

**SUPERFUND MEMORANDUM OF AGREEMENT BETWEEN
THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AND
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 5**

**SITE-SPECIFIC SUPERFUND MEMORANDUM OF AGREEMENT
THE TITTABAWASSEE RIVER/SAGINAW RIVER & BAY SITE**

1. PARTIES

This Site-Specific Superfund Memorandum of Agreement (SMOA) is entered into by and between the following governmental parties (Parties) who sign the Site-Specific SMOA:

- The United States Environmental Protection Agency (EPA) Region 5. EPA is designated the Lead Agency under this Site-Specific SMOA.
- The Michigan Department of Environmental Quality (MDEQ). MDEQ is designated the Support Agency under this Site-Specific SMOA.

2. PURPOSE

The purpose of this SMOA is to define the roles and responsibilities of Region 5 and the MDEQ with respect to activities conducted at the Site. For purposes of this SMOA, the Site is defined in paragraph 12.aa in the Administrative Settlement Agreement and Order on Consent (Settlement Agreement), EPA Region 5 CERCLA Docket No. _____ (see Attachment A). Attachment B to this SMOA shows specific areas at Dow's licensed hazardous waste management facility that are not being addressed under CERCLA and will continue to be addressed under RCRA.

The general purpose of this Site-Specific SMOA is to create a structure and a process within which each Party may effectively and efficiently coordinate its interests and concerns related to the work at the Site with those of the other Party, while assuring the responsibilities of each Party are fulfilled to the maximum extent possible to derive maximum net environmental benefit, optimize federal and state expertise and available resources, and to avoid unnecessary duplication of costs and efforts.

The parties agree that this SMOA is appropriate because Dow has a regulatory obligation under RCRA and Part 111 to conduct corrective action for releases of hazardous substances and contaminants from its licensed hazardous waste management facility. Section 3004(u) and 3004(v) of RCRA, 42 U.S.C. §§ 6924(u) and 6924(v), require any permit issued by the Administrator, or an authorized state, to contain corrective action requirements for on-site and off-site (respectively) releases of hazardous wastes or constituents from a permitted facility (October 31, 2008 letter from EPA to Dow). These obligations are set forth in the Hazardous Waste Facility Operating License (License) issued to Dow on June 12, 2003. The parties agree that it is appropriate to complete certain investigation and remedial activities at the Site using

CERCLA authority with Region 5 as the lead agency and MDEQ as the support agency. Attachment B shows specific areas of the licensed hazardous waste management facility that are not being addressed under CERCLA and will continue to be addressed under RCRA. MDEQ has determined that certain License obligations as set forth in Appendix H of the settlement Agreement may be satisfied by Dow's compliance with the Settlement Agreement, and MDEQ has determined that certain License obligations, as set forth in Appendix A and H of the Settlement Agreement will be held in abeyance or deferred. The parties agree that these determinations by MDEQ are consistent with RCRA.

Corrective action for currently unknown releases or potential future releases by Respondent, to the Tittabawassee River and floodplain from areas outside of the Site may require actions to be taken under the License in the area defined as the Site. Upon discovery of any such release and if this Settlement Agreement is still in effect, prior to imposing any obligations upon Respondent, MDEQ and U.S. EPA will consult with each other to determine whether any response actions should be performed under the License or CERCLA. The parties agree that any such release discovered pursuant to any Work (as defined in Section IV of the Settlement Agreement), other than Work described in the Settlement Agreement as set forth in the Statement of Work (SOW) Task 4, related to long term monitoring, will most likely be addressed under CERCLA. Any decisions made by U.S. EPA and MDEQ as part of this consultation shall not be subject to the dispute resolution provisions of Section XVII and the MDEQ reserves the right to require corrective action to address such currently unknown releases or potential future releases under the License.

The specific purposes of this Agreement are the following:

- A. To clarify for each Party its relationships with the other Party and its responsibilities for coordination of Site activities.
- B. To establish primary contacts for each Party.
- C. To oversee completion of any evaluation of current Site conditions and assessments of response options, any Remedial Investigation (RI), any Feasibility Study (FS) and/or Engineering Evaluation and Cost Analysis (EE/CA) and any Remedial Design (RD) for the Site by Dow pursuant to the Settlement Agreement. In doing so, the Parties will ascertain the nature and extent of contamination at, from, and to the Site, and ensure the implementation of an effective cleanup of the Site in a manner consistent with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. §§ 9601 et seq., and the National Contingency Plan (NCP), 40 C.F.R. Part 300.
- D. EPA and MDEQ acknowledge that as of the date of this Site-Specific SMOA, areas of Dow's Midland facility will continue to be addressed by Dow, with MDEQ oversight, pursuant to Dow's License. These areas include but are not limited to the City of Midland and the Midland Plant including floodplain areas

on the Midland Plant. Responsibility for oversight of certain monitoring and interim response actions being performed under the License by Respondent at the Site will transition to EPA under the Settlement Agreement as set forth in the SOW at Exhibit A. The MDEQ and EPA agree that except as described in Paragraphs 29, 45, 46 and Section XVII. of the Settlement Agreement, response activities at the Site will proceed under CERCLA.

