FORM EQP 5111 ATTACHMENT TEMPLATE A7
CONTINGENCY PLAN

This document is an attachment to the Michigan Department of Environment, Great Lakes, and Energy's (EGLE) *Instructions for Completing Form EQP 5111, Operating License Application Form for Hazardous Waste Treatment, Storage, and Disposal Facilities.* See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), R 299.9501, R 299.9508(1)(b), R 299.9504(1)(c), R 299.9607 and Title 40 of the Code of Federal Regulations (CFR) §§264.50 through 264.56, and 270.14(b)(7), establish requirements for contingency plans at hazardous waste management facilities. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.

This license application module addresses requirements for a contingency plan at the hazardous waste management facility at *Dow Silicones Corporation facility* in *Midland*, Michigan.

(Check as appropriate)

☒ Applicant for Operating License for Existing Facility

☐ Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility

This template is organized as follows:

INTRODUCTION

A7.A BACKGROUND INFORMATION

A7.A.1 Purpose of the Contingency Plan
[R 299.9607 and 40 CFR §§264.51 and 264.53]

This Contingency Plan has been prepared in accordance with the requirements of 40 CFR, Part 264, Subpart D, and R 299.9607. It is designed to establish the necessary planned procedures to be followed in the event of an emergency situation at the Dow Silicones facilities in Midland, Michigan, such as a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, or water.

Copies of the Contingency Plan have been provided to emergency response agencies in order to familiarize them with the facility layout, the properties of the materials handled, locations of the working areas, access routes into and within the facilities, possible evacuation routes from the facilities, and types of injuries or illness that could result from releases of materials at the facilities. See Attachment A7.1, Documentation of Arrangements with Local Authorities, which includes documentation that each of these agencies has received a copy of the Contingency Plan. Whenever the Contingency Plan is modified, the facility will provide the agencies with a copy of the modified plan.

A7.A.2 Description of Facility Operations

The Dow Silicones facility is located at 3901 South Saginaw Road in Midland, Michigan. At the Midland Plant Site, Dow Silicones manufactures a variety of silicon-based intermediates for use in industrial processes by other Dow Silicones locations and by industrial customers, as well as finished products for end markets. Hazardous wastes are generated from the manufacturing processes, off-spec products, pollution control devices, cleaning of process equipment, and from

pilot plant and laboratory operations. The facility also accepts returned products from its customers, as well as spill cleanup materials from those products so long as they have not been compounded with other materials or mixed with other wastes. These materials may be received at the licensed facility prior to transfer offsite for proper disposal or recycling.

On-site generators that generate and store hazardous waste rely upon this Contingency Plan.

Refer to Module A1 for more detailed site description. Waste Codes are provided in Table A2-1 in Module A2.

A7.A.3 Identification of Potential Situations

The provisions of this plan will be carried out whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents, that could threaten human health or the environment.

A7.B EMERGENCY COORDINATORS
[R 299.9607 and 40 CFR §§264.52 and 264.55]

A7.B.1 Identification of Primary and Alternate Emergency Coordinators
[R 299.9607 and 40 CFR §§264.52 and 264.55]

At all times there is at least one employee, either on the facility premises or on-call and within reasonable travel distance of the facilities, with the responsibility for coordinating all emergency response measures. The list of 800 Block employees designated as Facility Emergency Coordinator (FEC) is contained in Attachment A7.4. This list gives all 800 Block persons qualified to act as the FEC. The personnel on this list work on a rotation schedule that is subject to change.

If an incident occurs at Dow Silicones Midland Plant, call Dow Emergency Services & Security who will contact the Facility Supervisor on-call. If the incident requires that the Contingency Plan be activated, the Supervisor on-call will serve as the FEC.

A7.B.1(a) Site Emergency Action Organization

The Site Emergency Action Organization is available on a 24 hour continuous basis to meet site emergencies. The Site Emergency Action Organization is activated by calling 1-2-3 on any plant telephone. The Site Emergency Action Organization consists of the following individuals and groups:

- Site Emergency Manager (SEM)
- Site Emergency Representative (SER)
- Emergency Services & Security (ES&S) Team
- Incident Commander
- Environment, Health & Safety (EH&S) On-Call (Reporting)
- EH&S On-Call (Response)
- ES&S Monitoring On-Call
- ES&S Site On-Call
- Distribution Emergency Response
- Reactive Chemical Role

- Public Affairs
- Dispatch Center
- Midland Area Health Services
- Site Responsible Care Leader (RCL)

The roles and capabilities of these individuals and groups are described in the Midland Site Emergency Plan.

A7.B.2 Qualifications of the Emergency Coordinators

[R 299.9607 and 40 CFR §264.55]

RCRA requires facility personnel to successfully complete a program of classroom or computer-based instruction or on-the-job training that teaches them to perform their duties in a way that supports the facility's compliance with the requirements of hazardous waste management. Dow's training program is directed toward personnel working in areas that may generate hazardous wastes as a result of operations or who may have direct responsibility for managing hazardous wastes.

Dow Silicone's hazardous waste training is designed to provide employees with proper waste handling and emergency procedures to enable them to perform assigned duties and functions in a safe manner. The training program includes instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the position(s) in which they are employed. The training program is designed to provide knowledge so that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

- Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
- Key conditions for automatic shutdown of transport or waste transfer activities, such as those caused by severe weather (e.g., heavy snow, ice, lightning, etc.);
- Communications or alarm systems;
- Response to fires or explosions;
- Response to groundwater contamination incidents; and
- Shutdown of operations.

Table A7.B.1 Identification of Primary and Alternate Emergency Coordinators

Dow Silicones Corporation Midland Facility
3901 South Saginaw Road, Midland, Michigan

Priority	Name	Address	Work Phone	Home Phone
Primary Coordinator	Phil Suderman	1172 Wheeler Rd, Auburn	636-9300	662-6227
First Alternate Coordinator	Robert Guerra	3035 Niccolet Place, Bay City	636-5928	415-9732
Second Alternate Coordinator	Brad Kischnick	210 E Chapel Lane, Midland	638-9602	942-0754

* All area codes are 989, unless noted.

A7.B.3 Authority to Commit Resources
[R 299.9607 and 40 CFR §264.55]

The FEC role may often be filled by the facility Immediate Response Leader (IRL), Facility Supervisor on-call, EH&S On-call or other trained individuals at Dow Silicones and has the authority to commit all the resources required to implement the Contingency Plan.

