

ATTACHMENT 14 – *EPA RESPONSES TO NTSB QUESTIONS, OCTOBER 29, 2010*

EPA's Responses¹ to NTSB Questions on the

Enbridge Pipeline (Marshall, MI) Spill

October 29, 2010

1. *What time did the START contractor arrive on-scene on July 26?*

The U.S. Environmental Protection Agency's (EPA) Superfund Technical Assistance and Response Team (START) contractors arrived at 17:30 on July 26, 2010.

2. *Could you forward a summary of the START air monitoring results from July 26, including action levels, general areas where monitoring was conducted, what actions resulted from the testing (such as decisions to evacuate, responder PPE, etc.)?*

See the attached summary report prepared by EPA's START contractors (Attachment A). This document details the air monitoring results collected during the first day of the response. Attachment A also identifies locations at which EPA conducted air monitoring on July 26, 2010. During the first 12-24 hours of air monitoring, START monitored air in residential neighborhoods. On July 26, 2010, the health agencies, including the Agency for Toxic Substances and Disease Registry (ATSDR), determined that benzene was a contaminant of concern and established the ATSDR minimum risk level (MRL) of 0.09 ppm for benzene. Benzene readings above the MRL would trigger additional response actions (including evacuations). EPA immediately shared the results of real-time air monitoring with the various public health agencies. These agencies used this information to make decisions about evacuations, re-occupation and worker safety. At no time did EPA make evacuation decisions. By July 27, 2010, the health agencies were developing a decision tree which was used for monitoring potential exposure to benzene and all other probable chemicals of concern.

3. *When OSC Kimble arrived at Division Street and observed oil flowing in Talmadge Creek on 7/26 @16:32, did he observe or assess oil containment efforts?*

At the date and time stated above, on Talmadge Creek at Division Street, On-Scene Coordinator (OSC) Kimble observed one vacuum truck and no boom on the discharge side of the culvert (under Division Road). (Later that evening, OSC Wolfe observed an estimated 600 feet of boom deployed on the Kalamazoo River. See EPA Response No. 4). Marshall and Marshall Township Fire Departments were on-scene. See attached maps with resources

¹ EPA notes that as facts and information are further developed, it may be appropriate to supplement or make modifications to EPA's responses. EPA reserves the right to provide such supplements or suggest such modifications to the NTSB. Additionally, EPA notes that it updates www.epaosc.net/EnbridgeEnergyPipelineRelease with additional and current information as it becomes available.

as of July 27, 2010 (Attachment B). For EPA assessment of oil containment efforts, see EPA Response No. 4, below.

4. *Were the initial methods utilized to contain the oil spill appropriate and adequate?*

During the initial hours of the response, Enbridge did not have adequate resources on-site to deal with the magnitude of the spill. Enbridge relied on weirs to control the spill, which were not adequate for the size of the spill. On his first flyover of the site at approximately 19:20 on July 26, 2010, OSC Wolfe observed an estimated 600 feet of visible boom that Enbridge had deployed on the Kalamazoo River. At approximately 20:45 on July 26, 2010, OSCs Kimble and Wolfe verbally directed Enbridge to secure more resources for the response action. Enbridge told the OSCs that the primary response contractors were mobilizing from Minnesota. OSC Wolfe gave Enbridge names of contractors that were located closer to the spill to facilitate quicker deployment of response resources.

5. *The content of information that was exchanged during the meeting between OSC Kimble and Enbridge incident commander Tom Fridel on 7/26 at about 17:00.*

Neither Tom Fridel (Enbridge) nor any other person representing Enbridge functioned as the incident commander during the response. During the evening and night of July 26, 2010, the EPA OSCs had several meetings with Tom Fridel. These discussions concerned the quality and quantity of Enbridge response assets on-scene, the status of the spill, and current response actions. During a meeting that occurred at approximately 19:30, OSC Kimble issued a Notice of Federal Interest (NOFI) to Enbridge (Attachment C), and indicated that EPA would deploy additional assets or assume response functions, if required.

