

12.4.1 Facility Hazardous Waste Operations and Emergency Response (HAZWOPER) Program

Scope

This document serves as the facility written Hazardous Waste Operations and Emergency Response (HAZWOPER) Program. Hazardous waste is generated in the plant as a byproduct of the manufacturing process and associated activities. These waste can be either source specific or general in nature and are RCRA regulated.

HAZWOPER Reference Document

This document, containing hazard communication policies and practices specific to this facility, when used in conjunction with the Hazcom reference document, comprises the written Hazcom program for this facility.

The current version of the **HAZWOPER reference document** is available electronically on one of the following File Servers using the paths listed:

- o Michigan Div. Operating Discipline File Server (via MD0633):

MDCV03/OPERDISC/DOS/IND_HYG/IHREFERENCE DOCS/HAZREF
MDCV03/OPERDISC/MAC/INDHYG/IHREFERENCE DOCS/HAZREF

The current version of the **HAZWOPER Facility Template** is available electronically on one of the following File Servers using the paths listed:

- o Michigan Div. Operating Discipline File Server (via MD0633):

MDCV03/OPERDISC/DOS/IND_HYG/IHTEMPLATES/HAZCOM
MDCV03/OPERDISC/MAC/INDHYG/IHTEMPLATES/HAZCOM

List and Description of Hazardous Waste

This section describes how the facility maintains and files a description (characterization) of all hazardous waste streams generated and disposed of by/at the facility.

Reference	29 CFR § 1910.120 (Paragraph (P) (2))
Responsibility	The following is responsible for overseeing the plant hazardous waste files: • <i>Environmental Coordinator</i> If an new waste stream is generated, it is characterized and sent to Environmental Operations for review. If needed, required analytical data is attached to the waste characterization. After review and approval, the waste is added to the list and the characterization is filed. The waste may be disposed of at that time. Existing hazardous waste streams are reviewed for correctness on an annual basis. Changes in existing hazardous waste streams will result in the filing of a new waste characterization.

Location/Accessibility	The list and individual characterization files of hazardous waste are located in Bldg. 1617, in the Environmental Filing System, Section RCRA-190. These are accessible 24 hours a day.
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List and Description of Hazardous Waste Storage Areas and Tanks

This section describes the areas and tanks in the plant that store hazardous waste. There are several areas and tanks in the Plant designated for hazardous waste storage. Areas exist where containers of solid or liquid hazardous waste are stored (< 90 day storage) and tanks in which only liquid hazardous waste is stored (permitted storage, which generally store waste for less than one year).

Less Than 90 Day Hazardous Waste Container Storage Areas	1. North section of Block 17 2. Southeast Block 16 (TTU) 3. Northwest Bldg. 1703 (Process Lab) These areas are inspected on a weekly basis as per RCRA regulation.
Less Than 90 Day Hazardous Waste Storage Tanks	D-42B (General Plant Waste Feed to TTU) These areas are inspected on a daily basis as per RCRA regulation.
Permitted Hazardous Waste Storage Tanks	D-13 (Per/Tet Plant Waste Feed to TTU) D-15 (Per/Tet Plant Waste Feed to TTU) D-92A (TTU Waste Feed from Per/Tet Distillation) D-700 (TTU Waste Feed from Per/Tet Heavies System) D-710 (TTU Waste Feed from EDC Heavies System) T-749 (Groundwater Recovery) V-201 (Groundwater Recovery) These areas are inspected on a daily basis as per RCRA regulation.

Medical Surveillance Program

This section describes how the plant complies with Medical Surveillance Requirements of the standard.

Reference	29 CFR § 1910.120 (Paragraph (P) (3))
Biennial Health Monitoring	Employees are required to wear respiratory protection equipment for more than 30 days per year, and as such, are required to submit to a biennial physical exam surveillance program. In addition, employees are requested to submit to annual physical exams involving blood chemistries and audiograms.
Biennial Health Monitoring Scheduling	Employee Health Monitoring physical exams are scheduled by; • the plant Industrial Hygiene Coordinator

**Biennial Health
Monitoring Records**

Employee Health Monitoring records are kept and maintained by the Dow Medical Department.