A7.C IMPLEMENTATION OF THE CONTINGENCY PLAN
[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The FEC must be contacted immediately in the occurrence of any situation that may result in potential or actual threats to human health or the environment. The FEC must implement this plan whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents, that could threaten human health or the environment.

The following situations are provided as guidance to facility personnel as the conditions or circumstances under which the plan must be implemented:

Fire and/or Explosion

a. A fire causes the release of the toxic hazardous waste to the air in such quantities that it could cause imminent threat to human health or the environment.

b. The fire spreads and could possibly ignite materials at other locations on-site or could cause heat-induced explosions.

c. The fire could possibly spread to off-site areas.

d. Use of water or water/chemical fire suppressant results in un-permitted discharges to surface waters.

e. An imminent danger exists that an explosion could occur, causing a safety hazard off-site because of flying fragments or shock waves.

f. An imminent danger exists that an explosion could ignite other hazardous waste at the facility.

g. An imminent danger exists that an explosion could or did result in release of toxic material in such quantity that could cause an imminent threat to human health or the environment.

Spills or Material Release

a. The spill of hazardous waste could result in a fire or gas explosion hazard which would create an imminent hazard to human health and the environment off-site.

b. The spill could cause the release of toxic liquids or fumes which would create an imminent hazard to human health, including plant and facility personnel and other Dow Corning employees, and the environment. Spills of small quantities which do not create unusual hazards significantly greater than those encountered by plant or facility personnel during normal operations will not require activation of the Contingency Plan.

c. The spill can be contained on site, but the spill would cause groundwater contamination which would create a hazard to human health or the environment.

d. The spill cannot be contained on-site, resulting in off-site soil contamination and/or ground or surface water pollution.

In any of these cases, Incident Command will establish a command post at a suitable location based on the situation for oversight of the incident and implementation of the Contingency Plan.

The Contingency Plan may be halted at any point during its implementation if it is determined that the situation is under control and no threat to human health or the environment exists. A decision to cease implementation of the Contingency Plan does not alter or affect Dow Silicone's obligation to otherwise properly manage any released hazardous waste or hazardous waste constituents.

Examples of situations that will not require implementation of the Contingency Plan are listed below (not intended to be all-inclusive):

1. Minor spills that are contained within secondary containment and/or have no potential impact to human health or the environment.
2. Spills or exposures of de minimus quantities from the following activities: loading or unloading stations, failure of transfer lines, leaking valves, pump seal failures, and other normal operation or maintenance activities.

A7.D EMERGENCY PROCEDURES

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The following general procedures have been established for implementation by facility personnel and the FEC in order to efficiently respond to the release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

A. General

Upon discovering an emergency or an imminent emergency, personnel will notify all operations and service people in the area using the area alert sirens, the intercom system, or radio communication in the event the alert sirens are disabled. The Supervisor on-call will be notified that the emergency exists. The Dow ES&S Department will be notified that an emergency exists and resources will be dispatched to the site as necessary at the discretion of ES&S or the FEC.

Dow ES&S and the Dow Fire Department are located within the Plant Site making the storage location of sufficient and adequate emergency equipment immediately available. The equipment available is listed in detail in Attachment A7.3 of this Contingency Plan. Given the long list of equipment, all of the testing and maintenance procedures are not listed. The procedures are available for inspection upon request.

The FEC will implement the Contingency Plan by notifying the Dow ES&S Department to call the emergency contacts and request assistance and by initiating appropriate calls to governmental agencies.

The FEC will determine that all personnel in the area are accounted for and that emergency aid is available. The FEC will then determine the identity, source, and amount of material involved and the area affected by the emergency. The FEC will then assess the impact to human health and to the environment, and direct actions to be taken as necessary to minimize the effects of the emergency and bring the situation under control as quickly as possible.

When the situation is under control, the FEC will direct containment and cleanup efforts to bring the situation to a safe conclusion.

B. Action Steps to Be Performed During Contingency Plan Implementation

The specific steps involved when implementing the Contingency Plan are:

1. Alarm or report by the person discovering an emergency to Dow ES&S and the Supervisor at the facility or on-call. *It should be noted that merely sounding the alarm does not mean that the Contingency Plan has been activated. This decision is consciously made by the FEC. The person discovering the emergency may communicate the emergency by activating a siren, or by calling on the phone or radio. Sirens are activated by using switches located throughout the facility. Phones are also located throughout the facility. Areas may have flashing lights that may be activated to keep personnel from entering the area.*
2. Dow ES&S activates internal alert system inside the site if necessary. The internal alert system can consist of blue warning lights at selected high traffic areas or site-wide communications through the alert system.
3. FEC decides if Contingency Plan implementation is necessary and directs ES&S to call contacts for assistance as needed. Contacts are listed in this plan, and include the appropriate governmental officials.
4. Further additional waste treatment, storage, or disposal activities in or at the affected area are halted until normal operations are restored.
5. If the emergency has or could impact human health or the environment outside the facility, the appropriate local government authorities and/or the designated governmental on-scene coordinator are notified.

6. FEC directs response procedures to contain the emergency.
7. If cleanup operations are necessary, FEC ensures that material is recovered, if possible, and packaged for treatment and/or disposal. If necessary, the FEC will request outside cleanup assistance from HAZWOPER-trained contract companies.
8. The FEC ensures that the emergency equipment used has been readied for re-use and that no waste that may be incompatible with the released material is treated, stored or disposed of until cleanup procedures are complete.
9. Note in the operating record, the date, time and details of the incident which required implementation of the Contingency Plan.
10. Provide written follow-up within 15 days after the incident to the Chief of the EGLE Office of Materials Management Division. The report must include those items listed in 40 CFR 264.56(i).

Contingency Plan Action Steps

1. Alarm or report by person discovering emergency
2. Notify Dow ES&S by two-way radio or by dialing 636-4400 or by dialing 1-2-3 on a Dow phone
3. Notify Facility Emergency Coordinator (FEC)
4. Notify as needed:
    a) Dow Fire Department
    b) Site Emergency Manager
    c) Site Emergency Representative
    d) Dow Medical
    e) EH&S On-call
    f) Site Responsible Care Leader
    g) Remediation Leader
    h) Dow Utilities Distribution
    i) Dow Industrial Hygiene
    j) City Police & Sheriff
    k) City Fire Department
    l) MidMichigan Medical Center
    m) County Health Department
    n) City Water Department
    o) Consumers Energy
    p) County Emergency Services (Local Emergency Planning Committee (LEPC))
    q) PEAS (800) 292-4706
5. Determine need to implement Contingency Plan (contact the RCRA Subject Matter Expert, if needed)
6. Initiate contact with governmental agencies. Immediate notification is required for fire or explosion at the kiln or greater than de minimus spills, whether or not the Contingency Plan is implemented (during normal business hours to EGLE-MMD Chief, otherwise PEAS)
7. Manage any steps to eliminate the emergency
8. Manage cleanup of the area and equipment
9. Note date, time and details in Operating Record
10. Provide written follow-up within 15 days to MDEQ.