6. *On the first day of the response, did EPA receive adequate feedback about the amount and locations of deployed spill response resources?*

When the OSCs first arrived at the spill, Enbridge could not provide EPA with an estimate of its cleanup resources currently in use. After OSC Wolfe flew over the spill site, EPA OSCs Kimble and Wolfe met again with Enbridge at approximately 20:45. During this meeting, OSC Wolfe provided an update to OSC Kimble, Enbridge personnel, a member of the Michigan State Police, and several other key responders on the scope of the spill. OSC Wolfe conveyed his observation that Enbridge had deployed 5 vacuum trucks and approximately 600 feet of boom. Enbridge insisted that it had 7 vacuum trucks in use. EPA requested during this meeting that Enbridge provide information regarding the number and capacity of tanks Enbridge had available to store recovered oil. Enbridge was not able to provide this information to EPA. During the 20:45 meeting, Enbridge was unable to provide EPA with an estimate of the number of crews that Enbridge expected and when those crews would arrive on-site. On July 26, at 21:00 and then again at 24:00, Enbridge told EPA that more resources (i.e., crews and equipment) would be coming in the morning. However, these additional resources did not arrive until the evening of July 27, 2010.

On July 27, 2010, EPA issued a Clean Water Act 311(c) Order to Enbridge, which established specific timeframes for clean-up milestones and compliance with environmental laws and regulations. On July 27, 2010, at approximately 23:30, EPA mobilized its Emergency and Rapid Removal Service (ERRS) contractors to supplement Enbridge's resources. EPA ERRS contractors arrived by 10:00 on July 28, 2010. On July 29, 2010, EPA mobilized its Basic Ordering Agreement (BOA) contractors. The BOA contractors arrived on-site on July 29, 2010. Once on-site, EPA's ERRS and BOA contractors immediately began installing additional containment boom and fortifying the booms placed by Enbridge contractors. EPA was directing all Enbridge resources.

7. *Confirm when EPA established itself as the FOSC and incident commander for this incident. Also, could you forward a copy of the letter to Enbridge notifying that FOSC Dollhopf would be the incident commander?*

Upon his arrival on-site at approximately 16:32 on July 26, EPA's OSC Kimble verbally established himself as the Federal OSC. After OSC Wolfe arrived on-scene and had discussions with OSC Kimble, EPA OSC Kimble provided written notification of EPA's lead role in the response by delivering the NOFI designating OSC Wolfe as the FOSC. EPA delivered the NOFI at approximately 19:30 on July 26, 2010, to Enbridge's Tom Fridel.

A copy of the letter notifying Enbridge that OSC Dollhopf had been designated the Incident Commander and replaced OSC Wolfe as the FOSC for the incident is included as Attachment D.

8. *Confirm whether the unified command was structured such that the responsible party was the incident commander with FOSC oversight or from the beginning was the EPA the actual incident commander?*

As stated above, Enbridge was never the Incident Commander for this spill. Upon their arrival at the site, EPA's OSCs were responding under their authority pursuant to the National Contingency Plan, 40 C.F.R. Part 300. Based on the issuance of the NOFI, OSC Wolfe was the FOSC. The Unified Command structure was established July 26, 2010, at approximately 20:30, when other response organizations expressed an interest in staying involved in the day-to-day response functions and decision-making.

9. *Did EPA direct OSRO activities during the first day of the response? If so, via unified command or unilaterally?*

On July 26, 2010, EPA's OSCs oversaw the response efforts primarily through oversight of Enbridge. During these first few hours, EPA focused on securing significantly more resources from both Enbridge and EPA for the response effort, since very few response resources had arrived on-site. Specifically, EPA provided Enbridge with assistance in identifying local available contractors. As resources arrived on-site, EPA directed all Enbridge and EPA resources. Additionally, EPA focused efforts on mobilizing additional EPA personnel, referred to as Incident Management Team (IMT) members, ERRS, BOA and

START contractors. For more information on the mobilization of EPA assets and coordination with other federal response partners, please reference the August 20, 2010 NTSB Field Notes-Environmental Group Timeline (Jon Gulch, EPA, email to Matthew Nicholson, NTSB (Aug. 20, 2010)).

10. *Was the first unified command incident action plan (IAP) issued on 8/1? Did the FOSC approve of other incident action plans that were written between 7/28 and 7/31?*

The first Unified Command IAP was issued on July 31, 2010. Enbridge did not provide its internal IAPs to EPA for its review or approval.

11. *Did PHMSA Office of Pipeline Safety provide a liaison officer to the unified command? Did PHMSA provide the FOSC with the necessary pipeline expertise during the emergency response phase of the accident?*

The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) arrived at the site on July 26, 2010. On July 27, 2010, the PHMSA representative, Brian Pierzina, established himself as a liaison officer/assisting agency representative to the Unified Command. On July 27, 2010, PHMSA's Melanie Barber provided EPA's Alexander Tzallas with a copy of Enbridge's facility response plan and provided Alexander Tzallas with Brian Pierzina's contact information. On July 28, 2010, EPA's OSC Kimble met with Mr. Pierzina. During this meeting, PHMSA provided information about the amount of product that travels through Enbridge Pipeline 6B and the distance between pipeline shut-off valves.

