



Department of Energy
 Albuquerque Operations
 Los Alamos Area Office
 Los Alamos, New Mexico 87544
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TA-16

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

RECEIVED

AUG 22 1986

Ms. Denise Fort, Director
 New Mexico Environmental Improvement Division
 P. O. Box 968
 Santa Fe, New Mexico 87504

HAZARDOUS WASTE SECTION

Dear Ms. Fort:

This letter addresses conditions of the permit granted for the open burning of materials at Los Alamos National Laboratory, Technical Area (TA) 16, SM-412. Conditions of the permit will be met by the Laboratory. Enclosed are drafts of revised standard operating procedures for disposal of wastes at TA-16 and the open burning at TA-16, SM-412. These documents will be completed in the very near future.

Only potentially high/explosive/contaminated ignitable wastes are burned. Wastes that are not potentially contaminated are separated and taken to the Laboratory's landfill for disposal.

The Laboratory is investigating alternatives to open burning but it does not appear at this time that an alternative can be implemented before expiration of the permit due to Federal budget cycles. One alternative being investigated is burning the wastes in a two-stage, commercial-type incinerator.

Please contact James Phoenix of my staff at 667-5288 if you have any questions.

Sincerely,

Harold E. Valencia
 Harold E. Valencia
 Area Manager

Enclosures:
 As stated

LTP:CEB:0138



5872

PACKAGING AND COLLECTION OF WASTE MATERIAL FOR DISPOSAL

I. SCOPE

This scope governs the packaging and collection procedures for all waste materials requiring disposal by Group WX-3 personnel. Waste materials originating in other groups will be packaged according to this SOP before being processed by WX-3 disposal personnel.

II. LOCATION

- A. All buildings within the S-Site Administrative and Explosives Areas.
- B. Other Laboratory sites requiring disposal services by WX-3 disposal personnel.

III. EQUIPMENT

- A. Disposal cans, safety style (SCM-9556)
- B. Disposal cans, safety style (LG-663)
- C. Disposal cans (SGS-9569)
- D. Garbage cans (GS-2495)
- E. 55-gallon oil drums
- F. Oily waste receptacles (UL-approved)
- G. Dempster Dumpsters
- H. Cardboard boxes (GS-2513 through GS-2523)
- I. Reinforcing cardboard flats (GS-9612 through GS-9615 and GS-2590)

IV. MATERIALS

- A. Plastic bags
- B. Masking tape
- C. Cushioning material
- D. Sash cord
- * E. Paper bags

V. GENERAL INSTRUCTIONS

- A. Packaging

The following rules apply to the packaging of all HE contaminated waste materials:

*Indicates change

V. A. (cont.)

- * 1. Waste that is wet with oil, solvents, or water will be placed directly into a cardboard box or a 55 gallon drum containing absorbent. Waste in cardboard boxes will also be placed into a Dempster Dumpster.
- * 2. The contents of the containers must be clearly identified. Permanent type receptacles, such as Dempster Dumpsters, drums, garbage cans, and disposal cans, will have the contents for which they are intended stenciled on their sides. Cardboard boxes containing potentially HE contaminated waste, other than scrap HE, must have their contents identified on the outside. Identification by a marking pen is sufficient. Boxes containing scrap HE must have an explosives scrap record card (Form WX-3-41) attached to the outside. The card shall be filled out as completely as possible, in regard to the TO number, source, type and approximate weight of the contents. All receptacles containing wastes regulated by the Resource Conservation & Recovery Act (RCRA) must have the words "Hazardous Waste" posted on the outside.
- * 3. If more than one large piece of scrap HE is placed in a box some type of cushioning material such as Kimpak, must be placed between the pieces in such a manner that rubbing or colliding cannot occur while during transportation.
- 4. Pressed and cast HE scrap will be placed in separate boxes. A reinforcing piece of cardboard shall be placed in the bottom of cardboard boxes containing scrap HE. All cardboard boxes shall be closed and the lid securely taped.
- 5. Pieces of HE scrap that weigh over 50 pounds shall be placed in a suitably sized HE transportation container that has a lid that can be securely closed.
- 6. HE scrap with boosters or metal attachments will be packaged separately from other explosives.
- * 7. Hazardous wastes must not be allowed to accumulate at each generation site in quantities greater than will fill a 55 gallon drum.
- * 8. Paper bags will be used for potentially HE contaminated waste that go to the open burn cage.

V. (cont.)

B. Collection and Transportation

1. The collection crew shall be instructed in, and expected to follow, the applicable portions of WX-3 SOP Chapters 12, 13, and 14.
- * 2. The collection of waste materials and scrap HE from designated pickup points within the S-Site Explosives Area will be scheduled by the disposal personnel on a basis of good housekeeping policy. A periodic inspection of all active pickup points will be made by the disposal personnel to ensure that there is no unsafe or untidy buildup of materials at any waste storage point.
3. Waste materials will be transported to the S-Site burning ground by the disposal personnel. When authorized by the Disposal Unit Leader, other personnel may transport waste material to the burning ground.
- * 4. Burnable trash potentially contaminated with HE may be transported to the WX-3 incinerators by the disposal personnel or by Pan Am personnel. Trash collection from the pickup stations, specified on Form WX-3-40, will be scheduled by Pan Am.
- * 5. The Stock Preparation and Disposal Service Manager will be notified, should an accumulation of trash occur at any pickup station that should be moved before the scheduled pickup date. The Stock Preparation and Disposal Service Manager may arrange for WX-3 personnel or Pan Am to make a special pickup.
- * 6. Only potentially HE contaminated burnable wastes will be transported to the open burn cage for burning. Wastes not contaminated with HE will be kept separate.

