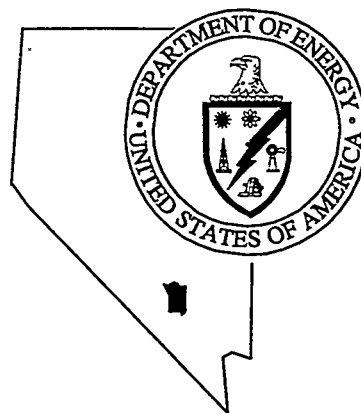


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# Housekeeping Category Corrective Action Unit Work Plan

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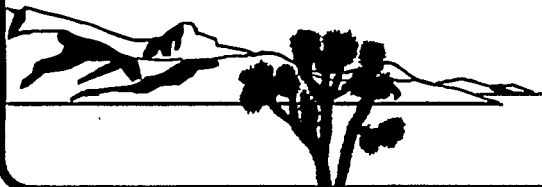
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# HOUSEKEEPING CATEGORY CORRECTIVE ACTION UNIT WORK PLAN

DOE Nevada Operations Office  
Las Vegas, Nevada

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Controlled Copy

Revision: 0

August 1996

**HOUSEKEEPING CATEGORY  
CORRECTIVE ACTION UNIT  
WORK PLAN**

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Technical Compliance Division  
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Date: 8/14/96

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Date: 8/19/96

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## ***List of Acronyms and Abbreviations***

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AEA	<i>Atomic Energy Act of 1954</i>
BN	Bechtel Nevada
CAA	Clean Air Act
CAC	Corrective Action Coordinator
CAS	Corrective Action Site(s)
CAU	Corrective Action Unit(s)
CFR	<i>Code of Federal Regulations</i>
CWA	<i>Clean Water Act</i>
CWMA	Controlled Waste Management Area
DoD	U.S. Department of Defense
DOE/NV	U.S. Department of Energy, Nevada Operations Office
ERD	Environmental Restoration Division
DSWA	U.S. Defense Special Weapons Agency
FFACO	Federal Facility Agreement and Consent Order
NDEP	Nevada Division of Environmental Protection
NEPA	National Environmental Policy Act
NTS	Nevada Test Site
OSHA	<i>Occupational Safety and Health Act</i>
PBMC	Performance-Based Management Contractor
PCB	Polychlorinated biphenyl(s)
POC	Performance Objective Certification
RCRA	Resource Conservation and Recovery Act
RCT	Radiological Control Technician
REECo	Reynolds Electrical & Engineering Co., Inc.
SAFER	Streamlined Approach for Environmental Restoration
SOP	Standard Operating Procedure(s)
SWDS	Solid Waste Disposal Site
TSCA	<i>Toxic Substances Control Act</i>
TTR	Tonopah Test Range
U.S.C.	United States Code

## **1.0 Introduction**

---

The purpose of this Corrective Action Unit (CAU) Work Plan is to provide a strategy to be used by the U.S. Department of Energy Nevada Operations Office (DOE/NV), the U.S. Department of Defense (DoD) Defense Special Weapons Agency (DSWA) (formerly the Defense Nuclear Agency), and contractor personnel for conducting corrective actions at the Nevada Test Site (NTS) and Nevada off-site locations including the Tonopah Test Range (TTR), the Project Shoal Area, and the Central Nevada Test Area. This Work Plan applies to housekeeping category CAUs already listed in the Federal Facility Agreement and Consent Order (FFACO) Appendices (FFACO, 1996) as well as newly identified Corrective Action Sites (CASs) that will follow the housekeeping process.

This Work Plan represents a joint effort between DOE/NV and DSWA to implement the identification and description of existing or new housekeeping category CASs, the corrective actions performed at these sites, documentation of housekeeping activities, and housekeeping site closure. This CAU Work Plan should be used in accordance with Appendix VI of the FFACO, the "Corrective Action Strategy" (FFACO, 1996).

### **1.1 Work Plan Overview and Objectives**

Housekeeping category introductory information, objectives, and definitions are presented in Section 1.0 of this Work Plan. In Section 2.0, the housekeeping process is described as it relates to various waste types and the guidance set forth in the FFACO. Section 2.0 also contains discussion on the recognition and categorization of various waste types (i.e., housekeeping category wastes versus Streamlined Approach for Environmental Restoration [SAFER] or Complex process wastes). Housekeeping category corrective action documentation is described in Section 3.0, and the relevant plans and related documents to be considered and/or used in conjunction with this Work Plan are described in Section 4.0. In Section 5.0, the references associated with this Work Plan are presented.

The housekeeping process provides a uniform guidance for waste removal and disposal. A uniform approach ensures that written records and photographic documentation of corrective action activities are recorded in a consistent manner, that the recorded information will satisfy the data requirements to achieve regulatory approval for site closure, that the waste removal and

disposal information is consistent with and supportive of a determination of clean closure (i.e., no further action), and that all corrective actions comply with applicable regulations.

The specific objectives of this Work Plan are to provide guidance for:

- Determining whether newly discovered waste material constitutes a new CAS and/or is amenable to a housekeeping process corrective action
- Conducting corrective actions according to the housekeeping process as outlined in the FFACO "Corrective Action Strategy" (FFACO, 1996)
- Documenting corrective actions at housekeeping category CASs
- Coordinating contractor efforts to avoid duplication and ensure continuity and traceability of waste removal and disposal actions on a site-specific basis
- Obtaining regulatory approval of CAS/CAU closure with no further action needed.

### **1.2 Housekeeping Category Corrective Action Sites Description**

As specified in the "Corrective Action Strategy" (FFACO, 1996), the housekeeping corrective action process is used for CASs that do not require further investigation prior to completing the corrective action. Housekeeping CASs may only be closed through clean closure. At these CASs, historical and field verification data sanction the removal of discarded material and/or directly impacted soils and the conduct of confirmatory sampling (if necessary), without additional investigation. Documentation of the waste removal and any confirmatory sampling is provided in a closure report.

Examples of waste types for which corrective actions may be performed using the housekeeping process are listed in Appendix A. Waste types not eligible for corrective action under this CAU Work Plan include low-level radioactive waste and friable asbestos waste. In addition, because mixed waste is not addressed by the FFACO, it is also excluded from this Work Plan.

Because housekeeping-category wastes are widespread at the NTS and other locations, addition of every newly identified waste item to the FFACO appendices would not be practical or efficient. Therefore, newly identified trash, litter, rubbish, and debris, when not associated with visible staining and when not located in a known contamination area, will not constitute new CASs. Examples of waste types which will **not** be marked as new CASs include ordinary wastes as listed in Appendix A. Instead, these waste types will be noted and tallied on weight tickets or

other related field documentation by the waste removal crews. It should be noted that newly identified lead materials are considered new CASs.

### **1.3 Regulatory Drivers**

The FFACO (1996), signed by the DOE, Nevada Division of Environmental Protection (NDEP), and DoD, is the primary regulatory driver for conducting corrective actions at the NTS and DOE/NV off-site locations. Additional drivers for these sites include federal and state laws and regulations as well as state policies and DOE Orders.

