County College of Morris

CHEMICAL HYGIENE PLAN

March 2024

Table of Contents

I. Introduction

County College of Morris (CCM) has prepared the Chemical Hygiene Plan to ensure compliance with the Occupational Safety and Health Administration's (OSHA's) *Occupational Exposure to Hazardous Chemicals in Laboratories* regulation. The laboratories covered by the Chemical Hygiene Plan include those within the Biology and Chemistry Department. The Chemical Hygiene Plan outlines:

- Procedures, safety guidelines and policies for the protection of employees from hazardous chemicals used in the laboratories
- Employee Laboratory Safety training
- CCM Safety data sheet (SDS) system
- Personal protective equipment and emergency equipment
- Engineering controls
- Emergency procedures for accidents and spills
- Laboratory equipment, design and ventilation
- Chemical and waste management
- Housekeeping
- Exposure monitoring
- Medical consultation and examination.

The Chemical Hygiene Plan is available to employees on CCM's Public Safety webpage. The Biology and Chemistry Department maintains hard copies of the plan. Questions regarding the plan can be directed to the Environmental Safety Coordinator who serves as CCM's Chemical Hygiene Officer, at x 5551. The CCM Safety Committee will review the Chemical Hygiene Plan annually and update as needed.

II. Definitions

A. Hazardous Chemical

Any chemical that can cause a physical or a health hazard (e.g. flammable, toxic, corrosive, irritant, sensitizer, reactive or explosive materials).

B. Laboratory

A facility where the "use of hazardous chemicals" occurs in relatively small quantities on a non-production basis.

C. Laboratory scale

Work with substances in which the containers used for reactions, transfers, and other handling are designed to be easily and safely manipulated by one person.

D. Laboratory use of hazardous chemicals

Handling or use of such chemicals in which all of the following conditions are met:

1. Chemical manipulations are carried out on a "laboratory scale;"
2. Multiple chemical procedures or chemicals are used;
3. The procedures involved are not part of a production process, nor in any way simulate a production process; and
4. Protective laboratory practices and equipment are available and in common use to minimize the potential for employee exposure to hazardous chemicals.

E. Permissible Exposure Limit (PEL)

The Occupational Safety and Health Administration (OSHA) has established legal limits for maximum concentration of a chemical in the air to which a worker may be exposed continually for eight hours without any danger to safety or health. These legal limits are called Permissible Exposure Limits.

F. Particularly Hazardous Substance

Select carcinogens, reproductive toxins (causes harm to reproductive organs and/or endocrine system) and substances that have a high degree of acute toxicity. See Section VIII for further discussion.

G. TLV

An occupational exposure value recommended by the American Conference of Governmental Industrial Hygienists (ACGIH) as the maximum average concentration of a hazardous material in the workplace to which workers can be exposed during an eight-hour work day and 40-hour workweek, over a working lifetime, without experiencing significant adverse health concerns.

III. General Principles

A. Control Measures

CCM will minimize exposure to hazardous materials by elimination or substitution with less hazardous materials. CCM uses laboratory hoods or other ventilation devices to control airborne release of materials to the laboratory. Employees wear appropriate personal protective equipment (PPE) to prevent exposures (e.g. goggles, gloves). See Appendix A for the Job Hazard Analyses that identify PPE for each job classification.

B. Safety Data Sheets and Inventory

Each laboratory is responsible for maintaining an inventory of hazardous chemicals. CCM maintains safety data sheets (SDS) for each chemical or product in an on-line database, accessible to all employees, on CCM's website at https://ccm.kha.com/. In the event of an emergency, staff, faculty or students can also contact CCM's Department of Public Safety at 973/328-5550 to obtain an SDS from the online database.

C. Employee and Student Training

CCM employees who work with hazardous chemicals in a laboratory receive initial Laboratory Safety training which includes the CCM Chemical Hygiene Plan. Additional safety training on specific hazards or laboratory equipment is provided by the department as needed.

Students receive laboratory safety training at the beginning of each semester. Course syllabi include safety precautions and personal protective equipment requirements for students.

D. Housekeeping

Laboratories are to be maintained in a clean and orderly condition. Work areas are to be maintained free from obstructions, and cleaned at the end of each operation or at the end of each day. Aisles, doorways, exits and access to emergency equipment including fire extinguishers, safety showers and eyewashes must also be clear of obstruction.

Sinks should be empty of dirty glassware. Chemicals should be properly shelved and segregated. Chemical wastes should not be accumulated within the laboratory, but must be labeled in proper containers and moved to the waste storage room.

