Pollution Incident Prevention (PIP) Plan

Salt Dome Area

Prepared For:

Cranbrook Educational Community

39221 North Woodward Avenue

Bloomfield Hills, Michigan

NTH Project No.: 62-080338-00

May 5, 2008

Revised: April 2022

PIP PLAN
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1.0 FACILITY IDENTIFICATION

1.1 FACILITY IDENTIFICATION AND EMERGENCY CONTACTS

Name of Facility	Cranbrook Educational Community Salt Storage Area
Facility Address	19 Valley Way Bloomfield Hills, MI
Mailing Address	39221 Woodward Avenue Bloomfield Hills, MI
Phone Number	248.645.7707 24-Hr. Phone: Fax: 248.645.3461
Receiving Waters	Rouge River
Type of Facility	Educational Facility
SIC Code	8211
NAICS Code	611110
Name and Address of Owner/Operator	Cranbrook Educational Community 39221 Woodward Avenue Bloomfield Hills, MI
Designated Person Responsible for Spill Prevention and Control	Kevin Mill

EMERGENCY CONTACTS

Police and Fire Departments – EMERGENCIES: 911

Michigan Department of Environmental Quality (MDEQ) Southeast Michigan District Office	27700 Donald Court Warren, MI 48092-2793 phone: 586.753.3700 fax: 586.751.4690
MDEQ 24-hour Pollution Emergency Alert System (PEAS)	800.292.4706
St. Joseph Mercy Hospital	248.858.3000
Oakland County Local Emergency Planning Committee	Ms. Tricia Smith 1200 N. Telegraph Rd., Dept. 410 Pontiac, MI 48341-0410 248.858.5371
Detroit Water and Sewerage Department (DWSD) (if material enters the stormwater/sanitary sewer system)	313.267.6000/9000
State Emergency Response Commission	517.373.8481
National Emergency Response Center	800.424.8802
U.S. EPA Region 5 Office 24-hour number	213.353.2318
CHEMTREC (chemicals, spills, fires information)	800.424.9300

2.0 INTRODUCTION

2.1 PURPOSE

This Pollution Incident Prevention (PIP) Plan is designed to provide a comprehensive document to comply with the response plan requirements of the applicable regulations. This plan provides spill response procedures and is intended to be a usable tool in the event of a release of polluting materials to air, soil, or surface water at the Cranbrook Educational Community (Cranbrook) salt storage facility. The provisions of this plan must be carried out immediately in the event of a release of polluting materials that could threaten human health or the environment.

2.2 REGULATORY REQUIREMENTS

The salt storage facility is an “on-land facility” that is subject to the State of Michigan’s Part 5 Rules (Act 245 of PA 1929, as amended, Sections R324.2001 to R324.2009 of the Michigan Complied Laws). The Part 5 Rules require facilities that receive, process, manufacture, store or ship polluting materials, above threshold amounts, to develop and implement a **Pollution Incident Prevention (PIP) Plan** and to provide containment for polluting materials.

Statement of Compliance

This facility is currently in compliance with the Part 5 PIP rules. (See Appendix F for regulatory cross-reference sheets.)

2.3 PIP PLAN DISTRIBUTION

The Emergency Response Coordinator maintains a copy of this PIP Plan. The plan is available to all personnel who are authorized to have access to it. The original plan is maintained in the Primary Emergency Response Coordinator’s office.

A letter certifying that the facility is in compliance with Part 5 Rules will be sent to the MDEQ-Water Bureau within 30 days of completion or updating of this plan. The LEPC and the local health department will also be notified that the plan is complete.

Copies of this plan and future revised/amended plans will be available upon request to the list provided below:

1. US EPA Regional Administrator
2. Bloomfield Hills Fire Department
3. Emergency Response Contractor
4. Oakland County Local Emergency Planning Committee (LEPC)
5. Oakland County Health Department
6. State of Michigan Emergency Response Commission – MDEQ Waste Management Division

2.4 PIP PLAN AMENDMENTS

This plan will be reviewed and updated as needed every three years, or when facility personnel, processes, or procedures identified in the plan change or as otherwise necessary to maintain compliance with the Part 5 Rule. Upon completion of the updated plan, the owner shall recertify the plan and notify the MDEQ, the local LEPC and the local Health Department (with a letter) of compliance with the Part 5 Rules. Copies of the letter or amendments are filed in Appendix G.