### **1.4 Definitions**

The following definitions should be considered with regard to housekeeping category sites.

#### **1.4.1 Asbestos Waste**

Asbestos-containing waste is subject to special regulations for handling, transport, and disposal under the *Occupational Safety and Health Act* (OSHA) regulations, the *Toxic Substances Control Act* (TSCA), and the National Emissions Standards for Hazardous Air Pollutants (Environmental Statutes, 1988). Asbestos can be identified through process knowledge or by collecting a sample and analyzing that sample by microscopy, and only personnel licensed as asbestos inspectors by the State of Nevada may collect asbestos samples. Friable asbestos-containing waste must be wetted, double-bagged, and double-labeled prior to transport, and it must be disposed of in a special section of a licensed sanitary landfill.

#### **1.4.2 Controlled Waste Management Area**

A Controlled Waste Management Area (CWMA) is an area in which the potential exists for contamination due to the presence of unencapsulated or unconfined radioactive material, or it is an area that is exposed to beams or other sources of particles capable of causing activation, i.e., neutrons and protons. Controlled Waste Management Areas also include any other posted Radiological Area (BN, 1995).

#### **1.4.3 Corrective Action Sites**

Corrective Action Sites are those sites potentially requiring correction action(s) and may include solid waste management units or individual disposal or release sites (FFACO, 1996).

#### **1.4.4 Corrective Action Units**

Corrective Action Units consist of one or more CASs grouped geographically, by technical similarity, by agency responsibility, or other appropriate reasons for the purpose of determining corrective actions (FFACO, 1996).

#### **1.4.5 Empty**

A container or inner liner removed from a container that has held any hazardous substance (except compressed gas or an acute hazardous waste) is empty (as per Title 40 Code of Federal Regulations [CFR] Part 261, *Identification and Listing of Hazardous Waste* [CFR, 1992]) if: (1) all waste has been removed that can be removed using common practice and no more than 2.5 centimeters of residue remain on the bottom of the container or inner liner, or (2) no more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than, or equal to, 110 gallons in size (0.3 percent by weight if greater than 110 gallons). A container that held a compressed gas is empty when the pressure in the container approaches atmospheric. The container or the inner liner removed from a container that held an acute hazardous waste is empty if the container or inner liner has been triple rinsed or if the inner liner that prevented contact of the product with the container has been removed and the rinsate is retained as a hazardous waste.

#### **1.4.6 Ground Disturbance**

Ground disturbances include any activity which disrupts or damages plant or animal habitats or cultural resources. Ground disturbances do not include removal of less than 2.3 cubic meters (81 cubic feet or 3 cubic yards) of soil contaminated with known materials provided plant and/or animal habitats or cultural resources are not disturbed.

#### **1.4.7 Debris/Hazardous Debris**

Debris is solid material exceeding a 60-millimeter particle size that is intended for disposal and that is a manufactured object, plant or animal matter, or natural geologic material. Hazardous debris contains a hazardous waste listed in Title 40 CFR Part 261 Subpart D "Lists of Hazardous Wastes" (CFR, 1992) or exhibits a characteristic (ignitability, corrosivity, reactivity, or toxicity) of hazardous waste identified in Title 40 CFR Part 261 Subpart C "Characteristics of Hazardous Waste" (CFR, 1992).

#### **1.4.8 Hazardous Waste**

A waste or combination of wastes that because of quantity, concentration, toxicity, corrosiveness, flammability, reactivity, or physical, chemical, or infectious characteristic may cause harm to human health or the environment, as specified in 42 United States Code (U.S.C.)

Section 6903 (5) (Solid Waste Disposal Act, 1976) is considered hazardous. Hazardous waste may be listed, characteristic, or so deemed by the State of Nevada in Nevada Revised Statute 459.430 (State of Nevada, 1991) and Title 40 CFR Part 261 (CFR, 1992).

#### **1.4.9 Hydrocarbon Waste**

Hydrocarbon waste is a waste consisting of petroleum hydrocarbons. Process knowledge or sampling must be used to determine which regulations are applicable to hydrocarbon waste (such as stained soil).

#### **1.4.10 Listed Waste**

Listed wastes are those cited in Title 40 CFR Part 261 (CFR, 1992) on one of four lists: F, K, P, or U. The F-list wastes are nonprocess-specific "used" wastes. K-listed wastes are process-specific "used" wastes. P- and U-listed wastes are commercial chemical products and spill residues as identified in Title 40 CFR 261.33 (CFR, 1992). Combinations of any listed hazardous waste with other non-hazardous waste will result in the same listed hazardous waste.

#### **1.4.11 Mixed Waste**

Mixed waste contains both radioactive and hazardous components regulated by the *Atomic Energy Act of 1954* (AEA) and the *Resource Conservation and Recovery Act* (RCRA) (Environmental Statutes, 1988), respectively, per 42 U.S.C. Section 6903 (41) (Solid Waste Disposal Act, 1976).

#### **1.4.12 Ordinary Waste**

Ordinary waste is any discarded, nonradioactive material that is identified as garbage, sewage, rubbish, refuse, or sludge, or is excluded by Title 40 CFR Part 261 (CFR, 1992). Ordinary waste includes industrial, commercial, and solid household-type wastes, and excludes non-recyclable, hazardous, radioactive, polychlorinated biphenyl (PCB), asbestos, or mixed wastes.

#### **1.4.13 Polychlorinated Biphenyl Waste**

Polychlorinated biphenyls are one of several compounds that are produced by replacing hydrogen atoms in biphenyl with chlorine, have various industrial applications, and are poisonous environmental pollutants which tend to accumulate in animal tissues. Waste containing polychlorinated biphenyls is regulated for handling, transport, storage, and disposal under the TSCA. Capacitors, fluorescent light ballasts, and transformers are examples of equipment that may contain PCBs.

#### **1.4.14 Radioactive Waste**

Solid, liquid, or gaseous material that contains radionuclides regulated under the AEA, as amended, and which is of negligible economic value considering cost of recovery, is considered to be radioactive waste (DOE Order 5820.2A, *Radioactive Waste Management* [DOE, 1995a]).

#### **1.4.15 Recyclable/Salvageable Waste**

Recyclable and salvageable wastes are able to be returned to an original condition so that the material is adaptable to a new use or reuse. Hazardous waste may be recycled; ordinary waste may be salvaged.

#### **1.4.16 Solid Waste Disposal Site**

A solid waste disposal site (SWDS) is a system for disposal of refuse, garbage, rubbish, and industrial solid waste in compacted layers covered with soil to a depth sufficient to exclude rats, flies, and other disease vectors.

## **2.0 Housekeeping Category Strategy**

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Housekeeping category waste removal, waste disposition, and confirmatory sampling will be performed in accordance with this Work Plan and related documents as discussed in Section 4.0. Documentation of the waste removal and confirmatory sampling will be through a closure report for which sufficient supporting documentation has been gathered. The closure report shall follow the guidelines set forth in the *Work Plan for Closure Verification of FFACO Corrective Action Sites/Units* (DOE/DoD, 1996). If a housekeeping CAS proves more complex than anticipated, such as finding an unexpected waste type, the CAS will be recommended for inclusion into a different CAU and may not be treated thereafter by this Work Plan.