E. Prohibitions

- Eating, drinking, smoking, vaping, gum chewing or applying cosmetics is not permitted in the laboratory.
- Do not store food in refrigerators designated for chemical storage.
- Avoid distracting or startling another employee or student. Practical jokes or horseplay is prohibited.
- Shorts and sandals should not be worn in the laboratory. Hair longer than shoulder-length should be tied back.
- Contact lenses should not be worn in the laboratory. Wear prescription glasses.
- Do not use mouth suction for pipetting or starting a siphon.

F. Eyewash Equipment and Glassware

Handle laboratory glassware with care and dispose of damaged items in broken glassware bins. Wear cut resistant gloves when inserting glass tubing into rubber stoppers or corks or when placing rubber tubing on glass hose connections. Handle vacuum-jacketed glass apparatus with extra care. Dewar flasks should be wrapped or shielded.

G. Emergency Equipment

Eyewashes are to be flushed weekly by laboratory personnel and safety showers tested at least quarterly. Fire extinguishers are inspected monthly by the Department of Public Safety. Emergency stops are to be tested by laboratory personnel at least annually.

H. Working Alone

Hazardous procedures are not to be performed alone in a laboratory.

IV. Chemical and Waste Management

A. Procurement

Before any new hazardous chemical is ordered, staff must complete an evaluation to determine proper handling, storage and disposal. The SDS for the material must be obtained and reviewed prior to the hazardous chemical being stored or used at CCM. Proper protective equipment and handling and storage procedures should be in place before receiving a shipment. A copy of the SDS is submitted to the Chemical Hygiene Officer to be added to the on-line SDS database and department inventory. The minimum quantity of chemicals needed for the laboratory should be purchased and maintained to avoid excess accumulation. Only containers with adequate identifying labels will be accepted. Shipments with breakage or leakage should be refused or opened in a laboratory hood.

B. Storage

Hazardous chemicals should be separated and stored according to hazard category and compatibility in a storage room with at least six air changes per hour. Oxidizers, reducing agents, and fuels should be stored separately to prevent contact in the event of an accident. Chemicals should be stored on storage trays or secondary containment to minimize distribution in the event of container leak. Containers should be dated upon receipt and upon opening.

Flammable liquids must be stored in flammable cabinets. Grounding and bonding should be used to prevent static charge buildups when dispensing solvents. Refrigerators used for storage of flammable chemicals must be explosion-proof.

Keep working quantities of chemicals in the laboratory to the smallest amount possible. Additional quantities must be stored in a chemical storage area or cabinet. Storage on bench tops and in hoods is not advisable. Place flammable and corrosive material not in use in approved cabinets.

C. Transport

When chemicals are hand carried, they should be placed in a secondary container to prevent against breakage and spills. Use bottle carriers for transporting glass containers. When transporting chemicals on a cart, do not overload the cart and do not transport the cart on an elevator with other passengers.

D. Labeling

Each laboratory at CCM ensures that all containers of hazardous chemicals are properly labeled as required by OSHA's Hazard Communication Standard and New Jersey's Right to Know program. Labels are updated as necessary if they become illegible, fall off the container or are obscured in any manner. All incoming containers will be checked for proper labeling requirements when received by the laboratory. All laboratory employees have been trained in the Global Harmonization System (GHS) and CCM has implemented a labeling system for all secondary containers.

Employees transferring hazardous chemicals from a labeled container to a portable or process container intended for only their immediate use during the work shift do not have to label the container. If the portable container is stored beyond the employee's shift or will be used by other workers, the employee must label the portable container with GHS and NJ Right to Know labeling requirements.

Minimally the secondary label must include the following GHS labeling elements:

- Identity of the chemical or product
- Signal Word (Danger or Warning)
- Hazard Statement
- Pictogram(s) – note that secondary container pictograms can have black borders.

In addition, the secondary label must include the following NJ RTK labeling elements for all hazardous substances and the five predominant ingredients:

  - Chemical Name
  - Chemical Abstract Registry (CAS).

E. Waste Management

Waste should be minimized as much as possible by reducing the scale of operations and substituting less hazardous chemicals where possible. Only the amount of material necessary for an experiment should be purchased, and, if possible, materials should be reused.

Collect each chemical waste type in compatible containers labeled as "Hazardous Waste". The container should be kept sealed when not in use. Date the container when full and transfer the container to the Waste Storage Room in DeMare Hall Room 150. Chemical waste should not be disposed off by evaporation in a chemical hood.

