

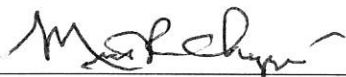
# **HAZARDOUS MATERIALS MANAGEMENT PLAN**

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**NORTHEAST COMMUNITY COLLEGE  
HAZARDOUS MATERIALS MANAGEMENT PLAN**

Per Board Policy BP-3220, Environmental Safety and Health, protection of the health and safety of the employees and students of Northeast Community College is an important goal of the Administration.

The Hazardous Materials Management Plan has been implemented to accomplish the objectives stated above and to create an environmentally friendly campus. The plan was developed under the guidance of the Safety Sub-Committee. Each employee shall be responsible for compliance with the plan.



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Northeast Community College President

3-8-17

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Date

**NORTHEAST COMMUNITY COLLEGE  
HAZARDOUS MATERIALS MANAGEMENT PLAN  
TABLE OF CONTENTS**

- 1.0 General
  - 1.1 Responsibilities
  - 1.2 Definition of Hazardous Materials
  - 1.3 Identifying Hazardous Wastes
  - 1.4 Labeling
  - 1.5 Packaging
  - 1.6 Reporting
- 2.0 Oil Collection
  - 2.1 Storage and Collection
  - 2.2 Housekeeping Suggestions
  - 2.3 Responding To Spills
  - 2.4 Managing Cleanup Materials
- 3.0 Oil Filters
- 4.0 Bulbs, Ballasts, Batteries
- 5.0 Ink and Toner Cartridges
- 6.0 Cooking Oil
- 7.0 Sharps
- 8.0 Used Antifreeze
- 9.0 Parts Washer Solvent
- 10.0 Paint & Paint Related Materials
- 11.0 Aerosol Cans
- 12.0 Pesticides
  - 12.1 Pesticide Collecting
  - 12.2 Pesticide Disposal
  - 12.3 Pesticide Container Disposal
- 13.0 Electronic Wastes
- 14.0 Sand Interceptor/Sludge Pits
- 15.0 Refrigerant
- 16.0 Scrap Recycling

## **1.0 General**

The Hazardous Materials Management Plan applies to all College employees and students, as well as other community entities and individuals who may be using or participating in College campus activities. The purpose of this plan is to provide guidance in the safe and proper storage, handling and disposal of hazardous and other specified materials. This plan does not cover all regulatory requirements regarding hazardous materials, but should be considered as the minimum requirements in order to comply with regulations which affect the management of hazardous materials. Northeast will contract all waste collections with a company that has a valid Environmental Protection Agency (EPA) ID number. A list of approved vendors can be found at the Physical Plant.

It is the responsibility of each individual to protect the environment and to take measures to avoid accidents by handling and disposing of hazardous and universal wastes properly.

### **1.1 Responsibilities**

Northeast is registered with the EPA as a small quantity generator (SQG) of hazardous waste. It becomes the responsibility of each employee and hired contractors to identify any possible hazardous waste that he or she might be producing and then to assure that the waste is handled in a manner consistent with federal and state requirements.

The Executive Director of Physical Plant has the primary responsibility of administering Northeast's Hazardous Materials Management Plan.

### **1.2 Definition of Hazardous Materials**

"Hazardous Material" is any material or substance, which if improperly handled, can be damaging to the health and well-being of humans and the environment.

Hazards associated with a material may be determined by reviewing the Safety Data Sheets (SDS), the product label, or the shipping papers. Federal and State regulations determine if a material is hazardous through specific listings and definitions addressed in the U.S. Code of Federal Regulations and Nebraska Department of Environmental Quality, Title 128. The final tool in determining if a material is hazardous is personal knowledge; an individual may have created the materials or have specific information about the material's properties.

### **1.3 Identifying Hazardous Wastes**

The Environmental Protection Agency's Resource Conservation and Recovery Act (RCRA) established authority control of the handling and disposal of all solid biological and chemical wastes and discarded liquids and gases in containers. All generators of RCRA regulated waste are required to determine if the waste is hazardous. This is accomplished by determining if any of the constituents of the waste are specifically "listed" as hazardous or if the waste has a regulated characteristic of hazardous waste.

