Hazardous Waste and Spill Response Plan

Safety Officer , Cory Feller: 683-8633

Rev: May 4, 2023

NORTHLAND
COMMUNITY & TECHNICAL COLLEGE

I. EMERGENCY TELEPHONE NUMBERS

A. POLICE 911
B. FIRE 911
C. AMBULANCE 911
D. MPCA SPILLS HOTLINE (24 Hours)..... 800-422-0798
E. NATIONAL RESPONSE CENTER (24 hours) 800/424-8802

PURPOSE

The purpose of the Hazardous Material Spill Response Plan is to minimize the likelihood of hazardous materials from endangering College employees and the surrounding environment. This plan outlines ways to reduce hazardous materials from being used and stored at the College and to be able to adequately control materials if they are spilled from their original container.

WASTE MANAGEMENT HIERARCHY

The following list outlines the waste management practices implemented at the College:

1) Prevent the formation or production of pollutants at the source.
2) Reuse or recycle any wastes that cannot be prevented.
3) Provide treatment for any wastes that cannot be prevented or recycled.
4) Ensure the safe release or disposal of any residuals that cannot be prevented, recycled or treated.
5) All Science Chemical Waste will be picked up by the University of Minnesota Hazardous waste pickup

The main goal of Hazardous Waste Management is to prevent the procurement of hazardous materials or the creation of a hazardous waste to begin with, but if that cannot be accomplished, the facility must be able to minimize and properly dispose of the waste that is generated.

WASTE MINIMIZATION

The following options are ways to reduce the amount of Hazardous Waste generated

1) **Waste-stream Segregation:** Mixing hazardous waste with other waste creates a bigger waste problem. Waste stream segregation is an extremely easy way and important method to cut back on the amount of hazardous waste generated. Waste segregation also makes it easier to reuse and recycle wastes.

2) **Good Housekeeping:** Careful operating and transferring can help prevent spills and leaks. Careful monitoring can help keep down waste generation from preparing excess raw materials or from careless use of products and materials. Check to see if all of the equipment is running properly. Are there leaks in the system that causes waste?

3) **Inventory Control:** Improve the inventory management practices so you don't overstock and end up with expired materials. Get purchasing agents involved. Buying in bulk might not be such a good deal once the cost of hazardous waste disposal of unused surplus is taken into account. Often chemicals unwanted and unused in one Department can be used in another. Many business and organizations have set up formal systems of advertising surplus products throughout the facility. Surplus chemicals or products do not become wastes until you choose to discard them.

4) **Material Substitution:** Substitute non-hazardous materials for hazardous materials whenever possible, for example, several manufacturers are marketing alternatives to solvent based cleaners. Substitute water-based paints for oil or solvent based paints. Often a product that creates a hazardous waste is used simply because it is more convenient, it is traditional, or it is promoted by a certain supplier. When a variety of products can be used to perform the same job, the least hazardous product should be chosen. Encourage suppliers to provide products that do not become hazardous wastes.

5) **Reduce Waste Through Improved Operations and Process Modifications:** Have production and maintenance staffs look for ways to improve the efficiency of the current operations and reduce waste. The College should always be on the look out for new processes that do not create hazardous waste. If there is thought of purchasing new machinery or a change of process in some way, factor waste generation into the decision. A process that creates less hazardous waste or that recycles hazardous waste as an integral step in the process can result in significant savings. At the same time, liabilities will be limited. Many companies have discovered equipment and process changes that reduce waste generation often have payback periods of less than one year.

6) **Product Design:** Consider manufacturing a new product or redesigning the existing line. Get research and development along with marketing people involved. They may be able to design a product that uses less toxic and hazardous materials and that will create less waste and pollution in its production, use and disposal. Designing "clean" and "environmentally friendly" products can open new markets and reduce your long-term waste management costs and liabilities.