The Laboratory Coordinator will maintain a list and quantity of each type of waste transferred to storage. The monthly totals of hazardous waste quantities will be tracked to ensure continued documentation as a "Very Small Quantity Generator" of hazardous waste as defined by NJ. Department of Environmental Protection.

V. Procedures for Flammable Chemicals

The flashpoint of a flammable liquid is the lowest temperature at which it can form an ignitable mixture with air and produce a flame when a source of ignition is present. Flammable liquids are those liquids with a flash point below 100 degrees Fahrenheit and a vapor pressure that does not exceed 40 psig at 100 degrees F. Flammable liquids should be handled only in areas free of ignition sources.

Flammable liquids should never be heated by using an open flame. Preferred heating sources include steam baths, water baths, oil baths, heating mantles, and hot air baths.

Use an exhaust hood whenever appreciable quantities of flammable liquids are transferred from one container to another. The hood will capture chemical vapor and the hood sash, when kept closed as much as possible, acts as a shield in case of chemical splash.

Flammable liquids must be stored in flammable liquids storage cabinets. The flammable storage cabinets must have all bungs plugged or connected to exhaust. The cabinet doors must be closed and latched using the original manufacturer hardware. A refrigerator used for flammable liquid storage must be a Laboratory-Safe refrigerator.

VI. Procedures for Peroxide-Forming Chemicals

Peroxide forming chemicals can form shock-sensitive and explosive peroxide crystals that can be triggered by friction or shock. Limit the quantity of peroxide-forming chemicals in storage to the minimum amount needed.

Store peroxide-forming chemicals in airtight bottles, away from light and heat. Avoid using containers with loose-fitting lids and ground glass stoppers.

All containers of peroxide-forming materials must be labeled with the date received and the date the container was opened. If a container of a peroxide-forming material has crystallization, discoloration or stratification it may indicate the material has become shock sensitive. Do not move the container. Contact the Environmental Safety Coordinator or the Department of Public Safety.

Below are **examples** of peroxide-forming chemicals which have been used/stored by CCM and the recommended safe storage period:

Potassium metal – if unopened, can be stored up to expiration date. After opening, discard or evaluate for peroxides within **3 months.**

Cyclohexanol – if unopened, can be stored up to expiration date. After opening, discard or evaluate for peroxides within **12 months.**

Dicyclopentadiene - if unopened, can be stored up to expiration date. After opening, discard or evaluate for peroxides within **12 months.**

Diethyl ether - if unopened, can be stored up to expiration date. After opening, discard or evaluate for peroxides within **12 months.**

2-Propanol - if unopened, can be stored up to expiration date. After opening, discard or evaluate for peroxides within **12 months.**

VII. Procedures for Corrosive Chemicals

Use extreme care when handling and pouring corrosive materials (pH of 4.0 or lower or a pH of 9 or higher).

- Do not store corrosive chemicals above eye level.
- Work with corrosive chemicals inside a chemical fume hood.
- Store corrosive chemicals in corrosion-resistant cabinets or on plastic trays.

- If a strong acid or alkali comes in contact with skin or clothing, wash the affected parts quickly and thoroughly with large quantities of water and then seek medical attention.
- If a strong acid or alkali is splashed in the eyes, flush the eye with a continuous stream of water for at least 15 minutes, and then seek medical attention immediately.

VIII. Procedures for Particularly Hazardous Substance (PHS)

A. Classification

Work with a particularly hazardous substance (PHS) requires risk assessment and additional provisions for employee protection. PHS's include select carcinogens, reproductive toxins and substances with a high degree of acute toxicity. A chemical is considered to be a PHS if it meets one or more of the classifications below:

Select Carcinogens:

- GHS Carcinogenicity Category 1A or 1B, or
- International Agency for Research on Cancer Monographs (IARC) Group 1, or
- National Toxicology Program (NTP) "Known to be a Human Carcinogens" or
- OSHA-listed carcinogens, or
- GHS Category 2 and IARC Group 2 (A or B), and NTP "Reasonable Anticipated to be Human Carcinogens".

Reproductive toxins:

- GHS Category 1A or 1B for reproductive

toxicity.

Chemicals having high acute toxicity:

- GHS Acute Toxicity by Inhalation or Dermal exposure Category 1 or 2
- GHS Acute Toxicity by Oral exposure – Category 1
- Specific Target Organ Toxicity – Single Exposure – Category 1
- Skin or Respiratory Sensitizer – Category 1A.