“Listed” Chemical wastes are found in 40 CFR 261

“K” listed waste from specific sources.

“F” listed waste from non-specific sources.

“U” listed wastes from off-spec or discarded commercial chemicals.

“P” listed wastes from off-spec or discarded commercial chemicals which have been designated as **Acutely Hazardous**.

Under the “Hazardous and Solid Waste Amendments” of 1984, additional substances were incorporated into the hazardous waste regulations by having characteristics of hazardous waste. A generator must determine if a waste possesses one or more of the following characteristics: ignitability, corrosivity, reactivity or toxicity. A waste known to be contaminated with constituents having one or more of the four characteristics must be handled by the generator as hazardous waste, unless the generator develops the detailed waste analysis required to establish the absence of regulated characteristics to the point specified in the regulations.

#### Characteristics of Hazardous Wastes

**Ignitability** – A chemical waste is ignitable if it has a flash point below 140 degrees Fahrenheit, if it is an ignitable compressed gas, or if it is a substance that readily yields oxygen to stimulate combustion. EPA hazardous waste number D001.

**Corrosivity** – Chemical solutions with a pH less than or equal to 2 or greater than or equal to 12.5 are considered corrosive. EPA hazardous waste number D002.

**Reactivity** – Chemicals that are normally unstable or react violently with water. EPA hazardous waste number D003.

**Toxicity** – Toxicity Characteristic Leaching Procedure (TCLP) toxic chemicals are waste in which extracts contain high concentration of heavy metals or pesticides that could be released into the groundwater.

Federal, state and local laws strictly regulate the disposal of hazardous materials. The disposal of any hazardous material in storm drainage, the sewer, on the ground, or in the regular trash is strictly forbidden.

### **1.4 Labeling**

In order to comply with EPA regulations regarding hazardous waste, a chemical waste collection container must be appropriately labeled as soon as it is put into use. The container must clearly be labeled with the words “Hazardous Waste”, and the fully written chemical name. If the contents of a collection container are a mixture, all components must be listed by percent or volume. An accumulation start date must also be present on the label. Hazardous waste must be kept at or near (in the same lab) the point of generation in order to be considered satellite accumulation areas.

Once the hazardous waste is removed from the point of generation for storage, it must be dated and have the words “Hazardous Waste” clearly labeled on the container or it will not be accepted for disposal. The College then has 180 days to properly dispose of the hazardous waste.

If reusing a container and the contents are not identical to the original product, it must be completely defaced or its old labels removed. The chemical waste must be compatible with the container and its previous contents.

## **1.5 Packaging**

Waste storage containers must be leak proof, chemically compatible, safe, and clearly labeled. All hazardous materials must be kept in appropriate closed containers. All hazardous material containers should remain closed at all times except when adding or removing material.

The following guidelines must be followed when packaging hazardous waste for disposal:

- Use a leak-proof container that will safely contain the contents.
- Do not overfill a container with liquid waste. Allow an empty space of approximately five percent of the container volume for thermal expansion and transport.
- Be aware of possible pressure build-up inside the container.
- Old cans of ether, picric acid and other peroxide forming or shock sensitive items shall be left in place and not disturbed until safety personnel have evaluated the condition of the container.
- Do not mix incompatible chemicals.
- Do not mix hazardous materials with non-hazardous materials.
- Hazardous waste must be stored based on compatibility. Store materials of the same hazard class together.
- Loose solid materials must be placed in a sealed container or in a covered cardboard box lined with two polyethylene bags.
- Do not leave funnels in the collection container.
- Contact Physical Plant with specific location.

## **1.6 Reporting**

Prior to February 1<sup>st</sup> of each year, report quantities generated/shipped to Director of Environmental Health & Safety for record-keeping and reporting purposes.

## **2.0 Oil Collection**

Definition of used oil: Any oil that has been refined from crude oil or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. New oil is never considered "used oil."

