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Chicago, IL 60604

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Dear Ms Krause:

Thank you for the opportunity to comment on the draft AOC and Statement of Work between the US Environmental Protection Agency and the Dow Chemical Company. Let us again extend our appreciation to EPA for granting an extension on the public comment period, for EPA's commitment to keep MDEQ as a partner in the AOC and for clearly stating that the entire river system and Bay were to be addressed in the AOC.

We consulted extensively with Dr Peter deFur to better comprehend this very technical document and we endorse many of his comments and criticism. We have incorporated comments from many people in the community who took the time to read these burdensome and highly technical documents or who engaged Dr deFur for input. We most appreciate the TASC provided by EPA and E2 Inc and for the opportunity to interact with Dr.deFur. We have talked with Sierra Club members, Clean Water Action members in our community as well as local residents and members of Tittabawassee River Watch.

General comments:

The AOC and the Statement of Work are very technical and difficult for the average citizen to digest. In the future, EPA must make reading and understanding these documents easier for the public if the agency truly wishes to embrace and advance public participation at a meaningful level.

Without much deviation the language in the AOC and Statement of Work appears to be generic to many other CERCLA sites.

Many in the community are fatigued with Dow's penchant for creating delays. It is disappointing that EPA is continuing to allow Dow Chemical to do investigative work on this site. This is confounding given the company's long history of being non-compliant, ignoring schedules and submitting deficient work plans. In 2006, 2007 and 2008 EPA Region V authored some of the most detailed accounts of Dow's noncompliance. Yet, EPA in the negotiated agreement with Dow is setting the stage for Dow Chemical to continue its past practice of delay. While boilerplate language and the PRP doing the investigation into the extent of contamination may be customary practice on CERCLA sites it is foolish for EPA to assume Dow will change its behavior and not continue its past practice of regulatory inaction and defiance. **We recommend at a minimum that EPA design the investigative work for Dow Chemical for the entire river system, floodplains and Saginaw Bay.**

We remain skeptical of the EPA choice to utilize Superfund Alternative (SA) site process in lieu of a true Superfund / National Priorities Listing. We want our comments on the record. As you are aware, Dow Chemical requested in a confidential memo to EPA HQ's on March 4, 2008 that EPA implement something other than RCRA but short of Superfund listing. We had hoped Dow's desire for the SA process would raise red flags for the Obama/Jackson EPA. It seems problematic, given the legacy, the magnitude and complexity of the site, that EPA would utilize a mere agency *guidance* to compel this recalcitrant company to address their contamination. It is at the core of the community's angst and frustration with this cleanup.

The rationale for the Superfund Alternatives site process and failure to place this site on the National Priorities List (NPL) has never been clear to anyone in the community. Superfund listing would provide statutory authority to give EPA the necessary power to impose a final remedy. We are concerned that failure to truly Superfund and list this site on the NPL is conducive to future legal challenges from Dow Chemical. We are not sure that a series of removal orders down the river will accomplish a comprehensive cleanup. Failure to place the site on the NPL was strictly a political decision. This site has been scored and enough data exists to implement the NPL. The Agreement with Dow Chemical does not detail at what juncture or what transgression would be severe enough to trigger NPL listing. It is unfortunate that EPA allowed politics to tie their hands. **Are the authorities cited in Sec I.2 of the AOC sufficient to justify the SAS process in lieu of Superfund/NPL listing? We recommend EPA place the Tittabawassee River, Saginaw River, their respective floodplains and Saginaw Bay on the National Priorities List.**

The community has many concerns about transparency and public process. Detailed comments are below. It is the community's position that EPA and MDEQ control the public participation process exclusively. In doing so we are looking for assurances from EPA that are not found in the *Agreement*. These would include public review and comment of all draft agreements between EPA and Dow Chemical. Early public participation in decisions are crucial to a comprehensive investigation and subsequent cleanup. Access to information in real time is imperative.

We are pleased to see the EPA has incorporated the natural resource damage trustees into the process. Further articulation in the AOC of their (Trustees) role would be appreciated. As you are aware EPA did pull out of the NRDA process in September of 2007 because Dow Chemical was using the confidentiality agreement in NRDA to shield information from the public. **Is EPA confident that this has been remedied?** We view the NRDA process and the trustees as crucial as EPA and community progress to resolve this issue.

It was noted by more than one citizen that the timeline for cleanup on the 2nd page of the Fact Sheet is extremely long and open-ended. Actual cleanup work extends to 2018 and beyond. Page 3 of the Fact Sheet states that for Operable Unit 1 (OU1) "the first set of segment specific cleanup options would be available to the public within 15-18 months". Given the amount of evaluation and data collected on the Tittabawassee River under the State's RCRA Corrective Action License, this seems longer than necessary.