7) **Recycling:** Many wastes are amenable to recycling or reclamation. Since recycling is an important and generally an environmentally sound waste management option for generators, certain types of recycling activities are exempt form licensing if the activity conforms to specific standards. The College should note these exemptions apply only to the licensing of the recycling activities itself; any applicable generator rules must still be complies with. The law defines three different types of recycling:

    a. **Legitimate recovery or reclamation:** the regeneration of a hazardous waste to remove contaminants so the material can be put to further use; the processing of a hazardous waste to recover usable materials; the regeneration of waste to its

original form. Examples include silver recovery form photographic waste and solvent distillation.

b. **Beneficial use or reuse:** the use or reuse of hazardous waste as an ingredient or feed in a production process or the use of hazardous waste as a substitute for materials or commercial chemical products.

c. **Legitimate burning:** the burning of a hazardous waste in an industrial boiler, utility burner or industrial furnace (such as cement kiln or lime kiln) for the purpose of energy recovery. The boiler or furnace must be designed for energy recovery and the waste must have minimum heat content. Burning simply for the purpose of destruction is not considered recycling. Burning facility must be registered with the MPCA.

If the College wants to engage in legitimate recovery or reclamation, they do not need to apply for an exemption to a treatment license providing they meet specific standards. Such standards include maintaining an operating log and making regular inspections.

Depending on the size of the facility and how much waste is generated, recycling may be a good way to reduce the overall disposal costs. On-site solvent recovery is the most commonly practiced form of recycling among small businesses.
For more specific information on the recycling requirements, contact the local MPCA office

Reducing waste does not refer just to hazardous waste. The principles outlined above are simply good business sense and apply to all aspects both business and facility management. Reducing operating costs on everything from energy to pencils to waste disposal costs is not a new idea. Many businesses, however, do not routinely take into account their waste disposal costs and the cost of valuable raw materials that are wasted when calculating their operating expenses.

Once these costs are understood, it becomes clear that source reduction is the optimum management strategy. Make sure everyone in the College is aware of this as well.

RESPONSIBLE INDIVIDUALS

The following list indicates the individuals who are responsible for the overall safety and security of hazardous materials used and stored in their respective workplaces/areas. These Responsible Individuals are also accountable for the control and/or reporting of accidental or intended spill or release of hazardous materials:

- **Automotive Department – Mark Johnson**
- **Science Department – EGF/TRF campus - Kristel Kizer**
- **Auto Body Department – Kent Wagner**
- **Maintenance Department – EGF/TRF campus – Clinton Castle**
- **Grounds Department – TRF campus - Shannon Boen**
  EGF campus – Blake Boen

- **Aviation Department – Aerospace site - Curtis Zoller**
- **Biology Department – TRF campus – Richard Johnson**
  EGF campus - Jeffrey Bell

HAZARDOUS MATERIAL CONTAINMENT PREPARDNESS

The facility must be prepared to handle a hazardous material spill in the event material spill occurs. The facility must have the following in place to appropriately deal with possible spills:

1) This facility **must** have spill containment equipment available to control hazardous materials present in the building. If this facility does not have spill control equipment available to properly control materials, then the hazardous material should be removed form the facility or proper control equipment obtained.

2) Responsible Individuals (employees who oversee activities or areas with hazardous materials) **must** be ready to implement a spill control action as soon as hazardous materials are spilled with in the facility.

3) Training and practice spill containment drills **must** be run with regularity to allow Responsible Individuals the experience and knowledge to properly control spills.

4) Not every material spill will fit a textbook definition, so Responsible Individuals **must** posses the ability to think on their feet and follow proper procedures for control and reporting the spill incident.

5) The following items **must** be in place in order for hazardous materials to be properly controlled in the workplace:
   - An inventory of all chemicals (includes hazardous materials) **must** be found in the immediate workplace
   - All chemical containers **must** be properly labeled with the chemical identity, associated hazards and chemical manufacturer
   - All hazardous materials **must** be properly handled, transported and stored to avoid accidental release (for example, compressed gas cylinders must be transported in a chained cylinder cart)
   - A Safety Data Sheet (SDS) is available on the intranet by all employees in the college.

HAZARDOUS MATERIAL SPILL CONTAINMENT AND RESPONSE

In the event there is a hazardous material spill or release, the College should follow these general procedures:

1) **If there is a hazardous material spill and the responsible employee believes they cannot properly control the material from leaving the facility (floor drain) or they believe they or others are in physical danger, the immediate area (and possibly the**

entire facility) should be evacuated and proper emergency response agencies contacted immediately.

2)
   a. Local Fire Department/Hazardous Material Response Team – call 911
   b. Local Department of Natural Resources Office – 800-657-3929
   c. MPCA Spills Hotline / Minnesota Duty Officer (24 hours) – 800-422-0798
   d. National Response Center (24 hours) – 800-424-8802

3) If a material spill can be adequately controlled at the time the spill occurs, the Responsible Individual will take appropriate action to do so.

