



National Transportation Safety Board
Washington, D.C. 20594

Report Date: June 13, 2012

Addendum to Emergency and Environmental Response Group Chairman's Factual Report

A. Accident Identification

Operator: Enbridge Energy, Limited Partnership
Source: Pipeline 6B
Location: Marshall, Michigan
Commodity: Crude Oil
Date/Time: July 25, 2010, 5:58 p.m.
NTSB No.: DCA-10-MP-007

B. Emergency and Environmental Response Group Members

Paul L. Stancil, Group Chairman
Hazardous Materials Accident
Investigator
National Transportation Safety Board
490 L'Enfant Plaza, S.W.
Washington, D.C. 20594

[REDACTED]
[REDACTED]

Dana Sanzo
Survival Factors Investigator
National Transportation Safety Board
490 L'Enfant Plaza, S.W.
Washington, D.C. 20594

[REDACTED]
[REDACTED]

Charles Koval
Pipeline Accident Investigator
National Transportation Safety Board
490 L'Enfant Plaza, S.W.
Washington, D.C. 20594

[REDACTED]
[REDACTED]

Jon Gulch
On-scene Coordinator (OSC)
Environmental Protection Agency
9311 Groh Road
Grosse Ile, MI 48138

[REDACTED]
[REDACTED]

John C. Hess
Director of Emergency Support and
Security
Pipeline and Hazardous Materials Safety
Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Duane Klabunde
Supervisor, Support Services
Enbridge Pipelines (North Dakota)
LLC
2505 16th Street SW
Minot, ND 58701

C. Environmental and Economic Impact

More recent figures are available for the amounts of oil and solid waste collected as a result of the remediation activities. As of April 30, 2012, over 17 million gallons of oil/water liquid waste has been collected, from which an estimated 1,148,012 gallons of oil have been recovered by the spill response contractors. In addition, Enbridge has collected and disposed about 186,398 cubic yards of hazardous and non-hazardous soil and debris, including river dredge spoils. The EPA has estimated the total amount of recovered oil using actual waste stream volumes, analytical data, and physical parameters of oil-containing media. The volume that is reported to have been recovered exceeds Enbridge's revised release amount of 843,444 gallons. When asked to explain this discrepancy, Enbridge stated that EPA's recovered oil figures include not only the product recovered from the product released from Line 6B, but also non-petroleum organic materials, and other potential petroleum-based products in the river. Enbridge also believes there are a number of conservative factors involved in calculating the recovered oil figures that may contribute to an overestimation of the total amount collected.

On April 17, 2012, the Calhoun County health officer announced the reopening of the eastern-most affected 3-mile segment of the Kalamazoo River. Following the oil spill, Calhoun County banned public access to 39 miles of the river system to protect public health and safety during the ongoing cleanup. Additional segment reopenings are contingent upon assessment of the effectiveness of the cleanup operations as well as assuring the safety of recreational users and the remaining workers on the river.

Recent records for the federal response to this accident indicate that as of April, 30, 2012, the federal costs incurred, including the cost of contractors employed by the government, are \$42,238,550.

SEE ATTACHMENTS 1 AND 2

D. Enbridge Pipeline Public Awareness Program Review

Enbridge’s program plan was reviewed informally by the program awareness manager and formally through the Public Awareness Program Effectiveness Research Survey (PAPERS) program.¹ The program was conducted every 2 years, and the most recent program, was conducted in 2009 (prior to the accident). According to the program report, the objective of the study was to determine if the public awareness information is reaching the intended stakeholder audiences and if the audiences understand the messages delivered. Twenty-six operators participated in the survey. For Enbridge’s survey, the program report notes that there were 314 respondents from the affected public audience and 267 additional audiences.² Tables 1 and 2 provide a summary of the survey results for responses to questions about the respondents’ knowledge of pipelines in their communities and the effectiveness of communications with pipeline companies.

Table 1. Responses (in percentages) to the question: How well informed would you say you are regarding pipelines in your community?

