

RED HQFB 94



*Headquarters, Air Combat Command
Langley Air Force Base,
Virginia*

Remediation Compliance Plan

October 1994



*49 CES/CEV
Holloman Air Force Base,
New Mexico*

Section 4

DISPOSAL OF IDW

The IDW will be disposed after a waste determination has been made that the IDW is either hazardous or nonhazardous waste.

4.1 Hazardous Waste

Any drum of IDW that is determined to be hazardous waste (listed or characteristic) will either be removed from temporary accumulation at the end of 90 days for disposal at a permitted facility or will be transferred to the permitted storage facility at Holloman AFB until disposal can be arranged. Off-site disposal facilities for hazardous waste will be selected on the basis of the waste characterization and in accordance with the land disposal restrictions (40 CFR Part 268). Appendix B identifies potential disposal facilities for hazardous IDW for Holloman AFB's evaluation and selection.

4.2 Nonhazardous Waste

Any soil IDW that is determined to be nonhazardous will be disposed of in an industrial nonhazardous landfill if the TRPH is greater than 1000 mg/kg. If the TRPH is less than 1000 mg/kg, the soil IDW will be disposed of in the Base landfill. Appendix C identifies potential disposal facilities for nonhazardous IDW for Holloman AFB's evaluation and selection.

Holloman AFB has decided that any water IDW that is determined to be nonhazardous will be disposed of on site by dispersed on the ground surface or disposal through the Base sewer system. Holloman AFB will submit a Notice of Intent to NMED if water IDW is dispersed on the ground surface.

Each drum will be labeled to identify the waste generator (Holloman AFB), the site name, boring identification, the accumulation start date, and type of material. The label will also include a notation that the waste determination is pending analytical results. IDW drums will be transferred to a central staging area daily.

Development and purge water generated after the installation of monitor wells or during collection of Hydropunch samples may contain a characteristically hazardous waste. Therefore, excess water will be drummed and handled as described for Criteria 1 and Criteria 3 sites in Section 3.2.

Since IDW from Criteria 2 sites contains no listed hazardous wastes, the IDW will be compared with TC regulatory levels in Table 2-1. Any drums of soil cuttings will either be sampled and analyzed for TCLP analysis, or the TCLP equivalent will be calculated. For the development and purge water generated at Criteria 2 sites, analytical results of totals concentrations will be compared directly with TC levels in Table 2-1. If the results indicate that the soil or water IDW is TC hazardous, the appropriate EPA waste code will be placed on the hazardous waste label. In addition, any soil samples will be analyzed for TRPH to determine whether the soil exceeds the NMED standard of 1000 mg/kg.

3.4 Decontamination Water

All drilling equipment will be decontaminated at the central staging area using a self-contained decontamination unit. Regardless of whether the equipment is associated with a Criteria 1, 2, or 3 site, all water will be collected and pumped into an appropriately sized container (estimated as a 4000-gal. tank) for temporary storage. Water used for washing split-spoons and other sampling equipment will be contained in sealed tubs and transferred daily to this container.

The decontamination water in the container will be sampled and analyzed for each of the potential listed-waste constituents and the full suite of TC constituents when the tank is full or decontamination activities for the RFI are complete. Analytical results will be compared with HBLs and TC regulatory limits as discussed previously and presented in Figure 3-1. If any constituent exceeds these levels, the entire tank will be labeled and the contents managed as hazardous waste.

3.5 Personal Protective Equipment and Sampling Equipment

Holloman AFB has determined that PPE and other disposable items from all sites will be placed in sealed plastic bags and disposed of in the Base's landfill. PPE and equipment will be cleaned and decontaminated.

**HAZARDOUS
WASTE**

**FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
IF FOUND, CONTACT THE NEAREST POLICE, OR
PUBLIC SAFETY AUTHORITY, OR THE
U.S. ENVIRONMENTAL PROTECTION AGENCY**

PROPER D.O.T.
SHIPPING NAME _____ UN or NA# _____

GENERATOR INFORMATION:
NAME _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____
EPA ID NO. _____ EPA WASTE NO. _____
ACCUMULATION START DATE _____ MANIFEST DOCUMENT NO. _____

HANDLE WITH CARE!
CONTAINS HAZARDOUS OR TOXIC WASTES
STYLE WM-8-P

Printed by LABELMASTER, Div. of AMERICAN LABELMARK CO., INC., CHICAGO, IL 60646

Figure 3-3. Hazardous Waste Container Label

placed in containers. If soil cuttings are placed in containers, the procedures outlined in the following sections will be employed for waste characterization and disposal.

