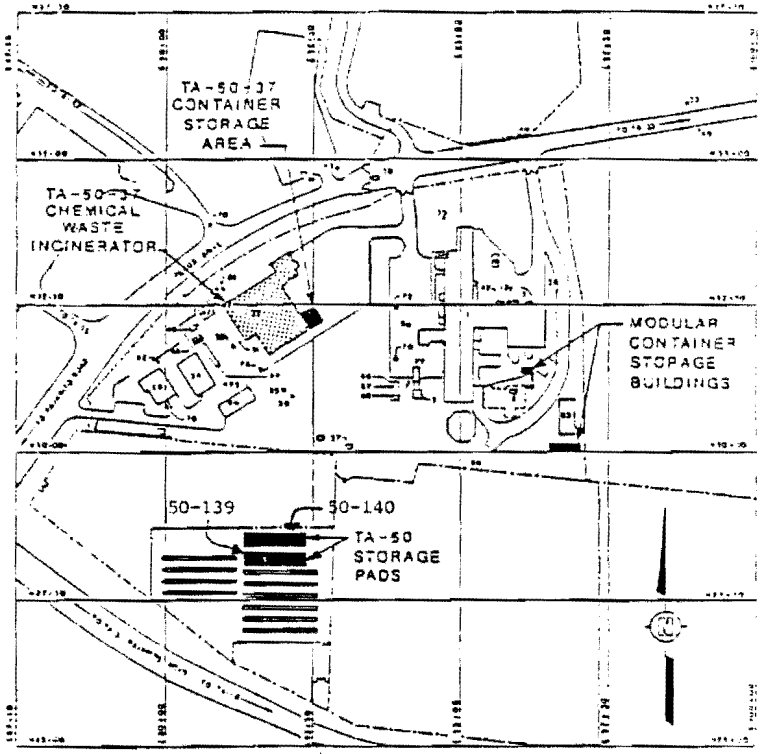


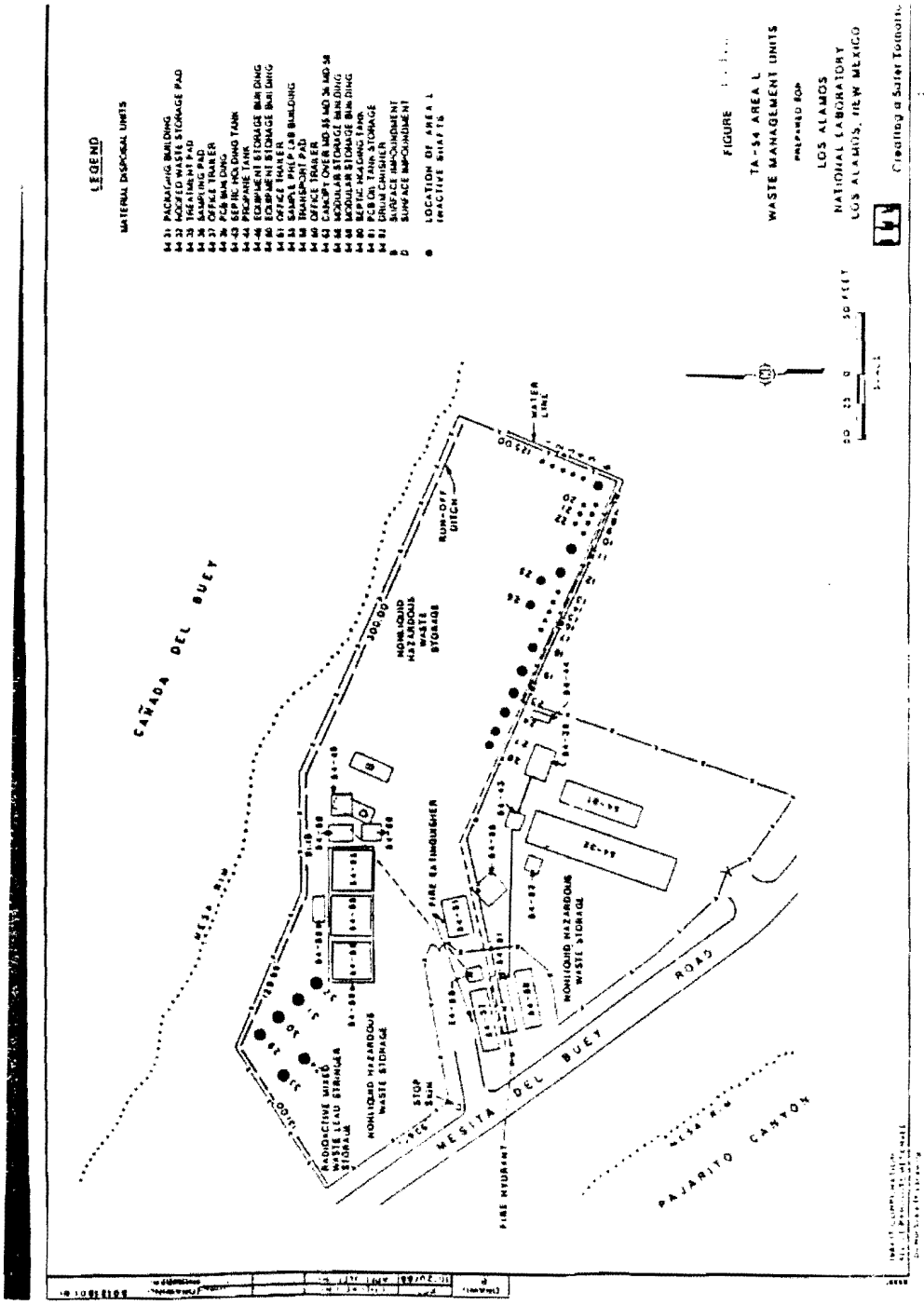
FIGURE E.3.1

LOCATIONS OF TA-50
CHEMICAL WASTE INCINERATOR
AND CONTAINER STORAGE
UNITS

PREPARED FOR

LOS ALAMOS
NATIONAL LABORATORY
LOS ALAMOS, NEW MEXICO

INTERNATIONAL
TECHNOLOGY
CORPORATION


LEGEND
MATERIAL DISPOSAL UNITS
CAÑADA DEL BUEY
MESITA DEL BUEY
ROAD
PAJARITO CANYON
RUN-OFF DITCH
WATER LINE
NONLIQUID HAZARDOUS WASTE STORAGE
FIRE HYDRANT
STOP SIGN
TA-54 AREA L
WASTE MANAGEMENT UNITS
LOS ALAMOS
NATIONAL LABORATORY
LOS ALAMOS, NEW MEXICO

