Portland Community College Health & Safety Manual	Dept: **Environmental Health and Safety (EH&S)**	
	Function: **Facilities Management Services**	
	Topic: **Chapter 8 — Hazard Communication Plan**	
	Board Policy: **B507**	Revised Date: **January 31, 2019**

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

Summary	**This plan outlines how PCC manages chemicals used at the college including how to ensure proper container labeling, Safety Data Sheet (SDS) management, and employee training.**

Sections	**I. Purpose**
	II. Authority
	A. Scope
	III. Responsibility
	IV. Procedures
	A. Required Manufacturer Labeling
	B. Workplace Container Labeling
	C. Chemical Piping Systems
	D. Storage Location Labeling
	E. Safety Data Sheets
	F. Inventory of Chemicals and Adding New Products
	G. Contractor Notification
	H. Hazardous Chemical Reporting
	V. Employee Training
	VI. Recordkeeping
Appendix	**A: Definitions**
	B: GHS Pictograms
	C: MSDSonline Overview and Instructions
Forms	**1: Chemical Prior Approval Form**
	2: New Chemical or Non-Routine Exposure Training

I. PURPOSE

The Hazard Communication Plan outlines how Portland Community College (PCC) manages chemicals used at the college including ensuring proper container labeling, management of Safety Data Sheets (SDS), and implementing employee training according to the requirements in Oregon OSHA standard 1910.1200.

The Plan provides provisions to ensure chemical inventories are maintained, SDSs are available for all hazardous chemicals, and container labeling meets the requirements for original containers as well as for secondary containers created by the departments. There are also provisions to meet the Or-OSHA standard for assessment and ensuring employee training when using hazardous chemicals that are not in routine job tasks, ensuring that outside contractors are informed of any chemical hazards associated with contract work, and ensuring contractors provide PCC with information regarding potential chemical hazards associated with the work they will be performing prior to use.

II. AUTHORITY

Including but not limited to:

OAR 437 – Division 2 – 1910.1200 Hazard Communications
OAR 437 – Division 2 – 1910.1201 Retention of DOT Markings, Placards and Labels
OAR 437 – Division 2 – 378 Pipe Labeling
OAR 437 – Division 2 – 1910.38 Emergency Action Plans
NFPA 704 – Standard System for the Identification of the Hazards of Materials for Emergency Response
40 CFR 370 – Hazardous Chemical Reporting: Community Right-to-Know

Other referenced Health & Safety Manual Chapters:
Chapter 1 – General Safety Programs & Responsibilities
Chapter 18 – Contractor Hazard Notification Plan
Chapter 21 – Regulated Waste Program

A. Scope

The Hazard Communication Standard has a wide scope of chemicals used in the workplace that are within the scope of the rules for labeling and provisions of SDSs. Not all hazardous chemicals or chemicals are included under this standard. Further, while some chemicals or products are included, the Or-OSHA required labeling does not apply because other governmental agencies have labeling requirements.

1. **The Hazard Communication Standard does NOT apply to Hazardous Waste or Waste Materials from cleanup sites. The Oregon Department of Environmental Quality (DEQ) or Environmental Protection Agency (EPA) regulates these materials under the following:**

    - The Resource Conservation and Recovery Act (RCRA) of 1976, (42 U.S.C. 6901 et seq.), when subject to regulations issued under that Act by the EPA

- The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. 9601 et seq.) when the hazardous substance is the focus of remedial or removal action being conducted under CERCLA in accordance with EPA regulations.

As a result, hazardous wastes are not included in the Or-OSHA standard regulating this chapter. PCC manages hazardous waste through *Chapter 21 Regulated Waste Program* in accordance with applicable DEQ requirements.

2. Other materials NOT covered under Hazard Communication for labeling, include:

- Tobacco or tobacco products
- Wood or wood products, including lumber which will not be processed, where the chemical manufacturer or importer can establish that the only hazard they pose to employees is the potential for flammability or combustibility (wood or wood products which have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut, generating dust, are not exempted)
- Articles – See *Appendix A: Definitions*
- Food or alcoholic beverages which are sold, used, or prepared in a retail establishment (such as a grocery store, restaurant, or drinking place), and foods intended for personal consumption by employees while in the workplace
- Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), when it is in solid, final form for direct administration to the patient (e.g., tablets or pills); drugs which are packaged by the chemical manufacturer for sale to consumers in a retail establishment (e.g., over-the-counter drugs); and drugs intended for personal consumption by employees while in the workplace (e.g., first aid supplies)
- Cosmetics which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal consumption by employees while in the workplace
- Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended
- Nuisance particulates where the chemical manufacturer or importer can establish that they do not pose any physical or health hazard covered under this section
- Ionizing and nonionizing radiation
- Biological hazards

III. RESPONSIBILITY

Responsibility for Hazard Communication rests at all levels in the College and is described as follows:

Supervisor/Manager/Deans

- Ensure that Safety Data Sheets (SDS) are available for all chemicals in use or stored in their department.