**Decontamination
Procedures**

This section describes the plant procedures for decontamination of tools, equipment, Chemical Protective Clothing and Personal Protective Equipment.

Reference	29 CFR § 1910.120 (Paragraph (P) (4))
Decontamination of Tools	Tools are decontaminated following the steps listed below; 1. Depending on the degree of contamination, the tool may be decontaminated simply by wiping with an absorbent cloth. 2. If wiping with an absorbent cloth is not sufficient, the tool may be decontaminated by washing or scrubbing with; water, water and detergent, or a suitable solvent. If any of the above described liquids are use, the washing must been done in a contained area of the plant or the residue must be contained in a suitable device (i.e., a bucket). 3. If the above methods do not result in a thorough decontamination, the tool is then discarded. 4. All residues (absorbents, liquids, etc.) generated in the decontamination process must be properly disposed of.
Decontamination of Equipment	Equipment is decontaminated following the steps listed below; 1. The equipment is isolated, and then may or may not be red tagged, depending on procedural requirements. 2. Empty equipment contents as best physically able through draining, pumping, purging, etc.. 3. Some equipment requires solvent flushing and/or Requires purging with plant air or plant nitrogen and/or Requires water washing and/or Some equipment requires chemical cleaning and/or TSCA regulated equipment requires special decontamination procedures. Consult those procedures as needed for this type equipment. 4. Any liquid or solid residues are then removed from the equipment. 5. After visual inspection and/or analytical results, the equipment is then decontaminated. Note: Decontaminated equipment leaving the plant must be proven decontaminated (visual inspection or analysis) and must have a Dow Decontamination Tag attached.

Decontamination of Chemical Protective Clothing and/or Personal Protective Equipment	Chemical Protective Clothing (CPC) and Personal Protective Equipment (PPE) are decontaminated as per the manufacturers instructions. In lieu of these instructions, there are some simple guidelines; • Never use solvents • Never use harsh detergents • Never use abrasives or abrasive detergents In use CPC or PPE will be stored in designated areas. Contaminated CPC or PPE will not be re-used until it is decontaminated. CPC or PPE that can not be decontaminated will be disposed in containers designated for that purpose.
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New Technology

This section describes the plant procedures for complying with the New Technology requirements of the standard.

Reference	29 CFR § 1910.120 (Paragraph (P) (5))
New Technology	Continuous monitoring of appropriate discipline literature is conducted in order to stay abreast of technological developments. Those developments deemed applicable will be implemented on an as needed basis. A Dow Technology Center that specializes in the incineration of hazardous waste also provides guidance.

Hazardous Materials Handling

Labeling supplies for this facility can be found *****list location(s) here**

The following methods are used to label portable containers:

*****Select the option(s) being used and delete the options not being used**

Option	Method	Description
1	Use Preprinted Label	Facility personnel obtain appropriate preprinted label from facility supply or printer as basis for creating new label.
2	Fill out the Label using labeling guide	Facility personnel complete labels using a label guide. 1) The Dow internal sample labeling guide (the Dow labeling standard can be found in Appendix G of the Hazcom Reference Document) in combination with MSD sheets/ T.I.M.E. sheets or 2) The T.I.M.E. "L" report
3	Use Example Label	Facility personnel use an example of a properly completed label as basis for creating new label.

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**HAZWOPER
Training**

The plant utilizes a computer software based (File Maker Pro) training system. The system is designed to allow self-paced training for all employees. The training information is distributed to plant personnel for review prior to the actual training period. Many plant specific, safety and environmental related training topics are used to complete HAZWOPER requirements. The following describes the training process.