### **2.1 Determination of Corrective Action Process**

After waste is discovered, it must be confirmed that the housekeeping process is correct for the CAS. Figure B-1 is a flowchart illustrating this confirmation strategy. If corrective actions at a site cannot be conducted using the housekeeping process, that CAS cannot be part of the housekeeping CAU. Regrouping of the errant CAS into a different CAU will be initiated by DOE or DSWA. Provided the written documentation supports reassignment, NDEP approval of the proposed transfer will then occur at the subsequent FFACO quarterly meeting. The CAS may then be re-evaluated under the SAFER or Complex process.

### **2.2 Site Evaluation**

Prior to any removal of waste from CASs under the housekeeping process, the following activities will be completed:

- Field screening for radioactive contamination and other hazards as required under the DOE/NV Environmental Restoration Division (ERD) Health and Safety Plan (DOE, 1994b).
- Site evaluation of new or previously unevaluated sites including site location and waste description documentation for all materials within a 3-meter (10-foot) radius of the site center, acquisition of site coordinates and photograph(s), placement of a site marker, and completion of applicable documentation.

### **2.3 Waste Removal**

At the NTS, a Radiological Control Technician (RCT) will accompany field crews during corrective action operations. At off-site locations, RCTs will be present, as needed, based on



site-specific conditions. At each applicable CAS, waste will be surveyed and cleared by the RCT and issued a radiation clearance certification (i.e., green tag) prior to removal. The survey shall include field screening and/or collecting swipe samples to determine if contamination is present and removable. Screening data collected from nonradiological areas should be evaluated against the requirements of Title 10 CFR Part 835, *Occupational Radiation Protection* (CFR, 1994) as supplemented by the *NTS Radiation Protection Program* (DOE, 1995b). In CWMAs, the Performance Objective Certification (POC) guidance (BN, 1995) shall be used to evaluate site-screening results, and any waste containing isotopes not addressed in, or exceeding the NTS POC screening levels, shall be managed as radioactive waste (i.e., not housekeeping) in accordance with the requirements of DOE Order 5820.2A (DOE, 1995a) and NVO-325, *Nevada Test Site Defense Waste Acceptance Criteria, Certification and Transfer Requirements* (DOE, 1992).

During corrective actions, if dust control is required, if a protected habitat will be disturbed, or if a ground disturbance will be created using anything larger than a hand-held shovel or small, rubber-tired equipment, the CAS is not eligible for the housekeeping category. In order to determine if waste removal operations may cause a ground disturbance, the following should be completed prior to corrective action:

- Inspection of sites located in desert tortoise areas for tortoise habitat and for other endangered species as per DOE Order 54XC.1B, *Threatened and Endangered Species Protection* (DOE, 1994c)
- Evaluation of the need for a Cultural Resource Survey in accordance with DOE Order NV 54XD.1B, *Protection of Cultural Resources* (DOE, 1994d)
- Evaluation of the need for National Environmental Policy Act (NEPA) (Environmental Statutes, 1988) documentation (i.e., a generic Categorical Exclusion)

During corrective action operations, readily removable waste will be segregated by waste type and transported to the proper disposal/collection site based on the waste categorization. In conjunction with these activities, the following shall be completed:

- A Housekeeping Category Corrective Action Documentation Form (see Section 3.0 and Appendix C) or comparable documentation for each CAS
- Photographic documentation of waste removal operations
- Waste disposal documentation as appropriate (e.g., Bills of Lading, manifests)

- Verification that corrective actions are complete for all sites in the CAU (per the *Work Plan for Closure Verification of FFACO Housekeeping Corrective Action Sites/Units* [DOE/DoD, 1996])
- A closure report with all necessary documentation submitted to NDEP (per DOE/DoD, 1996)

A discussion of specific waste categories and the disposal practices for each are presented in the following sections. A logic diagram for waste category determination is presented in Figure B-2.

### **2.3.1 Ordinary Waste**

Examples of ordinary waste are indicated in Appendix A. Ordinary waste will be transported to either the Area 9 U-10c Class III SWDS, or to the Area 23 Class II SWDS. A radiological clearance certification will be issued for the ordinary waste, and the material will be tracked to its destination with a Bill of Lading, or equivalent documentation. At the NTS, household waste, sludge, and industrial solid wastes are accepted only at the Area 23 SWDS.

### **2.3.2 Recyclable or Salvageable Wastes**

Recyclable or salvageable wastes include those materials that may be reused or sold. Examples of items acceptable for recycling or salvage are listed in Appendix A.

Recyclable and salvageable waste that is not radioactively contaminated may be removed from the site provided that a ground disturbance will not be created. Materials which have been identified as either recyclable or salvageable will be transported to the proper collection point (e.g., intact, lead acid batteries to one of the collection points established by the Performance-Based Management Contractor [PBMCI]). A mobile satellite accumulation area (e.g., a drum which is moved from site to site until full) may be used to compile recyclable or scrap materials from multiple CASs. A radiological clearance certification will be issued for these materials which will be tracked to their destination with a Bill of Lading or equivalent documentation.

### **2.3.3 Debris/Hazardous Debris**

Based on process knowledge, a waste categorized as hazardous debris may be removed and disposed under the housekeeping category, with the exception of geologic materials that may exhibit a hazardous characteristic (see Section 1.4.7). The following materials are considered to be hazardous debris: lead acid batteries, cadmium batteries, lead solids, intact fluorescent tubes,

and mercury vapor lamps. A radiological clearance certification will be issued for these materials.

#### **2.3.4 Soil Stains**

Soil stains of known materials or which have been characterized before prioritization may be remediated under the housekeeping category provided the volume of impacted soil is less than 2.3 cubic meters (81 cubic feet or 3 cubic yards). Confirmatory sampling will be required. At housekeeping CASs, one confirmatory sample may be collected to verify completion of corrective actions. If more than one confirmatory sample is anticipated, the CAS is no longer applicable in the housekeeping category.

#### **2.3.5 Hydrocarbon Waste**

Process knowledge or sampling must be used to determine how hydrocarbon waste, such as stained soil, is regulated. Items contaminated solely with certain petroleum hydrocarbons (such as diesel fuel, motor oil, or lubrication oil) are not hazardous waste but must be disposed of in a special section of a SWDS or at the NTS Area 6 Hydrocarbon Landfill. Hydrocarbon spills impacting greater than 2.3 cubic meters (81 cubic feet or 3 cubic yards) of soil are not housekeeping category sites.

#### **2.3.6 Polychlorinated Biphenyls**

All unlabeled electrical equipment that may contain liquids will be assumed to contain regulated quantities of PCBs until sampling and analysis has demonstrated that the equipment is non-PCB or until examination has determined that the equipment contains no oil or other fluids.