3.0 FACULITY DESCRIPTION

3.1 FACILITY LOCATION

The salt storage facility is located at 19 Valley Way in Bloomfield Hills, Oakland County, Michigan. (See **Appendix A, Plate 1**). The facility is located within the Cranbrook Schools campus with residential properties to the west and south. The salt storage area is bordered by Valley Way to the north and Vaughn Road to the west. The Long Lake/Forest Lake Branch of the Rough River is approximately 400 feet to the south. In addition to the salt storage area, there are two underground storage tanks located to the northeast of the salt storage area. The dispenser pumps were moved to the salt storage area during the 2008 improvements.

The salt storage area of the property occupies approximately two acres, with approximately 85 percent of the area paved or under roof. Surface run off drains into the onsite storm sewer which discharges to the Rough River. Surface run off that doesn't get collected in the storm system, would infiltrate through the gravel and grassy areas surrounding the salt dome storage area. Erosion potential is very low, as the area is flat and grassed or paved.

A site map depicting the current layout of the facility is included in **Appendix A, Plate 2**.

During the summer of 2008, the salt storage area underwent extensive renovations. The area is approximately 95 percent paved. The storm sewer system was re-routed so that there are no catch basins within 50 feet of the salt dome. In addition, the storm sewer flows into a treatment pond prior to discharge to the Long Lake/Forest Lake Branch of the Rough River. These improvements lessened the potential for runoff from the salt dome to directly enter the Long Lake/Forest Lake Branch of the Rough River.

3.2 FACILITY OPERATIONS

The Cranbrook salt storage area is used for the storage of salt, brine, miscellaneous de-icers and school busses. In addition, since September 2008 the area also contains two underground storage tanks for the Cranbrook Schools, while the fertilizer and miscellaneous de-icer building was removed. It should also be noted that the City of Bloomfield Hills also used the salt from the Cranbrook salt dome. Fueling operations for the Cranbrook bus and fleet vehicles are conducted at this facility.

The Cranbrook salt storage facility, which includes the bus parking area, operated from 6:00 AM to 7:30 PM, five days per week, 52 weeks per year and employs approximately 70 people.

3.3 FACILITY SECURITY

This facility is located within the Cranbrook campus. Fencing exists around the salt storage area and the gates to the area are locked when the area is not being used. In addition, the entire campus is patrolled by on-site security personnel.

The buildings are locked during non-operational hours. Gates remain open until all crews return. Cellular phones and two-way radios are also used to contact personnel.

The facility grounds have adequate lighting for safety and to allow emergency vehicles to access the facility 24-hours per day.

4.0 PAST POLLUTION INCIDENTS

There has not been a reportable oil spill or chemical release incident in the past 3 years.

5.0 FACILITY INVENTORY, CONTAINMENT AND POLLUTION INCIDENT POTENTIAL

5.1 FACILITY INVENTORY

Michigan Part 5 Rules defines “polluting material” as oil, salt, and any material listed on the Polluting Materials list.

Polluting materials currently stored at the Cranbrook salt storage facility are included in a table in Appendix D. An attempt has been made to list all materials present above their applicable threshold amounts in the plan. The inventory is in flux, due to the nature of the operation.

Updated Material Safety Data Sheets (MSDSs) are continually tracked and filed and made readily available for review by employees at the facility. A designated person is responsible for compiling the master MSDS file. The master file is located in the Grounds Department office and is available to all personnel.

5.2 SECONDARY CONTAINMENT AND POLLUTION PREVENTION MEASURES

The salt storage area is used to store a variety of materials that could potentially create and emergency situation if released to the environment. To substantially reduce this potential, all materials are stored inside storage structures where spillage can be controlled.

The major areas of concern identified at the salt storage facility that are potential pollution sources are the rock salt and brine tank loading/unloading area. The bagged de-icer and fertilizer will no longer be stored in the area.

Good housekeeping practices and proper material handling procedures are necessary to ensure that no materials are spilled during transfer operations.

