

***Appendix XIX. Environmental Services Department
Standard Operation Procedures***

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General Site Maintenance

Standard Operating Procedure

Divisional

Landfills require general maintenance throughout the year in order to keep them orderly and clean. Much of this maintenance is in anticipation of forthcoming Regulatory inspections, responses to complaints, or preparing for the rainy season.

Guidelines:

1. Access roads on the site are to be maintained and re-bladed to eliminate ruts; some access roads receive a layer of crushed aggregate, asphalt grindings, or asphalt patching if paved.
2. Maintain drainage, fill in low spots and keep all drainage pipes and swales free of brush and debris. Re-grade minor erosion on slopes by hand or with equipment to fill in voids and/or erosion rills. Redirect runoff with berms/dikes, etc., to appropriate drainage structures.
3. Perimeter fencing and gates/locks are to be maintained at all times to ensure security. This includes repairing breaks in fabric, straightening bent posts, replacing hinges and locks, and replacing and/or repairing “No Trespassing” signs. City of San Diego forces and/or contractors may be used in this endeavor.
4. Litter removal is performed by City forces, or quite often through the use of non-profit crews. Litter can consist of anything from wind blown trash to illegal dumps. Therefore, the level of effort to remove it is commensurate with the type of litter found.
5. Mowing of vegetative growth for weed control is also performed where needed. In some areas, non-native vegetation is removed to encourage native plant growth. Be sure to check with the Landfill Gas Supervisor and the Division Biology staff before commencement of mowing activities.
6. *Inactive*: Coordinate with other groups who may be using a landfill site before beginning activities that may impact them. This may include model airplane flyers, Little Leagues, other City Departments, etc. Also, be aware of the inactive sites that have City yards situated on or contiguous to landfill areas.
7. *Inactive*: Most of the inactive sites should be inspected on a weekly basis due to the various end users. There is *almost always* something going on that, if left unchecked in the beginning may develop into a problem and/or violation.

H. Inclement Weather

1. Preparation for Bad Weather

a. Rain

(1) Wet Weather Conditions

Wet weather areas should be prepared in advance of the earliest anticipated seasonal rains, normally by October 31st. Available material such as asphalt grindings and small pieces of demolition rubble may be used for constructing the area. The wet weather area should be constructed adjacent to an all-weather road. Work on the wet weather area can be performed at various times when personnel and equipment are not required for other assignments. The size and location of the wet weather area will be delineated by the Engineering staff.

(2) All-Weather Roads

All-weather roads should be repaired prior to the rainy season.

(3) Drainage Facilities

Drainage structures and ditches should be in good repair and free of debris prior to the rainy season.

(4) Silt Fencing

Silt fencing or other temporary drainage control devices should be stockpiled for use in an emergency situation.

(5) Mulch

Exposed dirt areas shall be covered with mulch prior to the rainy season as directed by the Engineering Staff.

(6) Sedimentation Basins

Sedimentation basins should be in good repair and free of sediment and debris prior to the rainy season.

(7) Tackifier

Tackifier should be sprayed on any slopes that are too steep to be mulched or any bare dirt surfaces that are not being used prior to the rainy season.

b. Wind

(1) Litter Fences

Litter fences should be installed prior to windy weather and relocated as required.

(2) Dust

Use the water truck to spray roads to keep dust down.

2. Operations during Bad Weather

a. Rain

During a heavy rain, if the roads become impassible or dangerous:

- (1) Notify the Field Operations Program Manager, Landfill Engineering Staff, and Fee Booth,
- (2) Stop traffic, if necessary,
- (3) Complete necessary repairs to the road so that it is safe to reopen it to traffic.

b. Wind

If the wind is so strong that paper and other lightweight materials cannot be contained within the site:

- (1) Notify the Landfill Engineering Staff and Field Operation Program Manager,
- (2) Reposition and/or repair litter collection fences,
- (3) The water truck should be used to wet down the litter to prevent it from being blown.



Construction and Maintenance of Drainage Structures Standard Operating Procedure

**REFUSE
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Landfill Operations

Proper control of stormwater drainage is critical to maintaining cap and slope integrity throughout our landfills, including active and inactive sites. It is also a requirement of our operating and post closure permits. The following guidelines for construction and maintenance of our drainage structures should ensure we stay in compliance with the regulatory requirements for mitigating stormwater impacts.