4) Spilled liquid materials will be absorbed with a non-reactive substance (non-reactive absorbent used for acid spills) to control the release of the hazardous material to the environment. The use of chemical "pigs" would prevent liquids from running down into floor drains and entering the outside environment.

5) Spilled reactive or toxic metals (for example, sodium and lead metals respectively) must be dealt with individually and appropriately.
   a. Reactive metals must be immediately placed into a medium which it remains in a non-reactive state (sodium metals placed back into kerosene)
   b. Toxic metals (lead and silver) must be placed in a container to eliminate physical contact with the metals and store it until proper disposal.

6) Spilled material must be properly collected and stored so that it can be properly disposed of. The absorbent material used to control the hazardous material has now become part of the hazardous material. Proper equipment must be readily available to use for collection (for example, plastic shovels to pick up flammable liquids mixed with absorbent materials to prevent a spark and subsequent fire). Proper storage containers must be readily available to use and store materials for lengths of time. Sealable plastic containers for storage of flammable liquid waste and non-corrosive containers for storage of corrosive waste.

7) All storage containers that house hazardous waste must be properly labeled with hazardous waste identity, waste number, and date of storage when storage container is full.

8) All hazardous material spills must be documented and reported (to facility Administrators) even in the event of a minor spill. Hazardous material spill documentation must included:
   a. Where material spill occurred,
   b. When material spill occurred,
   c. What material was spilled,
   d. The quantity of material spilled,
   e. The Responsible Person controlling the spill,
   f. What actions were taken to control spill,

g. Was there any material released to the outside environment,
h. The hazard posed to Responsible Person controlling spill and any other individual possibly exposed to material spilled,
i. Person spill was reported to (list all if more than one),
j. Ways to prevent such a spill in the future.

9) Hazardous material spill reporting procedures must include the following:
   a. Reporting the spill incident to the affected Department Head or immediate Supervisor.
   b. Reporting the spill incident to the Director of Facilities & Safety Officer
   c. Reporting the spill incident to the respective building Principal,
   d. Reporting the spill incident to the College President,
   e. Reporting the spill incident to the appropriate responding authorities, if necessary (Fire Department, MPCA, etc…)

Standard Operating Procedure

All waste is managed through a designated Hazardous Waste Coordinator for the college. Northland's Hazardous Waste Coordinator is the Safety Officer, with support from the Directors of Facilities on each campus.

This standard operating procedure identifies steps involved from acquisition of products that produce waste through the disposal of said waste.

I. Hazardous Waste Site ID Numbers

1. East Grand Forks Campus – MND981190218
2. Thief River Falls Campus – MND119844488
3. Aerospace Site – MND982072589

II. Definitions

Hazardous Waste - Hazardous waste means any refuse, sludge, or other waste material which because of its quantity, concentration, or chemical, physical, or infectious characteristics, may pose a substantial hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. Categories of hazardous waste materials include, but are not limited to: explosives, flammables, oxidizers, poisons, irritants, and corrosives.

Universal Waste - Universal wastes (UW) are a subset of hazardous wastes that may be managed under reduced requirements. These wastes are referred to as universal because, at some point, almost every business, non-profit organization, and government agency generates them. Universal wastes include: batteries, lamps, mercury-containing equipment, and pesticides.

Infectious Waste – Infectious waste poses an environmental danger due to its *biological* risk. Examples include liquid blood or body fluids from humans or research animals, wastes which will release blood or body fluids when compressed, contaminated sharps from human or any animal use, infectious cultures, and contaminated laboratory items used to manipulate those cultures.

III. Employee Training

1. Employees who work in departments that produce waste are required to complete annual hazardous waste safety training. The training is available online located in the State of Minnesota Self Service portal. This training will ensure employees are aware of proper waste handling and emergency procedures relevant to their position responsibilities. (Training in Hazardous Communications for an SQG, etc.)
2. Employees whose position responsibilities include waste management and signing of manifests are required to take additional hazardous waste safety training to ensure they are familiar with proper waste management and emergency procedures. (Training provided by MinnState (ELM).)

IV. Acquisition of Product (including donations)

1. Employee acquires material, product, or chemical that produces waste that must be managed.

2. Employee obtains Safety Data Sheet (SDS) and completes a GroupLink ticket to Safety Officer to upload SDS.
3. Safety Officer uploads SDS to the online database.
4. Northland will not accept a donated product with a definition of hazardous waste as defined by Minnesota Pollution Control. Employees need to be cognizant of difference and definition of hazardous waste versus educational product in the acceptance of donation.

