

 Portland Community College Health & Safety Manual	Dept: Environmental Health and Safety (EH&S)	
	Function: Facilities Management Services	
	Topic: Chapter 22 — Environmental Protection and Stewardship	
	Board Policy: B507	Revised Date: January 2020

Authority	PCC Board Policy—B507
	Portland Community College is committed to providing a safe and healthy work and educational environment for our employees, students and visitors.

Summary	This chapter has been developed to provide information on the various environmental compliance and stewardship programs in place at Portland Community College (PCC) which promote air quality, land quality, and water quality protections. This chapter references several programs managed by a variety of departments at PCC and as such links and directions to those programs are provided as necessary.
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I. PURPOSE

Portland Community College (PCC) endeavors to protect the health and safety of its employees, students, and visitors as well as the environment around and effected by campus activities. This chapter has been developed to provide information on the various environmental protection and stewardship programs in place across the PCC district. As many of the programs are managed by different departments, brief descriptions for each are given along with references and links to more information.

II. AUTHORITY

Land

OAR 340 Division 90: Recycling and Waste Reduction

OAR 340 Division 64: Waste Tire Program

OAR 340 Divisions 100-103, 109-113, and 142: Hazardous Waste Management

OAR 340 Divisions 150: Underground Storage Tank Rules

Water

ORS 634.650-750: Integrated Pest Management

OAR 340 Division 44: Underground Injection Control

40 CFR 441: Dental Effluent Guidelines

40 CFR 141-148: Safe Drinking Water Act

III. RESPONSIBILITY

Responsibility for environmental protection and stewardship rests at all levels of the college and is described as follows:

Supervisor/Manager/Deans

- Be familiar with environmental programs affecting their work area
- Ensure staff work safely and perform work tasks according to PCC procedures
- Ensure staff receive appropriate training for any environmental program that affects the department's work tasks.

Environmental Health & Safety (EH&S) responsibilities include:

- Facilitate all required training for programs managed by the department
- Administer the Regulated Waste Program and facilitate third party operations
- Oversee the compliance aspects of PCC's underground storage tank (UST) systems
- Conduct inspections and facilitate third party testing and analysis of stormwater management systems as required by the Stormwater Monitoring Plan
- Ensure compliance with the stormwater permit
- Perform voluntary drinking water testing when deemed necessary

Maintenance

- Oversee maintenance and repair of campus facility systems
- Manage aboveground storage tanks (AST) connected to buildings systems
- Ensure domestic water segregation from non-potable water sources
- Manage the dental amalgam separation system used by the Dental program

Grounds

- Oversee and maintain the Integrated Pest Management (IPM) Plan
- Serve as the IPM Coordinator for the district
- Conduct inspections and maintenance as required by the Stormwater Monitoring Plan

Sustainability

- Oversee the recycling program
- Oversee the composting program

Central Distribution Services

- Manage UST maintenance and operation including the fuel card system

Transportation and Parking Services

- Conduct maintenance as required by the Stormwater Monitoring Plan

Project Managers

- Ensure all projects are reviewed and conducted in compliance with relevant environmental safety programs
- Conduct waste operations in accordance with PCC recycling and hazardous waste procedures
- Communicate to EH&S regarding completion of projects that impact drinking water sources to ensure timely sampling and analysis
- Review all project scopes to determine if there will be any impact on stormwater systems and consult with EH&S

Employees

- Comply with all environmental safety programs relevant to their area of work
- Attend all trainings as required by environmental safety programs relevant to their area of work

IV. PROCEDURES

PCC follows environmental protection regulations as mandated by the Oregon Department of Environmental Quality (DEQ), the Environmental Protection Agency (EPA), and other local authorities. These regulations cover many areas of work at the college and in some cases have specific training and reporting requirements. Due to the variety of regulated topics and the amount of management required, multiple departments share the responsibilities for overseeing these programs.

For each topic and area of interest, PCC has designated specific departments or managers to perform the required duties. These departments and managers work to develop procedures and programs for each topic as well as submit all required information and maintain required documents for the length of time specified in the regulations. If any of the topics require training, the designated department will facilitate that training and ensure it is completed according to regulations.

