

Attachment A

The City of Midland investigation and corrective action activities are being conducted under the jurisdiction of Dow's License issued pursuant to Part 111 of Michigan's Natural Resources and Environmental Protection Act (NREPA), M.C.L.A. § 324.11101 *et seq.* Part 111 requires owners of licensed hazardous waste facilities to undertake "corrective action" for releases of contaminants from waste management units. M.C.L.A. § 324.11115a(1). "Corrective action" is defined broadly to mean

an action determined by the department to be necessary to protect the public health, safety, welfare, or the environment, and includes, but is not limited to, investigation, evaluation, cleanup, removal, remediation, monitoring, containment, isolation, treatment, storage, management, temporary relocation of people, and provision of alternative water supplies, or any corrective action allowed under title II of the solid waste disposal act or regulations promulgated pursuant to the act. M.C.L.A. § 324.11102(3).

Michigan's corrective action rule, Administrative Code Rule 299.9629, authorizes the department to specify in a license "the environmental protection standards which are necessary for the cleanup and protection of soil, surface water, sediments, and ambient air that are established pursuant to part 201 [of NREPA]." Mich. Admin. Code Rule 299.9629(3)(a)(iii). According to Rule 629, contamination must either meet applicable "protection standards," be removed, or be treated in place. Mich. Admin. Code Rule 299.9629(4).

In order to clarify acceptable means to meet these corrective action requirements, in a Memorandum of Understanding (MOU) executed in November of 2000 between the MDEQ and the U.S. Environmental Protection Agency (EPA), the agencies agreed that the "process and clean-up criteria specified in Part 201," including "land-use based" cleanups, are an acceptable way of achieving corrective action objectives. The MDEQ also acknowledged its intent to use Part 201 to implement the Part 111 corrective action program at all State-lead sites. MOU, p. 3-4. Accordingly, Dow's License requires corrective action, but also recognizes that "substantively equivalent" processes under Part 201 may be used to satisfy those obligations." License, XI.A.1.

Part 201 provides for the development of “site-specific criteria.” As set forth in section 20120b “[t]he [MDEQ] shall approve site-specific criteria in a response activity under section 20120a if such criteria, in comparison to generic criteria, better reflect best available information concerning toxicity or exposure risk posed by the hazardous substance or other factors.” M.C.L.A. § 324.20120b.¹ Such site-specific criteria may, as appropriate, alter any algorithm value, parameter, or assumption used to calculate the generic criteria, and may consider the depth of contamination and other site-specific information M.C.L.A. § 324.20120b(2). Section 6 of the Work Plan discusses the calculation of a residential direct contact site-specific criterion for the City of Midland, and proposes a site-specific action level that will be used to trigger work under the Work Plan.

Investigation and corrective action work will be conducted within the procedural framework set forth in Dow’s License.² Dow’s License expressly includes the option of conducting corrective action as an interim action, including an interim action “designed to meet cleanup criteria,” so long as substantively equivalent to the interim action requirements of Part 201. License, XI.G. Interim action “designed to meet criteria” is action that is undertaken before final remedial action is taken or determined at the site, but, nevertheless, is stringent enough that no further action will be required. Under Part 201, an interim action is a type of “response activity” approved as part of a “response activity plan.” M.C.L.A. § 324.20101(1)(pp) and (rr). Accordingly, Dow’s Work Plan is being submitted as a “Response Activity Plan Designed to Meet Criteria,” but will also serve the purpose of an “IRA Work Plan” under the License. License XI.G.1. The License also requires that Dow submit “IRA Reports” to document completion of the IRA work. License, XI.G.4. In this case, the summary reports that are required each year pursuant to the Work Plan will serve that purpose. Finally, IRAs under the License require the submittal of monthly written IRA progress reports. In satisfaction of this monthly reporting requirement, Dow will frequently update a progress tracking log, which will be continuously available to MDEQ.

¹ Dow’s License also authorizes the use of site-specific criteria. License, XI.B.3(b)(iv) (“The licensee has the option to propose steps to develop site-specific cleanup criteria . . .”).

² This discussion is based on Dow’s License issued June 12, 2003, and the relevant provisions of Part 201 and the Part 201 administrative rules in effect on that date (License Condition XI.G).

Below is a table setting forth the primary corrective action requirements of Dow’s License together with a brief explanation of how each requirement will be met for the City of Midland.