V. Programs/Departments Which Produce Waste

Below is a list of programs/departments that produce waste. This list is reviewed annually.

Department/Program	Waste Produced	Waste Category	Campus
Animal Science	Sharps, Dissect specimens	Infectious	TRF
Autobody	Paint waste/ Paint Booth Filters	Hazardous	TRF
Autobody	Antifreeze	Sewered	TRF
Automotive	Antifreeze	Sewered	TRF
Automotive	Used Oil/Oil Filters/Partswashers	Universal/Hazardous	TRF
Aviation Maintenance	Booth filters and painting wastes/Parts washers	Hazardous	Aerospace
Biology	Dissect specimens	Sewered	EGF/TRF
Biology	Infectious Waste	Infectious	EGF/TRF
Biology	Stain/Reagents/Slide Fixer	Hazardous , Sewered	EGF/TRF
Chemistry	Chemical Waste	Hazardous , Sewered	EGF/TRF
Electronics	Solvent Rags	Hazardous	TRF
Facilities	Used Fluorescent Bulbs	Universal	EGF/TRF/Aerospace
Facilities	Used Oil/Oil Filters	Universal	EGF/TRF/Aerospace
Fire Technology	Solvent Rags	Hazardous	EGF
Mechatronis	Solvent Rags	Hazardous	EGF
Nursing	Sharps	Infectious	EGF/TRF
Precision Agriculture	Parts washer, Used Oil	Hazardous	TRF

VI. Waste Storage

Northland does not have a centralized waste storage site. All waste is stored in individual satellite storage sites. Each satellite storage site is equipped with the necessary spill control equipment.

1. Satellite Storage Locations

Program/Department	Campus	Waste	Site Location
Autobody	TRF	Paint Waste	Inside paint mixing room. Managed by Safety Kleen.
Chemistry	TRF	Chemical Waste	Glass container on instruction counter along east wall.

Chemistry	EGF	Chemical Waste	In fume hood on east wall of lab.
Aviation Maintenance	Aerospace site	Paint Waste	In paint booth. Managed by Safety Kleen.

2. Containers –Containers must properly close and be composed of a material that can secure the contents in the event of a tip over or spill.
3. Labeling - Satellite storage sites must have appropriate labeling in accordance with Minnesota Pollution Control Agency (MPCA) regulations.
    a. Labels must include:
        i. Container Contents
        ii. Accumulation Start Date
        iii. Capacity Date (Full)
    b. Labels must be on all exposed sides and clearly visible.
    c. Labels must be in good condition and completely legible.
4. Inspections
    a. All satellite storage sites must be inspected weekly and recorded on a standardized inspection log.
    b. Inspection logs are to be submitted to the Safety Officer for permanent recordkeeping at the end of each semester. Employees are encouraged to retain copies for their records.
    c. All substantial leaks must be reported to the Safety Officer.

VII. Waste Vendors

Containers provided by waste vendors will meet MPCA labeling requirements. Containers provided by Northland will be the responsibility of Northland to ensure proper MPCA required labeling. Special projects requiring additional containers will need to be planned for and requested in advance. To ensure containers for special projects are available when needed, employees are to create a GroupLink Ticket.

Department/Program	Waste Products	Providing Containers	Action Needed	Schedule
Animal Science	Sharps	Northland	Healthcare Environmental Services, Inc. (**HESI**)	As Needed
Autobody	Paint Waste	Safety Kleen	Safety Kleen Replaces container	As Needed
Aviation Maintenance	Used Oil Filters	Northland	Pick up – Safety Kleen	As Needed
Aviation Maintenance	Used Oil	Northland	Pumped – Lee's Oil	As Needed
Aviation Maintenance	Lead-acid Batteries	Northland	Pick up – Safety Kleen	As Needed
Aviation Maintenance	Spray gun Cleaner System / Paint Waste	Safety Kleen	Safety Kleen Replaces container	As Needed
Aviation Maintenance	Parts Washer Waste	Safety Kleen	Safety Kleen replaces container	As Needed
Automotive	Used Oil	Northland	Pumped – Lee's Oil	As Needed
Automotive	Oil soaked rags	Northland	Pick up – U of MN	As Needed