Polychlorinated biphenyls in a container with a capacity of less than one gallon may be considered a housekeeping category CAS; however, uncontained, spilled, or burned PCBs are not housekeeping CASs. Ballasts containing PCBs, if not accumulated, can be disposed of at a SWDS. However, PCB ballasts which have been accumulated must be characterized and are therefore not housekeeping waste. Refer to Figure B-3 for information about the categorization of PCB waste.

#### **2.3.7 Asbestos**

Only non-friable asbestos may be removed and disposed of as housekeeping category waste.

Friable (i.e., easily crumbled) asbestos must be evaluated under the SAFER or Complex process.

A logic diagram for evaluation of potential asbestos waste is shown in Figure B-4.

## 2.4 *Newly Discovered Sites*

When a potential new CAS is discovered during ongoing clean-up activities, corrective actions may be performed at the time of discovery provided the site may be categorized as housekeeping in accordance with this Work Plan. One objective of the housekeeping process is to minimize the addition of new FFACO sites. Tracking of corrective actions at such sites will be through field documentation such as Housekeeping Category Corrective Action Documentation Forms (Appendix C), Bills of Lading, etc. These sites will not be listed in the FFACO and do not require additional documentation.

When a potential new CAS is discovered, and corrective actions cannot be implemented at the time of discovery and/or under this Work Plan, the potential CAS will be evaluated for inclusion in Appendix II or Appendix III of the FFACO by the appropriate Corrective Action Coordinator (CAC). The process for adding a potential new CAS is as follows:

- The DOE Environmental Restoration Division (ERD) CAC or the DSWA CAC is notified by letter of the potential new CAS.
- DOE or DSWA determines whether corrective actions may be performed in accordance with this Work Plan or whether the potential CAS should be added to the FFACO Appendices.
  - If corrective actions may be conducted in accordance with this Work Plan, the site will be turned over to the DOE/NV PBMC for further action and will not be added to the FFACO Appendices. Tracking of corrective action activities will be through field documentation as discussed above.
  - If corrective actions cannot be conducted in accordance with this Work Plan, the site constitutes a new CAS and should be added to the FFACO Appendices.
  - If the potential CAS has already been reported to the NDEP under a mechanism other than the FFACO (e.g., a tank notice), and if the waste was generated at this site prior to the signing of the FFACO (May 10, 1996), the CAS must be added to an FFACO Appendix regardless of whether corrective actions may be performed in accordance with this Work Plan.
- If the new CAS must be added to the FFACO, signed documentation approving the addition of the CAS to a CAU within Appendix II or III of the FFACO is forwarded to the DOE/NV FFACO Data Repository Manager.

- The FFACO Data Repository Manager adds the new CAS to Appendix II or III, incorporating it into the designated CAU.
- The updated Appendix II or Appendix III is presented at the next FFACO quarterly meeting.

### **3.0 Housekeeping Category Corrective Action Documentation**

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Corrective actions at housekeeping sites will be recorded in a project log book or an equivalent log each day that corrective action-related activities take place. In addition, a Housekeeping Category Corrective Action Documentation Form (Appendix C) will be completed for each CAS. This form standardizes the information recorded for waste removal activities and ensures that waste disposal documentation such as Bills of Lading, manifests (both on and offsite), and other disposal records become part of the record of progression of the CAS to Appendix IV of the FFACO (FFACO, 1996). As per the FFACO, all related documentation, including confirmatory sampling results, shall be established and maintained in accordance with DOE and DoD records retention procedures.

A Closure Report will be prepared for each CAU in accordance with the *Work Plan for Closure Verification of FFACO Housekeeping Corrective Action Sites/Units* (DOE/DoD, 1996). Once corrective actions at all CASs within a specified CAU are completed, a Closure Report will be compiled and submitted to NDEP for approval. Once NDEP issues a Notice of Completion approving the CAU closure, the CAU will be transferred to Appendix IV of the FFACO. If an NDEP Notice of Completion is not received, the corrective action approach for the specified CAU should be reevaluated according to the "Corrective Action Strategy" as per Appendix VI of the FFACO (FFACO, 1996).

## 4.0 Related Documents

Corrective actions at housekeeping category sites shall be conducted under existing umbrella documents for quality assurance, health and safety, waste management, and sampling. Examples of these documents are listed in Table 4-1. Other pertinent documents may include Work Plans (e.g., DOE/DoD, 1996); contractor-specific operating procedures; site-specific health and safety plans; and field instructions as applicable.

**Table 4-1  
 Housekeeping Category Related Plans**

Topic	Applicable Plans	Applicable Location(s)
Quality Assurance	<ul style="list-style-type: none"> <li>Resource Conservation and Recovery Act Industrial Sites Quality Assurance Project Plan, Nevada Test Site, Nevada (DOE, 1994a)</li> </ul>	NTS, TTR, Offsites
Health and Safety	<ul style="list-style-type: none"> <li>DOE/NV Environmental Restoration Division Health and Safety Plan (DOE, 1994b)</li> </ul>	NTS, TTR, Offsites
	<ul style="list-style-type: none"> <li>NTS Radiation Protection Program (DOE, 1995b)</li> </ul>	NTS, TTR, Offsites
Waste Management	<ul style="list-style-type: none"> <li>Waste Characterization Sampling and Analysis Plan for TTR (IT, 1996)</li> </ul>	TTR
	<ul style="list-style-type: none"> <li>Nevada Test Site Performance Objective for Certification of Nonradioactive Hazardous Waste (BN, 1995)</li> </ul>	NTS
	<ul style="list-style-type: none"> <li>Solid Waste Disposal Site Operations and Maintenance Plans (BN, 1996; REECo, 1993; REECo, 1995)</li> </ul>	NTS
Confirmation Sampling	<ul style="list-style-type: none"> <li>CAS-Specific Sampling and Analysis Plans (developed as needed)</li> </ul>	NTS, TTR, Offsites

## 5.0 References

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- Bechtel Nevada. 1995. *Nevada Test Site Performance Objective for Certification of Nonradioactive Hazardous Waste*. December 18, 1995. Las Vegas, NV.
- Bechtel Nevada. 1996. *Operating Plan for U10C Solid Waste Disposal Site (Class II)*. January, 1996. Las Vegas, NV.
- BN (see Bechtel Nevada).
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**Appendix A**  
**Waste Categorization List**