The proposed AOC does not contemplate or bind the EPA and or Dow Chemical to any cleanup work now or in the future thereby, in our estimation, preserving Dow's ability to challenge issuance of emergency orders or final remedial cleanup. Not sure why EPA is giving Dow legal options to delay/avoid cleanup.

The Statement of Work (SOW) acknowledges that there is a limited amount of data on the extent of contamination and types of hazardous materials present in the Saginaw River and Saginaw Bay. As a result, the SOW anticipates that additional sampling will be necessary to determine the nature and extent of the contamination. It would be prudent to sample out until clean into the open waters of Lake Huron.

This agreement gives EPA and MDEQ the authority to implement public health protections, interim responses, etc. But it is silent as to what can be done immediately to address residents living on properties that are highly contaminated. The community views this as a serious omission.

A. General issues of community concern

Source control: The AOC and SOW do not mention source control and the extent to which recontamination is to be controlled by changes in practices on site, at the Dow facility or elsewhere. The AOC and SOW (as well as their appendices) do discuss the division of work between MDEQ

and EPA, and source control is an area that could be addressed in these particular discussions. Source control is necessary to ensure that recontamination does not undermine the long-term effectiveness of the cleanup actions.

Sequence of data collection and filling data gaps: The SOW relies on previous sampling work, indicating that sampling will not be repeated unless incomplete or deficient. The AOC and appendices could indicate the previous data on which Dow, EPA and MDEQ intend to rely in determining what previous data are acceptable and what new data are needed. Appendix F of the AOC gives the Sampling, Analysis, Studies, and Orders that have already been completed for portions of the site.

Explaining the process: It would be helpful if the SOW uses language that defines a clear sequence of events for the cleanup, beginning with identifying data gaps and compiling the available information. Then, based on this information, another step could follow that indicates how this information will be used and how the data gaps will be filled. Work plans are more easily understood when they follow a logical, systematic progression; as currently written, this SOW is not presented in a progressive order that uses each step to advance to the next.

Addition of a Data Gaps Report: The lack of continuity and progression in the SOW demonstrates that a cohesive Data Gaps Report, produced by Dow, may be a logical and necessary first step in the remedial investigations for OU1 and OU2. The AOC does not mention a specific Data Gaps Report. When preparing and conducting an RI/FS, it is very common to develop a stand-alone Data Gaps Report that forms the basis for future sampling and investigation. Such a Report would form one of the logical steps in the sequence of events for cleanup progression outlined in General Comment 2, above.

Public involvement: The Statement of Work indicates that EPA shall consult with MDEQ in making determinations regarding the adequacy of documents, work plans, cleanup, and the need for Early Actions and responses for acute exposures. EPA has the approval authority on such matters. However, public notice and comment periods are not included in the descriptions of the work and the approval process. EPA could ensure that the public will have opportunities to participate in the review process in addition to the public comment periods that will occur after Dow submits documents to EPA and MDEQ for comment and approval. An additional option for including the public is to conduct regular technical briefings on the progress of the site, noting the latest results, next steps, schedules, etc. These briefings can be monthly, quarterly or at whatever frequency best suits the needs of the community and agencies recognizing that sometimes more frequent meetings can interfere with work progress if the meetings require extensive preparation that does not lead to progress. Regular technical updates can be part of the Community Advisory Group (CAG) process, but if the CAG is not interested in technical discussions, then the public would not get that information. As the AOC and appendices are currently written, there are limited means of engaging the community and receiving its input during the course of cleanup. These issues are integral to the development of any cleanup agreement, as public involvement is a legal requirement of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) cleanups. Effective public involvement in the current era also involves centralized electronic postings on a web site that is recognized as the “official” site, a point on which the AOC and SOW are silent.

TAP funds are limited in duration: The AOC and SOW explain the TAP process whereby Dow will provide funding for a community group to retain a technical advisor who can assist with the community involvement in the RI/FS process. Unfortunately, the TAP funds are only available until the Record of Decision is signed; after that time, technical assistance for the community must come from other sources. This limitation will deprive the community of funding for a TA during important

steps in the cleanup process. Many Superfund sites around the country retain a TA via the separate Technical Assistance grant (TAG) program long after the ROD is signed. An excellent example of this situation is the former Fort Ord Army base where the ROD was signed in the late 1990's and TAG funds have enabled the community to participate more effectively for most of the time since the ROD was signed. It is not uncommon for a ROD to be amended or reopened during lengthy and complex cleanup activities, but the current provision will mean TA funds are not available to the community during the actual clean up phase of the process. This is not acceptable.

Cumulative risk assessment: The SOW refers to conducting separate human health and ecological risk assessments, but there is no mention of performing a cumulative risk assessment. EPA has been developing this concept for several years now and has prepared a framework document with initial approaches sketched out.