- Assess the hazards associated with any new chemicals and ensure that both employee and environmental safety procedures are followed.
- Submit SDSs to the online chemical database prior to purchase of new chemicals.
- Ensure proper chemical labeling on all workplace containers
- Provide or arrange for specific chemical training for the hazards these chemicals may pose to the department employees.
- Maintain training records for employees in their department.
- Provide personal protective equipment (PPE) to ensure safe handling of these chemicals.
- Annually verify their Department's chemical inventory against the database by location of chemical usage/storage and submit corrections to EH&S.

Environmental Health and Safety (EH&S):

- Conduct general employee hazard communication orientation training.
- Assist as requested department management with employee refresher training, assessing chemical hazards and ensuring proper chemical labeling.
- Serve as administer for the chemical database which includes college wide inventories and maintenance of SDSs.
- Conduct periodic audits to ensure that chemical inventories match the actual chemicals found at each location, that any secondary containers are properly labeled, that chemicals are stored correctly, and are used safely. These audit findings shall be reported to the appropriate College Departments.
- Maintain a current inventory of carcinogens used district wide.
- Work with the safety committee and outside resources to investigate employee chemical complaints.
- Assist Facilities Management Services (FMS) in ensuring that outside contractors are notified of potential chemical hazards associated with their service. Contractors will provide PCC with potential chemical hazards associated with the work they will be performing prior to use.
- Completion of the Community Right to Know annual report.

All Employees:

- Read the labels and SDSs for the products that they use.
- Properly handle chemicals per the labels, SDS, and training.
- Attend the appropriate Hazard Communication training.
- Report chemical spills or releases to their supervisor and Public Safety (ex. 4444).
- Report to their supervisor any potential chemical adverse reactions as soon as they are recognized and complete an *Injury or Property Incident Report (H&S Manual Chapter 2 Form 1)*.

IV. PROCEDURES

A. Required Manufacturer Labeling

Chemical manufacturers, distributors, and importers must provide a label on original containers where hazardous chemical products exist and ensure that the labeling meets the requirements of the Globally Harmonized System (GHS) for labeling. It is the responsibility of the Department ordering the chemicals to ensure that labels are legible and meet GHS

requirements. A container label must have the following elements as it relates to the GHS chemical classification:

- Product Identifier
- Signal word
- Pictograms (See *Appendix B*)
- Hazard statements
- Precautionary statements
- Supplier identification including address and contact method for additional data.

No container of hazardous chemicals will be released for use until the purchaser verifies the label information is readable and meets the above requirements.

No employee shall remove or deface labels on products. If a product container is received that displays required GHS label elements or U.S. Department of Transportation (DOT) labels in accordance with Hazardous Materials Regulations, those labels must remain intact on the container until it is empty and sufficiently rinsed to remove any potential hazards.

If employees find unlabeled containers, they either need to ensure a proper secondary label is applied or notify his/her supervisors. If employees find unlabeled pipelines, they need to notify their Supervisor who, with assistance as needed from the EH&S department, will determine the contents of the container or pipeline and ensure proper labeling.

B. Workplace Container Labeling

There are some instances where hazardous chemicals are transferred from their original container into a secondary container. Or-OSHA refers to secondary container labeling as “Workplace Labeling”. Containers that hold transferred hazardous chemicals are required to be labeled, tagged or marked with either the information from the original container label or the product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the Hazard Communication Plan, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

The employee in charge of the transfer must ensure that an appropriate label is placed on the container. Directions on how to generate a label through the chemical SDS database can be found in *Appendix C: MSDSonline Overview and Instructions*. No WATER OR DRINK/FOOD containers shall be used as chemical containers.

Portable containers of chemicals intended for immediate use (used by one employee and completely used during their shift) are not required to be labeled. If more than one employee uses the containers or the chemical is stored over to the next shift, it must be labeled. Employees creating a secondary container or filling a secondary container shall ensure that the secondary container is labeled with the product identifier and hazard information.