There are three main areas of focus for environmental protection and stewardship: land quality, water quality, and air quality.

A. Land Quality Protections

The land we live on is one of our greatest resources. A large factor in ensuring PCC is a good steward of land quality is by providing programs and opportunities to reduce the waste that is taken to land-fills and protecting against ground contamination at PCC facilities. This could be through recycling and composting initiatives, reducing waste by reducing the products used, proper management of hazardous waste, or through proper storage and maintenance of chemical storage areas.

1. Recycling and Composting

In the state of Oregon, DEQ has implemented regulations that establish a minimum requirement for local governments to provide the opportunity to recycle along with standards for waste prevention, reuse, recovery, and recycling programs. PCC has been able to use the framework of the programs established by the City of Portland to develop waste reduction programs for many solid waste materials generated across the district.

PCC handles the management and proper disposal of a wide variety of items after their useful lifecycle. Two key programs managed by the Sustainability department are the recycling and composting programs outlined in the *Solid Waste Management Policy* and on the Sustainability website. The *Solid Waste Management Policy* covers policy goals, performance metrics and evaluations of the policy, as well as procedures and strategies used by PCC to reduce the amount of solid waste that is sent to land-fills. Also included are the types of recyclable waste generated by PCC and descriptions of the disposal method and handling procedures for those items.

The Purchasing department has worked closely with Sustainability to develop sustainable purchasing practices focusing on environmentally and socially responsible materials as well as considering the end of life disposal for those products. By purchasing items that can be repurposed, managed through surplus, or recycled, PCC can significantly reduce the amount of land-fill waste generated across the district.

Sustainability has worked in collaboration with Dining Services to implement and improve the PCC composting program. Each PCC campus has pre-consumer composting in the Dining Services' prep area where buckets are used to collect food waste. And Sylvania and Rock Creek have post-consumer compost collection areas.

For some waste items generated at PCC there are dedicated recycling programs established by DEQ. One such program is for the management, storage, and recycling of waste tires. The large majority of waste tires generated by PCC come from the Automotive department at the Sylvania campus and as such there is a dedicated storage area managed by the Automotive instructional support technician for used tires until they can be transported for recycling.

For more information on PCC's recycling and composting programs, visit the

Sustainability website.

2. Regulated Wastes

The Resources Conservation and Recovery Act (RCRA) was created to provide regulation requirements for the management, storage, and disposal of specific waste streams which can create hazards to public health and the environment. These wastes are referred to as hazardous waste, universal waste, non-hazardous waste and biological waste. Each set of requirements is implemented by DEQ and managed by PCC through procedures outlined in the Regulated Waste Program.

The Regulated Waste Program was developed by EH&S to provide PCC employees with information and resources to maintain compliance and manage waste storage areas. The program outlines applicable compliance and reporting requirements, different regulated waste categories at PCC, procedures for storage, and procedures for disposal requests. It also includes supporting forms and fact sheets to be used in managing a department's waste storage area.

Hazardous waste, the largest regulated waste category at PCC, is handled and disposed of through an appropriate hazardous waste vendor. Items identified by DEQ as universal wastes have special procedures in place to promote proper handling and recycling of those items that would otherwise be disposed of as hazardous waste. Biological waste is mostly generated by health professional courses, veterinary courses, or biology departments and those waste items are disposed of through an appropriate biological waste vendor.

The main non-hazardous waste generated by PCC that requires specific management is used oil generated by various trades' courses and some maintenance operations. The used oil is periodically pick-up by a used oil recycling vendor.

For more information on PCC's Regulated Waste Program, visit the EH&S website and the Health & Safety Manual Chapter 21.

3. Storage Tanks

One of the biggest risks to the land quality of PCC's facilities comes from the potential for environmental hazardous to enter the soil. There are many procedures in place to help prevent this through spill response plans as well as the Regulated Waste Program, but when the chemical storage container is a tank, additional controls and procedures are needed. DEQ has established regulations to protect against spills and releases from storage tanks both above ground (AST) and underground (UST) and the Petroleum Equipment Institute (PEI) has several recommended practices for the proper maintenance and operation of these systems.

a. Above Ground Storage Tanks

There are several ASTs in use at PCC facilities, many of which are used as fuel storage for emergency generators, boilers, and other equipment. These ASTs and

the systems they are connected to are maintained by the maintenance staff at each facility.

