



U.S. House of Representatives
Committee on Transportation and Infrastructure
Washington, DC 20515

James L. Oberstar
Chairman

John L. Mica
Ranking Republican Member

David Heymsfeld, Chief of Staff
Ward W. McCarragher, Chief Counsel

James W. Coon II, Republican Chief of Staff

September 14, 2010

SUMMARY OF SUBJECT MATTER

TO: Members of the Committee on Transportation and Infrastructure
FROM: Committee on Transportation and Infrastructure Staff
SUBJECT: Hearing on “Enbridge Pipeline Oil Spill in Marshall, Michigan”

PURPOSE OF HEARING

The Committee on Transportation and Infrastructure (Committee) is scheduled to meet on Wednesday, September 15, 2010, at 10:00 a.m., in room 2167 of the Rayburn House Office Building to receive testimony on the recent Enbridge pipeline failure in Marshall, Michigan. The failure resulted in the release of an estimated one million gallons of crude oil into Talmadge Creek and the Kalamazoo River.¹ The Kalamazoo River flows into Lake Michigan. This hearing is being conducted as one of several hearings that meet the oversight requirements under clauses 2(n), (o), and (p) of Rule XI of the House of Representatives.

Although the hearing is focused on the Enbridge rupture in Michigan, Members are advised that the National Transportation Safety Board (NTSB) and the U.S. Department of Transportation (DOT) will be able to answer questions at the hearing related to the September 9, 2010 Enbridge release of crude oil on Line 6A in Romeoville, Illinois, and the deadly September 9, 2010 Pacific Gas & Electric natural gas explosion in San Bruno, California, as well as Federal oversight of gas and hazardous liquid pipeline safety.

BACKGROUND

On July 26, 2010, Enbridge reported to the National Response Center (NRC) that a 30-inch diameter pipeline, known as Line 6B, was transporting crude oil when it ruptured in a rural area

¹ “EPA Raises Oil Spill Estimate in Michigan River”, *CBS News* (July 29, 2010).

about one mile south of Marshall, Michigan.² Enbridge reported that about 19,500 barrels (819,000 gallons) of crude oil were released. The Environmental Protection Agency (EPA) later estimated the spill to be more than one million gallons of oil.³ The oil flowed into a culvert, which led to Talmadge Creek, and then flowed from the Creek about 30 to 35 miles down the Kalamazoo River toward a Superfund site. The Kalamazoo River is a tributary to Lake Michigan. Portions of Line 6B are located in High Consequence Areas (HCAs).⁴ Talmadge Creek and the Kalamazoo River are bordered by marshland and developed properties. The river experienced flooding before and after the spill. The river levels later fell and stranded oil on some islands and in some backwaters, wetlands, and floodplains. On August 25, 2010, Enbridge estimated that the total cost of damages to the operator will be between \$300 and \$400 million. These charges include emergency response, environmental remediation and cleanup activities associated with the crude oil release, costs to repair the pipeline and related inspection costs, potential claims by third parties, and lost revenue.⁵

Line 6B originates in Griffith, Indiana, and runs eastward to Sarnia, Ontario. The pipeline is a 30-inch, carbon steel pipeline that was constructed in 1969 using Normal Pipe Size 30, grade X52, 0.250-inch nominal wall thickness pipe. About one-third of the pipe was manufactured using a Flash Weld process, while the other two-thirds used a Double Submerged Arc Weld (DSAW) process. The pipe at the location of the failure was DSAW and was manufactured by Italsider/Siderius in Italy. The pipe was coated in the field using then-commonly used polyethylene tape as a corrosion barrier.

Line 6B transports up to 190,000 barrels of light synthetic, medium, and heavy crude oil per day from Griffith, Indiana, to Sarnia, Ontario. It is part of Enbridge's 1,900-mile Lakehead System, the world's longest petroleum pipeline, which spans from the international border near Neche, North Dakota, to the international border near Marysville, Michigan, with an extension across the Niagara River into the Buffalo, New York area. Line 6A which ruptured in Romeoville, Illinois, on September 9 is also part of the Lakehead System.