**Table A-1**  
**Waste Categorization List**  
 (Page 1 of 3)

Waste Type	Possible Waste Category
Abandoned chemicals	Not housekeeping
Aerosol cans	Housekeeping if empty or if not empty but contents are identifiable by process knowledge
Air filters	Ordinary waste
Aluminum cans	Salvageable
Arsenic	Contained in pesticides; not housekeeping
Asbestos (non-friable)	Ordinary
Bare wood, wooden structures	Ordinary waste
Batteries - lead acid (intact)	Recyclable
Batteries - lead acid (crushed)	Hazardous
Batteries, other - intact	Recyclable except alkaline, mercury, or nickel-cadmium
Black rubber casing	Ordinary waste
Bottles	Ordinary waste
Buckets or Cans (empty)	Ordinary waste
Buckets or Cans (not empty)	Hazardous or salvageable; not housekeeping unless contents are known
Cable and wire	Salvageable if in good condition; otherwise ordinary
Cadmium	Paint and batteries may contain; not housekeeping
Capacitors	May contain PCBs
Chromium	May be present in paint; not housekeeping
Circuit and electrical boxes	Salvageable or recyclable (if in good condition)
Concrete blocks, cinder blocks	Salvageable if not broken; otherwise ordinary waste
Construction debris (untreated lumber, rebar, or concrete)	Industrial solid waste
Drill pipe	Salvageable if in good condition
Drilling mud	Pre-1975 contained asbestos, barium, chromium
Drums or barrels (empty)	Ordinary waste
Drums or barrels (not empty)	Hazardous or salvageable
Epoxy tar sites	Ordinary waste
Eye hook tie downs	Salvageable
Fencing	Ordinary waste

**Table A-1**  
**Waste Categorization List**  
(Page 2 of 3)

Waste Type	Possible Waste Category
Fluorescent light bulbs, intact	May be hazardous; not housekeeping if broken
Food containers, food wrappers	Ordinary waste
Gas cylinders (compressed) - empty	Salvageable
Gas cylinders (compressed) - not empty	Hazardous or salvageable
Gas cylinders (uncompressed)	Can be reused if in good condition
Gasoline cans	Salvageable
Glass	Ordinary waste
Heavy equipment	Salvageable
Hoists, pulleys	Salvageable
Hoses	Salvageable if new and/or in good shape
Industrial solid waste	Salvageable or ordinary waste
Joint compound	May be hazardous
Lead (batteries, sheets, shielding bricks, shot, paint)	Recyclable, hazardous, or mixed
Linoleum	Asbestos potential
Liquids	Sample; not housekeeping
Lumber, dimensioned	Salvageable
Mastic	May contain asbestos
Metal (scrap)	Ordinary waste
Metals (steel, iron, aluminum, copper)	Scrap or ordinary waste
Nuts, bolts, nails	Salvageable or ordinary
Office trash	Ordinary waste
Organics	Not housekeeping
Paint cans	Probably not hazardous if latex
Painted or treated wooden boards	May be hazardous
Pesticide cans	Hazardous even if empty
Petroleum spill sites (< 3 cubic yards)	Hydrocarbon waste
Photographic equipment	Salvageable or recyclable
Photographic chemicals	May be hazardous
Pipes and unions	Salvageable
Piping or connectors with insulating wrap	Asbestos potential
Piping with sealant on the threads	Sealant is often lead based
Plastic, molded	Ordinary if not new or re-usable
Rebar	Salvageable

**Table A-1**  
**Waste Categorization List**  
(Page 3 of 3)

Waste Type	Possible Waste Category
Recyclable Materials	Cabling, steel, drill pipe, empty gasoline cans, empty gas cylinders, nuts and bolts
Sand bags	Salvageable or ordinary waste
Signs	Salvageable if metal or plastic and in good condition
Silver	Photographic related; not housekeeping
Spill sites of known materials, (<3 cubic meters)	Hazardous or ordinary
Soil that contains lead shot	Not housekeeping; requires treatment
Soil contaminated with metals or organics	Such as lead or solvents; not housekeeping
Sparkletts™ bottles	Returned for deposit
Spray insulation	Ordinary waste
Stained soil	Probably not housekeeping
Sulfa-set	Ordinary waste
Tar	Ordinary waste
Tin cans	Ordinary waste
Tires	Salvageable or recyclable
Transformers/polychlorinated biphenyls (PCBs)	Toxic; ordinary waste if less than 1 gallon
Transite pipe	Non-metal, non-plastic pipe; asbestos potential
Trash cans, metal	Salvageable if in good condition
Treated or painted pallets or posts	May be hazardous
Unexploded ordnance	Not housekeeping
Tiles and shingles - roofing, flooring, and ceiling	Asbestos potential; ordinary waste if nonfriable; not housekeeping if friable
Wallboard	Paint and asbestos potential
White plastic sheeting	May be used if new or non-weathered; otherwise ordinary waste
Wood - bare	Ordinary waste
Wood - cable spools, pallets	Salvageable
Wood - dimensioned lumber	Salvageable
Wood - painted or treated	May be hazardous
Wood railroad ties (untreated)	Ordinary waste
Wood railroad ties (treated; creosote)	Hazardous

Note: Anything that could contain metals or organics or that could have been contaminated with metals or organics may be hazardous waste. Items contaminated solely with certain petroleum hydrocarbons are not hazardous waste but must be disposed of in a hydrocarbon landfill or in a special section of a SWDS. Process knowledge or sampling must be used to determine how the hydrocarbons are regulated. If sampling is required, the site is not housekeeping.