All ASTs in use at PCC are double walled tanks to provide protection against spills. Though they are not equipped with leak detection sensors, all ASTs are located in areas where visual leak inspections can be performed. When a tank needs to be refilled, the maintenance staff contracts a fueling vendor to perform the fueling and ensure there are no spills during that process.

The Sylvania campus has two ASTs for propane which fuel the heaters in the greenhouses. One of the tanks is also used for refueling the bottles for propane fueled material handling equipment. Due to the specific hazards present with ASTs and propane, any PCC employee who refills propane bottles must complete training which includes PPE requirements and hazards associated with propane.

For more information on PCC's ASTs, please contact FMS.

b. Underground Storage Tanks

PCC has two facilities with USTs; the Sylvania campus has two tanks and the Rock Creek campus has four. Each tank is registered with DEQ and an annual permit is maintained for their operation. All of PCC's USTs are used for the storage and dispensing of fuel for the various college vehicles as well as some trades program academic course work.

To ensure USTs have adequate protections against spills, DEQ has specific equipment requirements to monitor fuel quantity and containment. Each tank is equipped with spill prevention equipment, such as secondary containment and leak detectors, and overfill prevention equipment to automatically shut off flow into the UST once it reaches a certain capacity. The USTs are also equipped with volume monitoring systems so that fuel dispensers know how much fuel each tank can hold when a delivery is made. Each piece of spill prevention and overfill prevention equipment is tested and inspected on a routine basis. Any updates or repairs are facilitated by Central Distribution Services (CDS).

PCC conducts monthly inspections of all UST systems to ensure each piece of equipment is working properly. These inspections are based on recommended practices established by PEI and cover several items including checking the leak detection system for any alarms, ensuring the automatic tank gauge is working properly, and ensuring there is adequate spill response material on hand. Once a year, a contractor performs a more extensive inspection which includes the monthly inspection items as well as line tightness testing to ensure there are no leaks between the tank and the dispensing equipment. The monthly inspection checklist can be found in *Form 1: Monthly UST Inspection Checklist*.

It is very important that PCC ensure all operators of the UST systems have been properly trained. DEQ has established three levels of training depending on the operator's job tasks. PCC has at least one employee trained as a Class A/Class B operator. This employee is responsible for ensuring regulatory compliance with

maintenance and inspections as well as providing training for Class C operators. Class C operators are those whose primary job tasks included operating the UST system and acting as the first response to emergency situations like spills or alarms.

For more information on PCC's UST systems, please contact EH&S or CDS.

4. Spill Prevention, Controls, and Countermeasures

This section currently under review.

B. Water Quality

Oregon DEQ is responsible for keeping Oregon's waters safe and healthy for many uses such as drinking, recreation and agriculture as well as for ensuring fish populations are able to thrive. To help accomplish this, there are several regulations covering a variety of focuses to protecting Oregon's rivers, lakes, streams and groundwater quality and keep these waters safe for a multitude of beneficial uses.

1. Integrated Pest Management

The State of Oregon has several programs in place regarding pesticide use which help promote the protection of state waterways and reduce the amount of highly toxic pesticides used. A partnership comprised of multiple state agencies has identified local water quality issues as well as tools to help pesticide users implement alternative methods for pest control. In working with pesticide users to reduce the amount used, the negative impact pesticides have on waterways has been greatly reduced and work sites are safer.

PCC manages pesticide use district wide through the Integrated Pest Management (IPM) Plan. A requirement for all schools kindergarten to community colleges, IPM is a process for achieving long-term, environmentally friendly pest suppression through a wide variety of tactics which reduce the food, water, and shelter that pests need. Since IPM focuses on remediation of the fundamental reasons why pests are here, pesticides are only used when necessary.