Construction of Drainage Structure

1. Construct new drainage devices as required by site plan provided by the Engineering staff.
2. Relocate portable or temporary drainage devices (such as corrugated metal piping) as filling operations change location in order to keep water from running onto filled area.
3. Be aware of any potential drainage problems and take corrective action before problems occur (i.e., notify your supervisor and/or the Landfill Superintendent).

Maintenance of Drainage Devices

1. Routinely inspect all drainage devices and structures. The frequency of inspections is determined by the Engineering staff and is based on past experience with drainage problems at Miramar.
2. During the rainy season, inspect drainage devices that tend to clog easily after all rain events and on a weekly or daily basis. However, structures on fill areas, which are settling slowly, may only require inspection every few weeks.
3. Clean all drainage structures and ditches of all debris as soon as it is found. When unlined channels become silted, routine cleaning is required in order to restore the original capacity of the channels.
4. Repair all cracked or broken structures as damage occurs:
 - During the rainy season, make repairs immediately to prevent further damage to the structure and/or erosion of the soil.
 - During the dry season, accumulate a backlog of repair work so that a full day's work can be scheduled for a repair crew.



Leachate Disposal Standard Operating Procedure

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Landfill Operations

Leachate is a byproduct of storm water and moisture from compacting and degrading refuse percolating through the buried refuse within the lined sections of the landfill. Leachate is collected through a system of collection pipes and storage tanks and should be disposed of at least weekly and on a more frequent basis as needed to maintain less than 10,000 gallons in the storage system. A water truck equipped with a gravity-fed bottom dump valve or sprayer system is used to transport and discharged the leachate to a designated section of the lined area of the landfill. The following procedures should be followed:

1. Park the water truck directly under the storage tank discharge stand with the discharge control sock lined up with the tank inlet of the truck
2. Ensure all discharge valves on the truck are closed
3. Open the shut-off valve at the leachate tank to be drained
4. Stand clear of the truck, unlock the line valve at the stand and open the valve

5. Monitor the effluent flow into the truck and close the shut-off valve on the leachate tank that was drained when the liquid surface reaches 12 to 18 inches below the top of the tank on truck
6. Check the shut-off valve on the other tank to make sure it is closed
7. Close the line valve and place the lock back on the line valve
8. Check the shut-off valve on the other tank to make sure it is closed
9. Visually inspect the discharge control sock to ensure it is not dripping
10. Pull the truck away slowly, checking the mirrors to confirm the sock has stopped dripping
Note: If the sock continues to drip, re-center the truck under the sock and recheck all valves to ensure they are all properly closed.
11. Drive carefully to the deck above the active face, avoiding bumps, dips, sharp turns to avoid spilling
12. Obtain the location of the leachate discharge area from your supervisor or landfill engineer
13. Park the truck at the top of the trash with the bottom dump or sprayer facing the trash
14. Verify that the discharge area is free of personnel or operating equipment, stand clear of the sprayer or dump valve and open the valve
15. Close the sprayer or dump valve when the truck is empty
16. Log in how many gallons of leachate were removed from the tanks on forms provided
17. Fill the truck with reclaimed water and use for dust control on entry roads, scraper roads, and haul roads



Litter Control

Standard Operating Procedure

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Landfill Operations

The control of litter is an essential part of our permit conditions and readily evident to all who drive by or onto the landfill. In an effort to maintain compliance with our

permit and reduce the amount of time and effort required for this task the following procedures need to be followed:

Prevention of Litter at Working Face:

1. Keep waste well confined at the working face to reduce the amount of waste susceptible to wind.
2. Deposit waste at the toe of the fill slope face and spread it upward.
3. If possible, work the waste with the exposed cell face pointed into the wind so that any loose debris flies onto the working face. The compacted waste already on the face presents a relatively rough surface that helps trap litter. Working with the exposed face into the wind also helps keep waste away from the undercarriages of unloading vehicles.
4. Cover the compacted waste as soon as possible to minimize blowing litter. For example, as the number of trucks arriving at the site decreases toward the end of the day, the working face size can be reduced.