B. Standing Operating Procedure

Prior to working with a PHS, CCM lead faculty will identify the intended use, laboratory steps, and proposed work practices and PPE requirements on a draft Standard Operating Procedure (SOP) and forward the draft to the Chemical Hygiene Officer for review. Once reviewed by the CHO, the SOP will be distributed to faculty and staff who will communicate the hazards, work practice and PPE requirements to students.

In general, if students will be working with a PHS they should receive additional safety instruction and have direct, continual supervision.

A suggested template for the SOP is provided in Appendix D. Provisions included in the SOP may include:

Designated Area
When using a PHS, establish a designated area (laboratory room, chemical fume hood, glove box, etc.). Label the designated area by posting warning signs (e.g. Particularly Hazardous Substance in Use- Authorized Personnel Only) to ensure unauthorized persons remain clear of potential contamination.

Containment Devices
Select and use containment devices for PHS handling. Open handling of PHSs should be performed in a chemical fume hood, negative pressure glove-box, vented balance enclosure or similarly effective containment device.

Contaminated Waste Procedures
Store contaminated waste in closed, appropriately labeled, impervious containers. Follow the waste procedures outlined in section IV. E.

Decontamination Procedures
Clean potentially contaminated surfaces when work is completed (i.e. at least daily). Return the PHSs to their designated storage areas, using secondary or non-breakable containers, when work is completed. Ensure that vacuum pumps, glassware, and other potentially contaminated equipment are decontaminated before removal from designated areas. Ensure that equipment is decontaminated before being handled by unauthorized personnel (e.g. outside support groups). Wash protective gloves and hands frequently to remove contamination. Use procedures to minimize skin contamination during PPE removal.

IX. Autoclaves/Sterilizers

Ensure the autoclave/sterilizer door is closed and locked before beginning the cycle. Use caution while handling or sorting hot sterilized items or sharp instruments, and use caution when removing them from autoclaves/sterilizers.

Use appropriate hand protection when exposed to cuts, lacerations or thermal burns. Avoid handling the sharp ends of instruments. Use forceps or other tools to remove sharp instruments from baskets and autoclaves. Do not remove items from the autoclave/sterilizer until they have cooled.

X. Ventilation

Chemical fume hoods should be used for laboratory operations which could potentially produce gases, vapors or fumes exceeding the PEL or TLV. Do not use chemical fume hoods as permanent storage areas for chemicals. Before any laboratory work in a chemical fume hood begins, the employee or student will be trained on proper use, how to ensure it is functioning properly, the consequences of improper use, and what to do in the event of an alarm or power outage.

Chemical fume hoods will be inspected and tested for adequate face velocity on an annual basis. Reports of hood inspections and testing are maintained on file with the Laboratory Coordinator.

XI. Exposure Monitoring

Initial employee exposure monitoring will be performed when there is reason to believe that exposure levels for OSHA regulated substances may exceed the action level (or in the absence of an action level, the Permissible Exposure Limit (PEL). The Chemical Hygiene Officer will coordinate the exposure monitoring. Employees will be notified in writing of exposure monitoring results within 15 days after the results are received by CCM. The results may be provided to employees in writing individually or by posting results in an appropriate location accessible to employees.

If the initial monitoring discloses employee exposure above the action level (or PEL), CCM will immediately comply with the exposure monitoring provisions of the relevant standard.

Examples of substances used in the laboratory for which there is a separate OSHA standard include:

- Formaldehyde
- Methylene chloride.

XII. Medical Consultation

CCM shall provide employees who work with hazardous chemicals medical attention including follow-up examinations which the medical provider determines is necessary under the following circumstances:

1. Whenever an employee develops signs and symptoms associated with a hazardous chemical to which he/she may have been exposed, the employee shall be provided an opportunity to receive a medical examination, and if necessary, medical treatment. The exposure will be reported to Public Safety, and CCM's "Employee Work Related Accidents, Injuries or Illnesses Reporting Requirements" will be followed.
2. When exposure monitoring reveals an exposure level routinely above the action level, or in the absence of an action level, exposure above the PEL for regulated substances for which there are medical monitoring and medical surveillance requirements, medical surveillance shall be established for that employee.
3. Whenever an event takes place in the work area, such as a spill, leak, explosion or other occurrence resulting in the likelihood of a hazardous exposure, the affected employee shall be provided an opportunity for a medical consultation. The consultation is to determine the need for a medical examination.

Medical examinations and consultations are provided by FastER Urgent Care, Morris Plains, NJ. All aspects of these examinations are provided by a licensed physician, or supervised by a licensed physician. These examinations are provided without cost to the employee, without loss of pay, and at a reasonable time and place.