A7.D.1 Immediate Notification Procedures for Facility Personnel and State and Local Agencies with Designated Response Roles

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The list of emergency contacts below identifies local emergency response agencies, and state and federal authorities that must be notified in the event of an imminent or actual emergency situation requiring response.

1. Internal Contacts

The FEC or his/her designee calls Dow ES&S, 636-4400, to initiate contact with any of the following applicable departments, as necessary. Dow EH&S On-call person is responsible to contact the people filling the following roles as needed. Dow ES&S has the current contact numbers for these people. In some cases, a group pager is activated which contacts multiple people with one call.

- Dow Fire Department, if applicable
- EH&S On-Call person, if applicable
- Site Emergency Manager, if applicable
- Utilities Distribution, if applicable
- Site Responsible Care Leader, if applicable
- Remediation Leader, if applicable
- Dow Medical Department, if applicable
- Delivery Leader/Specialist, if applicable

2. External Contacts

The EH&S On-Call person, or his/her designee (FEC), may contact the following, as needed:

- Michigan EGLE (PEAS) - 800-292-4706
- EPA National Response Center (NRC) - 800-424-8802
- U.S. Coast Guard, Detroit - 313-568-9470
- U.S. Environmental Protection Agency - 313-676-6500
- EGLE-MMD, Chief, Lansing – 517-284-6551
- EGLE-MMD, District Office – 989-894-6200

When notifying state, local, and if necessary, federal authorities, the following information will be provided:

- Caller's name and telephone number
- Name and address of facility
- Facility EPA Identification Number
- Time and type of incident (e.g., release, fire)
- Name and quantity of material(s) involved, to extent known
- The extent of injuries, if any
- The possible hazards to human health, or the environment, outside the facility.
- Weather conditions (wind direction and speed), if a vapor is involved
- The approximate area of affected location

Dow ES&S may call the following, if appropriate:

- Midland City Police Department - 911
- Midland County Sheriff Department - 911

- Michigan State Police, Tri-City Post No. 31 - 989-495-5555
- Mid-Michigan Medical Center - 989-839-3100 (Emergency Dept)
- Midland City Utilities Department (Water Emergencies) - 989-837-3515
- Midland City Utilities Department (Sewer Emergencies) – 989-837-3500
- Midland County Emergency Services (LEPC) - 989-832-6750
- Midland City Fire Department - 911
- Midland County Health Department - 989-832-6380
- Consumers Energy - 800-477-5050

A7.D.2 Procedures to Be Used for Identification of Releases

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The FEC will identify the character, source, amount and extent of any released hazardous waste or hazardous waste constituents. The amount may be estimated based on the capacity of the particular source and the last inventory for that source. Unit inventories, receipts (i.e., bill of lading or uniform hazardous waste manifest), the waste characterization on file, operating logs, engineering drawings, or the waste generator may be used to identify the hazardous waste or hazardous waste constituents involved.

A7.D.3 Procedures to Be Used to Assess Potential Hazards to Human Health and the Environment

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

The emergency coordinator will assess possible hazards, both direct and indirect, to human health or the environment that may result from a release, fire, or explosion.

The FEC may use the waste characterization information, information on health effects of the chemical(s) involved, information on environmental impacts of the chemical(s) involved, input from Expertise Centers (e.g., Reactive Chemicals, Industrial Hygiene, EH&S On-call, etc.), the expected duration of the emergency, and meteorological information to assess the impact of the emergency. Action will be taken, based on this assessment, to contain and mitigate the potential impact of the emergency. Additional action may be taken, as deemed necessary, to evacuate downwind areas or notify outside agencies of such other actions as may be necessary to protect human health and the environment.

The assessment will consider the effects of any gases that may be generated, surface runoff from water or chemical reagents used to control fires, and any chemical or physical reactions with equipment or structures.

A7.D.4 Procedures to Determine if Evacuation Is Necessary and Immediate Notification of Michigan Pollution Emergency Alerting System and the National Response Center

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56]

If the FEC's assessment indicates that evacuation of facility areas may be advisable, he will implement the evacuation plan for the facility. The facilities employ a siren system that rises and falls in pitch continuously to initiate evacuation. In addition to the alarm, a two-way radio system is used to notify key plant personnel of the nature of the emergency and recommended plan of

action. If the FEC determines that the event could also impact areas outside the facility they will make the appropriate notifications as described in Section A7.F, Procedures for Assessing Offsite Risk During and After a Fire/Explosion Incident or Significant Release, below.

The facility's evacuation plan is included in this Contingency Plan as Attachment A7.2.

A7.D.5 Procedures to Be Used to Ensure that Fires, Explosions, and Releases Do Not Occur, Reoccur, or Spread During the Emergency

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(e), 264.227, and 264.200]

Whenever there is an imminent or actual emergency situation where the potential or actual release of hazardous waste or hazardous waste constituents may threaten human health or the environment, the facility will implement the following procedures:

1. Fire/Explosions

In the event of a fire or explosion, the fire will first be contained to prevent spreading and then extinguished. Initial response will be conducted by facility personnel only if safe to do so. Any additional response will be conducted by ES&S. Containment of the fire will be accomplished by identifying the potential spread pathways such as connecting pipelines or electrical traceways. Any valving in pipes or conduits containing potentially ignitable wastes or materials will be closed and isolated if possible. In addition, these areas, the electrical traceways and the areas downwind, may be blanketed with fire fighting foam or other fire suppression materials to deprive the ignition source of oxygen and to keep any potentially ignitable materials at temperatures well below the auto-ignition temperatures.

Also, should it appear that neighboring containers or tanks containing potentially ignitable materials could be impacted, and if considered to be an appropriate, safe action in the opinion of the Dow Fire Chief, the containers or the contents of the containers or tanks may be temporarily moved to an alternate location.