Control with Litter Fences

1. Position fences near the fill face as wind and fill operations change.
2. Move or lengthen semi-permanent litter fences that are strung around the area to conform to filling operations and prevent migration of litter off the site.

Litter Pickup

1. Litter crews are to pick any litter off the fences to prevent the fence from being clogged and subject to over turning by the wind.
2. Promptly pick up any litter not trapped by the fences to prevent off-site migration.

Litter in Heavy Wind Conditions

1. Install litter fences prior to windy weather and relocate as required.
2. If lightweight material cannot be contained within the site, then use the water truck to wet down the litter to prevent it from blowing.

Special Circumstances

1. City forces including laborers and equipment operators will be required to support litter control efforts when deemed appropriate by site supervisors. Examples of such times include high wind conditions, excessive litter, lack of litter crew personnel, spilled loads outside of tip deck, etc.

Warning: When working along side of the road or highway (Adopt a Highway) stay well away from roadway and remain vigilant of approaching traffic.



Landfill Equipment Fluid Releases Standard Operating Procedure

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Landfill Operations

1. Complete a visual “walk around” inspection of all landfill motive equipment prior to starting. Inspect for damaged hoses and for puddles or stains from leaking fluids under your machine. If fluid leaks are evident, do not start equipment. Notify your Supervisor and the mechanic.
2. Periodically scan the equipment management system on the dashboard of the machine for flashing lights and warning horns that may indicate a system failure. Move to a safe area, stop and inspect the machine systems for leaks and malfunctions as necessary.
3. Routinely glance through the windows at the machine components that are susceptible to damage, for example, lift cylinders, hydraulic hoses, grease and oil seals. Listen as you operate your machine for unusual noises that may be an indication of a mechanical failure. If so, move to a safe area, stop the machine and notify your Supervisor and the mechanic.
4. As you make a “pass” in a forward direction and prepare to change direction, look over your shoulder and inspect the ground for streaks of oil or anti freeze. If leaks are observed, move machine to a safe area, shut machine down, contain spill using a bucket or pan and notify supervisor and mechanic.
5. If a machine loses more than one gallon of fluid notify your Supervisor and refer to the “Hazardous Materials Spill Response and Reporting” SOP located in the Landfill Operations Manual or refer to the EMS website under Landfill Operations Manual/SOPs.

Note: Safe operation of heavy machinery can be easily attained by the application of common sense and logic. Develop an awareness of how your machine operates that will allow you to quickly identify any malfunction.



Fueling Nozzle Leaks Standard Operating Procedure

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Landfill Operations

Landfill operations require large amounts of fuel and lubricants. Machinery must be fueled in a remote off-road location using a 3,000 gallon fueling truck. The actual fueling system employed is a “Wiggins” type “quick fuel” nozzle system capable of dispensing up to 150 gallons per minute. Due to the environment in which the fueling operation takes place system failures can occur resulting in fuel nozzle leaks and subsequent fuel spills.

It is vital for the safety of the operator and environment that the vehicle fuel system is operated and maintained properly. In the event that a leak is observed refer to the below check list of symptoms and troubleshooting procedures for proper corrective action.

Note: The fuel truck is equipped with a spill kit located in the toolbox on the driver's side of the truck. In the event of a spill it is to be used to contain and to remove contamination. Any spill larger than (1) gallon must be reported to your supervisor as well as to the Hazardous Substance Enforcement Team promptly.

SYMPTOM : Nozzle will not shut down on time

1. CHECK FOR LEAKS IN THE FUEL TANK

Any air leak in the fuel tank will allow pressure to escape and reduce the system pressure which is required to shut down the fuel nozzle.

2. CHECK THE VENT

The ball cage on the vent may have fallen off. The hollow balls in the vent may have become filled with fuel. The valve that is built into the vent may be worn out.

3. CHECK FOR A WORN WIPER SEAL

A worn wiper seal at the front of the nozzle will allow fuel to leak out, reducing the pressure needed for shut off.

4. CHECK FOR A WORN FUEL RECEIVER

A worn out fuel receiver will not fit properly with the nozzle. Improper fit causes air leaks.

Nozzle leaks from the front end

1. CHECK THE WIPER SEAL AT THE FRONT OF THE NOZZLE

A worn wiper seal will allow fuel to leak through the front. These wiper seals can be purchased and should be replaced on a regular basis.