CCM will provide the following information to the physician:

- An SDS for the hazardous chemical to which the employee may have been exposed.
- A description of the conditions of the exposure including exposure date if available.
- A description of signs and symptoms of exposure that the employee is experiencing.

CCM will obtain a written opinion from the physician which includes:

- Any recommendation for medical follow-up.
- The results of the medical examination and any associated tests.
- Any medical condition which places the employee at increased risk as a result of exposure to a hazardous workplace.
- A statement that the employee has been informed of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.

XIII. Emergency Procedures

A. Spills

For all spills, contact Public Safety at x-5550 to notify them of the release. Move away from the area while determining the appropriate response. Laboratory personnel may clean up simple spills using appropriate PPE and in-house spill response materials. A **simple** spill is one that:

- Does not spread rapidly
- Does not endanger people or property except by direct contact, and
- Does not endanger the environment.

For **complex** spills, contact Public Safety at x-5550 who will notify the Morris County HazMat Response Team (9-1-1). Laboratory personnel and/or Public Safety will block off the area and direct people around the area or away from it. If the material is in a room, the door is to be closed. Lock the door if you are not able to wait for Public Safety to respond. A fire alarm pull station should only be used if the hazardous material is gaseous and poses an immediate danger to others in the building if it spreads.

Recommended procedures for cleaning up **simple spills**:

1. Notify Public Safety of the spill.
2. Don the appropriate personal protective equipment including eye protection, protective gloves and lab coat.
3. Prevent the spread of dusts or vapors by closing the laboratory door and increasing ventilation if possible. Prevent the spread of liquid by making a dike around the edges of the spill using absorbent materials.
4. Neutralize acids and bases if possible using spill kits located in SH260, SH265, and SH269. Acid spills can be neutralized with soda ash or sodium bicarbonate, and bases with citric acid or ascorbic acid.
5. Absorb the liquid working from the outer edges of the spill toward the center.
6. Collect and contain the cleanup materials, including neutralized spill residue or absorbent in a plastic bucket or other container. Double bag any dry materials.
7. Label the waste containers or bags with “Hazardous Waste” with the date, and place in the storage area in DH150.
8. Decontaminate the area and affected equipment.

B. Accidents and Injuries

During a medical emergency, call 911 or Public Safety at extension 5550 (973-328-5550) from a cell phone. Give your location and a brief description of the incident, including type of injury or illness taking place. Remain on the phone if possible and allow others to attend to the injured.

For eye or skin contact with hazardous materials, remove any contaminated clothing and flush the area with water for 15 minutes. Eyewashes and safety showers are located in the laboratories where hazardous chemicals are handled, with locations highlighted by wall or ceiling mounted signs.

C. Fire

In the event of a fire, activate the nearest fire alarm pull station located at the exits of the building. Fire extinguishers are located throughout all buildings with locations highlighted with a wall and/or ceiling mounted sign and should be used if needed to aid egress or rescue.

XIV. Compressed Gas Safety

A. Storage

Gas cylinders should be secured to a wall, bench or other firm support, or secured in a cylinder stand. Gas cylinder caps should be left on a cylinder until it is secured and ready for use.

B. Handling

Close the main valve when moving cylinders. Remove regulators from cylinders when in transit. Do not loosen or remove the safety plug or rupture disc. Never tamper with cylinder safety devices.

Only make changes of a regulator or fitting to a different gas after suitable piping and fittings have been installed. Regulators may not be interchanged between different types of gases. Oxygen tank regulators and fittings must never be oiled or greased. Acetylene tanks must not have copper fittings.

The cylinder cap may only be removed to expose the valve once the cylinder is secured. Limit the number of cylinders in a laboratory and only use them in well-ventilated areas. Toxic, flammable, and corrosive gases should be handled in a hood.

C. Use

Check the cylinder for proper identification (stencil or label, DOT label) on the body of the cylinder and a valve protection cap. Do not use a cylinder that is not properly identified, or has a label only affixed to a cap. Color codes used on some cylinders are not standardized. Cylinders should be labeled with the appropriate CAS number.

Before using the cylinder, read all label and safety information on the gas being used. Check SDS for proper safety equipment and PPE to use.

At shutoff, always shut off main tank valve to bleed out lines. With flame mixtures, oxygen or air is turned on first and off last.

D. Precautions

All cylinders of flammable compressed gases should be grounded before the valve is opened and during use.

