

Solid Waste Burn Unit Operator's Manual

For Portable Trailer and Skid-mounted Burn Units

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OVERVIEW

The primary purpose of this Unit is to contain and reduce the volume of household trash. Secondary benefits include:

- reduced spreading of disease by scavengers
- converting some components of trash into safer materials
- lessen wildfire potential and
- keeping dangerous waste items away from people and animals. However no claim, by the manufacturer, is made beyond the primary purpose of this Unit, i.e., to reduce the volume of household trash loaded.

Limitations

Not intended for *any* hazardous waste. Here are some examples (this list *includes* these items but does not *exclude* other hazardous waste):



Batteries
Hazardous construction waste such as chemically treated materials
Liquid septic
Medical waste
Paints
Petroleum waste
Radioactive waste
Solvents
Tires

These and other materials classified as hazardous should be disposed of in an authorized manner.

COMMUNITY USE GUIDELINES

The Sanitary Landfill Facility user will typically drive up to the Unit (or onto the platform of the skid-mounted model), and unload their vehicle of trash onto the platform or directly into the upper chamber.

From the loading platform, the waste (household trash) is loaded by the user into the upper portion of the Unit through the top hinged door from the loading platform.

Note: The portable model has handrails on the steps and loading platform making it easier and safer to use when stepping up the stairs. Using the rails will help prevent accidental falls off of the loading deck.

Caution: It is highly recommended that Sanitary Landfill Personnel install similar handrails on the steps and loading platform of the stationary units for ease of use and safety.

Caution: Never load or open the door of a *hot* or *actively burning* Unit

Attempts should be made to deposit the waste toward the rear of the inside of the Unit upon the interior grating to accommodate more material.

After loading, the front door is then closed to prevent scavenger animals such as Ravens or Seagulls from entering for lunch.

The users of the facility are *not* to ignite the contents. For safety reasons, the job of lighting the waste content is reserved for the facility operator only!

Note: It is recommended that sanitary landfill personnel man the site in order to advise users on the proper use of the landfill facility. It is also recommended to place a sign stating “*Please do not ignite the contents,*” and “*Please close the door after loading*” in an obvious place.



Extreme Caution: A sanitary landfill is a hazardous environment for children. It is also hazardous for adults who are not fully instructed in safety concerns surrounding the use of incinerators. There are potentials for explosions or burn injuries near or inside the Unit. There are potentials for falls from the platform steps if one does not use the handrail. There are potentials for cuts from sharp metal or broken glass, and numerous other hazards around machines and landfill sites. For this reason it is advised that children not be allowed to visit the landfill unless under the supervision of a qualified adult. Strict “**do not play**” rules must be posted on or around this Burn Unit and they must be enforced by both the parents of the children and by the facility manager.



Responsibilities of the Governing Agency for your Sanitary Landfill Facility

The facility manager or agency should see to it that information regarding safety and duties of the Unit users and the maintenance operator are either posted on or near the facility. In addition, each user must be verbally instructed in the proper use of this burn unit and policies concerning the landfill facility in which it is located. It is highly recommended that written instructions and policies be given to all concerned.

It is also recommended that your facility have posted operating hours and be manned during those hours to insure proper use and compliance with all guidelines and safety regulations.

Remember, there may be unique conditions presenting dangers associated with your site and particular operating methods of this Unit which can not be foreseen. Thus it is strongly recommended that the governing agency and/or landfill personnel evaluate your site conditions and individual operating methods on a periodic basis. After each evaluation/safety assessment, new instructions and policies should be incorporated into your written guidelines and distributed to all Unit users to ensure safety for all concerned.

MAINTENANCE AND OPERATION

The maintenance operator's duties include:



- inspection and igniting of the waste load
- cleaning out the ashes
- ensuring structural integrity of the Unit assembly
- performing preventative maintenance procedures

The above duties are necessary to provide for the safe operation and to lengthen the useful life of the Unit.

Note: Depending on the type of maintenance, inspection, and/or repairs to be performed at your sanitary landfill, on or around this Unit, appropriate clothing should be worn. This might consist of a hard hat, protective face shield, dust mask, work gloves, proper foot gear, etc. Please use common sense when monitoring, inspecting, and maintaining this Burn Unit by wearing and using protective clothing and gear.

Ignition

The operator should inspect the load first before ignition to ensure that volatile fumes are not present. This Burn Unit is not designed to burn volatiles such as gasoline, solvents, or other flammable liquids.

Caution: Because of the chance that a user of the facility may inadvertently put such flammables in the chamber, it is imperative that the maintenance operator ensure that it is safe to ignite.

If the presence of volatiles, are detected through visual inspection or by smell, then remedial action must be taken. If a small amount of engine oil is present, such as from a car oil change, i.e., less than 1 1/2 gallons, then it should be safe to light while wearing protective gear as described above. But if any gasoline fumes, fuel or paint containers, or solvents are detected this constitutes a danger which could cause an explosion or flash fire flame to shoot out of the front door into the face of the operator with a possible serious resulting injury. Thus the operator *must not* ignite the Unit until the hazards are either removed, or concentrated fumes allowed to dissipate by removing the liquid soaked trash from the unit or by opening the doors of the Unit until all fumes are dispersed and volatiles evaporated.