Be sure that the front section of the nozzle is secured to the back end

The ZZ9A1 Nozzle has two main sections. The front section is threaded into the back section. A thread locker (FEL-PRO or Loctite) is used to secure the two parts. If the parts become loose a leak can occur.

2. CHECK FOR A WORN OUT FUEL RECEIVER

A worn out fuel receiver will not fit properly with the nozzle. Improper fit can cause fuel leaks.

Nozzle shuts down, then fuel spills out of the vent

This is a normal occurrence when the fuel tank restores itself to its original dimensions after the tank is fueled. To prevent this, switch to a ZV10F or ZV11A Vent. These vents have a tube that is 3" longer than the standard vent, ensuring an earlier shut-down and fewer spills.

Note: The front end of the ZZ9A1 nozzle can be field repaired with the KR91 or KR92 repair kit.



Hazardous Materials Spill Response and Reporting Standard Operating Procedure

WASTE
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Emergency Procedures

Haz Mat Spills Involving City of San Diego Equipment/ Employees

The responsibility for implementing this procedure begins with the person(s) responsible for the chemical spill (spill) or the first person(s) to discover the spill. They will be responsible for reporting the spill and completing cleanup actions (small spills) or requesting trained assistance (large spills).

Spill Reporting:

1. Report all spills of hazardous materials to the On-Duty Supervisor as soon as possible, regardless of the quantity of spilled material.
2. Be sure to provide the following information:
 - Type of spilled material
 - Quantity of spilled material
 - Location where spill occurred
 - Time and date the spill occurred
 - Description of the actions taken to contain and clean up the spilled material
3. The On-Duty Supervisor will record the above information in the Log of Special Occurrences.
4. Report spills involving more than one (1) gallon of liquid or more than ten (10) pounds of a solid to the Hazardous Substances Enforcement Team (HSET).

***Note** - The attached Spill Reporting Form must also be completed and faxed to HSET.

5. HSET will determine if the spill is required to be reported to regulatory agencies.

Spill Response:

1. Section Managers shall determine which employees within their section need to be trained in the proper use of personnel protective equipment and basic spill response procedures based on the job duties and first responder potential of their respective employees.
2. Trained personnel shall use absorbent materials to contain and clean up small spills of hazardous materials.
Small spills are defined as spills which:
 - The identity of the spilled material is known
 - Sufficient resources (personnel and equipment) are onsite to contain and cleanup the spilled material.

***Note** – Absorbent materials are located adjacent to the vehicle fueling island, the Operations trailers, and the fee booth adjacent to lane one.

3. Manage contaminated absorbents and spilled materials in accordance with regulatory requirements. (Contact HSET for guidelines.)
4. Report large spills immediately to the On-Duty Supervisor and HSET (a large spill is any spill that does not fit the definition of a small spill in #2 above).
5. HSET or the On-Duty Supervisor (*in an emergency or if HSET is unavailable*) will call 911 or Station 38 and request Fire Department assistance for large spills requiring external resources or spills which pose an immediate health and safety risk.
6. Employees in the area of a large spill are to evacuate the area and prevent vehicles and other employees from entering the area while awaiting the arrival of trained cleanup personnel.
***Note** – Employees may attempt to contain the spill, provided their personal safety or the safety of others is not jeopardized by their actions.

Haz Mat Spills Involving Private Parties

1. Report all spills of hazardous materials involving private parties to the On-Duty Supervisor, who will record the information in the Landfill Operations Log.
2. Small spills will be contained and cleaned up by Landfill staff, HSET, and/or spill response personnel designated by the private party.
3. Request Fire Department assistance for large spills that cannot be safely managed with existing onsite resources.
4. Management of contaminated absorbents and spilled materials will be the responsibility of the private party.

***Note** – The City (*HSET*) may choose to manage these wastes, which would then be managed in accordance with regulatory requirements.

5. Private parties are responsible for providing all necessary spill-reporting notifications to regulatory agencies.



Minor Grading Small Repairs/Erosion Control Standard Operating Procedure

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Inactive Landfill Maintenance

Minor issues requiring small repairs are usually discovered during the Board Order 97-11 Quarterly Site Monitoring and/or Regulatory Inspections (areas of concern and/or violations) cycles. These tasks typically include repair of surface cracks, exposed trash, and regrading of top decks and slopes to remove ponded areas and re-establish grade.