Appendix A

Personal Protective Equipment Hazard Assessment: Biology/Chemistry

Description of Job & Tasks: To provide supplies and prepare the biology and chemistry department labs for the students and instructors.

Titles Include: Supervisor, Lab Assistant I, Student Workers

Tasks:

- Order, store, handle and dispose of hazardous materials and biological waste.
- Transport hazardous materials to waste storage room.
- Receive and store compressed gas.
- Operate autoclave.
- Maintain and use scientific equipment such as but not limited to hot plates, microscopes, pH meters, knives, hoods, and balances.
- Assist students with use of computers/related equipment.
- Maintain cultures.
- Wash glassware.

Hazards/Exposure:

- Exposure to hazardous materials chemicals, including flammable chemicals, used in laboratory analysis.
- Exposure to chemical and biological waste.
- Exposure to heat (autoclave, hotplates).

Administrative Controls:

- Training – Laboratory Safety.
- Training – Compressed Gas Safety.
- Training – Personal Protective Equipment.

Engineering Controls:

- Laboratory hoods.

Personal Protective Equipment:

Body:	**Lab coats/ aprons** when handling chemicals.
Hand:	**Chemical resistant gloves** when handling chemicals. See safety data sheets and glove chart for recommended type.
Face/Eye Protection:	**ANSI Z-87** rated safety glasses for particle exposures and goggles or faceshield over safety glasses for splash exposures.
Foot Protection:	**ASTM F2413 I75/C75** rated shoe with steel or composite toe recommended when transporting large/heavy amounts of materials

Appendix B

Glove Selection Chart

Glove material	Usage	Recommended for	Not recommended for
Nitrile	Incidental contact	Solvents, oils, greases, some acids and bases	Aromatic solvents, many ketones, esters, many chlorinated solvents
Latex (can cause latex allergies)	Incidental contact	Biological and water based materials	Organic solvents
Butyl rubber	Extended contact	Good for ketones and esters	Gasoline, aliphatic, aromatic and chlorinated hydrocarbons
Neoprene	Extended contact	Acids, bases, alcohols, fuels, peroxides, glycol ethers, hydrocarbons and phenols	Halogenated and aromatic hydrocarbons, chlorinated solvents
Poly –Vinyl Alcohol	Specific Use	Aromatic and chlorinated solvents, ketones (except acetone) esters, ethers	Acids, alcohols, bases, water-based solutions
Poly-Vinyl Chloride	Specific Use	Acids, bases, oils, fats, peroxides, and amines, alcohols, glycol ethers	Aliphatic, aromatic and chlorinated solvents, aldehydes, ketones, nitrocompounds

Appendix C

County College of Morris

Laboratory Safety

Departmental Training Verification Form

Department Specific Hazards and Procedures Review To be completed by employee's supervisor/designated trainer
Employee Name:
Job Title:
Department:
The employee identified above has received a review of the following department specific hazard communication information: ___The location of and means of access to the *CCM Chemical Hygiene Plan* and the hazardous chemical inventory for the department (RTK Survey); ___The location of the CCM Safety Data Sheet management system on the CCM website ___The hazardous chemical container labeling systems used within the department; ___The health and physical hazards of the chemicals used within the department (either chemical specific or by hazard group); ___The exposure control methods/procedures in place including engineering, work practice and personal protective equipment (PPE); ___The use and availability of personal protective equipment; ___ Location and use of emergency stops and gas shut offs ___ Proper use of a laboratory hood ___ Procedures to follow in emergency situations: ___Evacuations ___Injuries/Illnesses ___Chemical spills ___Locations of safety equipment: Emergency safety showers and eyewashes ___Location of pull stations and emergency call boxes
Supervisor/designated trainer name (print):
Supervisor/designated trainer's signature:
Employee signature:
Date:

Return a copy of the completed form to:

Environmental Safety Coordinator, Department of Public Safety, Building 675

Appendix D

Standard Operating Procedure for Particularly Hazardous Substance Use

Faculty Name: _____

Course Name: _____

Laboratory Procedure: _____

PHS(s) Used in Procedure: _____

Other Principal Chemicals Used: _____

_____

Brief Description of Laboratory Operation/Experiment:

Step:	**Hazards:**	**Precautions:**
1.		
2.		
3.		
4.		
5.		
6.		

Personal Protective Equipment:

Designated Area:

Decontamination Procedure:

Submit to Environmental Safety Coordinator, Department of Public Safety, Building 675

Reviewed by Chemical Hygiene Officer Signature:_____Date:_____