The following sections describe the facility’s salt, brine and other polluting material storage areas and secondary containment devices. **Appendix D** provides additional information regarding oil and polluting material storage, including storage locations, container contents and construction materials, safety devices, storage capacities and containment capacity.

5.2.1 Salt Storage Dome

The facility has a salt storage dome in the central portion of the salt storage area. This building will remain in this location. Currently, the salt dome is surrounded by asphalt pavement. When salt is brought onto the site for storage, the truck has to dump the salt just outside of the salt dome and then the salt is immediately moved into the salt dome with a small front-end loader. The time that the salt is stored outside is minimized, to the extent possible.

5.2.2 Underground Storage Tanks

The facility has two existing USTs subject to Michigan UST regulation.

5.2.3 Brine Storage Tank

A 1550 gallon, double-walled, polyethylene brine tank is located on the east side of the salt dome. The tank stores brine for road applications. The tank contains a level indicator to prevent overfilling, and a leak detention sensor to alert personnel should a leak develop between the double-walls.

5.2.4 Solid Pollutant Storage

The salt storage area also contains two outdoor shelters. The salt dome and brine tank.

5.3 FACILITY DRAINAGE AND PREDICTION OF FLOW

5.3.1 Facility Drainage

This facility is located on approximately 2 acres of land that is relatively flat. The majority of the surface storm water flows through the storm sewers and discharges to the Long Lake/Forest Lake branch of the Rouge River. Storm water that doesn't flow into the storm sewer, flows to a gravel and/or landscaped area and infiltrates into the ground.

5.3.2 Prediction of Flow

Currently, the pollutants of concern are solids and it would be highly unlikely that a spill of the solid material would enter the storm sewer due to the distance from the storage areas to the new catch basin locations.

Product transfer procedures (**Appendix C**) reduce the potential for leaks or spills of oil, hazardous waste, or polluting materials. Non-structural controls such as inspections, training on product transfer procedures and spill response procedures minimize the possibility of spills reaching the sewer system.

6.0 EMERGENCY PREPAREDNESS AND PREVENTION

This section describes Emergency Response Coordinator responsibilities, emergency contacts, and equipment. It also includes a description of training, facility inspections, and spill prevention procedures.

6.1 EMERGENCY RESPONSE PERSONNEL

6.1.1 Emergency Response Coordinator Responsibilities

The Emergency Response Coordinator (ERC) has a wide range of responsibilities that include employee training, conducting facility inspections, an committing company resources to respond to emergency situations. The ERC must be thoroughly familiar with facility operations and the Plan contents, and must be either at the facility or on-call and able to respond to an emergency in a short period of time. Specific ERC responsibilities are outlined below. The ERC may delegate these responsibilities to an alternate ERC at his/her discretion.

1. Ensuring that emergency response equipment inspections are conducted in accordance with Section 6.3.2.

2. Activating internal facility alarms or communication systems to notify all facility personnel of an emergency situation.

3. Assessing the nature and extent of emergency situations and committing the resources necessary for proper response.

4. Ensuring that injured personnel are given appropriate medical attention, and/or arranging transportation to a hospital when necessary.

5. Maintaining adequate space for the movement of emergency response personnel and equipment.

6. Ensuring that waste materials generated from emergency response activities are handled, stored, and disposed of in accordance with state and federal regulations.

7. Notifying the appropriate local, state, and federal agencies of releases and emergencies in accordance with Section 7.3.

8. Minimizing the likelihood of an emergency situation recurring by evaluating incidents, critiquing response, and implementing improved procedures as necessary.

6.1.2 Emergency Response Coordinator and Alternates

PRIMARY COORDINATOR

Name	Kevin Mill		
Office	248.645.7707	Home	
Cell			

1ST ALTERNATE COORDINATOR

Name	Mike Lenaway		
Office	248.320.0747	Home	
Cell			

2ND ALTERNATE COORDINATOR

Name			
Office		Home	
Cell			

3RD ALTERNATE COORDINATOR

Name			
Office		Home	
Cell			

6.1.3 Spill Contractor

If a spill occurs that would require a spill clean-up contractor, Cranbrook has a contract with National Environmental Group.