Guidelines:

1. Determine extent of area requiring repair/re-grading. (Obtain information on area in question from other Inactive Landfill staff members, photos, inspection reports an/or site visits). Be aware of Landfill Gas appurtenances and alert LFG staff if there are conflicts with the proposed grading.
2. Estimate approximate amount of material (i.e. soil and/or mulch, etc.) required to repair the area in question or to control erosion. Prepare plans if necessary, delineating the work.
3. Rank priorities with other Inactive Landfill staff members. Obtain Inactive Landfill Supervisor's approval of priorities ranking. (Notify LEA, RWQCB, and SDAPCD if warranted).
4. If sufficient material is unavailable, make necessary arrangements with City staff and/or current contractors to procure required materials. If you are working within a paved area, arrange to have pavement broken up five feet (5') beyond limits of repair area.
5. Schedule to have work done with City forces and/or contractor. Meet on site, if possible, and make sure everyone knows extent of work and required completion date, if any. Locate (flag, if necessary) all LFG appurtenances (above ground and buried) and utilities (if any).
6. If possible and job warrants, visit work site to ensure work is proceeding according to plan. (Document repairs via photographs for possible inclusion in Regulatory reports.)

7. Report completion of work to appropriate parties (if required). Note completion of work in site log and process all invoicing requests, if any, in a timely manner.



Major Grading Slope/Top Deck Repairs Standard Operating Procedure

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Inactive Landfill Maintenance

Guidelines:

1. Determine extent of area requiring repair/regarding. May have to schedule survey work if current flyover data is unavailable and/or outdated. Develop a cost estimate and determine source of funding.
2. Meet with Division Biological staff to determine if any biological resources are impacted. Proceed with appropriate course of action (trees/plants to avoid, restrictions on construction dates, and/or CEQA/NEPA, etc.). If environmental review is required, develop project description/maps and submit to appropriate Development Services environmental representative.
3. Develop a plan to correct problem area. Use standard engineering procedures for slope and drainage design. Have a map prepared for approval by supervisor with all necessary survey information clearly noted (i.e. coordinates). Identify all potential Departments that may be effected (i.e. Park & Rec., etc.) and ensure that they receive the appropriate notification. Old pavement should be ripped up before burying to avoid the future problems with gas and/or purged water.
4. Notify the LEA, RWQCB and SDAPCD of proposed work (typically described as “routine maintenance”).
5. Determine amount of material (i.e. soil and/or mulch) required to make the necessary grade corrections. Be conservative, as work on landfills always seems to require more dirt than anticipated. Have a contingency plan for insufficient/excess materials. Coordinate with LFG staff (2-3 weeks notice) to raise gas appurtenances, if present in work area. Maintain positive drainage at all times.
6. Make necessary arrangements with City staff, current contractors and or dirt brokers to haul required materials.
7. Develop a schedule to have work done with City forces, contractors, and/or dirt brokers. Make sure everyone knows intent of work and required completion date, if any.

8. Visit work site frequently, if not on a daily basis, to ensure work is proceeding according to plan (survey stakes, LFG appurtenances and drainage facilities all protected?).
9. Make necessary changes (if any) to plan to reflect “real world” conditions (i.e. less cover than anticipated, mud/seeps, and/or low points different than anticipated, etc.).
10. Make sure work site is protected from future erosion (silt fences, rock berms, mulch, etc.). Use Best Management Practices (BMPs) to control silt and runoff.
11. Report completion of work to appropriate parties. Note completion of work in site log and process all invoicing requests, if any, in a timely manner. Document repairs via photographs for possible inclusion in Regulatory reports. Create as-builts if completed work is different than the plan for updating of master CADD files.



NPDES – Drainage Improvements Standard Operating Procedure

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Inactive Landfill Maintenance

The inactive landfills have an industrial permit under the National Pollution Discharge Elimination System (NPDES). As such, we are required to monitor and control the quality of the runoff from each site. A Storm Water Pollution Plan (SWPP) has been developed for each site that shows sampling points and site specific Best Management Practices (BMPs) to achieve the required goals. Below are some general rules that will help in this ongoing endeavor (**Refer to the permit application for a detailed plan on specific requirements**).