Glossary and acronym list: The AOC and the SOW lack an acronym list and a glossary. In the interest of user-friendliness, it is standard procedure in technical documents to include a list of acronyms spelled out. This serves as a "go-to" reference guide for readers who may not recognize or remember them easily. It is also common to include a glossary prior to the introduction section that defines commonly used vocabulary used throughout the document.

B Specific comments on the AOC

III. Statement of Purpose: The Statement of Purpose does not include source control as one of the objectives of the Settlement Agreement. EPA needs to apply appropriate language to remedy this.

IV. 12 aa Definitions pg 8: The AOC's definition of the "Site" is set forth as part of the Site's definition, reference is made to the area generally depicted on the map attached as Appendix C. With respect to the map attached as Appendix C, it appears that the digitized orange hashing is intended to graphically depict the Site area. It is difficult, however, for many property owners to objectively determine whether their property is (or is not) actually within the Site's definition. Can the EPA provide a detailed list of parcel identification and/or property addresses that are within the geographic Site area defined in the AOC and graphically depicted on the map attached as Appendix C?

V. Findings of Fact, n, page 12: The text of this fact indicates that sampling has shown over 200 chemicals are present at the site. There is no more discussion on whether the cleanup will treat these chemicals in addition to dioxins and furans.

V. Findings of Facts, page 12: Given the history of flooding and erosion at the site, source control should influence the remediation decisions at this site. Without addressing the sources of pollution, both coming off of the site and entering the site, the selected remediation strategy would be rendered ineffective.

V.13 u Finding of Facts pg 13: Discusses levels of dioxin in soil. Dow needs some number to frame risk and subsequent cleanup options. The lack of specificity about the exact number or how it will be determined is troubling. The AOC should state the EPA's Preliminary Guideline for Dioxin in Soil will be utilized pending completion of the Dioxin Reassessment and the subsequent number contained therein. **Absent that is the state's 90 ppt an ARAR?**

VI. 15 Conclusions of Law and Determination pg 14: The AOC states that the Site is a “facility” as defined in Section 101(9) of CERCLA, 42 USC 9601(9), and that portions of the Site are a “facility” as that term is defined in Section 20101(1)(o) of NREPA, Mich Comp Laws 324.20101(1)(o). **How does a property owner know whether their parcel is (or is not) a “facility” within the meaning of federal law or state law or both? Can the EPA provide a detailed list of parcel id’s and/or property addresses that are covered by the “facility” designations described in Section VI, paragraph 15 of the AOC?**

XXV. 100 Covenant not to sue by Respondent page 48: contains provisions on the “Covenant Not to Sue by Respondent” that permits Dow to reserve its right to assert claims pursuant to CERCLA against the Department of Defense, the Department of Commerce and/or the General Services Administration provided that these agencies have not resolved their liability at the Site with US EPA at of the time Dow Chemical asserts such claims. This does not appear to be a typical provision. **What is the rationale? What if any are the EPA’s concerns about the federal governments potential liability on the site?**

XXV.105 and 106 Covenant not to sue by Respondent page 50: Dow agrees not to assert any claims and to waive all claims and causes of action against some specific entity, which is generally described. There are specific dates and amounts of gallons/tons of waste described. **What is this referring to and who is receiving this protection? Is it the state or federal government?**

XXVIII. 113 Contribution pg 52: Dow Chemical is being given contribution protection under of this Proposed AOC. **What if any are the ramifications for citizens or the community? Rationale?**

Appendix A Statement of Work

1. **Section I. Purpose, entire section:** This section states the general provisions and intent of the work that will be conducted to investigate the site contamination in three areas: the Tittabawassee River, Saginaw River and Saginaw Bay. The document reviews the general roles and obligations of MDEQ, Dow and EPA. Public involvement is not mentioned, other than reference to federal regulations.
2. **Section 1, first bullet, page 1:** The text indicates that additional sampling will be necessary to characterize the nature and extent of contamination in the Saginaw River and Saginaw Bay. This section could be amended to state that, in order to determine the full extent of the contamination, the site boundaries for OU2 will extend until the soil and sediment samples come back clean.
3. **Section II Response Actions to Transition from RCRA to CERCLA pg 3:** This is a major modification of Dow Operating License and Dow’s obligation under RCRA to address its contamination. The public is entitled to a public hearing on these modifications before EPA and MDEQ sign the AOC. This section is silent on how the transition will occur to meet EPA expectation of efficient and timely transition.