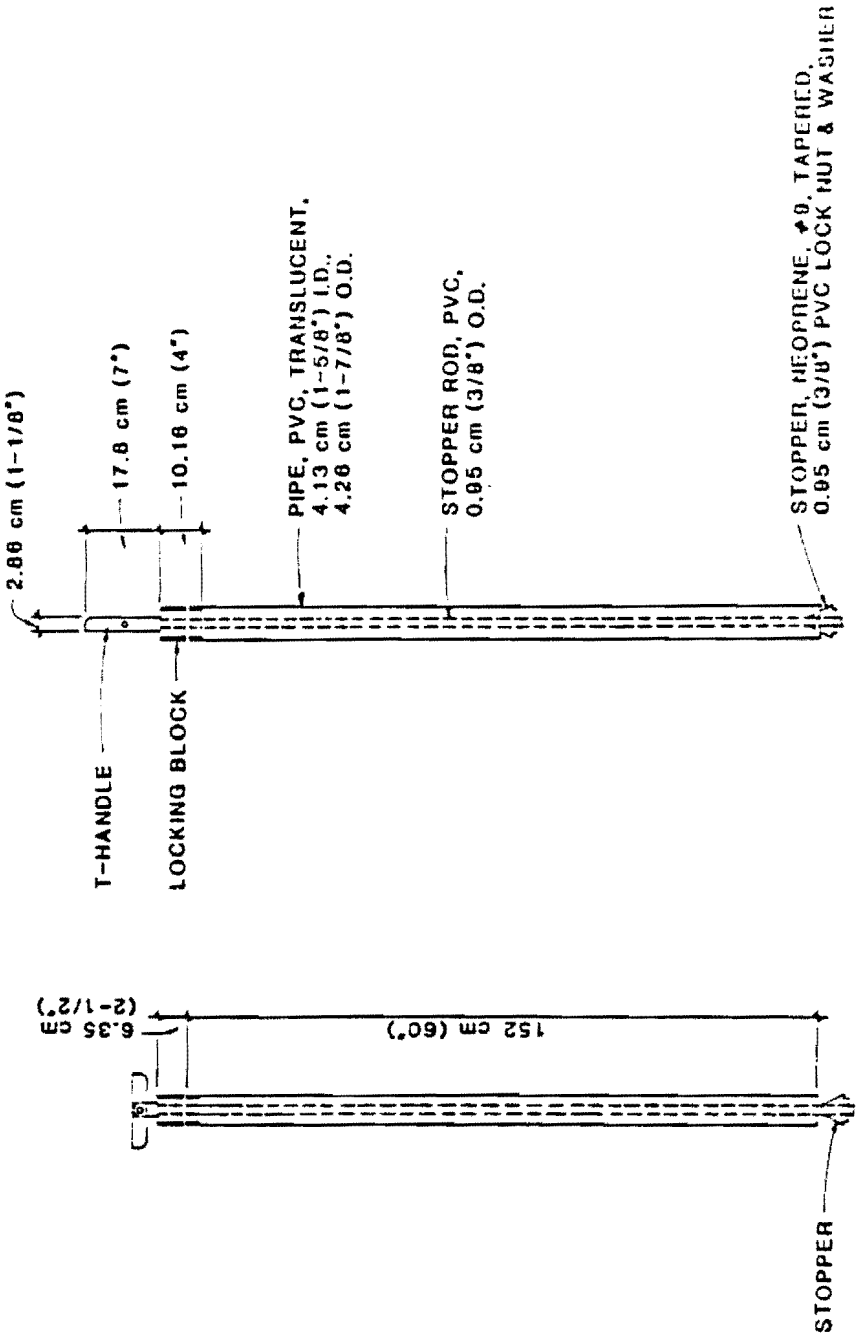


FIGURE E-3, COMPOSITE LIQUID WASTE SAMPLER (CLLWASA)

FIGURE E.3.4
EXAMPLE OF SAMPLE SEAL

OFFICIAL SAMPLE SEAL

Collected by _____ Collector's sample No._____
(Signature)

Date Collected_____ Time Collected_____

Place Collected_____

_____

_____

FIGURE E.3.5
EXAMPLE OF SAMPLE LABEL
OFFICIAL SAMPLE LABEL

OFFICIAL SAMPLE LABEL

Collector_____ Collector's Sample No._____

Place of Collection_____

_____

Date Sampled_____ Time Sampled _____

Field Information_____

_____

_____

FIGURE E.3.6
EXAMPLE CHAIN OF CUSTODY RECORD

Hazardous Materials
Collector's Sample No.

Location of Sampling: ☐ Producer ☐ Hauler
☐ Disposal Site ☐ Other: _____

Company's Name _____ Telephone (___) _____

Address _____
Number Street City State Zip

Collector's Name _____ Telephone (___) _____

Date Sampled _____ Time Sampled _____

Type of Process Producing Waste _____

Waste Type Code _____ Other _____

Field Information _____

_____

Sample Allocation:

1. _____
(Name of Organization)

2. _____
(Name of Organization)

3. _____
(Name of Organization)

Chain of Possession:

1. _____ _____ _____
Signature Title Inclusive Dates

2. _____ _____ _____
Signature Title Inclusive Dates

3. _____ _____ _____