- E. Oversight of operation, maintenance, and monitoring programs for response actions at the Site are the responsibility of both EPA (with regard to CERCLA) and MDEQ (with regard to RCRA compliance). Further definition of the roles of EPA and MDEQ with regard to oversight of operation, maintenance, and monitoring programs for response actions at the Site will be deferred until such time as response actions are selected.
- F. EPA and MDEQ intend and anticipate that the Work undertaken by Dow pursuant to and in compliance with the Settlement Agreement will meet the requirements of CERCLA, applicable requirements of the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 to 6992k, applicable requirements of Part 111 (Hazardous Waste Management) of the Natural Resources and Environmental Protection Act, as amended (Act 451), Mich. Comp. Laws §§324.11101-324.11153, and applicable requirements of the License. The participation of MDEQ in the oversight of the Work performed by Dow pursuant to the Settlement Agreement is to ensure that the Work performed by Dow satisfies the applicable substantive requirements of the License issued by MDEQ pursuant to RCRA and Part 111. Where compliance with applicable License obligations, as determined by MDEQ and subject to the terms of Sections XII. and XVI. of the Settlement Agreement, is not achieved by the implementation of Work undertaken by Dow pursuant to the Settlement Agreement, those obligations will remain as License obligations under RCRA and Part 111; and
- G. To provide procedures to resolve any conflicts between EPA and MDEQ regarding implementation of their respective Lead and Support Agency roles for the Site.

3. AUTHORITY AND APPLICABILITY

- A. Each Party has authority to enter into this Site-Specific SMOA. EPA and MDEQ have express statutory authority to respond to releases of hazardous substances related to the Site.
- B. This Site-Specific SMOA is effective upon signature by both EPA and MDEQ. Any Party may withdraw from this Site-Specific SMOA upon thirty (30) days written notice. This Site-Specific SMOA will be regularly reviewed by the Parties and may be modified by written agreement by all Parties.

- C. This Site-Specific SMOA is not legally binding.
- D. If at any time a conflict arises between the language of the Site-Specific SMOA and the language contained in CERCLA, the NCP, a Cooperative Agreement, Superfund State Contract, or an enforcement agreement or order, CERCLA, the NCP, the Cooperative Agreement, Superfund State Contract, or enforcement agreement or order language shall control. EPA and MDEQ will, to the extent practicable, give notice to one another prior to entering into an enforcement agreement or issuing an enforcement order regarding the Site.

4. EPA/MDEQ LEAD AGENCY AND SUPPORT AGENCY ACTIVITIES

- A. For the areas where it has been agreed that work will proceed under CERCLA, EPA is designated the Lead Agency for the oversight of any evaluation of current Site conditions and assessments of response options, any RI, any FS and/or EE/CA and any RD. MDEQ is designated the Support Agency for the oversight of any evaluation of current Site conditions and assessments of response options, any RI, any FS and/or EE/CA and any RD.
- B. Notwithstanding the Lead and Support Agency designations in this SMOA, it is the intent of EPA and MDEQ to work together as a collaborative team in overseeing Dow's Work as defined in the Settlement Agreement. MDEQ will provide timely, substantive and meaningful input to EPA in the review and oversight of the Work. This will include providing specific information as necessary to EPA including but not limited to identification of applicable and or relevant and appropriate requirements. EPA, in consultation and cooperation with MDEQ, will remain responsible for preparing any Action Memorandum, any Proposed Plan, any Record of Decision, any Administrative Record, as well as associated public comment and hearing tasks.
- C. EPA has used its CERCLA Section 104 authority to issue a Settlement Agreement for Dow to voluntarily perform evaluation of current Site conditions and assessments of response options, RI, FS and or EE/CA and RD activities. Any removal response action work pursuant to any related Action Memorandum will be conducted pursuant to orders, consensual or unilateral, issued pursuant to Section 106, and any agreement to perform any CERCLA remedial response action work pursuant to any Record of Decision will be embodied in a Consent Decree entered in Federal District Court in accordance with Sections 104 and 122 of CERCLA. EPA will only issue a unilateral order after providing notice to and consulting with MDEQ, to the extent practicable.