6.1.4 Emergency Response Contacts

POLICE AND FIRE – EMERGENCIES: **911**

POLICE DEPARTMENT:
Bloomfield Hills Police Department **911**

FIRE DEPARTMENT:
Bloomfield Hills Fire Department **911**

HOSPITALS:
St. Joseph Mercy Hospital **248.858.3000**

DETROIT WATER AND SEWERAGE DEPARTMENT: **313.267.6000/9000**

LOCAL EMERGENCY PLANNING COMMITTEE: **248.858.5371**
Oakland County Emergency Management

STATE EMERGENCY RESPONSE COMMISSION: **517.373.8481**
Michigan Department of Environmental Quality
SARA Title III Office
P.O. Box 30457
Lansing, MI 48909-7957

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
24 HOUR POLLUTION EMERGENCY ALERT SYSTEM (PEAS):

800.292.4706

U.S. EPA REGIONAL ADMINISTRATOR: **312.886.3000**
U.S. Environmental Protection Agency
Office of the Regional Administrator
77 W. Jackson Blvd.
Mail Code R-19J
Chicago, IL 60604

U.S. EPA Region 5 – 24 Hr. Emergency Response: **312.353.2318**
NATIONAL RESPONSE CENTER (NRC): **800.424.8802**

CHEMTREC (chemicals, spills, fire information): **800.424.9300**

6.2 EMERGENCY RESPONSE EQUIPMENT

6.2.1 Spill Control and Personal Protection Equipment

The Cranbrook facility maintenance personnel are trained to clean up small spills or releases in their work areas (See Section 6.3). In the event of an emergency, a spill contractor is on call to respond to spills or releases at the facility. (See Section 6.1.2). Table 6-1 lists the available emergency response equipment. The equipment is stored near areas of concern and is immediately available.

TABLE 6-1
SPILL CONTROL AND PERSONAL PRETECTION EQUIPMENT

Equipment	Location	Intended Use
Shovels/brooms	Storage shed in Salt Storage Yard	Used to clean up spills of salt and other solid pollutants
First Aid Kits	Various Locations	Available for use and treatment of minor medical emergencies
Fire Extinguishers	Various Locations	Available to assist in controlling fires

6.3 SPILL PREVENTION AND CONTROL

Material storage, spill training, and preventive maintenance practices will be the primary methods used at the Cranbrook salt storage facility to minimize the potential for spills of salt, oil, and other polluting materials.

Significant spills occurring at the facility property will be recorded on the Spill Record Form that is located in the Primary Emergency Response Coordinator's office. In the event that a significant spill or leak occurs, Section 4.0 of this plan will be updated to reflect the incident. In addition, the spill prevention and response procedures (Section 7.0) will be evaluated to determine if the planned response was adequate. If necessary, the spill prevention and response procedures will be modified to include additional practices to minimize future spills.

The following section outlines some of the general spill prevention procedures and practices implemented at the Cranbrook salt storage facility.

6.3.1 Good Housekeeping

The facility will follow good housekeeping procedures to reduce the possibility of accidental spills and to minimize safety hazards to facility personnel. The areas around salt dome and storage shed are kept neat and orderly. Housekeeping inspections occur on a regular basis with deficiencies noted to facility managers and are addressed accordingly.

Pursuant to Part I I I of 1994 P.A. 451, Rule 809, materials that contain, or are otherwise contaminated with used oil (e.g., waste absorbent materials) are not regulated as “used oil” if the used oil has been sufficiently absorbed, properly drained, or removed to the extent possible so that visible signs of free-flowing oil do not remain. Therefore, if the spilled material is not a hazardous waste, and the solidified absorbent material contains no free liquids, it is regulated as a non-hazardous solid waste and can be disposed of in a dumpster going to a Type II (municipal) solid waste disposal facility.

6.3.2 Visual Inspections and Preventive Maintenance

Routine facility inspections will serve to identify and prevent accidental releases of oil or polluting materials. These inspections will also ensure that good housekeeping procedures are being followed. Visual inspections of oil and chemical containers, and material storage drums/containers are performed prior to each use and on a regular basis by facility personnel.