License Requirement

How Met

Conduct interim response activities to cleanup or remove a released contaminant or take other actions prior to remedial action. Dow shall submit an IRA Work Plan for MDEQ approval. License, XI.G.

This Response Activity Plan Designed to Meet Criteria / IRA Work Plan fulfills this requirement. The Response Activity Plan will be implemented after it is approved by MDEQ.

Submit a written IRA Report within 60 days after completion of the IRA. License XI.G.4.

As described in this Work Plan (see Sections 9 and 10), Dow will submit annual summary reports in December of each year, summarizing the work completed during that year. The last such report shall serve as a final summary report for the IRA, and will contain a general summary of all work completed.

Submit monthly IRA progress reports to MDEQ. License XI.G.6.

In lieu of submitting monthly written progress reports, Dow will create a progress tracking log that MDEQ can access at any time. The log will be updated with progress information as appropriate to the activities being conducted.

Dow may conduct interim response activities designed to meet criteria if those activities are conducted in a manner that conforms or is substantively equivalent to the provisions of R 299.5526(7) and (8) and R 299.5705³ of the December 21, 2002 Part 201 administrative rules. License XI.G.

See rows below for discussion of subrule 299.5526(7) and (8) components.

R. 299.5526(7) A person who wishes to establish that an interim response activity intended to meet applicable cleanup criteria provided for under section 20120a(1)(f) to (j) or (2) [site specific criteria] of the act is complete for 1 or more environmental media in all or a portion of the facility shall maintain documentation that substantially complies with subrule (5) [see below] of this rule and also includes all of the following:

³ This rule basically adopts the cleanup criteria section of the rules and makes them applicable to interim actions designed to meet criteria. As discussed above, the Work Plan uses cleanup criteria in conformity with Part 201.

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| (a) | Clarification that the response activity is intended to satisfy particular land use-based cleanup criteria. | The selection of cleanup criteria is discussed in section 6 of the Work Plan. How those criteria will be satisfied is discussed in section 7 of the Work Plan. |
| (b) | Demonstration that the cleanup criteria selected are appropriate to the facility, including documentation of land use, zoning, activity patterns anticipated at the facility, and other factors that affect the appropriateness of the selected category. | Section 4 of the Work Plan discusses land use and zoning and how the selected cleanup criteria are appropriate to various land uses in the Presumptive Remedy Zone. |
| (c) | Documentation of the department's approval of all of the following: (i) The selected cleanup category. (ii) The applicable provisions in section 20120b(3)(a) to (e) of the act [land use restrictions, monitoring, operation and maintenance, permanent markers, financial assurance]. (iii) Any of the components of the response activity in subrule (8) of this rule, if applicable. | Documentation of the Department's approval will be through the Department's approval of the Work Plan, annual summary reports, and additional submissions as needed. Land use restrictions are discussed in section 7 of the Work Plan. Monitoring and operation and maintenance are provided for in the Work Plan. Permanent markers will not be needed. Financial assurance is being provided by the Trust Fund as set forth in section 7 of the Work Plan. For subrule (8), see discussion below. |
| (d) | The date on which the interim response activity is complete. | Will be documented in the final summary report. |
| (e) | A description of the condition of the facility at the conclusion of the interim response activity, including both of the following: (i) Identification of areas known to be contaminated but not addressed by the interim response. (ii) A discussion of how relevant pathways have been addressed and why other exposure pathways are not relevant or were not addressed in the area that was the subject of the interim response. | Will be documented in each annual summary report, as well as in the final summary report. |

R. 299.5526(8) An interim response that

includes any of the following components will not be considered complete, consistent with, or in compliance with, this rule unless the department has approved that component of the interim response:

- (a) The interim response activity relies on an institutional control in any form that is not a preapproved institutional control in place of a restrictive covenant to achieve land or resource use restrictions. Institutional controls are discussed in section 7 of the Work Plan. The details of any institutional control will be discussed with and approved by MDEQ after the final resolution boundary has been determined.
- (b) The response to aquifer contamination that is part of the interim response is the final action intended to be taken to address aquifer contamination and that action requires a waiver of R 299.5705(5) or R 209.5705(6) under Section 20118 of the act. The need for waivers under Rule 299.5705(5) or (6), if any, will be addressed in subsequent submittals.
- (c) The interim response activity addresses venting groundwater and a mixing zone determination is required to establish that the conditions in question are protective of public health, safety, welfare and the environment. Mixing zone determinations, if any are needed, will be addressed in subsequent submittals.