PCC's IPM Plan contains all of the requirements outlined in the Oregon State Statutes including methods for providing notification of pesticide use, training requirements for PCC employees, and recordkeeping for pesticide applications. The plan also contains information on various pests that could be found on PCC property and how to prevent them. For instances when pesticides are unavoidable, PCC has adopted a list of low-impact pesticides to restrict use of any chemicals that are highly toxic or contain ingredients that are carcinogens. Any time a pesticide is used at PCC, written notice is given to that campus/center at least 24 hours before the application outlining what pesticide is being used, where it will be applied, and the reason for the application. All records of pesticide applications and notifications are maintained for four years.

PCC's IPM Plan is managed through the Grounds department by the IPM Plan Coordinator. For more information on PCC's IPM Plan, please visit the Facilities

Management Services website.

2. Dental Mercury Amalgam

It is universally acknowledged that heavy metals are harmful to a wide variety of aquatic life and as such, every effort should be made to prevent those metals from entering local waterways. In an effort to reduce the amount of heavy metals that could enter local waters, the EPA has established regulations for pretreatment of water used during dental procedures to reduce mercury amalgam discharges to water treatment facilities.

PCC's Dental program complies with these regulations through use of a mercury amalgam separator. The regulations require that any dental operation that could potential release mercury amalgam solids to sanitary sewers must install an amalgam separator which has at least a 95% removal efficiency. To ensure PCC is in compliance, the amalgam separator was chosen based on the size of the dental operation (number of chairs) and the amount of water the unit can process.

The regulations also outline specifics for installation and operation of dental amalgam separators as well as ensuring each separator is maintained and inspected according to the manufacturer's specifications. Due to the nature of the separator tank, the solids that are collected are not hazardous waste but can be managed through a recycling program.

The Maintenance department maintains the dental mercury amalgam separator and ensures all inspections and maintenance is completed accordingly.

3. Stormwater Management

One of the easiest ways for pollutants to enter local streams and rivers is to be carried there by stormwater runoff. To protect local waterways from pollutants, the Federal Safe Drinking Water Act established rules which are implemented through DEQ and the City of Portland Bureau of Environmental Services to ensure proper management and monitoring of stormwater management systems. It is important to protect all stormwater management systems against accidental spills or illicit disposal whether it be from chemicals or from fats, oils, and grease from dining services operations. Any PCC employee who handles fats, oils, grease, or chemicals outside should be mindful of stormwater systems near their work areas.

PCC utilizes a variety of stormwater management systems including bio swales, outfalls, and underground injection control (UIC) systems which are managed through a Water Pollution Control Facility Permit. This permit requires specific management procedures be outlined in a Stormwater Monitoring Plan (SWMP) and an Underground Injection Control System Management Plan (UICMP). The SWMP covers information on stormwater sampling, lab analysis, and reporting requirements. The UICMP covers PCC's UIC system inventory, site assessments, and compliance activities.

There are three departments at PCC that work together on stormwater monitoring and system maintenance. EH&S maintains and manages the permit and facilitates the sampling and reporting process, Grounds manages the bio swales and outfalls at PCC's

facilities to ensure they are performing properly, and Transportation and Parking Services maintains the roads and parking lot catch basins. Both EH&S and Grounds conduct monthly inspections of the various stormwater management systems in accordance with the permit. Once a year, EH&S facilitates a third party vendor to sample and analyze specific UIC locations for pollutants.

PCC's Water Pollution Control Facility Permit is a 10 year permit with each year having different reporting requirements. These annual reports are completed by EH&S with assistance from a consultant. Each annual report includes information on the inspections, sampling and analysis, and training that was performed for the year. T

Any new construction or renovations which include creation or alteration to any hardscapes can impact PCC's stormwater management systems. Project managers will review all project scopes to determine if there will be any impact on stormwater systems and consult with EH&S.

For more information on PCC's stormwater protection procedures, visit EH&S's website.

4. Drinking Water Testing

Just as important as ensuring local waterways are safe and free of contaminants, is ensuring that PCC's drinking water is safe for everyone who comes to the college. The Safe Drinking Water Act (SDWA) mandates that EPA establish regulations to protect human health from contaminants present in drinking water and to ensure compliance with those standards.