Monthly inspections will cover the entire facility, including plant areas, equipment, structural controls, storage tanks, unloading areas, and material storage areas. Items to inspect include:

- Salt dome
- Brine Tank
- Dumpsters
- Bus Parking areas
- Loading and unloading areas
- UST dispenser areas

Monthly inspections will cover the facility’s spill response equipment. Items to inspect include:

- Spill response equipment supply and availability
- Facility alarm/telephones

Inspections will address leaks, spills, housekeeping, staining, corrosion/cracks and other problems with secondary containment. The periodic inspections will also be conducted to identify areas that may require preventive maintenance to minimize the spill of rock salt, Brine, oil or other polluting materials on site.

If any problems are observed or noted on the inspection form, the concerns will be addressed as soon as possible. If an employee identifies a need for housekeeping or preventive maintenance in any area, he or she will complete the required task or notify appropriate personnel.

Inspections will be recorded and signed using the PIP Plan Monthly Inspection Form (App. B) that is located in the Primary Spill (Emergency) Response Coordinator's Office. Records of these inspections will be maintained at the facility for a period of at least three years.

Based on the results of the inspections, the PIP Plan will be revised to address any necessary changes in the description of oil, salt, and other polluting materials or pollution prevention measures and controls.

6.3.3 Health and Safety Information and Employee Training

Cranbrook ensures that salt storage, brine, oil, and chemical handling employees are effectively informed concerning workplace safety and health hazards by maintaining:

- Proper material identification and container labeling
- Availability of Material Safety Data Sheets (MSDSs)
- Employee training

MSDSs are on file in the Grounds Department office. The appropriate Cranbrook employees are informed concerning potential and existing environmental situations and workplace safety and health hazards.

Salt storage and oil-handling personnel and new employees receive on-the-job training. Refresher training is given annually. This training addresses a variety of work topics including operational procedures, proper disposal of oils and chemicals, personal protection equipment, spill response equipment, past spills and spill response procedures.

The Primary Emergency Response Coordinator shall coordinate and maintain records of training conducted at the facility. A sample of a Record of Training Form is located in **Appendix B.**

6.3.4 Site Specific Best Management Practices (BMPs)

6.3.4.1 Storage Areas

1. Check to ensure salt pile is contained within the salt dome.
2. Check to ensure that materials from storage piles are not entering storm drains.
3. Check to ensure that brine tank area is in order with no observed leaks/spills and that the leak detention device does not indicate a possible leak between the double walls.

6.3.4.2 Vehicle and Equipment Inspections

1. Check for leaking oil and fluids.
2. Use dry absorbents (e.g. granular absorbent, absorbent pillows, etc.) to clean-up spills and leaks.
3. Segregate and label wastes.
4. Dispose of materials in a proper manner (please refer to Section 6.3.1).

Please refer to **Appendix C** for relevant general procedures.

7.0 EMERGENCY MANAGEMENT ACTIVITIES

7.1 INITIAL RESPONSE PROCEDURES

In the event of a spill, or the failure of a storage unit, the following steps should be implemented immediately:

1. **Ensure the safety of the employees in the area.** If an employee is injured, immediately contact the Primary Emergency Response Coordinator or supervisor for further instructions.

2. If no danger to an employee exists, **attempt to stop the spill at its source.**

3. **If possible, identify the spilled material.** It is important to identify the spilled material so that the MSDS can be used to identify health hazards, environmental warnings, and material compatibility.

4. **Notify the Primary Emergency Coordinator** as soon as possible. The Primary Emergency Response Coordinator will contact additional Emergency Response Coordinators (See Section 6.1.1) whenever necessary.

5. Contain the material in the smallest possible area by using the emergency response equipment described in this plan (See Section 6.2). If the spill is small, use a broom or shovel to clean up the spill. Place the salt back into the salt dome

    i. **If the spill is indoors**, prevent the spill from migrating outdoors or from entering the storm sewer system.

    ii. **If the spill is outdoors**, prevent the spill from migrating to the storm sewer or areas covered by vegetation, soil, or surface water.

6. **Begin the Notification Procedure.** The Emergency Response Coordinator has authority to determine if outside contractors are needed to help clean a spill and will coordinate with management if agency reporting is required. Please reference Section 7.2 for additional information on emergency notification. If the Reportable Quantity (RQ) of a particular material is released, agency notification must begin as soon as practicable (within 30 minutes of discovery of the incident).

