

PERMIT ATTACHMENT C DESIGN AND OPERATION OF THE CONTAINER STORAGE UNIT

Detailed Design Description of the Container Storage Unit

The Container Storage Unit (CSU) operated by the Defense Re-utilization and Marketing Office (DRMO) is used for the management and storage of hazardous waste generated at HAFB (i.e., **on-site**) in containers. No tanks, waste piles, surface impoundments, incinerators, landfills, land treatment units, or miscellaneous units are managed by or used at this CSU; thus the Unit is exempt from Construction Quality Assurance Program requirements outlined in 20.4.1.500 NMAC, incorporating 40 CFR §264.19. However, this description is provided to demonstrate compliance with 20.4.1.500 NMAC, incorporating 40 CFR §264.175. The purpose of the CSU is to temporarily manage and store hazardous waste generated at Holloman AFB to allow enough time for DRMO personnel to arrange for approved contractors to accept, transport, treat, and dispose of the hazardous waste cost effectively.

Holloman AFB does not treat or dispose of hazardous waste at the CSU. No wastes are accepted from any entity not located at Holloman AFB (i.e., **off-site**). The majority of the on-site wastes accepted by DRMO are contained in 55-gallon containers. Occasionally, wastes are contained in larger containers such as 85-gallon salvage drums or self-contained packaging including lead-acid batteries or transformers.

Design of the CSU

The CSU comprises a staging area, a covered outdoor storage area, and a building that provides indoor storage capacity for wastes. The staging area, a concrete pad, is used for the initial receipt of waste from other locations at Holloman AFB. The building and covered outdoors storage area is used to temporarily store waste until an approved waste transportation contractor picks it up. The site plan layout and a floor plan are provided in Permit Attachment B, Figure B-6. Table C-1 of this Attachment provides the construction specifications for each part of the CSU.

Containment System

The containment system for each of the container storage areas (i.e., the staging area, outdoor storage area, and indoor storage building) was described in detail in Table C-1, *Container Storage Facility Construction Specifications*.

Protection from Precipitation and Run-on Controls.

The maximum precipitation received at HAFB, including the CSU area during a 24-hour, 44-year storm event equals 2.1 inches. Since the average annual evaporation rate in the area is approximately 70 inches and the average annual rainfall is approximately 11 inches, generally there is no problem with accumulation of precipitation in any part of the CSU.

Much of the hazardous waste shall be stored in the indoor container storage building. The enclosed nature of this building prevents entry of precipitation or run-on. Additionally, precipitation and run-on are prevented from entering the structure by the curb on which the building rests. A 2 ft to 3 ft wide clear zone that slopes away from the building provides additional protection from run-on.

The sloped clear zone that surrounds the indoor container storage building extends to surround the staging area and directs run-off away from the staging area. Precipitation in the staging area collects in the sump and can be vacuumed or pumped out. It is highly unlikely that an accumulation of precipitation combined with a spillage of waste would occur simultaneously. Also, based on precipitation data, it is highly improbable that the containment capacity in the staging area would ever be inundated to the point that precipitation would run off to the surrounding area. The primary provisions for exclusion of precipitation or run-on from the current outdoor storage area are the 6-inch high curbs that encircle it and the sloped 2 ft to 3 ft clear zone that surrounds the area to direct run-off away from the pad.

Management of Accumulated Liquids.

Accumulated liquids other than precipitation in the containment area in the outdoor covered storage building or the sump in the staging area shall be managed in a manner that is protective of human health and the environment. Accumulated liquids are considered to result from spillage until proven otherwise. Thus, upon discovery, DRMO personnel will notify the Holloman AFB Fire Department. The Fire Department then has the primary responsibility to remove, clean up, and/or manage any liquid spills that are toxic or assumed to be toxic. The Fire Department will work with the Spill Response Team if necessary.

Operating Hours

The DRMO maintains regular operating hours. During operating hours DRMO personnel are available to receive hazardous waste from less than 90-day accumulation sites and initial/satellite accumulation points located on Holloman AFB.

OPERATING PROCEDURES

Initial Waste Receipt and Confirmation

When containerized hazardous and nonhazardous waste is received from Base accumulation areas, including less than 90-day accumulation sites and initial/satellite accumulation points, the containers shall be placed in the staging area to facilitate inspection of the containers. DRMO personnel shall verify that the turn-in documentation and labeling information (e.g., proper shipping name, warning labels) is accurate. If the information on the container label does not match the information on the turn-in documents or if the container is not in good condition (e.g., rusted, dented), DRMO personnel shall refuse to accept the waste until the problem is corrected by Holloman AFB CEV and/or the generating activity.

Waste Staging

All wastes shall be placed on pallets in the staging area. Incompatible wastes shall be kept segregated to ensure that they cannot mix in the event of a leak or accidental spill.

Loading and Unloading

Vehicles do not enter the staging area beyond the ramp. Forklifts shall be used to transfer waste from the vehicles to the staging area.