PCC's water comes from public water systems that are chlorinated and therefore no biological testing is required. Other metals and contaminants, such as pH and dissolved solids, are also controlled by the public water system. Public water systems are required to be maintained and tested regularly by a local water district or water system owner. Because of this, independent sampling of the water supply is not necessary unless specific circumstances indicate it is needed.

Due to the age of some PCC facilities, it is possible that some water fixtures could contain low levels of lead that might leach into the water. PCC's EH&S department conducts voluntary district-wide drinking water testing each year to look for the presence of lead in an effort to identify sources and mitigate them. The goal is to collect one sample of drinking water from each floor of each building that PCC manages. The testing is conducted in accordance with two EPA guidance documents; *Lead in Drinking Water in Schools and Non-Residential Buildings* and *3Ts for Reducing Lead in Drinking Water in Schools*.

Drinking water sources, including fountains, sinks and water bottle fill stations, are identified on building maps as sample locations. Each year's random sampling locations are selected based on a few factors including occupancy of the area, source type, and previous sampling data. There are some instances where a location might be tested multiple years in a row if it is a high use area and previous testing data indicates it is an area of concern. Any drinking water sources that were impacted during construction or a renovation project are also included in the annual sampling. It is important that project

managers inform EH&S of completion of projects that impact a drinking water source to ensure timely sampling.

Once the results are received from the lab, they are reviewed to identify any sample containing lead concentrations above the EPA action level. Any sample location with lead above the action level will be reviewed by EH&S and FMS to determine the best course of action for mitigation. Once mitigation is complete, the location is retested to ensure the water reflects acceptable levels per EPA's guidelines and PELs.

There are specific compliance requirements for child care centers in Oregon which outline specific action levels and response times. Because of this, EH&S works with the child care facilities managed by PCC to conduct the sampling and provide report information within the required time frame.

For more information on the annual drinking water testing, please visit EH&S's website.

C. Air Quality

This section currently under review.

V. TRAINING

There are different training requirements for the different programs and procedures described in this chapter. Recycling, Dental mercury amalgam, and drinking water testing do not require program specific training. For the Regulated Waste Program and IPM training requirements, please review the program documents. Other training requirements are outlined below.

A. UST System Training

For Class A/Class B operator training, PCC ensures employees receive DEQ approved training that covers an overview of DEQ UST program requirements, other regulations pertaining to USTs (fire codes, OSHA requirements, etc.), spill prevention and overfill protection, spill detection equipment, and corrosion protection.

The Class C training is site specific due to the differences in emergency response equipment for each location. If an employee will only be operating the equipment at one campus they only need to receive that campus's training. Class C operator training is provided by PCC's Class A/Class B operator and includes information on:

- System equipment (pump, hose, nozzle)
- Tank monitoring equipment
- Location of emergency equipment and contact information
- Procedures in case of equipment malfunction
- Spill containment material and procedures
- Fuel card usage

B. Propane Filling

EH&S provides training for propane filling operations at the Sylvania campus. The training

covers access to the filling valve, the PPE required for filling, and what hazards to be aware of during the filling procedures.

C. Stormwater Management Training

There are several departments that receive annual training which includes information on stormwater system protection from accidental spills or illicit disposal. The training section specific to stormwater management covers information regarding proper disposal as well as spill prevention and spill response procedures.

VI. RECORD KEEPING

Each program has its own set of record keeping requirements which are managed by the department responsible for that program. Recycling and drinking water testing records are maintained by the individual departments and more information can be found on their websites. The Regulated Waste Program and IPM records requirements are outlined in the program documents. Records for the Dental amalgam separator are maintained by FMS. Other record keeping requirements are outlined below.

A. UST Records

Records for UST inspections and maintenance are managed through the FMS work order tracking system on a preventative maintenance schedule. Both EH&S and CDS attach required records to the corresponding work orders.

B. Stormwater Management Records

Many of the records maintained for stormwater management are needed for the annual report. Inspection records from EH&S are maintained on the FMS work order tracking system on a preventative maintenance schedule. Inspection records from Grounds are maintained in the department manager's office.

Training records are maintained in the PCC learning management system.

For the annual report, all necessary records are compiled and provided to the third party consultant along with all sampling analysis. The finalized report is submitted to DEQ and a copy maintained in the EH&S office.