Caution: When igniting the waste load always wear protective gear including eye and/or face shield, leather work gloves and boots, and cotton outerwear coveralls or nomex type work clothes like that worn by firefighters. Synthetic type clothing such as nylon or imitation leathers should never be worn as work clothes, due to the hazards of exacerbating and fueling fire accidents.

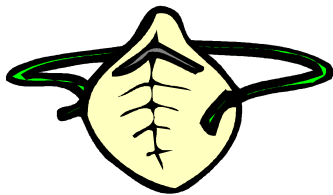
The trash fuel load in the upper chamber should not exceed 85% or be less than 50% to help support a more complete combustion of the contents.

Caution: All vehicles, personnel, and flammables should be at least 50 feet away from the Unit while it is being burned.

After lighting with a match or a propane wand, (such as a 'weed burner' or soldering torch), the door is closed and latched and the burn cycle will begin. The burn cycle typically consists of a 4 hour burn with another 4 hour cool down. Thus if the Unit is lit each evening after the sanitary facility is closed for the day, by the next morning the Burn Unit will be ready and safe for loading again.

Periodic Clean Out

Clean out the ashes and debris when 20% accumulation is built up in the bottom of the lower compartment.



Caution: Wear dust mask.

Clean-out procedures for portable model

Unlatch rear door then back the Burn Unit up to the landfill trench so that approximately 2 to 3 feet of the rear is overhanging the trench bank.

Caution: do not allow wheels to get too close to the trench edge or sit on unstable ground.

Unlock the Burn Box from the frame, remove pin and remove the lower clean-out door. Pick Unit up into the tip-up position and secure if ash load is out of balance. The operator will then get up on the platform and push out the ash using the clean-out rod supplied.

Reverse procedure and lock Unit into the down position.

Inspections

Structural integrity inspection of the Burn Unit components will insure proper and safe operation. As a consequence of the extreme operating parameters (high temperatures, exposure to the elements, and nature of the diverse materials burned) daily attention and inspection (and repair if warranted) must be focused on the following items:

- All welded seams, for separation and welded brackets, for distortion or stress failure.
- All safety pins and latches for wear or distortion.
- Hinges on pivot assembly, rear door, and loading door for proper attachment and freedom of movement.
- Platform steps, grating and handrails for distortions and proper attachment.

Repair any damage immediately to prevent tripping and other hazards to the users of the facility.

Preventative Maintenance Procedures

Exterior: Paint entire Burn Unit box with barbecue stove black paint once each year (3 quarts paint mixed with one quart paint thinner). This paint can be purchased at most hardware stores or stores that sell wood stoves.

Repositioning: Take extra caution before attempting to reposition Unit because rough handling, applying side loads, or dragging platform over rough uneven ground could damage the undercarriage.

Interior Rack: Replace interior rack grating when excessive distortion or burn through occurs (common pipe stock of same diameter can be used).

Clean Out: Clean ashes and debris often to prevent compaction and/or an inordinate amount of work to do at one time. In other words, it is much easier to clean the lower chamber out often, rather than to let it fill up completely.

Prevent Spills: To prevent a catastrophic spill of the entire Unit and platform into the pit, ensure that the tips of the skids or frame do not extend more than 8 inches past the pit rim and that the integrity of the supporting earth under the Unit is sufficient to bear the weight.

Allocating use times:

The Unit should be ignited at least 12 hours before it is ready for loading by the users of the landfill facility. Thus the maintenance operator should ignite the trash load at the end of the hours of operation of the landfill for that day to ensure that users coming in the following day are not loading a Unit while it is still burning or hot.



WARRANTEE

Materials and workmanship are guaranteed for 6 months from date of delivery. If repairs or replacement of parts are needed for safe and proper operation within this period, the Manufacturer, at his option, will repair or replace item at his facility at no charge. Although the Manufacturer will make every effort to consult and advise the Sanitary Landfill Agent regarding any concerns, the manufacturer cannot travel to the site to inspect possible problems. Delivery of the Unit or defective part to Manufacturer's facility for inspection or repair, will be the responsibility of the purchaser.

Should the Unit be defective in materials or workmanship, the Manufacturer will deliver repaired or replaced Unit or part to the same location as per original delivery agreement when purchased. However, if the Unit fails due to the misuse and/or neglect of the Sanitary Landfill personnel, users, or any other party, normal replacement or repair charges will incur.

Note: Misuse includes but is not limited to: deliberate vandalism, unauthorized modifications to original unit, burning of hazardous and non approved materials as listed in the "Ignition" instructions in this manual, burning of materials not considered household waste, rough handling, applying side loads, dragging platform over rough uneven ground and general neglect of Unit.

All other repairs on site or after 6 months will be at a negotiated fee.

MANUFACTURER

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