Only Department of Transportation (DOT) approved containers in good condition shall be used for waste management and storage. This operating practice coupled with pre-storage inspections ensures that the waste is held in the appropriate DOT container and that the container is free of dents, creases, bulges, evidence of spillage, or corrosion. These practices reduce the possibility of handling spillage caused by a weakened container.

During staging operations, storage containers shall be kept free of standing liquids. This requirement shall be met by the use of pallets and drum racks. For some containers stored in the outdoor storage area, drumhead covers shall be used to prevent accumulation of moisture on the drum. Staging operations shall not be conducted if precipitation is occurring. If containers are stacked during transfer or storage, they shall be tied down to prevent spills and leaks.

Transfer operations (loading and unloading) are typically permitted only during posted operating hours. Pre-handling inspections shall be conducted to ensure the absence of standing liquids and unauthorized personnel or equipment.

Prevention of Ignition

Prevention of ignition is accomplished during storage by exclusion of open flames, smoking, or maintenance activities during handling of waste. Forklifts shall be the only mobile equipment that operate during handling. Transport vehicles shall be turned off prior to any container entering the staging area and shall remain off until all containers are transferred into the storage building or are loaded on the off-site transport vehicle. Utilities are limited to the fire alarm and explosion-proof lighting system.

Placement of Wastes in Storage

After DRMO staff have confirmed that wastes are compatible with their containers, containers are properly labeled and in good condition, and that the turn-in documentation matches the container(s) of waste, the wastes shall be placed in either an appropriate indoor storage cell that contains other compatible wastes or in the outdoor storage area in an appropriate container rack.

Container Compatibility

To ensure that all containers are compatible with the contained waste, all wastes shall be placed in containers that meet performance-oriented packaging standards as specified by the DOT Hazardous Materials Table (**HMT**) in 49 CFR §172.101. If the CSU receives waste that is contained in its original packaging and that packaging is in good condition, the waste does not require repackaging. The HMT provides container labeling requirements, shipping requirements, and container specifications for all types of waste. By following the DOT requirements for container selection, personnel can ensure that all containers are compatible with the waste they contain. The wastes shall be packaged in DOT-approved containers before they arrive at the CSU. Incompatible wastes shall never be placed in the same container.

If a container leaks and must be over-packed or transferred to a new container, the salvage drums and containers into which the waste will be placed must not have previously held any waste. DRMO personnel will ensure that these containers and salvage drums are compatible with the leaking or spill wastes and any absorbent material.

MANAGEMENT OF IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTE

Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Waste

Both design standards and operating practices are relied upon to prevent accidental ignition of wastes. As previously indicated, the utilities of the CSU are restricted to interior lighting and fire alarms. These items are designed and installed to be of non-sparking nature. Forklifts that operate at the CSU are designed to operate in potential fire hazard situations. During loading and unloading operations, transport vehicles shall remain off until all containers are loaded onto the vehicle or offloaded into their appropriate cell.

Protection of hazardous waste from other ignition sources, such as an open flame or smoking, shall be achieved by exclusion of unauthorized personnel and posting of non-smoking signs at the CSU boundary, its exterior walls, and along the DRMO peripheral fence. Cutting, welding, soldering, sanding, etc., of containers shall be expressly forbidden. Any maintenance activity that may require these types of operations cannot be conducted in any portion of the facility until the ignitable wastes have been moved to the outdoor storage area. If such activities are required in the outdoor storage area, the waste must be relocated into the building or staging area for the duration of the activity. Protection from radiant heat is provided by the ventilated design of the building.

All containers used to store wastes must be in good condition and meet applicable DOT specifications. Containers that hold ignitable wastes usually have a minimum of 3 inches of outage to allow for pressurization due to vaporization of contents. Containers shall be inspected upon receipt, weekly thereafter, and prior to loading for off-site transportation.

Reactive wastes stored in the CSU include lithium batteries, pesticides, and spent plating wastes. These wastes are generated infrequently. During storage, these wastes shall be separated from acidic wastes by cell dividing walls in the indoor storage area. If placed in the outdoor storage area or the staging area, reactive waste shall be segregated from other waste and placed in a designated secondary containment pan. This procedure is designed to prevent accidental mixing with other waste, in the event of a spill.

During storage, hazardous waste containers shall remain closed unless it is necessary to transfer the waste due to container leakage. If emergency transfers are necessary, proper specification containers shall be used for repackaging the waste. Occasionally, it will be necessary for contractors who are taking the waste to an off-site treatment, storage, and disposal facility (TSDF) to open containers to confirm contents by visual inspection.

General Precautions for Handling Ignitable or Reactive Wastes and Mixing of Incompatible Wastes

Wastes are never deliberately mixed at the CSU. Accidental mixing of incompatible wastes is prevented by segregation plans based on the use of cell walls, separation distances, and secondary containment systems. Furthermore, incompatible wastes with the same hazardous waste characteristic (i.e., corrosives) shall not be stored in the same storage area. Personnel are cautioned in their formal training program (see Permit Attachment J) not to mix, open, or repackage hazardous waste before or after it is accepted for storage unless a container is found to be leaking; then attempts are made at overpacking or transfer. Salvage drums or containers used for such transfers are of proper DOT specification.