### **Examples of Used Oil:**

- Compressor oils
- Coolants
- Copper- and aluminum-wire drawing solution
- Electrical insulating oil
- Emulsions used as lubricants
- Engine oil

- Heating media
- Industrial hydraulic fluid
- Industrial process oils
- Metal-working fluids and cutting oils
- Mineral oil
- Refrigeration oil
- Synthetic oil
- Transmission fluid
- Used oil residues or sludge resulting from the storage, processing, or refining of used oils (when recycling by burning for energy recovery).

Examples of materials that are not used oil:

- Spent antifreeze
- Spent brake fluid
- Solvents of any kind
- Unused motor oil
- Vegetable and animal oil, even when used as a lubricant

Oils that do not meet EPA's definition of used oil can still pose a threat to the environment when disposed of and could be subject to the RCRA regulations for hazardous waste management

The following areas store used oil in designated containers:

- Air Conditioning
- Auto Technology 1<sup>st</sup> year
- Auto Technology 2<sup>nd</sup> year
- Diesel Technology
- Physical Plant
- Utility Line/Truck Driving
- Farm

## 2.1 Storage and Collection

- **Do not mix used oil with any other materials.** Used oil mixed with hazardous waste will have to be managed as a hazardous waste.
- Keep materials separate, properly labeled, and sealed in the recommended containers.
- Maintain adequate aisle space between containers to facilitate material transfer, easy access to materials, and inspections.
- Close used oil containers between filling or emptying events.
- Store containers, drums, and bags away from direct traffic routes to prevent accidental damage or spills.
- Organize materials neatly for storage.
- Store incompatible materials separately.
- All containers, tanks, and receptacles of used oil will be clearly marked "USED OIL".

Never store used oil in anything other than appropriate storage containers provided by the College or distributor of the oil product.



## **2.2 Housekeeping**

- Sweep regularly.
- Inspect material storage or collection areas regularly to ensure there are no leaks or spills.
- Inspect equipment such as pumps, pipes, storage tanks, valves, and material handling equipment for signs of corrosion, support or foundation failure, or other deterioration. Remove, repair, or replace the defective tank or container immediately.
- Promptly clean up spilled materials to prevent runoff, tracking, and spoilage of other materials.
- Stock cleaning and spill response materials where they are readily available.
- Post reminders of good housekeeping practices.
- Provide instruction on securing containers.
- Schedule housekeeping duties and inspections to ensure good housekeeping practices are followed.

## **2.3 Responding To Spills**

- Spill kits are located in areas that store used oil.
- If a spill or leak occurs, stop the oil from flowing at the source. If a leak from a container or tank can't be stopped, put the oil in another holding container or tank.
- Construct dikes around material storage areas to contain spills.
- Do not allow spills into floor drains. Contain and control leaks and spills as quickly as possible. Clean leaks and spills immediately using dry methods such as absorbent pads and wipes.
- Using dry absorbent materials such as "kitty" litter or clay-based absorbents to absorb oil and grease on dry surfaces should be used as a last resort, or when dealing with large spills, as disposal costs can be considerable with this material.
- Use "oil only" absorbents for absorbing any oils that may contaminate water in floor drains, ponds, ditches, etc.
- For spills larger than five (5) gallons, or for any amount that enters a waterway, try to contain the spill and notify Physical Plant immediately. A company will be contracted to handle cleaning up large spills.

## **2.4 Managing Cleanup Materials**

When absorbent materials are contaminated with oil from cleaning up a leak or spill, separate storage drums are available for accumulation. Do not use clay-based absorbent materials unless directed to do so, and do not mix clay-based absorbents with absorbent pads. Any oil contaminated absorbent materials will be disposed of through an approved vendor. All pertinent documentation will be logged within the Physical Plant. The College must dispose of the materials within the container no more than 365 days post accumulation start date. The storage drums are located in the following areas, and will be clearly marked with the contents as well as an accumulation start date.