C. Material and Containers

- * 1. Potentially contaminated HE trash will be stored in Dempster Dumpsters. The word INCINERATOR will be stenciled on the Dempster Dumpsters used for storage of potentially HE contaminated trash. Trash that is too large to be placed in Dempster Dumpsters will be marked INCINERATOR, and the Senior Technician will be notified. He will arrange for the trash to be transported to the incinerator by disposal personnel. Dumpsters marked INCINERATOR, are for burnable trash only. Non-burnables are not to be placed in them.

V. C. (cont.)

2. Scrap Explosives

All scrap HE, except settling tank waste, will be packaged in cardboard boxes or WX-3 transportation containers if they are to be destroyed. HE machining waste that cannot be flushed into the settling tank will be placed in a plastic bag and packaged in cardboard boxes.

3. Scrap MDF

- * All scrap MDF will be kept separate from other HE scrap. Scrap MDF will be packaged in cardboard boxes. Lengths of MDF that are too long to fit may be coiled into a cardboard box will be disposed of at the Burning Ground.

4. Scrap Extrudable Explosives

Bulk extrudable explosives, and experimental plastic test devices containing extrudable explosives, will be kept separate from other HE scrap and packaged in plastic bags before they are placed in cardboard boxes. The test devices will be wrapped with Kimpak to prevent them from coming into contact with each other.

5. HE Contaminated Solvents

- * a. Flammable solvents, including toluene, acetone, and alcohol, will be poured into red disposal cans or 55 gallon drums stenciled FLAMMABLE. The cans and drums must be equipped with flame arresters.
- b. Halogenated hydrocarbons, such as carbon tetrachloride, trichloroethylene, and methylchloroform, will be poured into white disposal cans stenciled NONFLAMMABLE.
- c. Dimethylformamide will be poured into white disposal cans stenciled DIMETHYLFORMAMIDE ONLY.
- d. Dimethylsulfoxide will be disposed of by flushing into an HE sump with copious quantities of water.

V. C. 5. (cont.)

- e. Contaminated solvents, both flammable and non-flammable, will be burned or flashed in accordance with the appropriate section of SOP 12.3.4.

6. Floor Sweepings

- * a. Potentially HE contaminated dry floor sweepings will be packaged in a cardboard box. Full boxes will be placed in the Dempster Dumpster marked INCINERATOR outside the building at the designed pickup station.
- * b. Potentially HE contaminated oily or wet floor sweepings will be placed in a suitable paper bag within an oily waste receptacle. When the bags become full, they will be sealed and deposited in the Dempster Dumpster marked INCINERATOR outside the building.

7. Hydraulic Fluids

- a. Used hydraulic fluids drained from explosive processing equipment will be stored in disposal cans or 55-gallon drums marked "Hold for Disposal" until the presence or absence of HE in the fluid is determined.
- b. Group WX-12 maintenance personnel will identify each container, or group of containers if the material has a common source, with an identifying number, and will record the source, fluid type and date of removal.
- c. Representative samples of drained hydraulic fluid from HE processing equipment will be sent to the Group M-1 Analytical Laboratory and analyzed for HE. Fluid containing more than 0.25% of HE will be labeled HE CONTAMINATED FLUID and will be burned at Burning Pit TA-16-394. Fluids containing less than 0.25% of HE may also be burned or the material may be disposed of by HSE-7 personnel.
- d. Drained hydraulic fluid from non-HE processing equipment will not be sampled for analysis, but will be disposed of by Group HSE-7 after being certified free of HE by an Authorized Certifying Agent.

V. C. (cont.)

8. Waste Oil

Waste oil is any oil that may have become contaminated with HE. It could include Way-lube, vacuum oil or oil pumped from sumps, or collected from drip pans. Waste oil may be stored in 5-gallon cans (SGS-9569) or 55-gallon drums. Waste oil will be disposed of by burning at the Burning Pit.

9. Oily Rags

- * Each equipment room in the Explosives Area is equipped with an oily waste receptacle. Potentially HE contaminated oily rags will be placed in these receptacles. When the receptacle becomes full, the rags will be placed in the Dempster Dumpster marked INCINERATOR outside the building.

10. HE Contaminated Waste

- *
 - a. Potentially HE contaminated burnable materials, including rags, paper tissues, and plastic items such as foam liners, will be packaged in cardboard boxes. These boxes will be placed in the Dempster Dumpster marked INCINERATOR outside the building.
 - b. Unburnable materials will be packaged in cardboard boxes and placed in cans designated for that purpose. The Stock Preparation and Disposal Unit Leader will be notified of items that are too large or heavy for packaging in cardboard boxes.
 - * c. Generally burnable waste collected within buildings having explosives is considered HE contaminated waste. However, each building supervisor is responsible for the proper disposal of waste that is verified free of any explosive.