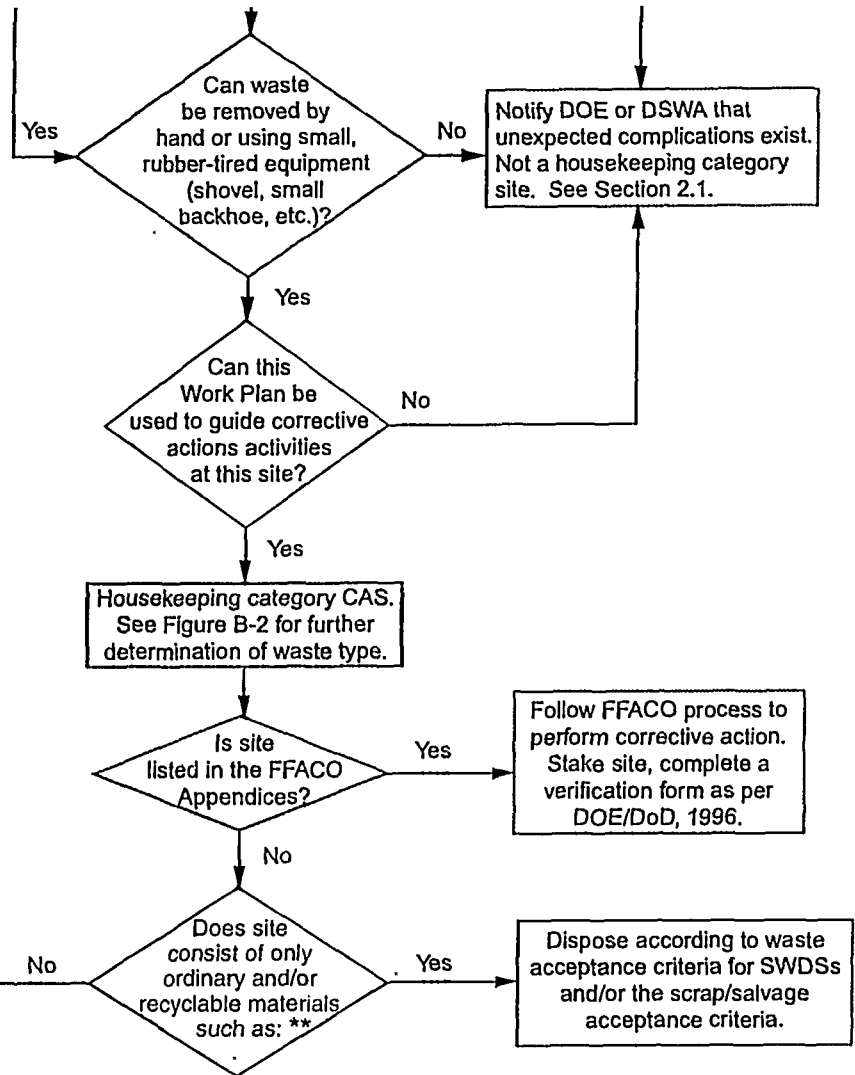
## **Appendix B**

### **Housekeeping Category Logic Diagrams**

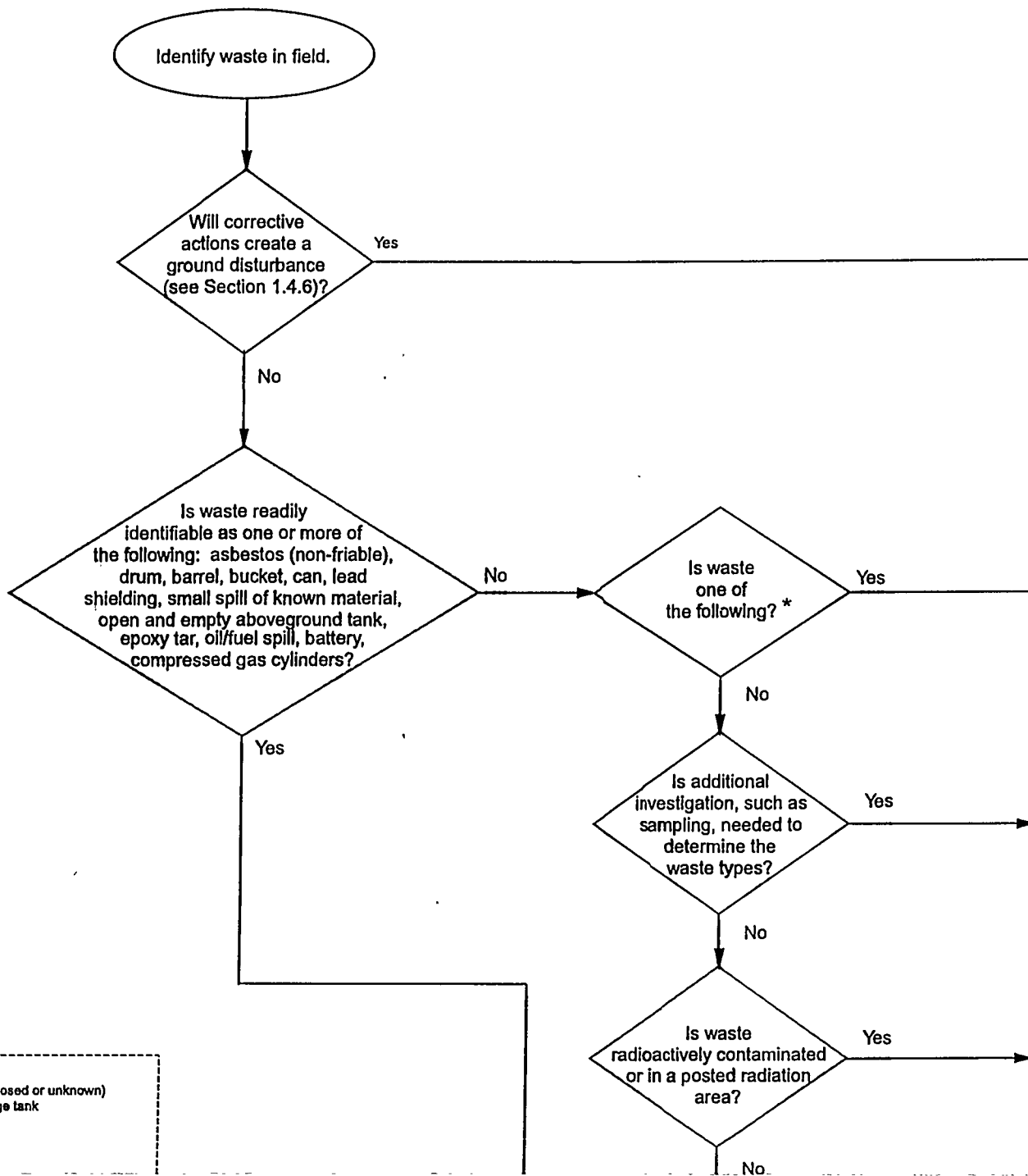
Depleted uranium  
 surface debris area  
 Drillback sump or collar  
 Drillhole  
 Injection well  
 Landfill  
 Large oil or fuel spill of undetermined dimensions  
 Leachfield  
 Lead in large quantities and/or  
 in a radiation area  
 Muck pile  
 Mud pit  
 Pond or lagoon with unknown contents or former  
 contents  
 Solid propellant burn site  
 Sludge burial pit  
 Steam cleaning facility  
 Tunnel  
 Tunnel pond  
 Underground discharge point  
 Unknown or other  
 Waste disposal trench or dump

\*\*  
 Empty drums;  
 Empty cans;  
 Buckets;  
 Intact batteries;  
 Construction debris such as:  
 untreated lumber,  
 rebar, or concrete,  
 cabling,  
 steel,  
 drill pipe,  
 empty gasoline cans,  
 empty gas cylinders,  
 nuts and bolts.

Possible new housekeeping process  
 CAS. Report site to DOE or DSWA  
 for possible addition to FFAO  
 appendices.