Guidelines:

1. Generally, all exposed soils on the top deck and slopes are covered with mulch to prevent erosion. As the mulch decomposes, the surfaces of the landfill are periodically disked and fresh mulch is reapplied. Seeding and planting of drought resistant vegetation, soil stabilizers and erosion control mats are also used as erosion control measures.
2. Silt fences and or rock berms are to be used in the drainage areas of five (5) acres or less. Brow ditches are used on slopes greater than 10 feet in height and slopes steep enough to allow erosion to occur. Down drains and channels are used to collect concentrated flows and deliver them to flatter areas and/or adjacent streams and creeks. They are to be sized according to current engineering standards, typically installed above ground with some sort of energy dissipation at the outlet.
3. Collect storm water samples at the designated sampling locations (refer to appropriate SWPP) during the first hour of discharge from (1) the first storm event of the rainy

season, and (2) at least one other qualifying storm event of the rainy season. Rain events must be preceded by **three** days of dry weather and be significant enough to produce runoff. This runoff must occur during working hours. If conditions are dangerous, then a sampling point may be skipped. Background samples are also taken to compare upstream and downstream conditions and determine if there are any impacts from our landfills.

4. Samples are taken following standard sampling protocols. Samples are to be packed in ice after they are taken and delivered to the lab as soon as practical. The current lab is located at 4340 Viewridge Ave, Suite A, San Diego, CA, 92123. Samples are to be turned in at the counter accessed via the back of the building. A Chain of Custody form **must be** completed before turning samples over to the lab.



Purge Water Handling

Standard Operating Procedure

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Groundwater Monitoring

Purge water is generated when groundwater monitoring is performed regardless of the various sampling protocols. Proper disposal of purge water at each individual site will vary due to the quantities involved and permits for each landfill site.

Below are the purge water protocols to be followed at each individual landfill site for each sampling day:

❖ **Mission Bay Landfill - Standard Purge Sampling Protocol**

- Dispose of purge water into the Boat Launch Area bilge water collection tank located northwest of boat launch ramp.
- A copy of the *Industrial User Discharge Permit* has been obtained from the San Diego Metropolitan Sewerage System Industrial Waste Water Program and shall be carried in the groundwater-sampling clipboard when sampling Mission Bay Landfill groundwater monitoring wells.

❖ **West, North, and South Miramar Landfills - Standard Purge/Low Flow/Low Volume Purging Sampling Protocol**

- Dispose of purge water in the lined section of West Miramar Landfill as necessary following groundwater sampling at these landfills.

❖ **Arizona Street Landfill - Low Flow/Low Volume Purging Sampling Protocol**

- Dispose of purge water in the LFG Condensate collection tank located at the Arizona Street LFG Flare Station in the Pershing Street nursery.
- Purge water may be pumped or transferred by bucket into the condensate collection tank.
***Note** - Precautions to prevent accidental spills are to be developed in the field.

❖ **South Chollas Landfill - Low Flow/Low Volume Purging Sampling Protocol**

- Dispose of purge water in the LFG Condensate collection tank located at the South Chollas LFG Flare Station located in the central area of the landfill.
- Purge water may be pumped or transferred by bucket into the condensate collection tank.
***Note** - Precautions to prevent accidental spills are to be developed in the field.



Windrow Building Operations Standard Operating Procedure

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Greens Processing

Motor Scraper Responsibilities:

1. Complete Checkout sheet; record equipment hours (EMS Document Control No. RDD-F-GP-01).
2. Perform walk-around-systems check.
3. Excavate material staged in E6000 area.
4. Haul material to predetermined quadrant of the Greenery.
5. Discharge material three lanes wide – approximately twelve (12) feet wide per lane. (The length of which to be determined by Operations Supervisor.)
6. Shutdown machine.
***Note** – Always allow a five-minute cool down prior to engine shut-off.
7. Record ending hours.
8. Note and report any damage or mechanical malfunction to Operations Supervisor.
9. Spray chemical solution/for every procedure when handling raw mulch.

Wheel Loader Responsibilities A:

1. Complete Checkout sheet; record equipment hours (EMS Document Control No. RDD-F-GP-01).
2. Startup machine.
3. Form material that is laid on the ground into a triangular shape, which will be one lane wide and not more than 20 feet in width.