The workplace label must be legible, in English, and prominently displayed. Departments having employees who speak other languages may add the information in their language to the material presented, as long as the information is presented in English as well. If a label becomes torn or illegible the user or user’s supervisor must re-label the product.

PCC may use signs, placards, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required in this section.

C. Labeling of Chemicals in Piping Systems:

Piping systems carrying hazardous chemicals must be labeled with the chemical contents and employees who use the piping systems must be trained in the hazards of the specific chemicals. This includes piping carrying compressed air.

Label requirements include:

- The name of the contents in full or abbreviated form
- Be posted in the area of the pipe/piping system
- Be applied at least at the beginning and end of any continuous pipe run
- Piping systems that use asbestos as a pipe insulation material shall be labeled.

Where pipes are inaccessible and/or at a distance which prevents clear identification, alternatives to the labelling may be used such as schematics posted on walls in the work area.

D. Storage Location Signs

The National Fire Protection Association (NFPA) requires that PCC post signs at specific chemical storage locations that present the level of hazards associated with the chemicals stored in that area. The NFPA rates hazards according to three categories; health, fire, and instability. The ratings are arranged in a diamond formation with the forth square reserved for other specific hazards such as water reactivity or oxidation potential. The ratings use a numerical system ranging from 0 (minimal hazard) to 4 (severe hazard) and are color coded. Blue is used for health hazard, red for flammability hazard, and yellow for instability hazard.

Where one or more hazardous chemical is stored, at least one NFPA diamond listing the hazard ratings for the stored chemical will be posted on the primary entrance door(s). This includes laboratory and art storage and prep rooms as well as exterior storage rooms for specific chemicals. For locations where more than one hazardous chemical is stored, the NFPA diamond will summarize the maximum ratings contributing to each hazard category. For locations where three or fewer chemicals are stored, individual NFPA diamonds will be posted along with the chemical name.

E. Safety Data Sheets

Chemical manufacturers, distributors, and importers are required by Or-OSHA to develop a Safety Data Sheet (SDS) for each hazardous chemical they produce. The SDS shall contain detailed information about the health and physical hazards associated with the product. The required sections of a SDS are:

1. Product identification
2. Hazard(s) identification
3. Composition/information on ingredients
4. First-aid measures
5. Fire-fighting measures
6. Accidental release measures
7. Handling and storage
8. Exposure controls/personal protection
9. Physical and chemical properties
10. Stability and reactivity
11. Toxicological information
12. Ecological information
13. Disposal considerations
14. Transportation information

15. Regulatory information
16. Other information, including date of preparation or last revision

It is the responsibility of the Supervisor or Manager to ensure that PCC receives a SDS either through a request in the SDS database or by mail/email from the manufacturer prior to receipt and use of the chemical. When the Department using the chemical receives a SDS by mail/email, the Department must ensure that the SDS is posted to the SDS database maintained by EH&S.

SDSs are available to all employees for review during each work shift by accessing the database from PCC's intranet webpage. Other methods for accessing the SDS database are listed in *Appendix B*. Some departments may also have binders with SDSs for employees with limited access to computers. Departments need to have backup system in the event there is an issue with the main database, which can be paper copies or a backup USB drive obtained annually from EH&S.

F. Inventory of Chemicals and Adding New Products

1. Inventory

PCC is required to maintain a database of all known hazardous chemicals used at the college. EH&S maintains the online chemical database of all SDSs in their most up to date version. The database is organized into specific storage location inventories which are updated as new chemicals are purchased or are added to a new location. When a chemical is no longer used in that location, the inventory is updated to mark the chemical as inactive.

A SDS shall be available for EACH manufacturer if more than one manufacturer's product is in use, even if it is similar to a product used at PCC with the same name. All SDSs generated by manufacturers for products used at PCC shall be included in the SDS database even if there is reason to believe that a product may not be hazardous under Or-OSHA requirements. There are specific safeguards provided in an SDS and it is prudent to include that information for employees to assess if using the product.

When a department is purchasing a new product, the purchaser must add the SDS specific to that product and manufacturer to their department's storage location BEFORE the new chemical is purchased. The SDS shall be reviewed by EH&S to ensure that it is an acceptable product for use by the Department staff and the requester will be notified by email that it is approved or denied. If approved, the SDS shall be added to the location and chemical database. If denied, EH&S staff will notify the requester to as to why and other available options. For information on how to add SDSs to the chemical database currently used by PCC, please see *Appendix C: MSDSonline Overview and Instructions*.