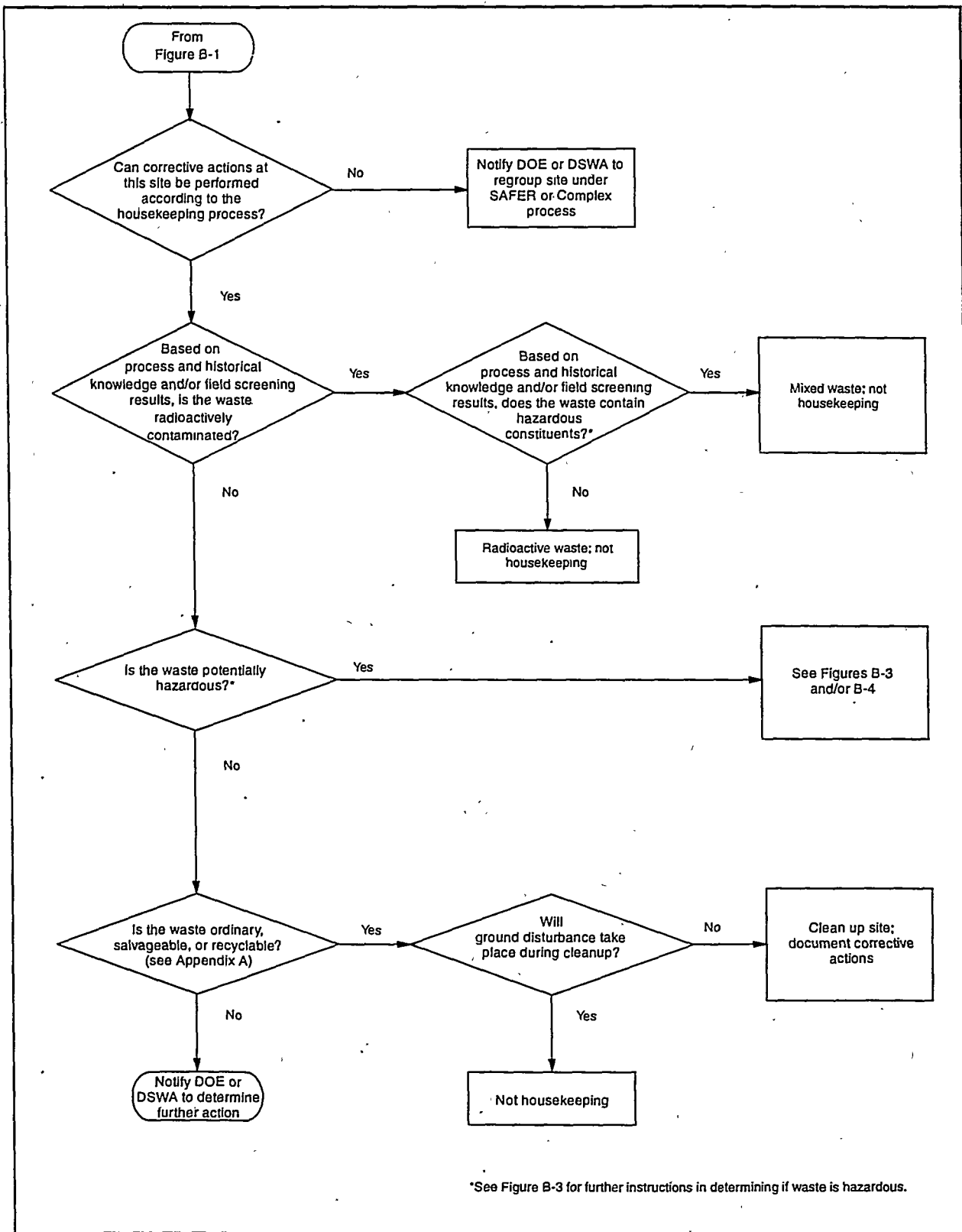


**Figure B-1**  
**Logic Diagram for Determination of Housekeeping Category Corrective Action Sites**



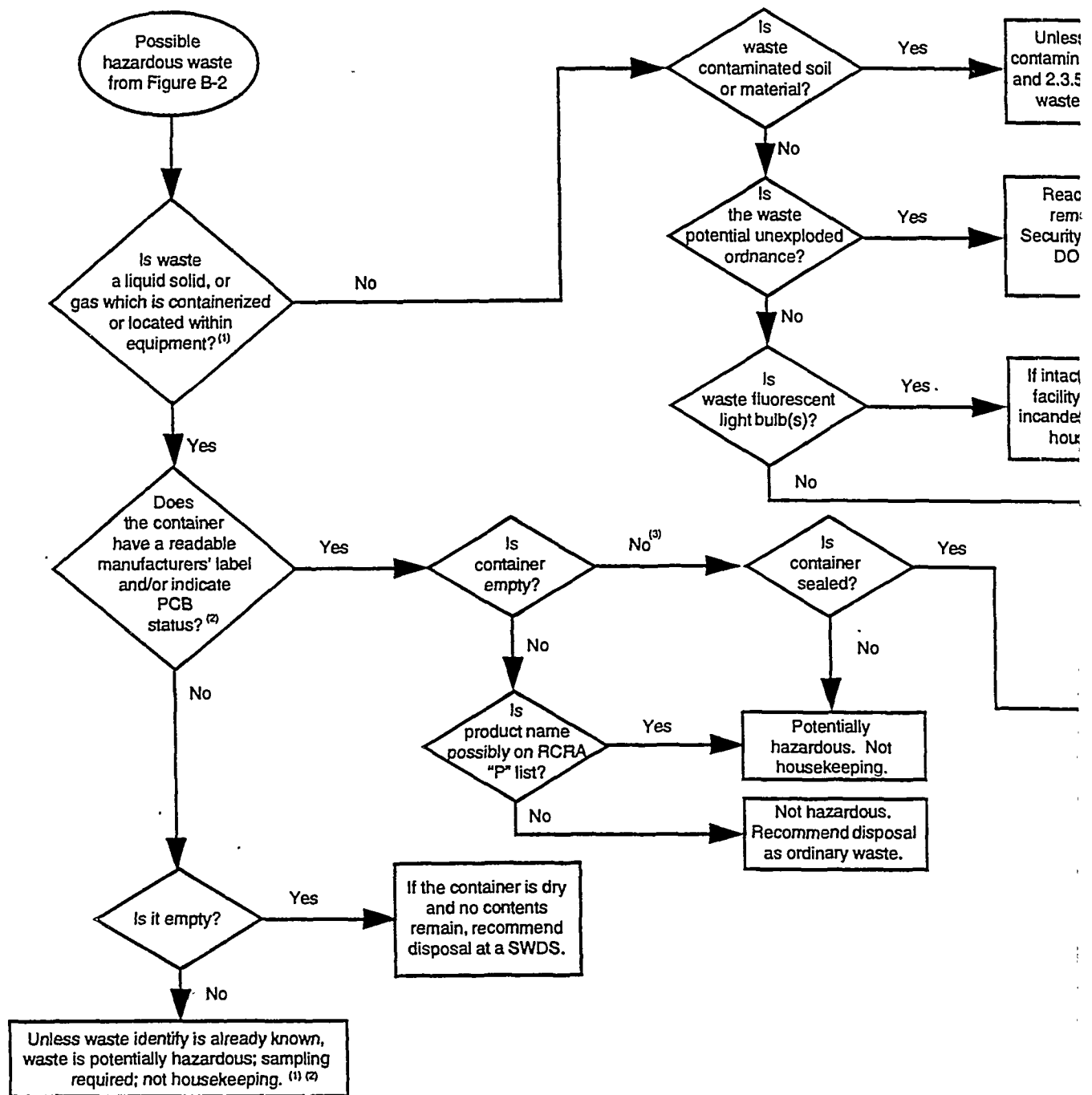
\*  
 Aboveground tank (enclosed or unknown) or underground storage tank  
 Buried ordnance  
 Burn cage  
 D&D facility  
 Decontamination pad





\*See Figure B-3 for further instructions in determining if waste is hazardous.

