



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

JUN 27 2007

R-19J

VIA FEDERAL EXPRESS

David Graham
The Dow Chemical Company
2040 Dow Center
Midland, MI 48674

RE: The Dow Chemical Company, Midland, Michigan
Reaches D, J-K, and O of the Tittabawassee River
General Notice of Potential Liability

Dear Mr. Graham:

In late November 2006, the Dow Chemical Company ("Dow") identified dioxin hot spots in and along the first 6 miles of the Tittabawassee River, downstream of its Midland facility. This identification was part of an investigation for corrective action required under a license (permit) issued to Dow by the Michigan Department of Environmental Quality ("MDEQ") pursuant to Michigan's Resource Conservation and Recovery Act ("RCRA") authorized hazardous waste management laws. Of greatest current concern are the areas called Reach D, J-K, and Reach O (the "Sites"). Reach D, which is a stream bank area, is contaminated with up to 50,000 parts per trillion ("ppt") dioxin. Reach J-K is generally described as a stream bank and overbank area and is contaminated with dioxin levels up to 84,000 ppt. Finally, Reach O is a point bar within the River and is contaminated with dioxin levels up to 87,000 ppt. These contamination levels grossly exceed the State of Michigan's direct soil contact clean-up criteria for dioxin, which is 90 ppt.

When these hot spots were discovered, you made personal assurances to me that these areas would be expeditiously addressed. Those assurances were made more than six months ago, and Dow has not yet commenced work to remediate any of these hot spots. On more than one occasion, we have expressed our grave concerns regarding Dow's lack of progress to address these hot spots. The contaminated areas in Reaches D and J-K are subject to flooding and erosion, which could spread the contamination. The contaminated sediment discovered in Reach O could be washed away in high currents.

The documented dioxin contamination in soils poses risks to human health, and the documented dioxin contamination in sediments poses risks to human health over time. First, the dioxin contamination of soils and sediments exceed MDEQ direct contact criteria by 3 orders of

magnitude. The State has also imposed fish and wild game consumption advisories due to dioxin contamination. Further, a 2004 EPA health risk analysis found that cancer risks to a frequent fish consumer are as great as one in 1,000. Non-cancer risks are up to 10 times acceptable exposure values for adults and 25 times above safe levels for children. As the Tittabawassee River is used by sport fisherman, and may be used by subsistence fisherman, these dioxin levels are of great concern.

The dioxin contamination also poses threats to the environment. A 2004 screening level ecological risk assessment (“ERA”) for terrestrials resulted in hazard indices showing unacceptable risk to receptors of up to 6,636 for the most at-risk species (red fox) and 220 for the least at-risk species (short-tailed shrew). A 2003 MDEQ screening level aquatic ERA identified risk levels that are probably sufficiently high to result in population effects in exposed avian and mammalian piscivores. Finally, the dioxin hot spots are a likely contributing source of this contamination, and are at risk of being transported and dispersed downstream during high flow events, rendering the dioxin contamination difficult to relocate and remove.

Given these risks, the time has come to move forward. As discussed above, we at the United States Environmental Protection Agency (“U.S. EPA “or the “Agency”) have documented the release or threatened release of hazardous substances at the above referenced Sites, and may spend public funds to control and investigate these releases. This action may be taken by U.S. EPA pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §9601 *et seq.*, (“CERCLA”) as amended, unless we determine that such action will be done properly by a responsible party. Responsible parties under CERCLA include the current and former owners and operators, and persons who generated the hazardous substances or were involved in transport, treatment, or disposal of them at the Site. Under Section 107(a) of CERCLA, 42 U.S.C. §9607(a), where the Agency uses public funds to achieve the cleanup of the hazardous substances, responsible parties are liable for all costs associated with the removal or remedial action and all other necessary costs incurred in cleaning up the Site, including investigation, planning and enforcement.

To address the risks to human health and the environment posed by the dioxin contamination at Reaches D, J-K, and O, which Dow has so far failed to address, we are currently contemplating the response actions described in the three enclosed CERCLA Section 106(a) administrative orders on consent - one for each of the three Reaches.

Dow owns the property at which Reaches D, J-K, and O are located and disposed of the hazardous substances at the Sites. By this letter, we are notifying Dow of its potential liability with regard to this matter and encourages Dow, as a potentially responsible party, to voluntarily perform or finance the response activities that we have determined or will determine are required at the Sites. We are willing to discuss with Dow the entry of appropriate administrative orders on consent under which Dow would perform or finance response activities and reimburse U.S. EPA for its costs. To that end, we are prepared to negotiate with Dow the final terms of the three enclosed administrative orders on consent for a period of no more than two weeks (or until Thursday, July 12, 2007).

If consent orders cannot be promptly concluded, then U.S. EPA may issue a unilateral order under Section 106 of CERCLA, requiring Dow to perform specified work, or may take any other steps it deems appropriate to ensure that the Sites are timely addressed. Note that under Sections 106 and 107 of CERCLA, Dow may be liable for reimbursement of U.S. EPA's costs, for statutory penalties, and for treble damages for noncompliance with such an order.

Please notify us in writing within five (5) days after receipt of this letter of Dow's willingness to perform or finance the activities described in the administrative orders on consent. If we do not receive a timely response, then we will assume that Dow does not wish to negotiate a resolution of its potential responsibility in connection with the Sites and that Dow declined any involvement in performing the response activities. Dow's letter should indicate the appropriate name, address, and telephone number for further contact with Dow.

To the extent that Dow is already involved in discussions with state or local authorities, engaged in voluntary cleanup action, involved in lawsuits regarding the Sites, or is preparing to conduct RCRA corrective action work at any of the Sites, Dow should continue such activities as it sees fit. This letter is not intended to advise Dow or direct Dow to restrict or discontinue any such activities; however, Dow is advised to report the status of those discussions or actions in its response to this letter and to provide a copy of its response to any other parties involved in those discussions or actions.

If Dow needs further information regarding the work described in this letter or in the three enclosed administrative orders on consent, then Dow may contact Jeffrey A. Cahn, Associate Regional Counsel, of the Office of Regional Counsel at (312) 886-6670.

Due to the nature of the problem at this Site and the attendant legal ramifications, we strongly encourage Dow to submit a written response within the time frames specified herein. We expect that Dow will give this matter its immediate attention.

Sincerely yours,



Mary A. Gade
Regional Administrator

Enclosures