5. COMMUNICATION / COORDINATION / CONTACTS

Every Party will maintain communication with other Parties through the following contacts:

For EPA:

Technical Contact

Mary Logan, Remedial Project Manager Superfund Division
77 West Jackson Blvd.
SR-6J
Chicago, IL 60604
312-353-4699
logan.mary@epa.gov

Legal Contacts

Jeffrey A. Cahn, Associate Regional Counsel
Office of Regional Counsel
77 West Jackson Blvd.
C-14J
Chicago, IL 60604
312-886-6670
cahn.jeff@epa.gov

Catherine Garypie, Associate Regional Counsel
Office of Regional Counsel
77 West Jackson Blvd.
C-14J
Chicago, IL 60604
312-886-5825
garypie.catherine@epa.gov

For MDEQ:

Technical Contacts

Al Taylor, Geologist Specialist
Hazardous Waste Technical Support Unit
Waste and Hazardous Materials Division
Michigan Department of Environmental Quality
P.O. Box 30241
Lansing, MI 48909-7760
517-335-4799
taylor@michigan.gov

Legal Contact

Kathleen L. Cavanaugh, Assistant Attorney General
Environment, Natural Resources, and Agriculture Division
PO Box 30755
Lansing, MI 48909

517-373-7540
cavanaughk@michigan.gov

6. RESPONSIBILITIES OF EPA AND MDEQ

A. Responsibilities of EPA

1. Oversee Dow's Work as specified in the Settlement Agreement in accordance with the designated schedules contained in the SOW attached to the Settlement Agreement;
2. Ensure compliance with the Settlement Agreement or enforce stipulated penalties;
3. Communicate with MDEQ, provide MDEQ with timely, substantive and meaningful involvement in the review and oversight process, and ensure that Dow provides the MDEQ with all major work products specified in the Settlement Agreement in a timely manner so MDEQ may provide comments to the EPA;
4. Acknowledge receipt of MDEQ comments in writing or by electronic mail, followed by a meeting or telephone call between EPA and MDEQ to discuss the MDEQ comments within ten (10) business days of the receipt of the MDEQ comments by EPA. During this period, MDEQ and EPA will attempt to identify issues that may be subject to dispute resolution;
5. Consult with the MDEQ on significant issues; and
6. Carry out EPA-designated responsibilities in accordance with the time frames mutually agreed upon by both Parties, which is specified in Attachment C to this Site-Specific SMOA or as otherwise agreed between EPA and MDEQ.

B. Responsibilities of MDEQ

1. Review and comment on major work products specified in the Settlement Agreement and submitted by EPA or Dow (Dow is required to submit all work products simultaneously to EPA and MDEQ) in accordance with the time frames mutually agreed upon by both Parties, which is specified in Attachment C to this Site-Specific SMOA or as otherwise agreed between EPA and MDEQ. MDEQ may request additional time to provide comments to EPA, based on the magnitude and/or technical complexity of the document. EPA will work with MDEQ to reach agreement regarding the provision of additional time to MDEQ for review so long as such requests do not result in significant delays in work progress;

2. Communicate with Dow regarding matters covered by the Settlement Agreement only through EPA, or after providing notice to the EPA that MDEQ intends to communicate directly with the Dow regarding matters covered by the Settlement Agreement. However, in the event of any action or occurrence during performance of response activity which causes or threatens a release of a hazardous substance from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, MDEQ may direct Dow to immediately take all appropriate action. Following such an event, MDEQ shall notify EPA of the incident or Site conditions as soon as possible;
3. Conduct field oversight, as agreed to between EPA and MDEQ, including conducting split sampling, of Dow-related Work covered by the Settlement Agreement;
4. Participate, as agreed to by EPA and MDEQ, in public meetings relating to matters covered by the Settlement Agreement;
5. If appropriate, concur in any Interim or Final Record(s) of Decision (ROD) relating to Work done under the Settlement Agreement;
6. Conduct oversight consistent with paragraph 2.E of this SMOA; and
7. Track time and expenses incurred while conducting Work covered by the Settlement Agreement.