R. 299.5526(5) If a person who is planning to conduct or has conducted an interim response activity requests or is required to have the department's approval, then he or she shall submit an interim response work plan describing response activity to be performed or an implementation report that describes interim response activity that has been undertaken, whichever is appropriate. The department shall approve an interim response work plan or implementation report if it contains all of the following, and the documentation required by subrule (6) [same as (7), but for generic unrestricted criteria] or (7) [see above] of this rule, if applicable, and the

department determines that the action complies with part 201 and these rules with regard to interim response activity:

- (a) A description of the objectives of the response activity and how they were or will be achieved. Work Plan sections 1 and 7.
- (b) A legal description of the specific parcel of property addressed by the interim response activity. Maps of the areas subject to the response action are included as Figures in the Work Plan. Further, lists, by address and parcel number, of properties that have been addressed in a given year will be provided in each annual summary report. For parcels where only a portion of the property is addressed, Dow will provide a map with parcel number and GPS coordinates delineating the unsampled / unremediated areas.
- (c) A detailed description of the response activity undertaken, including all data that is relevant to the conclusions drawn. Information supplied under this subdivision shall include sufficient documentation of the nature and extent of contamination to support any conclusions about the effectiveness of the response activity. Nature and extent of contamination are discussed in section 3 of the Work Plan, and will be further assessed as set forth in section 7 of the Work Plan. All response activities that are undertaken will be described in annual summary reports submitted to the MDEQ.
- (d) If the interim response activity is a subset of a remedial action that is being planned, then a description of the relationship of the interim response to the remedial action. This interim response is a subset of the remedial action. The interim response described in the Work Plan is intended to meet criteria for direct contact with Midland area soils; therefore, no additional action will be necessary to address this pathway (except as noted in the Work Plan). Additional evaluation of other pathways / COCs will be addressed in subsequent submittals, including the revised RIWP discussed below.
- (e) A schedule for implementation of the proposed activity, if department approval is sought for a work plan before implementation of the interim response activity. Section 10 of the Work Plan.

Submit a Scope of Work (SOW) for conducting remedial investigation for all areas where a release from the facility is known to have occurred or could potentially have occurred. License, XI.B.3.

MDEQ approved Dow's "Scope of Work for Midland Area Soils Remedial Investigation" on October 18, 2005, fulfilling this License requirement. Dow has conducted numerous activities pursuant to the SOW; however, the SOW is no longer up-to-date or reflective of activities to be conducted pursuant to the Work Plan. Therefore, in order to clarify the administrative record, Dow will submit an amended and revised SOW pursuant to the schedule set forth in the Work Plan.⁴

Submit a written RI Work Plan. License, XI.B.5.

Dow submitted its initial Midland RIWP in December of 2006. By letter dated July 24, 2007, MDEQ approved the RIWP's implementation schedule (with modifications); MDEQ did not, however, approve the rest of the RIWP. In October of 2007, Dow submitted a revised RIWP, which has not been approved by MDEQ, although the parties have agreed to modifications of the approved schedule from time to time. In order to clarify the record, Dow will withdraw the prior RIWP and submit a revised RIWP pursuant to the schedule set forth in the Work Plan.⁵ The revised RIWP will further evaluate COCs / exposure pathways not addressed in this Work Plan.

Submit a RI Final Report. License, XI.B.5.

As required by the License, Dow will submit a RI Final Report pursuant to the schedule set forth in the Work Plan.

Develop and implement a Feasibility Study (FS) to evaluate response activity alternatives (may be waived by MDEQ). License, XI.I.

This Work Plan requests a waiver from MDEQ of the requirement to prepare an FS because other discussions between Dow and MDEQ and other documents (including this Work Plan) have or will fulfill this function.

⁴ Because the revised SOW will be an amendment to the currently-approved SOW, and will not withdraw the SOW, a formal License amendment is not necessary.

⁵ Because the RIWP has not been approved (except for the schedule), a formal License amendment is not necessary. It has not been the practice of the parties to amend the License merely for schedule changes and amendments.

Submit a Remedial Action Plan (RAP) if the response activities are based on Part 201 generic or site-specific criteria. License, XI.J.1. After completing the remedial action and meeting cleanup criteria, submit a RAP Completion Report. License, XI.J.4.

Dow will submit a RAP / RAP Completion Report detailing how the remedy was implemented.

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