In the event of an explosion with secondary fires, the fires will be contained and extinguished, and the area contaminated by debris from the explosion will be barricaded and traffic restricted until the debris is collected and the area decontaminated.

If the Dow Fire Chief determines that additional firefighting resources are needed they will contact the City of Midland Fire Department as described in Attachment A7.1: Documentation of Arrangements with Local Authorities.

2. Spills/Material Releases

These emergencies that require implementation of the Contingency Plan will be controlled by erecting barricades, then intercepting and collecting the spilled material to minimize the affected area.

A spill from a tank, portable container or pack will be contained by spreading appropriate material to contain the spill and prevent spreading. The appropriate absorbent for the waste may be determined by consulting the waste characterization for that material. The liquid portion of the spilled material will then be collected into tanks or available containers. The solid portion will be collected in containers.

In the event of a release of material which creates a vapor explosion hazard or which is likely to cause odor complaints from outside the facility, the spill will be contained and blanketed with foam or liquid, or otherwise managed, to minimize the evolution of flammable vapors or odors.

3. Large Rain Events

Stormwater-related emergencies that require implementation of the Contingency Plan will be controlled by monitoring of the facility rain gauges, the proactive staging and use of portable pumps for storm water/leachate management, and having employees or on-call contractors available to respond in a timely manner to mitigate the event.

An imminent release of storm water/leachate from an active landfill cell will be contained by plugging any affected outfalls to contain the release and prevent spreading. The liquid portion of the released storm water/leachate will then be collected into tanks or available containers or pumped into the on-site process sewer system and treated in the Midland Plant's NPDES-permitted wastewater treatment facilities. The solid portion will be collected in containers and appropriately managed.

During an emergency, the FEC must take all reasonable measures necessary to ensure that fires, explosions, or releases do not recur or spread to other areas of the facility, or off site. Actions that may be employed are described above. Where applicable, these procedures include stopping processes and operations.

Before normal operational activities are resumed under these circumstances, the FEC, in consultation with any other appropriate facility supervision, fire, safety or loss prevention personnel, will inspect the area to assure that the potential of the incident recurring has been minimized.

Attachment A7.3 is a detailed description of the type, amount, and location of all emergency equipment at the Midland Plant Site.

A7.D.6 Procedures to Be Used to Monitor Equipment Should Facility Operations Cease

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(f)]

Dow Silicones will monitor for leaks, pressure buildup, gas generation or ruptures using handheld and/or computer-based monitoring if operations at the facility are stopped in response to a fire, release or explosion. Any monitoring will only be performed if it is appropriate and can be done safely.

A7.D.7 Procedures to Provide Proper Treatment, Storage, and Disposal for Any Released Materials

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(g)]

The liquid portion of any spill will be collected into tanks or containers. The solid portion will be collected in containers. If a spill is from a pack, an overpack container may be used and the overpack container will be handled appropriately depending on the waste (e.g., incineration, etc.). Any collected spill materials will be properly managed in accordance with operating license requirements.

A7.D.8 Procedures for Cleanup and Decontamination

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(h)]

Liquid wastes falling within contained areas will be collected using vacuum trucks or by pumping into tanks or containers and managed appropriately. Water runoff from small fire fighting or spill situations which are relatively clean and which would normally be allowed to be diverted away from the facility will be allowed to flow into the on-site process sewer system and treated in the plant's NPDES-permitted wastewater treatment facilities.

Spills, leaks, or water run-off from fire fighting activities containing significant amounts of organic liquids and which cannot be positively controlled using existing structures (such as diking systems) or other equipment, will be controlled and cleaned up. Cleanup materials from any release, fire or explosion shall be characterized, stored and treated within the facility following the normal procedures for these activities.

Solid waste material is evaluated under Land Disposal Restrictions and disposed of at the Dow Salzburg Landfill or placed into containers for further treatment and/or disposal. Metal resulting from demolition required as a result of emergency situation will be cleaned and recycled as scrap metal.

Water used to wash emergency equipment will be collected in the Midland Plant’s sewer system and treated in the Dow NPDES – permitted wastewater treatment facilities.

A7.E RESUMPTION OF OPERATIONS AND RECORD KEEPING REQUIREMENTS

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(h) and (i)]

The following subsections identify procedures that must be followed to meet the notification and record keeping requirements.

A7.E.1 Procedures to Be Used Prior to Resuming Operations

[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(h)]

Prior to resuming operations in the affected area(s), Dow Silicones will inspect all emergency equipment to ensure that the proper cleanup procedures have been implemented and all equipment has been cleaned and is fit for its intended use.

A7.E.2 Record Keeping Requirements
[R 299.9607 and 40 CFR §§264.51, 264.52, and 264.56(i)]

A7.E.2(a) Operating Record

In the event of an emergency situation that requires implementation of the Contingency Plan, the emergency coordinator will record in the operating record the time, date, and description of the event. The operating record is maintained by Dow Silicones Corporation and can be found at the following location: Dow Silicones Corporation Midland Plant, 3901 S. Saginaw Road, Midland, MI 48640

A7.E(2)(b) Written Incident Report

Within 15 days of an incident requiring implementation of the Contingency Plan, the Dow Silicones Corporation facility will submit a written incident report to EGLE at the following address:

Chief of the Office of Materials Management Division
Department of Environment, Great Lakes, and Energy
P.O. Box 30241
Lansing, MI 48909

The report will contain the following information:

1. Name, address, telephone number, and site identification number of the facility and the owner/operator.
2. Date, time, and type of incident.
3. Type and quantity of materials involved.
4. Assessment of actual or potential hazards to human health and the environment.
5. Extent of injuries, if applicable.
6. Estimated quantity and disposition of recovered materials that resulted from the incident.

A7.F PROCEDURE FOR ASSESSING OFFSITE RISK DURING AND AFTER A FIRE/EXPLOSION INCIDENT OR SIGNIFICANT RELEASE
[R 299.9521(3)(b) and R 299.9607 and 40 CFR §264.56(d)]

If at any time during or after a release, fire, or explosion, the FEC determines that the situation could threaten human health or the environment outside the facility, they will report the findings as follows:

- If the FEC's assessment indicates that evacuation of local areas may be advisable, they will immediately notify the appropriate local authorities. The FEC will be available to help local officials decide if evacuation is necessary, and
- The FEC will immediately notify either the government official designated as the on-scene coordinator for this geographical area or the National Response Center (800-424-8802) and the following information will be provided:
    1. The name and telephone number of the person who is reporting the incident.
    2. The name, address, telephone number, and site identification number of the facility.
    3. The name, address, and telephone number of the owner or operator.