Automotive	Parts Washer Waste	Safety Kleen	Safety Kleen replaces container	As Needed
Carpentry	Rags containing mineral spirits/solvents	Northland	Pick up – Safety Kleen	As Needed
Chemistry	Chemicals	Northland	Pick up – U of MN	As Needed
Electronics	Solvent Rags	Northland	Pick up – Safety Kleen	As Needed
Facilities	Used Fluorescent Bulbs	EGF – HESI	**HESI** - replaces container	As Needed
Facilities	Used Fluorescent Bulbs	TRF – Les's Sanitation	Delivered to Les's Sanitation	As Needed
Facilities	Used Oil	Northland	Pumped – Lee's Oil	Annually
Facilities	Lead-Acid Batteries	Northland	Taken to Les's Sanitation	As Needed
Facilities	Used Antifreeze	Northland	Pick up – Safety Kleen	As Needed
Facilities	Used Lead	Northland	Pick up – Safety Kleen	As Needed
Nursing	Sharps	Northland	HESI	As Needed
Biology	Specimens	HESI	HESI	As Needed
Facilities	Sharps (Restrooms)	HESI	HESI	As Needed

VIII. Waste Disposal

Waste disposal is managed by the Safety Officer and Directors of Facilities through the third party vendors.

1. When the waste storage containers are full, employees complete a GroupLink Ticket to request waste pick up.
    a. GroupLink Tickets are to be filled out a week prior to the requested pick up date.
    b. GroupLink Tickets are reviewed by the Safety Officer.
2. Safety Officer coordinates with the vendor to ensure Northland is within monthly waste limits and schedules pick up. Safety Officer updates GroupLink ticket with date and time of pickup.
3. Safety Officer, Directors of Facilities, or designee will be present at the waste pick up and will sign all manifests. IMPORTANT: Only designated employees are allowed to sign manifests.

    a. Designated Employees are:
        i. Cory Feller, Safety Officer, 218-683-8633
        ii. Bob Gooden, Director of Facilities, EGF Campus, 218-779-3691
        iii. Clinton Castle, Director of Facilities, TRF Campus & Aerospace Site, 218-684-5564
        iv. Bryan Berger, Building Maintenance Lead, EGF Campus, 218-791-4664
        v. Shawn Vandal, General Repair Worker, EGF Campus, 218-230-4212
        vi. Jesse Adkins, Groundskeeper, EGF Campus, 218-791-3752
        vii. Robbi Brateng, Building Maintenance Lead, TRF Campus & Aerospace Site, 218-684-0150
        viii. Tim Bergerson, Electrician, TRF Campus & Aerospace Site, 218-688-0015
        ix. Brian Larson, General Repair Worker, TRF Campus & Aerospace Site, 218-684-5557
4. Safety Officer maintains all records.

5. Safety Officer will create purchase order for the college utilizing program cost centers to encumber the funds for waste removal each year. Safety Officer processes all chargebacks to the respective program/department once the invoice has been received from the third-party vendor for waste disposal.

IX. Sewered Chemical Waste

MPCA requires Northland to record all chemical waste that is sewered (hazardous and nonhazardous). Monthly waste production determines the hazardous waste generator size per location. This is calculated monthly; therefore, it is important for programs/departments to track monthly waste.

1. Employees are to maintain monthly logs of sewered chemical waste.
2. Employees are to report any substantial changes in sewered waste prior to sewering, as Northland is required to notify the local water treatment facility of substantial amounts of chemicals being sewered. The term substantial amount varies depending on the chemical being sewered; therefore, employees are to contact the Safety Officer with any questions. Water treatment facilities may need to prepare for this increased waste entering their facility. The Safety Officer will work with the water treatment facility to ensure compliance with MPCA.

X. Reporting

MPCA requires annual reporting of waste disposal on a calendar year basis. Reports are due into MPCA by August 15th of the following calendar year.

1. The Safety Officer will communicate annually with each program/department that produces waste to update waste volumes for MPCA required reporting.
2. Required Reporting
    a. Hazardous Waste (including Sewered waste)
    b. Universal Waste
    c. Infectious Waste
3. Safety Kleen will assist the Safety Officer in reporting all waste. Final records will be kept by the Safety Officer for permanent record retention. Copies will be provided to programs/departments for their records.

Reviewed: July 10, 2023