At the time of the rupture, Enbridge was transporting a cold lake blend with an American Petroleum Institute (API) gravity rating of 11. API gravity is a measure of how heavy or light petroleum liquid is compared to water. If the liquid's API gravity is greater than 10, it is lighter and floats on water; if it is less than 10, it is heavier and sinks. Crude oil is classified as light, medium, or heavy according to its measured API gravity. Light crude oil is defined as having an API gravity higher than 31.1. Medium oil is defined as having an API gravity between 22.3 and 31.1. Heavy oil is defined as having an API gravity below 22.3, and extra heavy oil is defined with API gravity below 10. Bitumen derived from the oil sands deposits in the Cold Lake region has an API gravity of around 8. The Enbridge blend is therefore considered heavy oil, not a bitumen, and includes light

² The NRC is part of the Federally-established National Response System and is the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories. The NRC is under the command of the U.S. Coast Guard.

³ *Id* at 1.

⁴ HCAs include unusually sensitive environmental areas (defined in 49 C.F.R. § 195.6), urbanized areas, and other populated places as delineated by the United States Census Bureau, and commercially navigable waterways. According to PHMSA, HCAs represent 44 percent of the total hazardous liquid pipeline mileage.

⁵ Enbridge, *Accident Report – Hazardous Liquid Pipeline Systems*, Submitted to DOT's PHMSA (August 25, 2010), Report number 20100181-15259.

diluents (naphthalene), which enable the thicker heavy oil to flow through the pipeline. It is produced using the same technique used for oil sands recovery: Steam Assisted Gravity Drainage (SAGD), a process that injects steam to loosen up crude oil and pump it to the surface.

PRELIMINARY TIMELINE

At a date and time yet to be determined by the NTSB, Enbridge's 30-inch-diameter hazardous liquid pipeline, known as Line 6B, ruptured about one mile south of Marshall, Michigan, near the Marshall Pump Station. The attached map shows the route of Line 6B – from Griffith, Indiana, to Sarnia, Ontario. The U.S. portion of the line is about 286 miles in length. *See attached map.*

According to the NTSB, at 5:58 p.m. eastern daylight time on July 25, 2010, Enbridge experienced an abrupt pressure drop at the Marshall Pump Station. The abrupt pressure drop triggered a low suction pressure alarm received by the pipeline controller in Enbridge's control room, which is located in Edmonton, Alberta. The loss of suction pressure initiated a local shutdown of the pump station.⁶

At 6:03 p.m., the pipeline controller received a five-minute volume balance alarm between the Griffith and Marshall stations. This indicates a discrepancy in flows between the two points. According to the NTSB, the pipeline controller called the Mass Balance System (MBS) analyst to investigate the five-minute alarm. The MBS analyst diagnosed the alarm as column separation, or a separation in the flow of oil, and advised the pipeline controller that the condition would be present until the line is restarted at 4:00 a.m. the next morning – about 10 hours later.⁷

Two minutes later, at 6:07 p.m., the five-minute volume balance alarm cleared itself, indicating that the flow imbalance was no longer below its alarm threshold.⁸

At 9:25 p.m., the first 911 call was received at the Calhoun County Dispatch Center, located in Marshall City. The caller reported a “bad” odor, possibly natural gas. [Note: Michigan Gas Utilities had a facility in Marshall.] The Marshall City Fire Department responded.^{9 10}

At 9:49 p.m., another 911 call comes in regarding an odor. Marshall Township Fire Department responded.¹¹

At 4:04 a.m. on Monday, July 26, 2010, the pipeline controller in Enbridge's control room began the scheduled Line 6B start, which was planned from the 10-hour shutdown the previous day. The line valves were commanded open and the Griffith Pump Station started. Eight minutes later,

⁶ The information supplied in this timeline was provided by the NTSB in its docket regarding the Marshall rupture. It is considered preliminary by the NTSB and is subject to change throughout the course of the NTSB's investigation. NTSB Docket.

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ Timeline of incidents, Computer Aided Dispatch, Calhoun County Consolidated Dispatch Authority (July 25, 2010).