Facility-Specific Hazcom Training	Facility-Specific Hazcom training is a one time (per person) required training conducted prior to assuming job responsibilities (for additional information refer to Hazcom reference document).
Facility-Specific Hazcom Training Responsibility	The following individual is responsible for overseeing Facility-Specific Hazcom training: ***Identify the individual (by Job title) responsible for overseeing Facility-Specific Hazcom training and delete the others • IH Contact • Compliance Specialist • Safety Contact • Head Operator • Industrial Hygienist • Other
Method(s) of Training	Facility-Specific Hazcom training is conducted using the following methods: ***Select the option(s) being used and delete the others 1. The facility Safety/Health orientation video is reviewed. 2. One-on-one training is conducted by a knowledgeable person (e.g., compliance specialist, safety contact, industrial hygiene contact, or area industrial hygienist) 3. Hazcom training information is presented using a Hazcom checklist (found as an attachment at end of this program) 4. Self paced study using a training notebook with an opportunity for question and answers
Facility-Specific Training Documentation	Facility-specific training is documented using the following: ***Select the option being used and delete the others 1. Documented using DPS course number 8105 2. A hard copy of the training checklist/attendance sheet is maintained at the facility. The documentation is located at (***)list location) 3. Other, briefly describe
New Chemical Hazard Training	Training on the hazards associated with a new chemical hazard brought into the facility is conducted for employees who will be potentially exposed prior to beginning work with that chemical (for additional information refer to the Hazcom reference document)

New Chemical Hazard Training Responsibility	The following individual is responsible for overseeing New Chemical Hazard training: ***Identify the individual (by Job title) responsible for overseeing New Chemical Hazard training and delete the others • <i>IH Contact</i> • <i>Compliance Specialist</i> • <i>Safety Contact</i> • <i>Head Operator</i> • <i>Industrial Hygienist</i> • <i>Other, please list</i>
New Chemical Hazard Training Method	New Chemical Hazard training is accomplished through the following method(s): ***Select the option being used and delete the others 1) <i>Safety Meeting (e.g., monthly or pre-job)</i> 2) <i>Management of Change</i> 3) <i>Hazard information is presented using a Hazcom checklist (found as an attachment at end of this program) with an opportunity for Q&A</i> 4) <i>Pre-start-up review</i> 5) <i>Other, briefly describe</i>
New Chemical Hazard Training Documentation	New chemical hazard training is documented using the following: ***Select the option being used and delete the others 1. <i>Documented using DPS course number 3186</i> 2. <i>A hard copy of the training checklist/attendance sheet is maintained at the facility. The documentation is located at (***)list location)</i> 3. <i>Other, briefly describe</i>

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Non-Routine Task Hazard Communication	Before non-routine tasks are performed, employees are instructed in the potential hazards of the tasks and are informed of the appropriate work practices to be followed. The hazards of non-routine tasks are communicated to employees through the use of one or more of the following: 1) Permits such as the Safe Work Permit, Line and Equipment Opening Permit, Confined Space Entry Permit, Hot work permits etc 2) Pre-job safety meetings 3) Safety standards which describe in detail the measures which should be followed when conducting non-routine tasks 4) Following a written procedure for this task 5) Management of Change
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**HAZWOPER
Emergency
Response
Training**

Contractor employees working in this facility are apprised of:

- 1) How to access MSDS's for chemicals they may be exposed to
- 2) Precautionary measures that need to be taken to protect employees during normal conditions and in a foreseeable emergency
- 3) How to obtain label information

The above information is communicated to contractors through the following methods :

*****Select the option(s) being used and delete the others**

- 1) *Pre-job safety conference meeting minutes.*
- 2) *Work Permits (LEO, Confined Spaces, Safe Work Permit, Hot Work Permit).*
- 3) *Reviewing Contractor training checklist with the contract employees.*
- 4) *Reviewing facility safety orientation video.*
- 5) *Other, briefly describe*

The following person(s) is/are responsible for overseeing contractor hazard communication:

*****Identify the individual (by Job title) responsible for overseeing contractor hazard communication and delete the others**

- *IH Contact*
- *Compliance Specialist*
- *Safety Contact*
- *Head Operator*
- *Industrial Hygienist*
- *Other*

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**Hazcom
Standard**

A copy of the applicable OSHA Hazard Communication standard can be found in Appendix F of the Hazcom reference document.

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