

Appendix C: Sample operations and maintenance plan

Environmental Standard Operating Procedures Manual Incomplete List (Must Adapt to Your Facility)

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SOP 1 Grounds Maintenance and Stormwater Runoff Control

Introduction: Each rain or snow event produces stormwater that flows across plant property. The stormwater tends to wash away animal waste, blood, spilled oil, and spilled ingredients from the roadways, grounds, and roof tops of the plant. The stormwater becomes polluted water and typically drains to streams and rivers in the community.

ABC Foods facilities operate under government rules. The plants have stormwater permits which require us to keep our stormwater as clean as possible. By keeping our plant grounds, roadways, and rooftops as clean as possible we will be keeping our stormwater as clean as possible.

Responsible Personnel: grounds staff and supervisors; maintenance staff and supervisors; hog receiving staff and supervisors; rendering staff and supervisors; area supervisors and staff with outdoor responsibilities; the plant environmental coordinator; and the plant manager/assistant manager - All share the daily duties of keeping the property clean and keeping the stormwater runoff as clean as possible.

The plant manager is responsible for maintaining plant grounds and property in an orderly and clean manner.

The plant Environmental coordinator assists the plant manager with monitoring compliance with stormwater management issues and compliance with the plant's stormwater pollution prevention plan.

The plant manager and environmental coordinator assign and oversee a group of facility staff ("the grounds team") who work with or manage the various outdoors plant activities. The team maintains orderly and clean plant grounds as part of their daily duties.

Identify members of the grounds team

Provide training on grounds maintenance issues

The grounds team is aware of the sources of stormwater runoff and works as a team to keep these sources clean and under control.

Items outside of the plant building that can pollute stormwater include all of the following:

Accumulated trash and leaking dumpsters;

Drips/spills/leaks of blood, fats and oils, fuel, ingredient, and supplies from any container, tank, piping, storage pile, or truck;

Animal wastes;

Soil tracks and other materials tracked into the plant from trucks and other vehicles;

Erosion of soil;

Grass cuttings/lawn waste/lawn chemicals;

Stored materials and supplies;

Parked or stored equipment and vehicles;

Consider also exhaust dust, vent sprays, or other materials on the roofs of buildings; oil or blood dripping from parked trailers; items that can drop or spill from trucks from loading or unloading operations; trash or drips from cars on plant and employee parking lots; and materials washed from neighbor's property.

The grounds team maintains protective storage of outdoor materials

a. The plant has certain protections in place to keep materials stored outdoors from polluting storm water. Use good housekeeping practices to maintain these items:

Close lids

Place covers/roofs over items stored outside

Maintain catch basins/curbs/secondary containment around tanks

Drain stormwater from secondary containment as soon as practical after a rain event

Use curbs to protect storm drains from process wastewater

The grounds team protect stormwater runoff from process wastewater

a. Certain outdoor areas of the plant (such as animal receiving areas) may have separate drains that route potentially polluted stormwater directly to plant wastewater drains for flow to the waste water treatment system. Work with the plant environmental coordinator to identify these drains and keep them isolated from other plant stormwater runoff that flows directly to rivers and streams.

The grounds team prevents spill or leaks in all loading and unloading operations.

a. Use the following good work practices.

A plant staff member must observe or participate in any outdoor loading/unloading activity at the plant

Catch any drips and clean up any spills

Use dry cleanup methods (such as use of shovels or brooms) as a first cleanup step.

Only use a water hose as an optional final step after completing a thorough dry cleanup.

Block storm drains when unloading liquids/materials in the flow area of a storm drain

The grounds team inspects the facility, fixes problems, and is prepared to clean up outdoor spills.

a. The plant manager and environmental coordinator develop a schedule and assignments to inspect all outdoor areas on at least a daily basis.

Inspect all outdoor areas including potential leak and spill sites.

Look for potential problems and fix them.

b. With a constant high level of activity around the plant, constant awareness is needed to maintain clean grounds. Be aware when:

Trucks are moved

Materials are unloaded

Team awareness is essential to keep the grounds clean at all times.

- c. Maintain in convenient locations adequate supplies of clean-up equipment and materials so that any spill can be promptly cleaned.
Prompt cleanup is the rule !

The grounds team maintains compliance with facility Stormwater Pollution Prevention Plan (SWP3) which is administered by the facility environmental coordinator.

- a. The program specifically requires:

A formal plan of stormwater management actions

Training of appropriate staff

Inspections and records of inspections

- b. Read the stormwater plan and work with the plant environmental coordinator to meet all requirements of the plan.

SOP 2 Compliance with Permit Limits on Plant Stack Emissions

Introduction: State and Federal regulations require permits for the operation and construction of equipment with emissions to the atmosphere. Within the permits are emission limits, operating limits, monitoring, record keeping, and reporting requirements. This procedure establishes the protocol to develop a system to demonstrate compliance with the permit requirements.

Responsible Personnel: maintenance supervisors, environmental coordinators, plant engineers, and plant managers

The plant environmental coordinator will identify all operating and construction permit conditions for each covered emission unit.

The plant environmental coordinator will develop a compliance demonstration plan for each emission limit. See the example in Attachment 2.

Develop a monitoring procedure.

Develop a record keeping and reporting procedure.

The plant environmental coordinator will identify responsible persons for implementing each aspect of each compliance demonstration plan.

Twice each year, the plant environmental coordinator will review each compliance demonstration plan and documentation.

EXAMPLE

Compliance Demonstration Plan

Person Responsible: _____

Boiler XX:

SO₂ limit of 0.1 lb/hr

Monitoring Procedure:

Use a parametric monitoring procedure to demonstrate the SO₂ emissions are less than the limit.

Obtain distillate fuel sulfur content for each delivery of fuel.

Obtain natural gas sulfur content from the natural gas company.

Calculate the emission rate for each change in sulfur content.

Record keeping:

Maintain on file for a period of 5 years:

Record the time of operation on natural gas and on distillate fuel.

Maintain a record of the sulfur content and emission calculations.

Reporting:

Use the monitoring data to complete the annual emission inventory, annual compliance certification, and any other items required by the regulatory agency.