11. Uncontaminated Waste

- *
 - a. Uncontaminated burnable materials such as wood, plastic, rubber, and paper will be placed in a Dempster Dumpster marked UNCONTAMINATED-BURNABLE. It will be the responsibility of the building supervisor to determine that no HE contaminated materials are placed in the dumpster.

V. C. 11. (cont.)

- * b. Uncontaminated, unburnable materials such as glassware, bottles, and metal cans will be placed in containers designated for that purpose. It will be the responsibility of the building supervisor to determine that no HE contaminated materials are placed in the containers.
- c. The special dumpsters and containers listed in V.C.11.a. and b. above may be removed from the exclusion area by HSE-7 agents without certification, since the contents are HE free.

12. HE Contaminated Items for Burial

- * HE contaminated, noncombustible scrap and equipment, classified and unclassified, that are no longer needed may be buried. The items will be inspected by an Authorized Certifying Agent and if they can be buried, he will certify them for burial. Building TA-16-10 will be considered a storage area. If quantities greater than what can be stored in a 55 gallon drum are accumulated here but are stored less than 90 days the facility must be placed on a daily/weekly inspection schedule. Classified items shall be stored inside Building 10 and unclassified items shall be placed on the dock outside Building 10.

13. Adhesive Residue Waste

All potentially HE contaminated adhesive residues, brushes, and containers that are generated within the S-Site Explosives Area will be placed in paper bags, sealed, and then deposited in a Dempster Dumpster marked INCINERATOR.

14. Residual Ashes

The residual ash that remains on a burning pad after a burn will be disposed of as described in WX-3 SOP 12.1.0, paragraph VI.R.1.

D. Records

- 1. All pickups of scrap HE will be recorded on Form WX-3-70.
- 2. All pickups of trash will be recorded on Form WX-3-40.

ROUGH DRAFT

WX-3 SOP 12.3.3
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DISPOSAL OF HE CONTAMINATED WASTE BY BURNING

I. SCOPE

- A. In compliance with the air quality regulations of the State of New Mexico, uncontaminated waste will not be burned in the open incinerator at S-Site. Uncontaminated waste generated in the S-Site explosives area will be disposed of following the appropriate section of Group WX-3 SOP 12.1.2
- * B. Potentially HE contaminated waste, collected as described in WX-3 SOP 12.1.2, may be disposed of by burning in the open incinerator located at the S-Site explosive area. The potentially HE contaminated waste may be loaded into the incinerator by either Pan Am or WX-3 disposal personnel, however, only WX-3 personnel may burn waste in the incinerator.

II. LOCATION

- * WX-3 incinerator is located in the S-Site Explosives Area.

III. EQUIPMENT

- A. Incinerator
- B. Temporary roadblock
- C. Excelsior
- D. Safety matches (matches must be kept in a metal can, GS-2499).
- E. Kerosene

NOTE: Items C through E, above, must be stored in Building TA-16-77 when they are not being used.

*Indicates change

ROUGH DRAFT

IV. LIMITS

A. Explosives

Only potentially HE contaminated, burnable waste.

B. Personnel

Five at the incinerator.

V. LOADING THE INCINERATOR

A. The incinerator will not be loaded while the temporary roadblock is in position across the driveway.

B. When a truck has been loaded with potentially HE contaminated waste, it will be driven to the incinerator. The gates on the incinerator will be opened and the truck backed into the unloading position. The brake will be set and a rear wheel blocked.

Dempster Dumpsters will be transported to the incinerator by Pan Am personnel.

C. The waste will be unloaded from the truck into the incinerator. While the material is being unloaded, care must be exercised to assure that every piece of waste goes into the incinerator and that none is allowed to escape and litter the burning area.

D. After the truck or dumpsters are unloaded, the incinerator gate will be closed and the trucks driven from the burning area.

VI. BURNING THE WASTE

A. When the incinerator's contents are ready to be burned, a temporary roadblock will be placed in position across the driveway.

B. The gate on the incinerator will be closed before the burn is started.

C. A train of excelsior, approximately two feet long, will be placed in contact with the waste in the incinerator.

D. Approximately one quart of kerosene will be poured on the train and waste.

VI. (cont.)

- E. Items C and D, above, may be omitted if the waste is dry.
- F. The train or trash will be lit with a safety match. The matches and unused materials will be returned to Building 77.
- G. The temporary roadblock will be removed when there are no smoldering ashes in the incinerator.
- H. The incinerator may be reloaded after the temporary roadblock has been removed.
- I. Each burn will be recorded on Form WX-3-70.

VII. CLEANING THE INCINERATOR

When it becomes necessary, Group WX-12 will be requested to issue an order requesting Pan Am to remove the ashes from the incinerator. Disposal of the ashes will be in accordance with approved Laboratory procedures.