4. *Always* spray bucket with disinfectant solution to prevent fecal contamination transfer when moving between raw material and finished products.
5. Clear lanes for the water truck and scribe line for next windrow.
6. Shutdown machine.
***Note** – Always allow five-minute cool down prior to engine shut-off.
7. Record ending hours.
8. Note and report any damage or mechanical malfunction to Operations Supervisor.

Wheel Loader Responsibilities B: (*Food Waste Compost Only*)

1. Complete Checkout sheet; record equipment hours (EMS Document Control No. RDD-F-GP-01).
2. Start up machine.
3. Form horseshoe configuration: 70 cubic yards of 2” or 3” grind every week for three weeks.
4. Form horseshoe configuration: conducive to availability of food waste.



Windrow Building Operations Standard Operating Procedure

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5. Form food waste windows 3 weeks after completing steps 3 and 4, form to one 5’ x 20’ x 350’ configuration.
6. Set propane cannon: for vector control applicable to windrows.
7. Shutdown machine.
***Note** – Always allow five-minute cool down prior to engine shut-off.
8. Record ending hours.
9. Note and report any damage or mechanical malfunction to Operations Supervisor.

Scarab Responsibilities:

1. Complete Checkout sheet; record equipment hours (EMS Document Control No. RDD-F-GP-01).
2. Startup machine.
3. Set RPM’s for material.
4. Set machinery level for predetermined configuration.
5. *Always* spray bucket with disinfectant solution to prevent fecal contamination transfer when moving between raw material and finished products.
6. Form the windrows into a trapezoid configuration, which shall be 8 feet wide on top, 20 feet wide on the bottom and the length will be determined by Operations Supervisor.

7. Every ten minutes, purge fans to eliminate overheating problems.
8. Check roller and flails after every windrow turned for damage and excessive build-up.
9. Shutdown machine.
*Note – Always allow for a five-minute cool down period prior to engine shut-off.
10. Record ending hours.
11. Note and report any damage or mechanical malfunction to Operations Supervisor.

Water Truck Responsibilities:

1. Complete Checkout sheet; record vehicle hours (EMS form No. RDD-F-GP-01).
2. Startup machine.
3. Provide dust control for 657E – ingress and egress to specified quadrant.
4. Presoak windrow for CAT Loader.
5. Water windrows everyday for mulching process.
6. Every third day, presoak windrows for 820 Scarab to ensure a better concentration of water that will be mixed with material.
7. Shutdown machine.
*Note – Always allow five-minute cool down prior to engine shut-off,
8. Record ending hours.
9. Note and report any damage or mechanical malfunction to Operations Supervisor



Fecal Contamination Prevention

Standard Operating Procedure

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Greens Processing

Controlling fecal coliform contamination is critical to the success of the greens processing operation. As a condition of the operating permit, due diligence in managing fecal contamination within the Greens processing area minimizes the potential for violations. It also reduces the risk of exposure to both employees and the general public thereby ensuring a healthy work environment for all. Furthermore, prevention of fecal contamination helps the promotion and marketing of the compost products produced at our facility.

Compliance with the following steps is mandatory in order to meet the above objectives for preventing fecal coliform contamination. If possible, it is always preferable to work from compost to mulch to unfinished food compost and green waste in that order. However, in the event that equipment movement to and from different processing points is required the following protocol must be used.

Wheel Loader Responsibility:

1. Spray chemical solution in and around bucket.
 1. When transitioning from green waste to mulch or compost.
 2. When transitioning from mulch to compost.
 3. When transitioning from unfinished food compost to mulch or compost.

Motor Scraper Responsibility:

1. Spray chemical solution in the bowl:
 1. After building windows from fresh grind.
 2. Before transitioning from finished mulch to compost.

Note: A chemical solution consisting of three parts water to one part bleach is used as the decontamination agent. This solution is kept in a sprayer next to the information/control booth within the greens area. The bleach and excess solution is stored within the chemical storage locker. Utilize the water tanker for refilling the sprayer.

Caution: To avoid possible skin/eye contact use rubber gloves and goggles when filling sprayer and applying solution. Always fill the sprayer with water before adding the bleach.