EH&S will conduct periodic audits to ensure that chemical inventories match the actual chemicals found at each location. These audits will take place regularly and will include review of secondary containers and workplace labeling, chemical storage, and safe chemical use. These audit findings shall be reported to the appropriate College Departments and records of the audit maintained by EH&S.

2. Chemical Prior Approval Process

Prior to ordering and using new chemicals, the Manager/Supervisor must review the SDS for specific hazards that might prompt the Chemical Prior Approval Process. If the chemical is stated to have any of the following hazards, *Form 1: Chemical Prior Approval Request* must be completed and submitted to EH&S for review.

Acute toxicity Category 1 and 2

Germ cell mutagenicity as a:

- Category 1A: Known to induce heritable mutations in germ cells of humans
- Category 1B: Should be regarded as if they induce heritable mutations in the germ cells of humans

Reproductive Hazard as a:

- Category 1: Known or presumed human reproductive toxicants
- Category 2: Suspected human reproductive toxicant and effects on or via lactation.

Carcinogen as a:

- Category 1 (includes 1A and 1B): Known or presumed human carcinogen
- Category 2: Suspected human carcinogens

Any chemical with one of these hazards require special procedures or equipment for handling and use.

a. Carcinogens:

A current inventory of carcinogens shall be maintained by EH&S as required by Or-OSHA 437-002-0391(2)(k) and this inventory is part of the overall highly toxic chemicals listing. The inventory can be found in *Chapter 9 Chemical Hygiene Plan Appendix E: Inventory of Carcinogens*.

The carcinogens must be isolated in a specific work area, and access to that area must be restricted to designated staff.

The use of carcinogens should be limited in the work area so that isolation techniques provide controlled access. Or-OSHA 437-002-0391(2)(l) requires that ventilated apparatus such as laboratory type hoods, shall be tested at least annually or immediately after ventilation modification or maintenance operations, by personnel fully qualified to certify correct containment and operation.

Records of personnel working with carcinogens must be kept and maintained for thirty years.

Specific training must be provided regarding the cancer causing possibilities of the chemical, as well as decontamination procedures, emergency procedures, and the employees' role in recognizing situations that might result in the release of these chemicals. Documentation of such training will be maintained by the manager/supervisor.

Regulated areas must be posted with appropriate signs reading:

CANCER--SUSPECT CHEMICALS; AUTHORIZED PERSONNEL ONLY

Ensure that the SDS safety procedures are reviewed and adopted for handling, storage, spill response and disposal procedures.

b. Acute Toxic, Reproductive and Mutagenic Chemicals:

Minimize the exposure to these toxic chemicals by any route using all reasonable precautions.

Always ensure adequate ventilation or other containment device for procedures which may result in the generation of aerosols or vapors containing the chemical; trap released vapors to prevent their discharge.

Always avoid skin contact by use of appropriate gloves and long sleeves (and other protective apparel as appropriate). Always wash hands and arms immediately after working with these chemicals.

Be prepared for accidents and spills. Store breakable containers of these chemicals in chemically resistant trays. Work and mount apparatus above such trays or cover work and storage surfaces with removable, absorbent, plastic backed paper.

Obtain proper waste handling instructions from EH&S.

The department purchasing the new chemical must ensure that chemical specific training is given to the users if the product has different associated hazards than what was included in the user's initial training. *Form 2: New Chemical and Non-routine Chemical Exposure* provides an outline of the training requirement and notification that the employee has been trained.

G. Contractor Notification

PCC is required to inform outside Contractors of any hazardous chemicals in the work area that the Contractor may be exposed to as well as receive information on any hazardous chemicals the Contractor may bring on site during the course of their work. The PCC Project Manager who manages the contract is required to inform the Contractor of and keep a written record of the notification requirements and the following information:

- Hazardous chemicals the Contractor may be exposed to while on the job site.
- Potential chemical hazards associated with the work a specific Contractor will be performing.
- Precautions PCC and Contractor employees may take to lesson possibility of exposure
- Method PCC will use to give the Contractor on-site access to PCC's Safety Data Sheets (SDS) for hazardous chemicals.
- PCC's preferred method of receiving access to the Contractor's SDS if any hazardous chemicals are brought in by the Contractor.
- Specifics of any workplace labeling in the contractors work area.