**Figure B-2**  
**Logic Diagram for Determination of Waste Category**



- (1) Such as drums, buckets, cans, aerosol cans, pressurized compressed gas cylinders, transformers
- (2) For electrical equipment, if not labeled "non-PCB" or "PCB," assume potential PCB waste. For transformers on NTS, transport to transfer facility.
- (3) For aerosol cans, check for starting fluids and other ether fluids; not housekeeping.

Small spill of known  
chemicals (see Sections 2.3.4  
and 2.3.5), potentially hazardous  
materials. Not housekeeping.

Spill of radioactive hazardous waste. Do not touch, move, or  
cover the waste. At NTS, immediately report to  
Environmental Control (5-3881), DOE Site Security (5-0082), or  
Environmental Radiological Operations (5-4015). At TTR,  
immediately report to 5-8109.

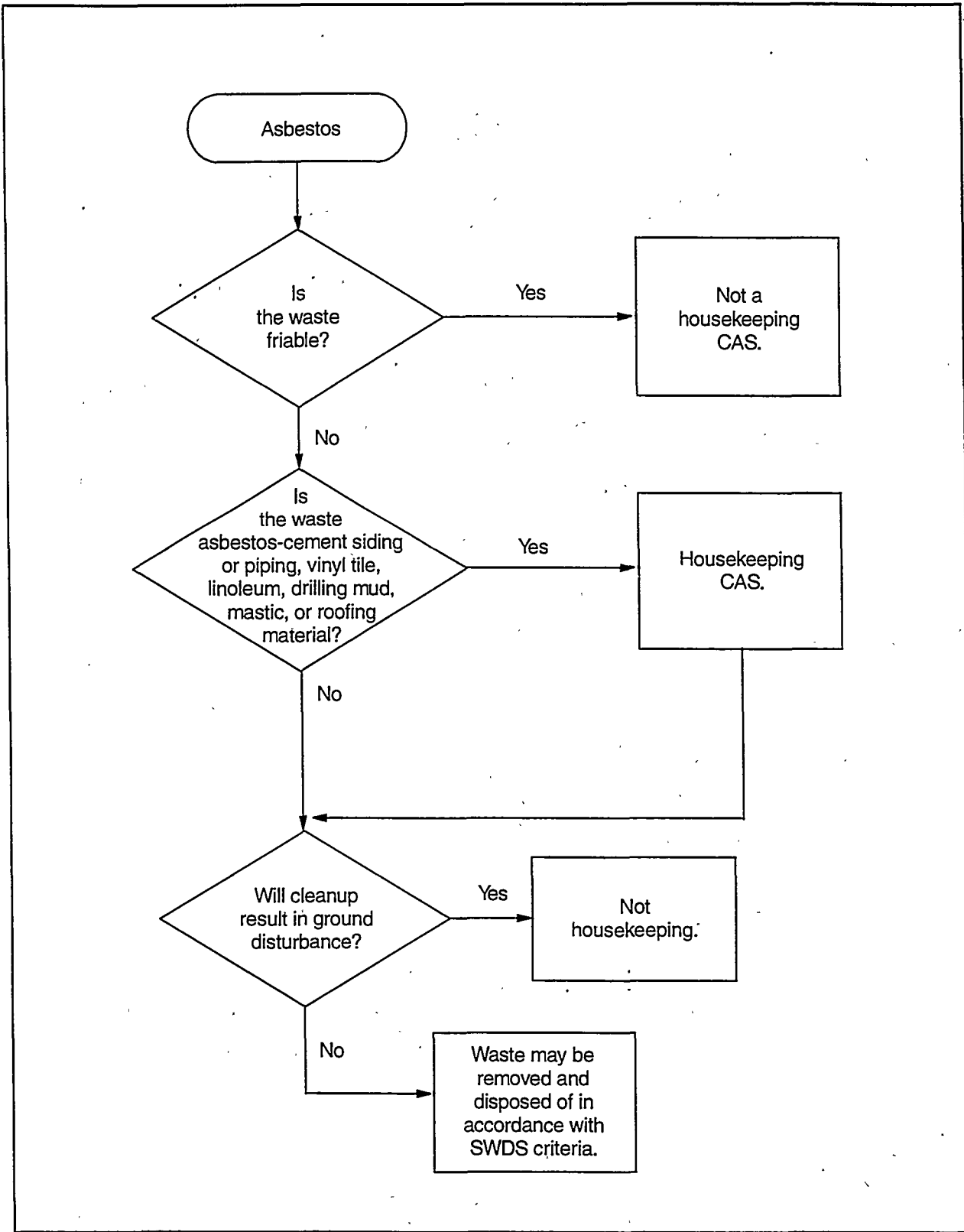
Spill of lead, recommend sending to crushing  
facility. If broken, not housekeeping. If  
contaminated with lead, drum as recyclable  
lead waste or lead scrap.

Waste is not hazardous. Recommend  
disposition as ordinary or salvageable  
waste. Clean-up if ground disturbance is  
not required. If ground disturbance is  
required, not a housekeeping site.

If MSDS is available, may be  
characterized through  
process knowledge;  
otherwise not housekeeping.

Accumulation point in Area 6 for further evaluation and disposal.

Figure B-3  
Logic Diagram for Determination of Hazardous Waste



**Figure B-4**  
**Logic Diagram for Evaluation of Potential Asbestos Waste**

## **Appendix C**

### **Example of a Housekeeping Category Corrective Action Documentation Form**

**HOUSEKEEPING CATEGORY CORRECTIVE ACTION DOCUMENTATION FORM**

CAS Number: \_\_\_\_\_ Date of Site Visit: \_\_\_\_\_

If not an identified FFAO Appendix site, enter driving instructions (include access and health and safety restrictions):  
\_\_\_\_\_  
\_\_\_\_\_

**Field Clean-up Personnel:**

Field Verification Team: \_\_\_\_\_  
RCT: \_\_\_\_\_  
Labor Crew: \_\_\_\_\_  
Waste Management Personnel: \_\_\_\_\_  
Others (name, affiliation, title): \_\_\_\_\_

**Describe Waste Items. Indicate (R) Removed, or (NR) Not Removed. If NR, explain:**

Waste Item List:		Waste Category: (Ordinary, Salvageable, Recyclable, etc.):
1	R/NR	_____
2	R/NR	_____
3	R/NR	_____
4	R/NR	_____
5	R/NR	_____
6	R/NR	_____
7	R/NR	_____

Site Photograph(s) Taken?: Yes \_\_\_\_\_ No \_\_\_\_\_  
If yes, list photograph numbers and subjects: \_\_\_\_\_

Was waste screened by an RCT?: Yes \_\_\_\_\_ No \_\_\_\_\_  
If yes, describe results: \_\_\_\_\_

Is sampling needed?: No \_\_\_\_\_ Yes \_\_\_\_\_ (If yes, describe): \_\_\_\_\_

Waste Disposal Information: Waste will be taken to: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Is this the final disposal location? Yes \_\_\_\_\_ No \_\_\_\_\_  
If no, describe future disposal process: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Waste Manifest Number: On-Site: \_\_\_\_\_  
Off-Site: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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