3.2 Criteria 1 and Criteria 3 Sites

Because Criteria 1 sites have managed listed wastes and Criteria 3 sites may have managed listed hazardous wastes, IDW generated at these sites will be handled as a hazardous waste at the point of generation. Any soil cuttings generated at Criteria 1 and Criteria 3 sites that are not left on site as previously discussed in Section 3.1 will be placed and sealed in separate appropriately sized drums. Each drum will be labeled to identify the waste generator (Holloman AFB), site name, boring identification, the accumulation start date, and type of material. The label will also include a notation that the hazardous waste determination is pending analytical results. Each day, IDW drums will be moved to a central staging area to await final characterization on the basis of the analytical results.

Development and purge water generated after the installation of monitor wells or during the collection of Hydropunch samples at Criteria 1 and Criteria 3 sites may also contain listed hazardous waste. For this reason, during monitor well development and sampling activities, all water removed from the wells (but not used for sampling) will be immediately placed and sealed in appropriately sized drums. Each drum will be labeled to identify Holloman AFB as the waste generator, the site name, monitor well or Hydropunch location identification, the accumulation start date, and the type of material. The label will also include a notation that the hazardous waste determination is pending analytical results. These drums will be moved to the central staging area daily.

After the IDW is generated (excluding soil cuttings left on site), additional characteriza-

tion is necessary to accurately determine if the IDW can be managed under the contained-in policy exemption. The analytical results from both soil and water samples will be compared with the HBLs. For a Criteria 1 site, if any of the HBLs are exceeded for a sample, the IDW associated with that sample will be considered a listed hazardous waste and the appropriate EPA waste code will be placed on the associated hazardous waste label (see Figure 3-3). If the soil from a Criteria 3 site contains any of the potential listed-waste constituents for the associated site at levels that exceed the HBLs, the IDW will be considered as containing a listed waste. If the soil from a Criteria 3 site does not contain any of the potential listed-waste constituents at levels that exceed the HBLs, the IDW will be considered a nonlisted waste.

To determine if any of the soil cuttings are TC hazardous, the cuttings will either be sampled and submitted for TCLP analysis, or the TCLP equivalent will be calculated. TCLP (or TCLP equivalent) results for soils and total analysis results for water will then be compared with the regulatory levels in Table 2-1. If any of the TC levels are exceeded, the IDW will be considered TC hazardous and the appropriate EPA waste code will be placed on the hazardous waste label (or if the IDW is already classified as listed hazardous waste, the EPA waste code for the TC constituent will be added to the label). In addition, all soil will be analyzed for TRPH to determine whether it exceeds the NMED established standard of 1000 mg/kg.

3.3 Criteria 2 Sites

Criteria 2 sites do *not* contain listed wastes; the sites are known to have handled only characteristically hazardous or nonhazardous wastes. Similar to Criteria 1 and Criteria 3 sites, any soil cuttings that are not left on site as previously discussed in Section 3.1 will be placed and sealed separately in appropriately sized drums.