This information is reviewed with the Contractor according to procedures outlined in *Chapter 18 Contractor Hazard Notification Plan*. The required information will be documented through completion of *Chapter 18 Form 1: Contractor Notification Project Hazard Assessment*. The PCC Project Manager will provide access to relevant SDSs as needed and obtain copies of SDSs for any chemicals associated with the Contractor's work. The Contractor's SDSs must be submitted to the PCC SDS database under the location "District-wide - Contractors" for review by EH&S.

The Project Manager will provide the contractor a copy of PCC's *Chapter 18 Form 1: Contractor Notification Project Hazard Assessment* for their records. If further information is needed to assist the Contractor, the Project Manager can contact EH&S. A copy of the *Chapter 18 Form 1* shall be maintained by the Project Manager or Department per the Contractor Notification Requirements in *Chapter 18*.

H. Hazardous Chemical Reporting

PCC completes annual reporting on the inventory of various hazardous chemicals at different locations according to requirements outlined in the Emergency Planning and Community Right-to-Know Act (EPCRA). The purpose and intent of EPCRA is to encourage and support emergency planning and to give the public access to information about possible chemical hazards in their communities. In Oregon, the annual report is submitted through the Office of the State Fire Marshal and is completed for each campus and center that stores reportable

quantities of hazardous chemicals. A hazardous chemical's reportable quantity is listed by Or-OSHA in their Extremely Hazardous Substance table as well as compiled in the EPA's List of Lists. The information from this report is used by the local fire department and Local Emergency Planning Committees (LEPC) in their emergency preparedness documents and planning.

The reporting requirements for the annual inventory includes identifying information for each campus and center, detailed information on quantity and storage locations of the hazardous chemicals, and copies of SDSs. Prior to filing the report each year, EH&S performs a survey of the district to confirm information from the previous year's report and locate any additional chemicals that, due to increased quantity, need to be added to the report.

V. EMPLOYEE TRAINING

A key component of this plan is training employees about the hazardous chemicals they may come in contact with.

New employees are required to attend the New Employee Safety Orientation (NESO), which includes some of the required elements of Hazard Communication training. Those training elements are:

- An overview of the requirements contained in the Hazard Communication Rules, Division 1910.1200
- Location and availability of the written Hazard Communication Plan
- Safety emergency procedures to follow if our employees are exposed to these chemicals
- How to read labels and review a SDS to obtain appropriate hazard information

The Department Manager is responsible for the remaining chemical specific training for each work area. This is done by a review of the chemicals present in their workplace operations and documenting the information on *Chapter 1 Form 1 New Employee Safety Training Checklist* under "Other Department Specific Safety Topics". The remaining required training elements are:

- Physical and health effects of the hazardous chemicals used in the work area
- Methods and observation techniques used to determine the presence or release of hazardous chemicals in the work area
- Techniques about how to lessen or prevent exposure to these hazardous chemicals through usage of control/work practices and personal protective equipment
- Steps PCC has taken to lessen or prevent exposure to these chemicals

When new chemicals are introduced or chemicals with different hazards are purchased for routine or non-routine use, the supervisor is required to review the above items as they are related to the employees work areas. The Supervisor, with assistance from EH&S, will ensure that employees are trained in the hazards and controls based on the label and SDS information.

The training will be documented using *Form 2: New Chemical and Non-routine Chemical Exposure* and will include the following:

- Specific chemical hazards
- Protective/safety measures which must be utilized
- Measures the plan has taken to lessen the hazards such as ventilation, respirators, presence of another employee, and posting of emergency procedures in the applicable work area

VI. RECORD KEEPING

Training Records: Record of initial Hazard Communication training will be documented through NESO training rosters and maintained by EH&S.

Chapter 1 Form 1: New Employee Safety Training Checklist and will be maintained by the manager/supervisor for the length of employment.

Chapter 8 Form 2: New Chemical and Non-routine Chemical Exposure will be maintained by the manager/supervisor for 30 years past the end of employment.

Safety Data Sheets and the online database housing them will be maintained by EH&S. All SDSs will be maintained for the life of PCC even after the chemical is no longer in use.

Chapter 8 Hazard Communication Form 1: Chemical Prior Approval Form will be maintained by EH&S for 5 years.

Chapter 18 Contractor Hazard Notification Plan Form 1: Contractor Notification Project Hazard Assessment will be maintained by the Project Manager in the Contractor's file.

SDS Inventory Audits will be maintained by EH&S for 1 year.

EPCRA Hazardous Substance Inventory Report will be completed annually by EH&S and copies of the report kept for three years.