4. The date, time, and type of incident.
5. The name and quantity of the material or materials involved and released.
6. The extent of injuries, if any.
7. The estimated quantity and disposition of recovered material that resulted from the incident, if any.
8. An assessment of actual or potential hazards to human health or the environment.
9. The immediate response action taken.

In addition, Dow Silicones will cooperate with EGLE staff in addressing the requirements of Office of Materials Management Division Policy and Procedure Number OWMRP-111-25 on Off-Site Corrective Action Procedures During and After Fire and/or Explosion Incidents at Hazardous Waste Management Facilities Licensed under Part 111 of the NREPA in the event that a significant Contingency Plan event resulting in the need for off-site corrective action procedures should occur.

A checklist for tracking facility response actions during and after a fire/explosion incident will be made available for review upon request.

A7.G PROCEDURES FOR REVIEWING AND AMENDING THE CONTINGENCY PLAN [R 299.9607 and 40 CFR §264.54]

The plan is reviewed and amended, if necessary, whenever:

1. The facility operating license is revised;
2. The plan fails in an emergency;
3. The facility changes in its design, construction, operation, maintenance or other circumstances in a way that materially increases the potential for fires, explosions or releases of hazardous waste or hazardous waste constituents;
4. Changes in response are necessary for an emergency situation;
5. The list of emergency coordinators changes; or
6. The list of emergency equipment changes.

Attachment A7.1: Documentation of Arrangements with Local Authorities

Copies of the Contingency Plan are issued via certified mail to:

Emergency Management Coordinator
County of Midland, Midland Law Enforcement Center
2727 Rodd Street
Midland, MI 48640

Chief of Fire Department
City of Midland
816 E. Haley Street
Midland, MI 48640

Medical Director
Midland County Health Department
220 W. Ellsworth Street
Midland, MI 48640

Chief
EGLE-MMD
Constitution Hall
525 West Allegan Street
P.O. Box 30473
Lansing, MI 48909

EGLE-MMD
Saginaw Bay District Office
401 Ketchum Street, Suite B
Bay City, MI 48708

Copies of certified-letter receipts from the local emergency support agencies are available upon request indicating receipt and acceptance of Dow Silicone's Contingency Plan.

B. Police Support

In an emergency involving this facility, Dow Silicones could request the support of local, county, or state police in the event that:

1. The emergency has the potential to impact the local community and evacuation of such potentially affected areas was necessary.

2. Numerous people gather at critical locations on the perimeter of Dow Silicone's facility and could be potentially in danger or pose a danger by restricting access to the facility for crucial response equipment, supplies, or personnel.

3. Specialized equipment materials or supplies are needed onsite and special route clearances or traffic control are required to expedite delivery of such materials, equipment, or supplies. In this case, police and sheriff departments will provide off site evacuation of affected portions of the community, barricading, traffic control, and/or possible escort for emergency activities.

C. Medical Support

Dow has a full time medical staff including full time physicians, Emergency Medical Technicians (EMTs), and a trained nursing staff. Nurses, EMTs, and physicians are onsite or available on-call for emergencies 24 hours per day, 7 days per week.

In general, the Dow Medical Department will evaluate all injuries to personnel and visitors in Michigan Operations. Acute chemical exposures and minor (non-fractures or vital organ penetrating) cases can be treated in-house. Severe injuries or occupational illnesses that require

hospitalization or treatment by specialists are treated and transported to the MidMichigan Medical Center (MMMC).

Dow staff physicians are also full-time members of the Midland Hospital staff and have admitting privileges to the MMMC. In addition, the Dow Medical Department participates in training Dow EMTs, the Midland County Paramedics, and the Family Practice Residents in the MMMC.

Also, during practice emergency exercises, the Dow Medical staff coordinates closely with the MMMC to monitor and treat injuries or exposures.

Finally, should evacuation of the Dow Medical Facility be necessary, the staff would regroup and continue to coordinate medical support activities from the MMMC.

D. Medical Emergency Vehicles

The Midland Plant location has three ambulances for transporting injured people to the Dow Medical Department or the MMMC. In addition, Midland County has paramedics and the MMMC has ambulances on call as needed.

E. Outside Fire Fighting Support

The Dow Fire Department is equipped and trained to handle all types of fires related to the operations including the facilities covered by this plan. Outside fire support, such as the Midland Fire Department, would be called upon only under circumstances where the Dow Fire Chief feels further fire fighting support is necessary and such outside fire departments are appropriately trained and equipped. Such situations could include fires that have or could spread to additional facilities within Michigan Operations, or fires that have or could spread to areas outside Dow property. In all cases, the decision by the Dow Fire Chief to call in outside fire fighting support would depend upon the nature of the fire and the Dow Fire Chief's knowledge of the capabilities and limitations of such other fire departments.

During practice emergency exercises, the Dow Fire Department works closely with the City of Midland Fire Department to monitor and evaluate fire fighting resources and responses to the practice emergency.

F. Procedures to Familiarize Local Outside Agencies with Contingency Plan

Any time the plan has been revised, Dow will re-issue a copy of the Contingency Plan to all local authorities listed in Item A, above.

Due to the complexity of the Midland Plant Site, local authorities are always escorted while on site. The escort provides information on a case-by-case basis. This information includes facility layout and chemical properties of involved materials (including hazardous waste properties). The escort determines a safe route to the involved site and escorts authorities along evacuation routes, if necessary.

Attachment A7.2: Evacuation Plan and Routes

Evacuation Plans

A. General Procedures

In the event of a major emergency, it may be necessary to evacuate a portion of the surrounding facility area. The FEC, or Dow ES&S in his/her absence, is responsible for determining when an evacuation is necessary.