12. *Please forward any documentation of identified resources that were placed at risk from the oil spill, such as water intakes, sensitive environmental areas, cultural and recreation sites, etc.*

Please go to the following link for information regarding sensitive species and protected areas: <http://www.rrt5.org/ftp/pub>

13. *Please forward any initial oil trajectory analyses or oil budget analyses prepared by the scientific support coordinator.*

During the first days of the response, EPA requested information regarding oil spill trajectories and spill forecasting from the National Oceanic and Atmospheric Administration (NOAA). NOAA provided a memorandum (dated August 4, 2010) on this issue. See Attachment E.

14. *How would the OSCs characterize the responsible party's level of preparedness for this spill response? Was the emergency response timely and effective?*

During the initial hours of the response, Enbridge did not have the resources on-site to contain or control the flow of oil into Talmadge Creek and the Kalamazoo River. In response, EPA directed Enbridge to secure more resources and provided Enbridge with

contact information for local contractors. On July 27, 2010, EPA issued a Clean Water Act 311(c) Order, which established specific timeframes for clean-up milestones and compliance with environmental laws and regulations. On July 27, 2010, EPA mobilized its ERRS contractors to the response. EPA ERRS contractors arrived by 10:00 on July 28, 2010. Additionally, on July 29, 2010, EPA mobilized its BOA contractors. The BOA contractors arrived on-site the same day. Once on-site, EPA's ERRS and BOA contractors immediately began installing additional containment boom and fortifying the booms placed by Enbridge contractors. EPA was directing all Enbridge resources. By July 29, 2010, over 20,000 feet of boom had been deployed and over 250 operations personnel were on-site.

15. *Comment on EPA's review of the Enbridge facility response plan.*

Under applicable regulations, PHMSA has responsibility for reviewing and approving the Enbridge pipeline response plan. However, to better understand Enbridge's response resources and planning, EPA consulted Enbridge's response plan during the initial phase of the response. The plan had information regarding the pipe, but did not have information specific to spill response in any specific location.

16. *Did Enbridge or its contractors experience any difficulty locating needed resources during the first day of the spill response?*

Enbridge experienced significant difficulties locating necessary resources, due primarily to its lack of familiarity with contractors located anywhere in Region 5 other than Minnesota. Resources were readily available in the local geographic area, but went untapped by Enbridge until EPA provided contact information for available contractors who could respond more quickly and had available resources. In addition, Enbridge was incorrectly ordering small quantities of resources. Once Enbridge contacted the local contractor resources, additional resources were then quickly deployed to the site.

On July 27, 2010, EPA issued a Clean Water Act 311(c) Order, which established specific timeframes for clean-up milestones and compliance with environmental laws and regulations. On July 27, 2010, EPA began mobilization of its ERRS contractors. EPA ERRS contractors arrived by 10:00 on July 28, 2010. On July 29, 2010, EPA also mobilized its BOA contractors. EPA's BOA contractors arrived on-site on July 29, 2010. Once on-site, EPA's ERRS and BOA contractors immediately began installing additional containment boom and fortifying the booms placed by Enbridge contractors. EPA was directing all Enbridge resources.

17. *On the first day of the response, OSC Wolfe learned that contractors were responding from Minnesota and he suggested that some closer contractors could respond quicker – Was the lack of nearby OSRO resources the result of the contractors being engaged elsewhere such as the Gulf oil spill?*

No. Enbridge's initial lack of resources was the result of its inadequate knowledge of local response resources. Enbridge was familiar with contractors only in the Minnesota area.

Based on previous experience with spills in the Michigan area, EPA provided Enbridge with a list of contractors who could respond more quickly and had sufficient available resources.

18. *Has there been any further refinement to the release estimate of 19,500 barrels?*

EPA continues to evaluate Enbridge's estimate, and can make no further estimate at this time.