7. MODIFICATION

This Site-Specific SMOA may be modified from time to time by mutual agreement of the Parties. Any Party shall propose any modification to the other Party in writing. Each Party is responsible for notice to the other Party of all proposed and actual modifications to its statutory or regulatory authority, forms, procedures, or priorities that could impact activities conducted under the terms of this Site-Specific SMOA.

8. GENERAL PROVISIONS

- A. Nothing in this Site-Specific SMOA is intended to either create any right in or grant any cause of action to any person not a Party to this Site-Specific SMOA or to release or waive any claim, cause of action, demand, or defense in law or equity that any Party to this Site-Specific SMOA may have against any person(s) or entity that is or is not a party to this Site-Specific SMOA. This Site-Specific SMOA is not a fund obligating document. Any contribution of funds from Dow will be handled in accordance with applicable law and procedures.

- B. The Parties recognize that each Party reserves all rights, powers, and remedies now or hereafter existing in law or in equity, by statute, treaty, or otherwise. Nothing in this Site-Specific SMOA is or shall be construed to be a waiver of the sovereignty of a signatory Party. This Site-Specific SMOA is intended solely for the purposes of facilitating inter-governmental cooperation between the Parties, and creates no rights in third parties or the right to judicial review.
- C. Nothing in this Site-Specific SMOA waives or supersedes any state right under CERCLA regarding ARARs, ROD concurrence, and consent decree participation.
- D. If MDEQ does not provide EPA with comments on a document on or before the date specified in Attachment C to this Site-Specific SMOA, or as otherwise agreed to between EPA and MDEQ, the Parties agree that MDEQ will have no further opportunity to provide EPA with comments on that document, unless so requested by EPA. MDEQ may request additional time to provide comments, based on the magnitude and/or technical complexity of the document. EPA will work with MDEQ to reach agreement regarding the provision of additional time to MDEQ for review so long as such requests do not result in significant delays in work progress.

9. DISPUTE RESOLUTION

If a dispute arises between MDEQ and EPA concerning Site-Specific matters covered by the Settlement Agreement, then EPA and MDEQ agree to utilize the dispute resolution process set forth in Section XVII. of the Settlement Agreement.

10. EFFECT & DURATION OF AGREEMENT

- A. This Site-Specific SMOA shall take effect upon signature by EPA and MDEQ.
- B. This Site-Specific SMOA will remain in effect until ten (10) years after EPA has issued a Notice of Completion of Work to Dow pursuant to the Settlement Agreement or any other unilateral or consensual agreement or order, or until terminated by mutual agreement of the Parties; provided however, that either Party to this Site-Specific SMOA may terminate it by providing thirty (30) days written notice to the other Party.

11. THE UNDERSIGNED PARTIES enter into this Site-Specific SMOA between the EPA and MDEQ.

Michigan Department of Environmental Quality

By:

_____ Date: _____
 Steven Chester, Director

United States Environmental Protection Agency
Region 5

By: _____ Date: _____
Bharat Mathur, Acting Regional Administrator

Attachment A - Map

Attachment B - Map

Attachment C
U.S. EPA and MDEQ
Tittabawassee River/Saginaw River/Saginaw Bay
Agreed Upon Deliverable Review Times

General Site-Wide Tasks

Deliverable	Maximum Review, Notice or Action Time (Business Days)	U.S. EPA Action	MDEQ Action
Any Workplan, Field Sampling Plan and/or Quality Assurance Project Plan Scoping Meeting	15	Initiate and Schedule Meeting	Participate in Meeting
Any Draft Workplan	30	Review and Comment	Review and Comment
Any Final Workplan	30	Review and Approve	Review and Comment
Any Draft Field Sampling Plan	30	Review and Comment	Review and Comment
Any Final Field Sampling Plan	30	Review and Approve	Review and Comment
Any Draft Quality Assurance Project Plan	30	Review and Comment	Review and Comment
Any Final Quality Assurance Project Plan	30	Review and Approve	Review and Comment
Any Draft Health & Safety Plan	30	Review and Comment	Review and Comment
Any Final Health & Safety Plan	15	Notice to Proceed	Review and Comment
Draft Work Plan on Exposure Risks	30	Review and Comment	Review and Comment
Final Work Plan of Exposure Risks	30	Review and Approve	Review and Comment
Draft Work Plan on Transport Risks	30	Review and Comment	Review and Comment
Final Work Plan on Transport Risks	30	Review and Approve	Review and Comment
Draft Report on	30	Review and	Review and