In the event a facility evacuation is called for, the following actions will be taken:

- The signal for facility evacuation will be activated.
- The guards will immediately open the gates. No further entry of visitors, contractors, or vehicles will be permitted unless they are involved in emergency response.
- All non-essential personnel, visitors, and contractors will immediately leave through the nearest exit gate that is not downwind of a release.
- No persons shall remain at or re-enter the location unless serving as the emergency response team. This will normally include only Fire Department personnel, Dow ES&S, emergency teams, and the FEC.
- All persons will be accounted for by their facility supervisors. Supervisors pre-designate gates as the safest exits for employees and also alternate exits if the first choice is inaccessible.
- Any attempts to locate persons not accounted for could involve endangering lives of others by re-entry into emergency areas unless the hazards are known and proper protective equipment is worn. Therefore, re-entry will generally only be performed by trained Emergency Response personnel.
- Re-entry into the evacuated area will be made only after clearance is given by the FEC. At his/her direction, a signal or other notification (i.e., all clear) will be given for re-entry into the facility.

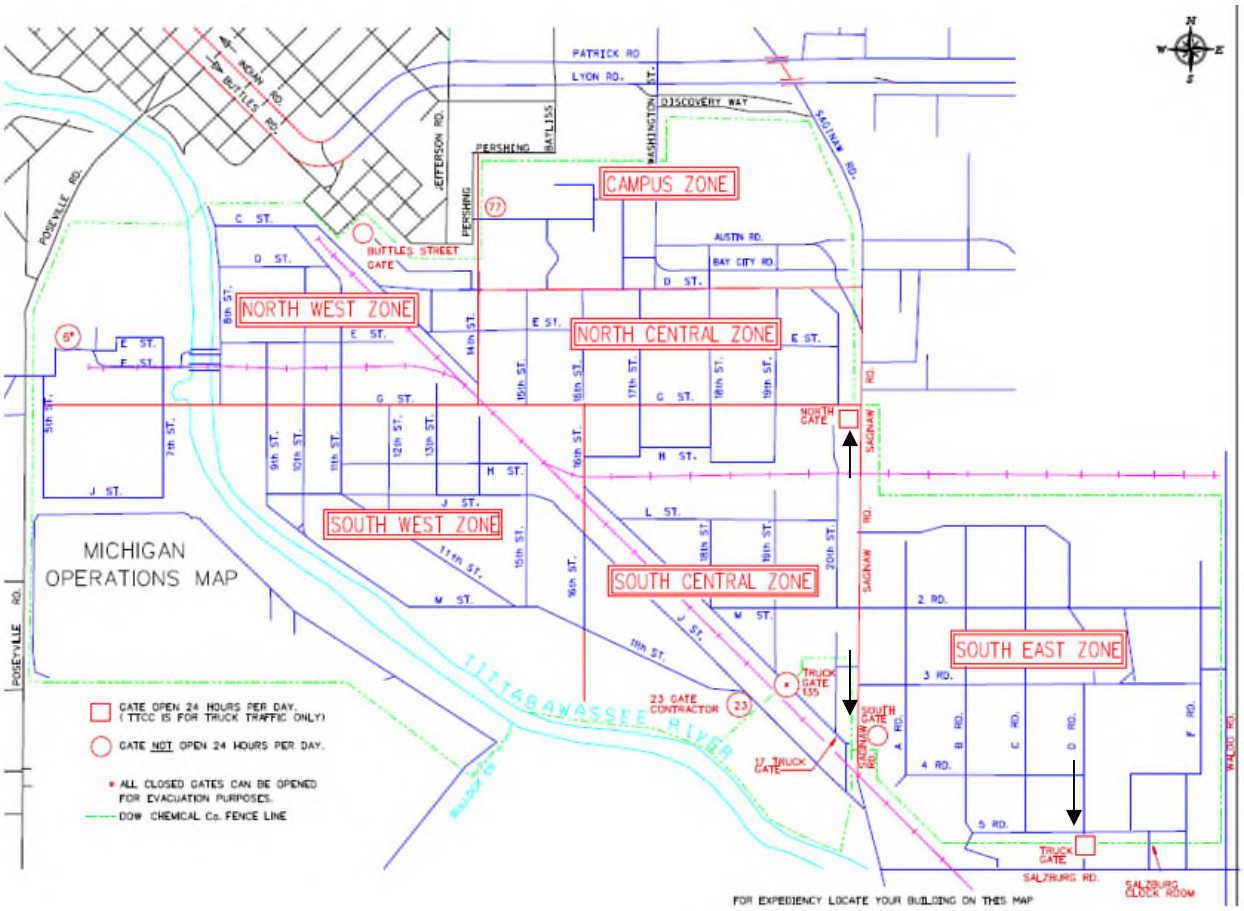
Drills are held to practice all of these procedures.

Bulletin boards and/or Unit Emergency Plans in each building have the following information prominently posted:

1. Building consolidation location and procedures for sheltering in place;
2. Building evacuation location and procedures;
3. Site-wide evacuation points and procedures.

Site-wide evacuation exit points are at the nearest gates marked on the site map below.

Site Evacuation Map



Attachment A7.3: Emergency Equipment Description

Emergency Equipment – 800 Block

Equipment Location	Description	Capabilities
4 at 809 Bldg, 2 at 806 tank farm, 1 at 804 truck wash area	7 fire hydrants with monitor nozzles	Provide water for firefighting at 300 to 750 gpm[1]
Buildings 801, 804, 805, 807, 808, 811, & 806 tank farm	30 lb dry chemical fire extinguishers	Suppression of Class B&C fires: Flammable liquids & electrical
807 Bldg.	15 lb. CO_2 fire extinguisher	Suppression of Class 2B & C fires: flammable liquids & electrical
808 Bldg	5 lb. CO_2 fire extinguishers	Suppression of Class 2B & C fires: flammable liquids & electrical
808 Bldg	2½ gal. Pressurized water fire extinguishers	Suppression of Class A fires: trash, wood, paper
805 Bldg, 807 Bldg, 811 Bldg.	Eyewash/Safety showers	Remove contamination from body and eyes
810 Bldg	Fire sprinkler control booth	Control system for 809 Bldg
809 Bldg	Dry pipe fire sprinkler system	Provides water (or foam from truck connection) for fire suppression
2201, 1105 or 408 Building (Stock)	Supplied Air Respirators	Respiratory protection from toxic vapors
	Air Purifying Respirators	Respiratory protection from toxic vapors
808 Bldg	Self-contained breathing apparatus (SCBA): 30-min.	Respiratory protection from toxic vapors
Service Department - 2505 Bldg	55 gal. open head drum	Packaging waste from cleanup of spill or release
	55 gal. closed head drum	Packaging waste from cleanup of spill or release
	45 gal. fiber drum	Packaging waste from cleanup of spill or release
	85 gal. salvage drum	Overpack leaking containers

Emergency Equipment – 800 Block

Equipment Location	Description	Capabilities
408 Building	Polymer laminate chemical splash protection suits	Emergency response, Level B/C protection
	Hooded disposable coveralls	Emergency response, Level B/C protection
Service Department, 2409 Building	50 lb. bags of $NaHCO_3$	Neutralize acid spills
	50 lb. bags absorbents	Absorb liquid spills

[1]This system provides water for fire suppression using one 750 gpm electric jockey pump, one 300 gpm electric jockey pump, one 1,500 gpm electric pump, one 2,500 gal/min diesel pump, two 2,000 gpm diesel pumps and one 3,000 gpm diesel pump. There is available for fire fighting, 1½ MM gallons of fire suppression water available from storage tanks located onsite, as well as the city water supply.