7. **Recover or cleanup the spilled material.** Remove the spilled material through the use of a shovel, front end loader or absorbent materials. As much material as possible should be recovered and reused where appropriate.

8. After the spill has been cleaned, the Emergency Response Coordinator will complete a report summarizing the details of the incident. This report shall be maintained and retained by Cranbrook. A master copy of the form is included in **Appendix B**, along with an MDEQ Spill Report form.

9. Evaluate the PIP Plan and amend if necessary. Determine the cause of the incident and evaluate the emergency response procedures. Correct any deficiencies and amend the plan accordingly.

7.2 EMERGENCY NOTIFICATIONS

This section is intended to help the Emergency Response Coordinator to determine whether a spill needs to be reported and to whom the reports must be made.

NOTE: PRIOR TO NOTIFYING STATE OR FEDERAL AUTHORITIES, THE EMERGENCY RESPONSE COORDINATOR MUST MAKE CONTACT OR TRY TO MAKE CONTACT WITH MANAGEMENT TO ENSURE THAT MANAGEMENT HAS BEEN NOTIFIED.

7.2.1 PIPP (Michigan Part 5 Rules) Emergency Notifications

These rules require immediate notification be made to PEAS, the SERC, 911 and the LEPC if oil, salt, or a Polluting Material have reached or have the potential to reach surface or ground waters of the State (Polluting Materials are listed in **Appendix E)**. This includes indirect discharges through storm or sanitary sewer systems. Note that the discharge of limited concentrations of oil, salt, or Polluting Materials to the water of this State or to a sanitary sewer may be allowed if the MDEQ or local ordinance has approved the discharge and issued a permit.

If the Emergency Response Coordinator determines that a Polluting Material has reached or has the potential to reach surface or ground waters of the State, verbal notice shall be given as soon as practicable after detection of the release to the Michigan Department of Environmental Quality **MDEQ) 24 Hour Pollution Emergency Alert System (PEAS) at (800) 292-4706 and to 911.**

Within ten days of the incident the Emergency Response Coordinator must file a written report with the **MDEQ Southeast Michigan District Office** (See Section 6.1.4 for contact information) and the local health department. The written report shall outline the cause of the incident, its discovery, and any procedures taken to remove the oil, salt, or Polluting Material from the waters of the State.

7.2.2 Additional External Emergency Notifications

Fire Department, Police Department, Ambulance Services 911

If a spill incident results in injuries to the Cranbrook salt storage facility personnel, emergency medical services will be contacted immediately. If a spill is the result of vandalism or if police assistance is needed, the Police Department will be contacted. If a spill results in a fire, explosion, or threat thereof, the Fire Department will be notified immediately.

The Emergency Response Coordinator shall determine if the outside contractor is needed to help clean up a spill. Refer to 6.1.3 for contact information.

If the facility has knowledge of any release of a hazardous substance in a quantity equal to or exceeding the Reportable Quantity (RQ)[1], the National Response Center, the SERC and The LEPC shall be notified immediately.

National Response Center (NRC) 800.424.8802

Oakland County Local Emergency Planning Committee 248.858.5371

State Emergency Response Commission 517.373.8481 or 9807

7.2.3 Internal Notification

The following facility personnel shall be contacted in the event of a spill incident that requires state or federal agency notification, or cleanup assistance from an outside contractor. This contact should normally be made after a spill incident has occurred and the appropriate response has taken place, but before outside agencies are notified. Note that requirements to contact outside agencies are time critical. If management can't be reached, the agency calls must be made quickly.

Name	**Telephone Number**
Kevin Mill	248.645.7707
Mike Lenaway	248.320.0747

7.2.4 Response Assessment

After all reporting requirements have been completed; the Emergency Response Coordinator should perform an internal assessment to critique response activities. This should include a comprehensive evaluation of the effectiveness of the response,

1 The Reportable Quantity of listed hazardous substances can be found in 40 CFR 302.4. Refer to 40 CFE 302.5 for RQ determination for unlisted hazardous substances.

encountered problems or shortcomings, and recommendations to improve future response activities. If the assessment identifies more effective techniques to improve the response action, changes to response actions may be warranted.