Exposure and Transport Risks		Comment	Comment
Final Report on Exposure and Transport Risks	30	Review and Approve	Review and Comment
Draft Long-Term Monitoring Plan	30	Review and Comment	Review and Comment
Final Long Term Monitoring Plan	30	Review and Approve	Review and Comment
Candidate Technologies and Testing Needs Technical Memorandum	15	Review and Comment	Review and Comment
Draft Treatability or Pilot Study Workplan	30	Review and Comment	Review and Comment
Final Treatability or Pilot Study Workplan	15	Review and Approve	Review and Comment
Draft Treatability or Pilot Study Evaluation Report	30	Review and Comment	Review and Comment
Final Treatability or Pilot Study Evaluation Report	30	Review and Approve	Review and Comment

Tittabawassee River Tasks

Deliverable	Maximum Review, Notice or Action Time (Business Days)	U.S. EPA Action	MDEQ Action
Segment Delineation Meeting	15	Initiate and Schedule Meeting	Participate in Meeting
Draft Segment Delineation Technical Memorandum	15	Review and Comment	Review and Comment
Final Segment Delineation Technical Memorandum	15	Review and Approve	Review and Comment
Draft Wetlands Inventory	30	Review and Comment	Review and Comment
Final Wetlands Inventory	15	Review and Approve	Review and Comment
Any Draft Modeling Tools	45	Review and Comment	Review and Comment
Any Final Modeling Tools	30	Review and Approve	Review and Comment
Draft Basis for Action Report	30	Draft Document	Review and Comment
Final Basis for Action Report	30	Revise and Finalize Document	Review and Comment
Any Draft Segment Specific Response Proposal	30	Review and Comment	Review and Comment
Any Final Segment Specific Response Proposal	30	Review and Approve	Review and Comment
Any Draft RD Workplan	30	Review and Comment	Review and Comment
Any Final RD Workplan	30	Review and Approve	Review and Comment
Any Preliminary Design	30	Review and Comment	Review and Comment
Any Intermediate Design	30	Review and Comment	Review and Comment
Any Draft Final Design	45	Review and Comment	Review and Comment
Any Final Design	30	Review and Approve	Review and Comment

Any Draft Segment Specific Post-Response Residual Risk Demonstration	30	Review and Comment	Review and Comment
Any Final Segment Specific Post-Response Residual Risk Demonstration	30	Review and Approve	Review and Comment

Saginaw River and Saginaw Bay Tasks

Deliverable	Maximum Review, Notice or Action Time (Business Days)	U.S. EPA Action	MDEQ Action
Draft Remedial Investigation/Feasibility Study Workplan	30	Review and Comment	Review and Comment
Final Remedial Investigation/Feasibility Study Workplan	30	Review and Approve	Review and Comment
Draft RI Report	30	Review and Comment	Review and Comment
Final RI Report	30	Review and Approve	Review and Comment
Alternatives Screening Technical Memorandum	30	Review and Comment	Review and Comment
Draft FS Report	45	Review and Comment	Review and Comment
Final FS Report	30	Review and Approve	Review and Comment
Draft RD Workplan	30	Review and Comment	Review and Comment
Final RD Workplan	30	Review and Approve	Review and Comment
Preliminary Design	30	Review and Comment	Review and Comment
Intermediate Design	30	Review and Comment	Review and Comment
Draft Final Design	45	Review and Comment	Review and Comment
Final Design	30	Review and Approve	Review and Comment

Response Selection Deliverables

Deliverable	Maximum Review, Notice or Action Time (Business Days)	U.S. EPA Action	MDEQ Action
Any Draft Proposed Plan	20	Draft Document	Review and Comment
Any Final Proposed Plan	10	Revise and Execute Document	Review and Comment
Any Draft Record of Decision	30	Draft Document	Review and Comment
Any Final Record of Decision	10	Revise and Execute Document	Review and Comment
Any Draft Action Memorandum for a Non-Time Critical Removal Action	15	Draft Document	Review and Comment
Any Final Action Memorandum for a Non-Time Critical Removal Action	10	Revise and Execute Document	Review and Comment
Any Draft Responsiveness Summary to Public Comment	20	Draft Document	Review and Comment
Any Final Responsiveness Summary to Public Comment	10	Revise and Finalize Document	Review and Comment

Community Involvement Activities

Deliverable	Maximum Review, Notice or Action Time (Business Days)	U.S. EPA Action	MDEQ Action
Draft Community Involvement Plan	30	Draft Document	Review and Comment
Final Community Involvement Plan	15	Revise and Finalize Document	Review and Comment
Draft Fact Sheets, Updates, Progress Reports	2	Revise and Finalize Document	Review and Comment