4. Section III. Document Review, page 3: This section refers to document review by the agencies, but no mention is made of public review. Superfund has requirements that ensure public participation and document review is a part of the remediation process. Reference to these requirements is omitted in the document. **Were these requirements omitted because this site is not a true Superfund site and EPA is not bound by the requirements of Superfund?**
5. Section V, Task 1. Characterize & Assess Potential Acute or Near-Term Exposure Risks, page 4: The SOW refers to filling data gaps in Sections 1.2 and 2.2 but does not specify completion of a formal Data Gaps Report. Most site cleanups with a substantial database on previous sampling will produce a separate report indicating what information is still needed, an option, which should be considered in this SOW.
6. Section V, paragraph 1.1, page 4: This paragraph refers to the map in Exhibit D for exposure units. However, the map needs to specifically identify the exposure units. If the AOC means to clearly delineate the boundaries of these units, then this information needs to be included in the appendix as well. The map in Exhibit D is not sufficiently labeled to show exactly where these exposure units are found and the boundaries/borders of each.
7. Section V, Task 3. Community Involvement, page 8: As described in the SOW, EPA is in charge of community involvement, ensuring that the community is fully informed with periodic updates and information. The AOC and SOW indicate that a public involvement plan is to be created, but does not describe how the public will assist in creating the plan. The public's involvement could be expanded by means of monthly or quarterly updates from EPA, much the same way Dow is responsible for updating the EPA on its progress. Though EPA will be working with the CAG, the public involvement plan would be more effective if it is inclusive of all members of the public; therefore establishing separate briefings for the CAG and for the public at large may be necessary. The monthly and annual reports by Dow could be posted publicly on the EPA website.
8. Section V, paragraph 4.1 Contaminant Uptake Into Biota, page 11: This section of Task 4 is not entirely clear. Though the purpose of the AOC is to provide a broad scope of information relating to the division of labor, there could be some detail in Section 4.1 identifying the purpose and methods of investigating biota uptake of contaminants from sediment and soil. This section would be improved if the goals of the biota uptake investigation were described in at least general terms. For example, one goal of a biota survey would be to determine if resident species of bottom dwelling fish continue to take up dioxins and other site contaminants. Another goal would be to determine if there are biological responses of resident species to site contaminants, measured by tissue levels, biochemical changes, tissue responses, etc. The AOC could outline the purpose of the contaminant uptake study, as well as indicate whether the study will involve aquatic biota, terrestrial biota, indicator species, or all three. In addition, Section 4.1 would be improved if it included more detail on whether the study will involve fieldwork, laboratory work, or a combination of both for the completion of this work.
9. Section V, paragraph 4.2 Sediment and Contaminant Loading, page 12: The plan to conduct some hydrological work and sediment transport would be clearer if the spatial extent of the investigation were described in general. This section does not describe the purpose of the monitoring work as it relates to the studies and data collection that have already occurred. The goal of the work referenced in Section 4.2 could be more clearly stated and explained.
10. Section V, paragraph 8.1.1 Executive Summary of Existing Documents, page 17: The SOW creates confusion by stating that the decision to go forward with a Remedial Investigation (RI) or

early action response is based on the information from “documents prepared or approved under the License,” without clarifying what these documents are, who prepared them or to what they refer. It is unclear whether these documents refer to the sampling, studies, analyses and orders listed in Appendix F that inform MDEQ and EPA of the characteristics of the hazardous substances and their extent, or if there is a different set of documents that are not described elsewhere in the AOC.

11. Section V, paragraph 13.2 Define Sources of Contamination, page 32: In this section, the SOW identifies sources of contamination from Dow. However, the SOW does not explain Dow’s role in controlling these sources once they have identified them. This section also states that Dow is only responsible for finding its own sources of contamination, but the SOW could have a provision for how to consider runoff from other sources (construction sites, old industrial sites, currently operating factories, etc).
12. Section V, paragraph 13.4.2 Ecological Risk Assessment, page 34: This section could refer to the EPA’s “Guidelines for Conducting Ecological Risk Assessment” (1998) as a basis for the risk assessment. Additionally, there is no specific mention of rare and endangered species; the Michigan state Web site lists 14 in this area.
13. Section 13.4 paragraph 1 Human Health Risk Assessment, page 33: Dow Chemical is required to prepare a Human Health Risk Assessment for OU2. EPA should do this work for Dow Chemical. An HHRA was required as part of Dow’s corrective action obligations under RCRA. In August 2007 EPA sent a letter to MDEQ requesting that action be taken and Dow be required to complete their HHRA for the Tittabawassee River and Floodplain by the end of 2007. Dow Chemical failed to carry out this task. This work is resource intensive and costly to the taxpayers to continue negotiating with Dow. EPA would be expediting the process by doing the work internally.

This completes our most immediate concerns and comments on the AOC and Statement of Work negotiated between EPA and Dow Chemical. We hope that EPA is committed to real public involvement and inclusion. We take you at your word. It is our expectation that the negotiated agreement will be amended to reflect the concerns of the community, and bring more detail and specificity to the agreement. We look forward to EPA’s response to our concerns.

Regards,
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Cc: MDEQ