- Air Conditioning
- Auto Technology 1<sup>st</sup> year



- Auto Technology 2<sup>nd</sup> year
- Diesel Technology
- Physical Plant
- Utility Line/Truck Driving
- Farm

Other hazardous wastes from a leak or spill will be handled in accordance with federal and state regulatory standards. All manifests will be documented within the Physical Plant.

### **3.0 Oil Filters**

Used oil filters are exempt from regulation under the hazardous waste regulations (Title 128 - Rules and Regulations Governing Hazardous Waste Management in Nebraska - Chapter 7, 009.12) with the exception of terne-plated oil filters.

In order for the exemption to apply, generators must drain oil filters using one of the following hot-draining methods (Hot-draining means the oil is drained near engine operating temperature and above room temperature.):

- Hot-drain and collect.
- Puncture the filter's anti-drain back valve or the filter dome end and hot drain. Drain used oil filters for 12 hours.
- Dismantle and hot-drain.
- Any other equivalent hot-draining method which removes used oil.

Once the used oil is removed, the filter will be placed in a drum for collection. Oil filter barrels for recycling purposes are located in the following areas.

- Auto Technology 1<sup>st</sup> year
- Auto Technology 2<sup>nd</sup> year
- Diesel Technology
- Physical Plant
- Utility Line/Truck Driving
- Farm

### **4.0 Bulbs, Ballasts, Batteries**

Used light bulbs, ballasts and batteries are collected and stored by Physical Plant in a designated area following the guidelines outlined in Title 128, Chapter 25 of the Nebraska Hazardous Waste Regulations for universal wastes. A company contracted by Northeast picks up these items for recycling.

Listed below are some of the types of batteries used and the proper disposal methods. If you have batteries that are not included below, please contact Physical Plant for disposal instructions.

#### Alkaline, carbon-zinc (heavy duty), and zinc-air batteries

These are the typical non-rechargeable batteries that most people use. They are non-hazardous and can be thrown in the garbage.

#### Button batteries

These batteries are found in watches, calculators, hearing aids, etc. Button batteries often contain mercury, silver, or lithium, and should be given to Physical Plant for proper disposal or recycling.

#### Lead-acid batteries

This includes most car and motorcycle batteries. These batteries contain regulated amounts of lead and should be recycled. Businesses will often buy back old batteries when a new one is purchased. If old batteries will not be taken back by the company supplying the new ones, then these batteries should be given to Physical Plant for proper disposal.

#### Nickel-cadmium (Ni-Cad) batteries

These are the most common type of rechargeable batteries and they can be found in cellular phones, equipment, and toys. Ni-cad batteries contain regulated amounts of cadmium and should be recycled or handled as hazardous waste. If old batteries will not be taken back by the company supplying the new ones, then these batteries should be given to Physical Plant for proper disposal.

#### Lithium ion batteries

These batteries are found in many electronics like laptops, digital cameras, power tools, cordless phones, etc. When lithium ion batteries reach a point where they can no longer hold a charge, batteries should be given to Physical Plant for proper disposal.

Recycling is the best option from both an economical and environmental standpoint. Check with companies to make sure that they will take back old batteries when new ones are bought. If batteries cannot be recycled, make sure that they are given to Physical Plant for proper disposal.

Sometimes rechargeable batteries are built into a machine or tool (i.e., rechargeable flashlight). When these items will no longer work or stay charged, the whole unit may have to be handled as hazardous waste.

### **5.0 Ink and Toner Cartridges**

Ink and toner cartridges used by all departments on campus are collected in the Hawks Shop. These cartridges are stored in a designated area until sent in for recycling.

### **6.0 Cooking Oil**

Used cooking oil is stored and labeled in appropriate storage containers. These containers are located outside of the housing food services areas, and are disposed of on a regular basis.

### **7.0 Sharps**

All sharps must be disposed of in approved sharps containers. These containers are red in color, marked with a biohazard symbol, made of puncture proof plastic and have a lid.