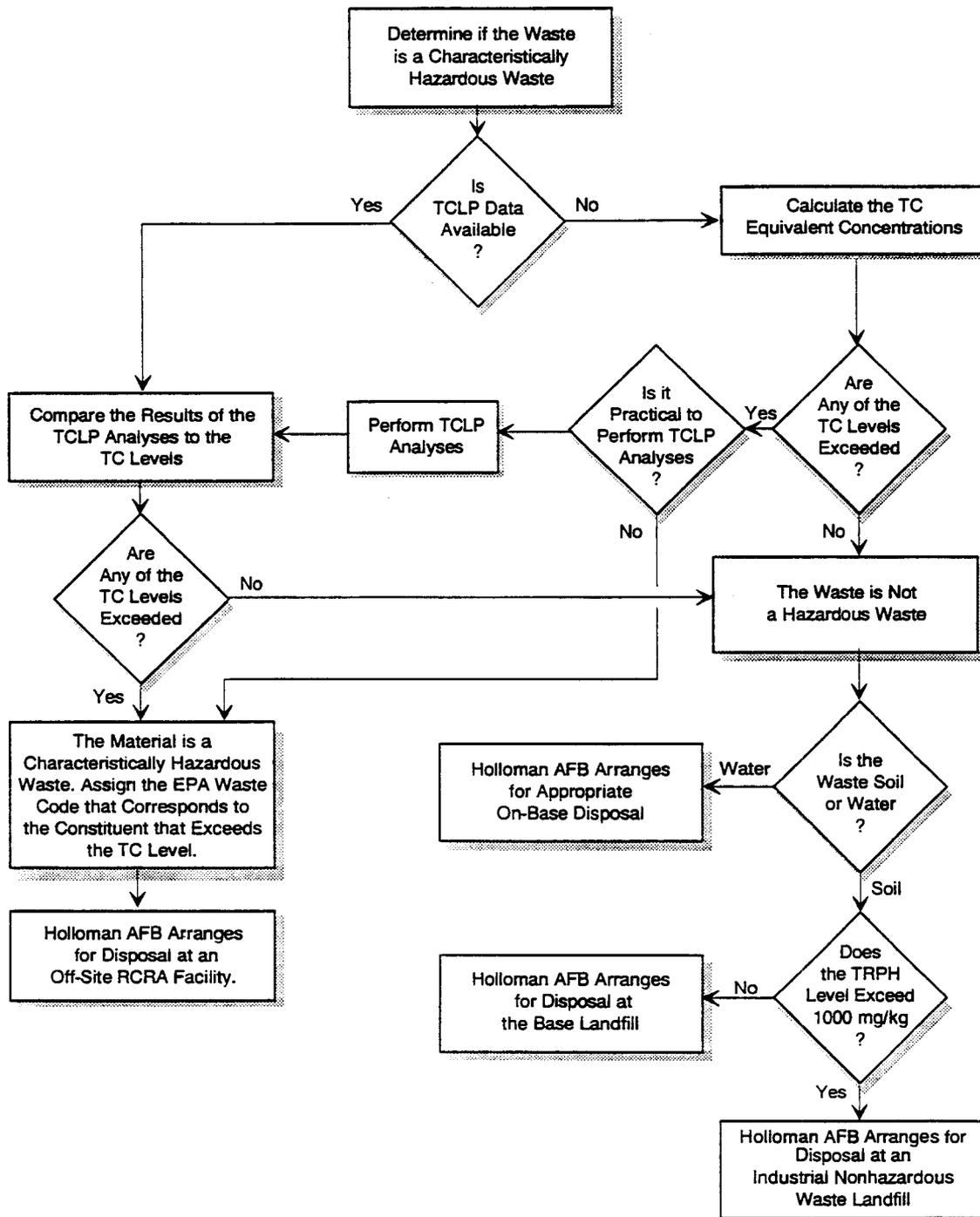


Figure 3-2. Decision Process Diagram for Criteria 2 Sites

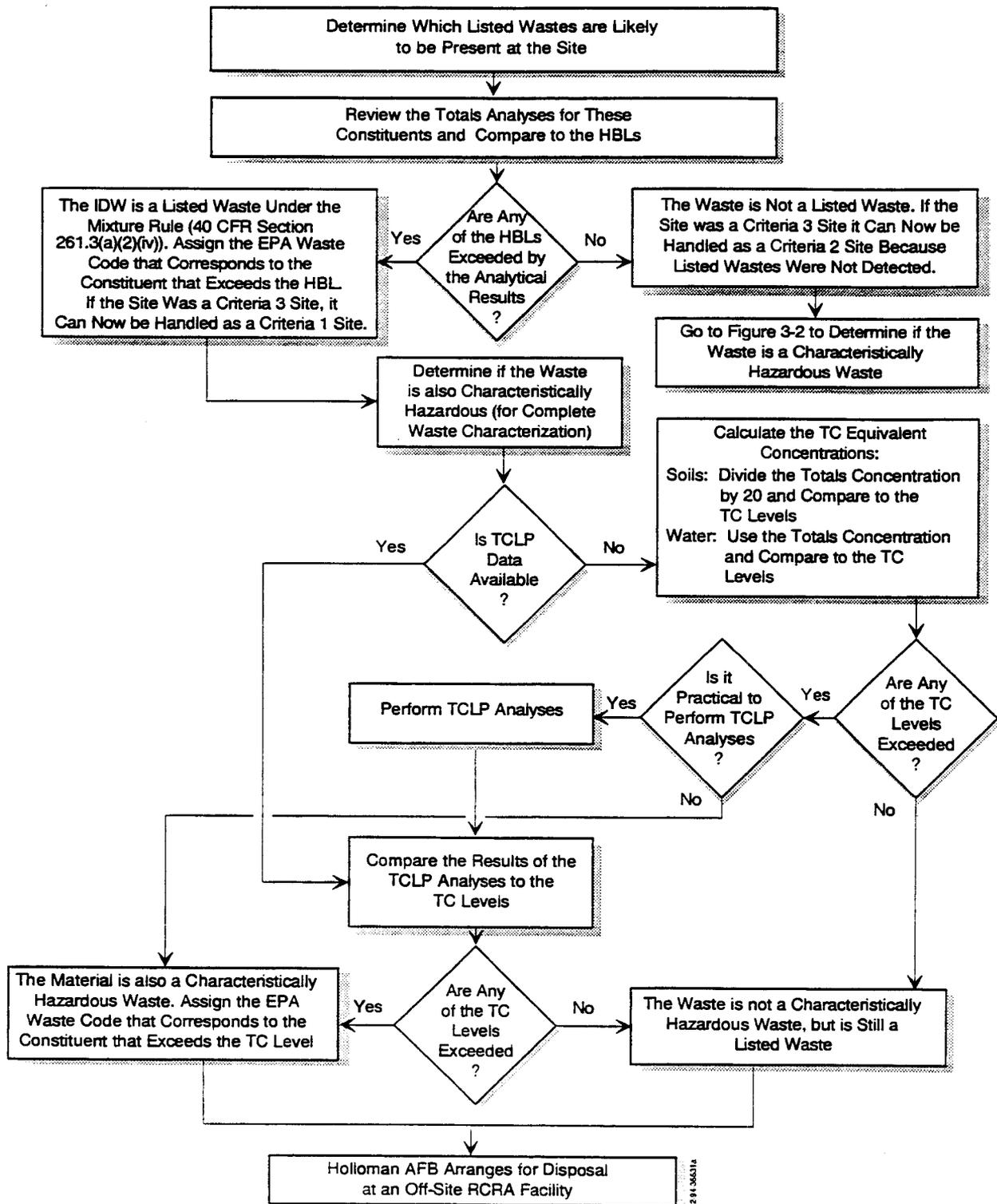


Figure 3-1. Decision Process Diagram for Criteria 1 and Criteria 3 Sites

Section 3

MANAGEMENT AND CHARACTERIZATION OF IDW

The RFI activities will involve predominantly soil and groundwater sampling. These activities, and associated decontamination and personal protection procedures, will generate all of the IDW during the RFI field program. The specific types of waste that may be generated are described below:

- **Soil Cuttings**—Excess soil removed by the direct-push and hollow-stem auger drilling techniques. This IDW will be generated at soil borings and monitor well installations.
- **Development and Purge Water**—Groundwater pumped from a monitor well after installation, and water pumped from a well prior to sampling. Small amounts of purge water will also be generated during Hydropunch investigations.
- **Decontamination Water**—Water used in cleaning drilling equipment (i.e., augers, rod, and drill rig) between borings. Also included are: soapy water, rinse water, and solvents (e.g., isopropanol) used during decontamination of sampling equipment.
- **Personal Protective Equipment (PPE) and Sampling Equipment**—Disposable coveralls, gloves, respirator cartridges, plastic sheeting, foil, and tape used during soil borings, well installations, and associated sampling.

Waste minimization techniques will be employed, where possible, to reduce the quantity of IDW produced. For example, the use of the Hydropunch method will reduce the amounts of purge water, and the use of direct-push technology will reduce the amount of soil IDW.

Waste characterization will primarily be based on comparisons of analytical data with HBLs for listed hazardous wastes and TC regulatory limits for characteristically hazardous wastes. The source of the analytical data will come from results of samples analyzed for the site investigation and from direct sampling of the IDW. The comparison process is described below and also presented in decision process diagrams (Figures 3-1 and 3-2). Disposal of hazardous and nonhazardous IDW is discussed in Section 4. The following sections present how each type of waste, according to the source of generation, will be managed and characterized following its generation, prior to final disposition.

3.1 Soil Cuttings

Two methods will be used for management of soil cuttings at the time of generation: 1) cuttings will be spread around the borehole at the site, and 2) cuttings will be placed in containers. Soil cuttings from all sites (Criteria 1, 2, and 3) will be evaluated according to field observations and available data regarding contaminants generated at the site. Any cuttings that are determined to be either visibly contaminated or contain volatile organic compounds (VOCs) in the headspace analysis will be placed in containers. All other cuttings will be spread around the borehole at the site unless the field crew determines that the situation warrants placing the cuttings in a container.

The soil cuttings from sites whose potential contaminants would *not* exhibit visible contamination or VOC headspace concentrations will not be placed around the borehole but will be placed in containers. For example, all IDW from a site contaminated with pesticides would be