Copies of 20.4.1.500 NMAC, incorporating 40 CFR Part 264, Appendix V, and 49 CFR §177.848 are available to assist personnel in determining the compatibility of wastes. In addition, Table C-2 shall be used in making compatibility decisions.

MANAGEMENT OF IGNITABLE OR REACTIVE WASTES IN CONTAINERS

Container Use and Management

Marking and Labeling

While in storage at the CSU, containers shall be properly marked and labeled with appropriately completed RCRA hazardous waste labels. Before waste is shipped off-site, appropriate DOT markings and labels must be applied to the containers. Each container shall be clearly marked with the name of its contents.

Container Condition

All hazardous waste containers must be in good condition (e.g., no rust, dents, visual structural damage, etc.). Containers shall be inspected weekly as described in Permit Attachment F, *Inspection Schedule*. The inspection provides criteria to ensure that all containers are in good condition.

Releases From Containers

If a waste container is leaking, the contents will immediately be transferred to another DOT-approved container or overpacked in an appropriate DOT-approved container. If the waste is placed in a salvage drum, the space between the salvage drum and the leaking container will be filled with a compatible absorbent material to prevent the salvage drum contents from shifting. Any spilled waste will be cleaned up using the appropriate materials from the spill kit. The waste generated from the spill cleanup [e.g., contaminated absorbent material, personal protective equipment, etc.] will be placed in an appropriate DOT-approved container and equipped with appropriate DOT and RCRA labels and markings. Mixtures of absorbent and released waste shall be removed by water/soap rinses, and the rinsate shall be drummed for proper hazardous waste management, storage and disposal.

MANAGEMENT OF AIR EMISSIONS

Subpart AA (Process Vents)

These regulations do not apply to this Facility because the CSU does not operate distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes.

Subpart BB (Equipment Leaks)

These regulations do not apply to this facility because the CSU does not contain any of the equipment regulated under Subpart BB.

Subpart CC (Containers)

Subpart CC establishes air emission controls for containers. Holloman AFB shall demonstrate compliance with Container Level 1 standards (i.e., less than or equal to 0.46 m³/122 gallons) by ensuring that only DOT-approved containers are used to store wastes. Any wastes that meet the definition of *Ain light liquid service* [i.e., vapor pressure of one or more organic constituents is greater than 0.3 kilopascal at 20 °C, and the total concentration of pure organic constituents having a vapor pressure greater than 0.3 kilopascal at 20 °C is equal to or greater than 20% by weight (e.g., methyl ethyl ketone, toluene)] shall meet Container Level 2 standards, which include use of DOT containers and an initial visual, and subsequent weekly inspection of container condition, as specified in Permit Attachment F, *Inspection Schedule*.

Protection of Groundwater

Because the CSU does not contain a regulated unit (e.g., surface impoundment, waste pile, land treatment unit, or landfill), groundwater-monitoring requirements are not applicable. However, ground water shall be monitored if Holloman Air Force Base fails to achieve clean closure at the time the facility decides to close the CSU.

Groundwater is located approximately 6 ft to 7 ft below the surface in the vicinity of the CSU. Groundwater is currently protected with all hazardous wastes having secondary containment in the storage building as well as in the covered Outdoor Storage Building. Additionally, spill containment procedures shall eliminate runoff as a pathway by which groundwater contamination might occur.

MANAGEMENT OF SPECIFIC WASTES

Expired Shelf Life Products/Chemicals

When materials can no longer be used for their intended purpose because the shelf life of the material has expired or the material has been deemed off-specification, such materials, now waste, will be accepted by the CSU if they are in their original container and the label is legible, or if they have been overpacked or transferred to a DOT-approved container for the waste/expired material.

Precious Metal Recovery

The CSU accepts wastes containing precious metals and sends them off-site for reclamation.

Reclaimed Lead-Acid Batteries

Reclaimed lead-acid batteries must comply with Land Disposal Restriction certification requirements as discussed in Permit Attachment I, *Manifesting, Recordkeeping and Reporting*.

Management of Universal Waste

All batteries, including nickel-cadmium, lithium, silver oxide, and chlorine, shall be managed as hazardous waste if no recycling market is identified and shall be managed as universal waste if a recyclable market is available.

Wastes Containing Polychlorinated Biphenyls (PCBs)

The CSU is authorized under the Toxic Substances Control Act (TSCA) to accept PCB waste. Equipment containing PCBs in concentrations greater than 50 parts per million is regulated by TSCA. If the equipment containing the PCBs is not leaking and is in good condition, the equipment (e.g., transformer) can be stored on a pallet without overpacking the item. However, if the equipment is leaking, it shall be overpacked in a compatible container as required by 40 CFR §761-§765(c)(5) and (6) and applicable DOT requirements.

Final Disposition of Wastes

All contractors that transport, store, treat, or dispose of hazardous wastes from the CSU have been assessed and deemed acceptable by DRMO. No transporter or treatment, storage, and disposal facility shall pick up or manage hazardous waste without a U.S. Environmental Protection Agency identification number.