19. *Oil spill recovery numbers: gallons recovered, wildlife recovered / deceased, numbers of evacuations, injuries, other damages?*

All of this information is available in the Situation Reports, which are posted at the following website: www.epaosc.net/EnbridgeEnergyPipelineRelease

Additional questions:

20. *Regarding calls made to OSROs on the evening of 7/27, did EPA hire its own OSROs to contain/recover oil as a supplement to the Enbridge response, or were these contractors working directly for Enbridge?*

The contractors that EPA contacted on the evening of July 27, 2010, worked directly for EPA. Additional contractors hired by Enbridge arrived at the site on July 27, 2010. EPA mobilized all three of its ERRS contractors at approximately 23:30 on July 27, 2010 to supplement Enbridge's resources. Additionally, on July 29, 2010, EPA mobilized its BOA contractors. The BOA contractors arrived on-site on July 29, 2010. (Please note that EPA does not refer to its contractors as Oil Spill Removal Organizations (OSRO)).

21. *Regarding the 7/27 removal order that required 8 separate plans, such as health and safety, pipeline repair, sampling and analysis, oil recovery and containment, etc. – Why were these plans required separate of the incident action plans?*

The Incident Action Plan (IAP) and work plans are used for different purposes. The IAP lists the activities that will be occurring in each pre-established geographic area (Division) of the site during the next operational period. It ensures that all organizations and Agencies are working toward the same goals set for that operational period by providing all incident supervisory personnel with direction and measureable strategic objectives for actions to be taken during *the operational period identified in the plan*. The IAP provides a coherent means of communicating the overall incident objectives for both operational and support activities. It also lists key information, such as contact lists, a radio communications plan, traffic plans, and organizational structures/staffing charts. During the first several weeks, the Operational Period at the site was 24-Hours.

The other work plans required by the Order cover specific work activities or safety procedures to be accomplished *over the entire response* and include detailed standard operating procedures for the response action. Response operations and safety protocols specified in an IAP may also be guided or detailed in work plans and health and safety plans.

22. *The initial plans were rejected, were resubmitted and finally approved on 8/4 – Did the delay in written plan approval have any negative effect on the response activities?*

The response work continued without delay while the review and approval process for the work plans was underway. EPA ensured the cleanup progressed during this time by providing Enbridge with direction and oversight on its response work.

23. *The site specific health and safety plan was approved on 8/4 – What site safety measures existed in the interim? Were there other plans or protocols in place?*

Starting on August 5, 2010, Enbridge had an approved site-specific health and safety plan. Until the approved site-specific health and safety plan was in place, EPA used its pre-established Emergency Responder Health and Safety Manual, which covers all-hazards encountered on emergency response and time-critical removal actions. In addition, during the initial phases of an emergency response, the EPA OSCs rely on training and expertise gained on prior spills and releases. The EPA contractors also have generic health and safety plans, which are established at the beginning of a response and are quickly modified to include site specific information. These health and safety plans and manuals include all of the information necessary for OSCs and other responders to make important decisions and respond in a safe manner to the hazards encountered during the response.

24. *How would you characterize the response in terms of its adherence to ICS doctrine?*

The Enbridge Pipeline Spill Response functioned within the Incident Command System (ICS) doctrine. By definition, the ICS is a system that integrates personnel, policies, procedures, facilities, and equipment into a common organizational structure designed to improve emergency response operations of all types of complexities. An ICS is based upon a flexible, scalable response organization providing a common framework within which organizations and agencies can work together effectively. Typically, these agencies and organizations do not work together. The ICS is designed to give standard response and operation procedures to reduce the potential for miscommunication on incidents where collaboration is vital. As part of the Federal Emergency Management Agency's National Response Plan, ICS was expanded and integrated into the National Incident Management System.

Initially, Enbridge had a form of ICS, but it was not robust enough to manage a spill of this magnitude. Within 24 hours of the spill, however, EPA began mobilizing its IMT to ensure adherence to ICS by providing leadership for each ICS function. On July 27, 2010, EPA began issuing Pollution/Situation Reports (SITREPs), which provide detailed descriptions of the actions and activities that have occurred during identified operational periods. EPA issued two SITREPs on July 27, 2010, the first for the reporting period between 18:00 on 7/26/10 and 06:00 on 7/27/10, and the second for the reporting period between 06:00 through 14:00 on 7/27/10. (EPA continues to issue SITREPs, all of which available at www.epaosc.net/EnbridgeEnergyPipelineRelease.) Starting on July 28, 2010, EPA instituted Incident Command briefings to provide situational awareness and to provide

information to responding and assisting agencies. On July 31, 2010, an IAP was developed, and IAPs continue to be utilized to provide guidance for each operational period.

Based on EPA's significant previous experience with ICS, EPA believes that the response to the Enbridge oil spill has followed ICS doctrine. EPA's IMT continues to provide leadership to the various ICS position-specific functions for the Enbridge response.