Sharps include, but are not limited to, any article that may cause puncture or cut: discarded

hypodermic needles, syringes, pasteur pipettes, broken medical contaminated glassware, razor blades, scalpels, slides, coverslips and needles. Even if not infectious, many of these items can be physically dangerous and must be treated as medical sharps. Do not re-cap needles before disposal. This practice increases the risk of accidental needle sticks. To avoid this risk, place needles directly into the sharps container after use. Do not re-cap, bend, break, clip or remove needles from the disposable syringe.

Containers of sharps will be disposed of at an approved treatment and disposal facility designated by the College.

## **8.0 Used Antifreeze**

Used anti-freeze will be stored in appropriately marked drums until picked up for recycling. **Do not** mix antifreeze with other wastes.

Anti-freeze barrels are located in the following areas:

- Auto Technology 2<sup>nd</sup> year
- Diesel Technology
- Utility Line/Truck Driving

## **9.0 Parts Washer Solvent**

Parts washing machines on campus use a 140° F flash point parts washing solvent. The machines are contracted to be cleaned and solvent recycled on an as needed basis. **Do not** use other solvents (Gunk, Carb Cleaner, thinner, etc.) in the parts washer.

Parts washing machines using a 140° F flash point solvent are located in the following areas:

- Diesel Technology
- Physical Plant
- Utility Line/Truck Driving

Additional parts washers that use non-hazardous water-based detergent are located in the following areas:

- Auto Technology 1<sup>st</sup> year
- Auto Technology 2<sup>nd</sup> year

## **10.0 Paint & Paint Related Materials**

Most paints fall into one of two categories: water-based or oil-based. Water-based formulas are sometimes referred to as latex, vinyl, or acrylic. Oil-based formulas are sometimes referred to as alkyd, polyurethane, or varnish. Paints may be regulated as a “hazardous waste” when disposed, depending on the formulation.

Oil-based paints are regulated due to their flammability and the presence of regulated solvents such as xylene and toluene. Water-based paints are generally not regulated since they are nonflammable. However, paints (both water-based and oil-based) that contain certain metallic pigments or fortifiers

are regulated as a hazardous waste when disposed. These regulated metals include the following: cadmium, chromium, lead, silver, barium, mercury, arsenic, and selenium. Information concerning the presence of regulated materials and the type of formulation can be obtained from the label, Safety Data Sheet, or manufacturer.

**Water-based Paints** – Disposal of water-based paints that do not contain regulated metals can be accomplished by spreading the paint on a piece of plastic or cardboard (no thicker than one inch) and allowing it to air dry. For drying purposes, the paint should be dried in a well-ventilated area that is protected from rain. When completely dry, it can be disposed in the normal trash. Never place wet paint in the trash. When washing paint brushes, pans, and related materials that have been used with water-based paint, always use a drain that is connected to the sanitary sewer. Never wash paints to the storm sewer.

**Oil-based Paints** – Where possible, substitute water-based paint for oil-based paint. If oil-based paint must be used, follow the instructions for use. Excess oil-based paints, since they contain regulated materials, cannot be dried but must be collected. If paint cans have missing or deteriorated labels, write the contents on the can in some other permanent manner. Include manufacturer, product name, product number and chemical constituents.

Paint thinners and mineral spirits must be collected and stored in appropriately marked containers until full. Once the containers are full, contact the Physical Plant for proper disposal.

Used paint thinners/mineral spirits containers are stored in the following areas:

- Auto Body
- Art Department

Empty paint cans from both water-based and oil-based paints (except aerosol cans) may be discarded as ordinary garbage.

## 11.0 Aerosol Cans

In accordance with the Nebraska Department of Environmental Quality (NDEQ) hazardous waste regulations, pressurized aerosol cans must be disposed of as hazardous waste. Examples of pressurized aerosol cans include, but not limited to: aerosol paints, cleaners, lubricants, whipped topping, etc. Aerosol cans pose a potential risk of explosion if exposed to heat. All departments that generate aerosol cans must follow these procedures:

- a) Collect and store all aerosol cans in a designated container.
- b) The container will be labeled as follows: AEROSOL CANS ONLY.
- c) Once the barrels are full, the cans will be picked up and a puncturing device will be used to puncture the cans. The contents of the cans will be stored in a 55 gallon drum with a log being kept of what is being stored in the drum. Once the drum is full, it will be shipped off for recycling.