Emergency Equipment at 809-N-1 Emergency Response Building

Description	Capabilities
Sodium Bicarbonate, min.qty.= 5 Bags	Neutralize acid spills
8" X 10' Absorbent Booms For Land/Water, min.qty.= 200’	Absorb spilled liquids
Stakes For Above Booms 1/2" X 4', min.qty.= 6	Anchor absorbent booms
Rope For Stakes And Booms 3/8" X 20' (120 total feet) , min.qty.= 6	Anchor absorbent booms
9" X 9" Pillows For Sumps And Small Containments, min.qty.= 30	Absorb spilled liquids
Hazwik Socks For Hazardous Materials 48" X 3", min.qty.= 60	Absorb spilled liquids
18" X 18" Absorbent Pad, min.qty.= 100	Absorb spilled liquids
30" X 34" Absorbent Pad, min.qty.= 75	Absorb spilled liquids
Slikwik Ground Up Corn-Cob, min.qty.= 5 Bags	Absorb spilled liquids
Oil Dry, min.qty.= 5 Bags	Absorb spilled liquids
pH Paper, min.qty.= 6 Rolls	Test spills for corrosivity
Sample Bottles, min.qty.= 40	Sample spilled materials for analysis, if necessary
Plastic Shovels, min.qty.= 2	Collect spilled materials and contaminated soils for recovery or disposal
Drum Siphons , min.qty.= 10	Transfer liquids from leaking containers
Pail Siphons, min.qty.= 10	Transfer liquids from leaking containers
Barricade Tape, min.qty.= 6 Rolls	Restrict access to spill cleanup area

Site Emergency Equipment

Earthwork, Demolition and Excavation Equipment

ITEM	LOCATION	DESCRIPTION AND USE
Komatsu - Excavator	Contracted Services 922 Building & Bierlein Yard	Four wheeled all terrain vehicle with ½ cubic yard (cu. yd.) bucket for digging trenches and general excavation
Bulldozer	Bierlein Yard	Dual tracked vehicle with front blade for grading soil and fill. D-6 in Salzburg LF.
Front end loaders	Contracted Services 922 Building & Bierlein Yard	Four wheeled vehicle with 1.75-4 cu. yd. overhead loaders bucket for filling trucks and short-distance hauling of material.
Road grader	Contracted Services Bierlein Yard	Four-wheel all-terrain vehicle with scraping blade for grading soil and fill.

Site Emergency Equipment

Fire Fighting Equipment

ITEM	LOCATION	DESCRIPTION AND USE
Unit 416 2007 Rosenbauer International	Dow Fire Department 1105/2201 Building	Fire-fighting truck with a foam fire suppression system for fires involving organic liquid or polar solvents. It is equipped with a 1,250 gallon per minute Hale fire pump with a 500 gallon water tank.
Foam 1 2012 International with a 1,500 gallon per minute Hale fire pump.	Dow Fire Department 1105/2201 Building	Fire fighting truck with a foam fire suppression system for organic liquid or polar solvent fires. This vehicle has a Foam Pro Servo-Command foam system with a 1,000 gallon foam tank filled with Universal Gold Foam.
Engine 1	Dow Fire Department 1105/2201 Building	1000 AFFF AR Foam 1250 GPM
Engine 10	Dow Fire Department 1105/2201 Building	1000 AFFF AR Foam 1250 GPM
20 pound dry chemical fire extinguisher (and other various sizes)	Emergency Equipment Truck 1105/2201 Building	For small Type B and C fires
500-2,000 gal. of AFFF-Universal Foam	2201 Building	Fire fighting foam for organic liquids and polar solvent fires
Fireman's ax	Emergency Equipment Truck 1105 Building	For use in emergency entrance to blocked areas in a building

Site Emergency Equipment

Solid and Liquid Transportation Equipment

ITEM	LOCATION	DESCRIPTION AND USE
Water tanker	Contracted Services 922 Building & Bierlein Yard	3000 gal. truck for hauling mildly corrosive brines and water
Dump trucks	Contracted Services 922 Building & Bierlein Yard	10 and 15 cu. yd. capacity trucks for transporting solid materials
Vacuum Truck	Contracted Services 922 Building & Bierlein Yard	Vacuum truck for liquids

Contractors may also provide a variety of solid and liquid hauling trucks, and other construction equipment, as needed.

Portable Power Sources and Lighting

ITEM	LOCATION	DESCRIPTION AND USE
Air compressors	Environmental Operations 1159 Buildings	These two units are portable and can provide equipment air supply, but not breathing air.
Emergency generator	Contracted Site Services	Generators are available through outside Electrical contracting companies.
Emergency generator and lighting system permanently fixed to emergency equipment truck	Emergency Equipment Truck 1105/2201 Building	5000 watt diesel generator with four 500 watt quartz floodlights
Emergency lights	Site Infrastructure Group	The Site utilities group can provide portable light for normal electrical hazard use.
Flash light	Emergency Equipment Truck 1105/2201 Building	Standard use type
Portable gasoline-driven pumps	Environmental Operations 1159 Building	These pumps are for use with normal liquids