	Affected Public	Public Officials	Emergency Officials
Very Well Informed	23	39	47
Somewhat Informed	36	32	38
Not too Informed	27	21	16
Not at all Informed	15	8	0
Don’t Know/Refused	0	0	0

¹¹ The PAPERS review is sponsored by the American Petroleum Institute, Association of Oil Pipelines, and the Interstate Natural Gas Association of America. The PAPERS program is an industry-wide survey conducted to assess the effectiveness of public awareness programs.

² This includes excavators, emergency officials, and public officials.

Table 2. Responses (in percentages) to the question: Within the past 2 years (Affected Public) / 12 months (Excavators, Emergency Officials) / 3 years (Public Officials), do you recall receiving any information from a pipeline company, or companies, relating to pipelines?

	Affected Public	Public Officials	Emergency Officials
Yes	55	64	77
No	45	34	21
Don't Know/Refused	0	2	2

Enbridge Post Accident Actions

In May 2011, Enbridge revised its public awareness plan and created a public awareness committee that includes a performance metrics subcommittee. According to the committee charter, the committee meets four times per year and is responsible for annual review of the public awareness program and program performance measures.

Attachment 3 provides a list of postaccident actions Enbridge has taken concerning its public awareness program.

PHMSA’s Audit of Enbridge’s Public Awareness Program

In July 2011, PHMSA conducted an inspection of Enbridge’s May 2011 public awareness program (PAP). PHMSA’s inspection report noted the following three findings:

- Enbridge’s PAP does not have a written implementation review process that clearly identifies both supplemental and overall PAP implementation.
- Enbridge does not have a process in the PAP that outlines a consistent format and methodology for evaluating program outreach, understandability of message content, desired stakeholder behavior, and bottom-line results.
- Enbridge does not have a process in their PAP for tracking and implementing improvements from the effectiveness evaluation.

At the conclusion of the audit, PHMSA inspectors and Enbridge representatives discussed the audit findings in an exit interview. As of the date of this report, PHMSA has not issued any enforcement action correspondence to Enbridge for this audit.

SEE ATTACHMENT 3

E. Corrections to the Environmental Response Group Chairman's Factual Report Dated February 2, 2012

1. Section H, Overview of the Oil Spill Response, Page 10. To clarify who developed the Oil Recovery and Containment Plan, the phrase: "[t]he Enbridge approved Oil Recovery and Containment Plan" is revised to state instead: "[t]he *EPA approved Oil Recovery and Containment Plan that Enbridge developed* on July 29 states that the company in tandem with the unified incident command organization has developed objectives for the containment and recovery of the oil."
2. Section I, U.S. Environmental Protection Agency Response, Page 15. The EPA requested the phrase: "in subsequent briefings" to be removed from the following paragraph:

"The Region 5 emergency response branch chief advised the on-scene coordinators of the existence of the Kalamazoo River Superfund Site, which extends approximately 80 miles from the base of Morrow Lake Dam to Lake Michigan. Accordingly, *in subsequent briefings with Enbridge officials*, the on-scene coordinators stressed that Enbridge should make all efforts necessary to protect the Superfund site and directed that oil boom should be installed 30 miles downstream at Morrow Lake as a collection point."

EPA stated it does not recall this issue being discussed more than once or twice. During the initial phases of response, the boom installed at Morrow Lake was primarily for protective measures to stop the potential flow of oil to Lake Michigan.

SEE ATTACHMENT 4

Paul L. Stancil, CHMM
Emergency and Environmental Response Group Chairman

Dana Sanzo
Survival Factors Investigator

ATTACHMENTS

- ATTACHMENT 1 – EPA SITUATION REPORT NUMBER 144, MAY 9, 2012
- ATTACHMENT 2 – ENBRIDGE EXPLANATION CRUDE OIL RELEASE VS. RECOVERY FIGURES
- ATTACHMENT 3 – ENBRIDGE PUBLIC AWARENESS PROGRAM POSTACCIDENT ACTIONS
- ATTACHMENT 4 – EPA COMMENTS TO GROUP FACTUAL REPORT, MAY 17, 2012