## **12.0 Pesticides**

Only licensed pesticide applicators will accept delivery of pesticides. Each chemical received should be accompanied by the appropriate Safety Data Sheet.

### **12.1 Pesticide Collecting**

Pesticides must not be collected from external sources for the purpose of storage, disposal, or giving or selling them to other applicators or hazardous waste disposal companies.

### **12.2 Pesticide Disposal**

All unused pesticides will be disposed of by a licensed commercial waste disposal company. Proper planning and careful calculations should eliminate the need for disposal of large quantities of excess spray solutions.

### **12.3 Pesticide Container Disposal**

Pesticide containers are considered non-hazardous solid waste if they are triple rinsed or power washed. Each person is responsible for proper disposal and it is a violation of state and federal law if containers are not properly emptied.

## **13.0 Electronic Wastes**

All electronic wastes generated by the College will be handled in a manner congruent with the United States Environmental Protection Agency (EPA) Sustainable Management of Electronics program.

Electronic wastes are currently classified as Universal Waste and will be handled in accordance with the concept of cradle to grave tracking principles being followed. Before disposing of these items in the trash receptacles, contact the Physical Plant to determine how to properly dispose of the unit(s). When recycling any electronic wastes, the College will review supplier recycling protocols, and will only use certified electronic waste recyclers if the supplying company does not have a recycling program established. *See Appendix A for listing of electronic wastes.*

## **14.0 Sand Interceptor/Sludge Pits**

Sludge pits are cleaned out by an approved contractor. The sludge from the pits/sand interceptors are pumped and transported to an approved treatment facility.

Sand interceptor/sludge pits are located near or in the following buildings:

- Diesel
- Former Maintenance Building
- Physical Plant
- Weller
- Chuck M. Pohlman Ag Complex

- Utility Line/Truck Driving
- Applied Technology
- Industrial Training Building, South Sioux City

### **15.0 Refrigerant**

Refrigerant will be handled in accordance with the rules and regulations set forth by the EPA under section 608 or 609 of the Clean Air Act. Persons handling refrigerant on campus, including contracted employees, (installing, recovering, or recycling) are to be certified by IMACA (International Mobile Air Conditioning Association), MACS (Mobile Air Conditioning Society) or universally certified (Types I, II, and III) through RSES (Refrigeration Service Engineers Society) or equivalent. Persons not holding such certification should be under the direct supervision of someone that is certified. Equipment used for the handling of refrigerant must be specifically designed for that purpose. The College will maintain accurate records of all units that hold, recover or recycle refrigerants that are on College property. Service logs will also be maintained.

### **16.0 Scrap Recycling**

Departments generating scrap materials for recycling must forward a copy of the receipt from the recycling company to the Physical Plant.

**ELECTRONIC WASTES**

Electronic wastes may include, but not limited to the following:

Answering Machines	Surge Protectors
Automotive Electronics	Tape Players (Audio/Video)
Boom Boxes	Telephone Sets
Cables/Wiring	Timers
Calculators	Transformers
Cathode Ray Tubes (CRT's)	Turn Tables
CD/DVD Players	Video Game Systems
Cell Phones	Walkie Talkies
Chargers	
Computer Mice	
Copiers	
Cordless Phones	
Digital Cameras	
Digital Thermostats	
Electric Typewriters	
Electronic Scrap (parts)	
External Hard Drives	
Fax Machines	
Flat Screen Monitors/LCD	
GPS Units	
Hubs	
IPODs & other MP3 Players	
Keyboards	
Kitchen Appliances (small digital)	
Laptops	
Main Frames	
Microwaves	
Monitors	
Pagers	
Paper Shredders	
PC's	
Plasma Televisions	
Printers	
Radios	
Receivers	
Record Players	
Routers	
Scanners	
Servers	
Speakers	