Site Emergency Equipment

Hand Tools

ITEM	LOCATION	DESCRIPTION AND USE
Box of miscellaneous tools	Emergency Equipment Truck 1105 Building	Wrenches, pliers, sockets, and other tools for general use
Bung wrench	Emergency Equipment Truck 1105 Building	Opening drums
100 foot steel tape	Emergency Equipment Truck 1105 Building	Measuring
Levered pry bar	Emergency Equipment Truck 1105 Building	Prying open equipment
Pick ax	Emergency Equipment Truck 1105 Building	Digging demolition
Rubber mallet	Emergency Equipment Truck 1105Building	Sealing drums, driving stakes
Set of sockets	Emergency Equipment Truck 1105 Building	General use
Shovels	Emergency Equipment Truck 1105 Building	Digging, placing absorbent
Sledge hammer	Emergency Equipment Truck 1105 Building	Small-size demolition
36" pipe wrench, aluminum	Emergency Equipment Truck 1105 Building	Plumbing work
36" pry bar, aluminum	Emergency Equipment Truck 1105 Building	Levering
24" pipe wrench, aluminum	Emergency Equipment Truck 1105 Building	Plumbing work
Halligan bar	Emergency Equipment Truck 1105 Building	

Site Emergency Equipment

Miscellaneous Equipment

ITEM	LOCATION	DESCRIPTION AND USE
Boat, motor and trailer	Environmental Operations 1012 Building	For deployment of boom unit
600 foot boom	Environmental Operations 1012 Building	Containing spills of liquids - Storm pond or non-swift water
1000 foot boom	Environmental Operations 1012 Building	Containing spills of liquids - Swift water
Ropes / Ratchet Straps	Emergency Equipment Truck 1105 Building	For securing items for block and tackle or hauling
Hydraulic jacks	Emergency Equipment Truck 1105 Building	Power lifting short distances such as lifting a vehicle for tire change
Bottle Jack	Emergency Equipment Truck 1105 Building	Used for lifting
Vehicle Jump Battery Packs	Emergency Equipment Truck 1105 Building	Emergency starts of 12-volt batteries
Miscellaneous mechanical tools and equipment	MI Operations Stock Department 872 Building	General demolition, construction and fabrication
PPV Fan	Emergency Equipment Truck 1105 Building	High capacity air blower to remove smoky air
Various pumps	MI Operations Stock Department 872 Building	Submersibles and frame mounted centrifugal and positive displacement pumps for a variety of pumping needs
Trailer for boom equipment	Outside Environmental Operations 1012 Building	Trailer equipped with boom and floats for containing floating spills

Site Emergency Equipment

Miscellaneous Supplies

ITEM	LOCATION	DESCRIPTION AND USE
Assorted wooden blocks	Emergency Equipment Truck 1105 Building	Wedging and support
Bag of absorbent bead pads	Emergency Equipment Truck 1105 Building	Absorbing various small organic liquid spills, (not for oxidizers)
Box of rubber stoppers	Emergency Equipment Truck 1105 Building	General use
Absorbent spill kits	Environmental Operations 1012 Building	Absorb spilled material
Floats for boom	Environmental Operations 1012 Building	See boom above
Hazardous materials manual	Emergency Equipment Truck 1105 Building	Reference on chemical hazard properties and safety information
Nylon ropes	Emergency Equipment Truck 1105 Building	General use
Rolls of barricade tape	Emergency Equipment Truck 1105 Building	Barricading work area
Rope	Environmental Operations 1012 Building	General use protective gear
Wooden plugs	Emergency Equipment Truck 1105 Building	Stopping small leaks
Rain gear, boots and gloves	Environmental Operations 34 Building	General use
Zorb-All absorbent	Emergency Equipment Truck 1105 Building	A pallet of 50 pound bags for general absorbing of spills
Sodium Bicarbonate	Emergency Equipment Truck 1105 Building	Neutralization use
Corn-cob	Emergency Equipment Truck 1105 Building	Absorbent use

Site Emergency Equipment

Miscellaneous Supplies

Sand	702, 779, and 1212 Buildings	Absorbent use
HazMat Response Equipment	Emergency Equipment Truck 1105/2201 Building	Gloves, boots, eye pro, Scott® cartridges, Tychem®, Level A's, SCBA's, hand tools, absorbent material kits, atmospheric monitors, heat gun, NAERG, footballs, Plug 'n Dike®, etc. Capping kits a, b, c, Midland

Site Emergency Equipment

Personal Protective Equipment

ITEM	LOCATION	DESCRIPTION AND USE
Turnout Gear	Assigned to each responder 1105 Building	Worn when handling potentially explosive materials
Face shields	Emergency Equipment Truck 1105 Building	Worn to protect face from projectiles and splashing
Level A Fully encapsulating Suits	Emergency Equipment Truck 1105 Building	Entry into corrosive environment
Hard hats / Fireman's Helmet	Emergency Equipment Truck 1105 Building	Head protection - worn during most construction, demolition or clean-up activities and emergency responses
Life jackets	Trailer for boom equipment Outside 1012 Building	Worn when in boat or around open water
Mono goggles	Emergency Equipment Truck 1105 Building	Vented goggles to protect eyes from direct splashes
Nitrile gloves	Environmental Operations 34 Building PPE Room	Hand protection from specific chemicals
Boots (Personal use PPE)	Emergency Equipment Truck 1105/2201 Building	Foot protection

Site Emergency Equipment

Personal Protective Equipment, continued

ITEM	LOCATION	DESCRIPTION AND USE
Respirator Cartridges	Emergency Equipment Truck 1105 Building	Variety of types of respirators
Rubber gloves	Emergency Equipment Truck 1105 Building	General hand protection
Saranex suits	Environmental Operations 34 Building PPE Room	Worn for protection from specific chemicals
45 minute Scott air bottles 4500 psi	Emergency Equipment Truck 1105 Building	Spare for 2500 psi Scott air pack
15 minute confined space Scott air packs 2216 psi	Emergency Equipment Truck 1105/2201 Building	SCBA for entry to certain hazardous breathing environments
Vessel entry mask	Emergency Equipment Truck 1105 Building	For self-contained breathing from central air supply

Site Emergency Equipment

Monitoring and Communication Equipment

ITEM	LOCATION	DESCRIPTION AND USE
Area-ray & RKI Eagle Gx, Stair Tuber	Emergency Equipment Truck 1105 Building	Meter to detect presence and level of explosive vapors; measures in percent of lower explosive limit and % of O^2 in area
Portable radio	Emergency Equipment Truck 1105 Building	Monitor radio communications and broadcasts
Radiation detector & meter	Senior Tech's Vehicle / office 1105 Building	Meter to detect presence or absence of radiation

Life Support and First Aid Equipment

ITEM	LOCATION	DESCRIPTION AND USE
Bag valve mask	All Ambulances	Powered resuscitation equipment
Ambulances (3)	Dow Fire Department 1105/2201 Building	Licensed and equipped Basic Ambulance per State of Michigan