¹¹ *Id.*

at 4:12 a.m., the pipeline controller received a five-minute volume balance alarm indicating there was a flow imbalance between the Griffith and Marshall Pump Stations.¹²

At 4:17 a.m., the pipeline controller received a 20-minute volume balance alarm between the Griffith and Marshall stations. This indicated that the flow between the two pump stations was off balance for 20 minutes, or essentially since the scheduled start.¹³

At 4:22 a.m., the pipeline controller received a second five-minute volume balance alarm between the Griffith and Marshall stations. This was to alert the controller that the alarm has remained in an active state for more than 10 minutes. Two minutes later, the pipeline controller called the MBS analyst about the five-minute volume balance alarms. During the conversation, a slight pressure increase was observed leading them to believe that they may be overcoming a column separation. The decision was made to wait. There was some discussion of adding a pump at the Mendon station.¹⁴

Between 4:36 a.m. and 4:57 a.m., several more volume balance alarms were generated, including a five-minute volume balance alarm, a 20-minute volume balance alarm, and a two hour volume balance alarm.¹⁵

At 5:03 a.m., discussions took place in the control center regarding the lack of pressure building downstream of the Mendon station. The line was then shut down because Enbridge personnel were unable to resolve the column separation and pressure issues.¹⁶

At 6:34 a.m., further discussions between the control center shift lead and pipeline controller, as well as the MBS analyst, involved column separation and lack of pressure in the line. They noted that it was taking longer than usual to reverse the column separation and attributed this to the Niles pump station being bypassed for an in-line inspection tool running in the line.¹⁷ During this conversation, Enbridge personnel reviewed the operating procedures for multiple volume balance alarms, and the decision was made to restart the line. At 7:10 a.m., the line was restarted from the control center.¹⁸

At 7:12 a.m., the pipeline controller received a two-hour volume balance alarm between the Griffith and Marshall Pump Stations. At 7:35 a.m., the controller received five-minute and 20 minute volume balance alarms between the Marshall and RW (end of the line) stations. Between 7:37 a.m. and 7:42 a.m., the pipeline controller received five-minute and 20-minute volume balance alarms between the Griffith and Marshall Pump Stations.¹⁹

¹² NTSB Docket, *supra* note 5.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ At the time of the incident there was a cleaning pig in the line about 65 miles upstream of the rupture and an in-line inspection tool designed to detect cracks in the pipeline about 68 miles upstream of the rupture.

¹⁸ NTSB Docket, *supra* note 5.

¹⁹ *Id.*

Between 7:46 a.m. and 7:55 a.m., a discussion between the pipeline controller and the MBS analyst suggested that a lack of pressure may be due to bypassing the Niles Pump Station for the in-line inspection. They decided that overcoming the column separation will require more power (pumps). Their review of existing stations showed insufficient pressure available to bring the column back together. The line is shutdown again and the block valve at Mile Post 650.64 (downstream of Marshall) is commanded closed. For the next several hours, the control center continues to try and troubleshoot Line 6B.²⁰

At 9:49 a.m., a Marshall technician is called by the control center to visit the pump station to look for leaks in the general vicinity. The technician verified to the control center low suction and discharge pressures.²¹ According to the NTSB, the technician walked the perimeter of the pump station and found no leaks. The pump station, however, is located about three-quarters of a mile from the rupture. Numerous residents that live within the immediate vicinity of the pump station reported to Committee staff that they began smelling a strong odor on Sunday, July 25. Two of the residents stated that they smelled the odor on the evening of Saturday, July 24, one of which stated that it “hit [him] in the chest like a ton of bricks.” Another resident collected samples of the thick crude oil/water mixture from the creek in the vicinity of the pump station at 7:00 a.m. on Monday, July 26, which was shown to Committee staff. Other residents ranging from two to nine miles away reported smelling the odors on their way to work between 6:30 a.m. and 8:00 a.m. on Monday, July 26. The Family Health Center in Battle Creek reported to Committee staff that it shut its ventilation system down early on the morning of the 26th due to the strong odor. The health center is located about eight to nine miles from the rupture.

At 10:16 a.m., the control center contacted the regional manager to discuss issues related to fixing the column separation. The control center asked about population density in the area of Marshall in order to determine if they should have received calls about odors or leaks. The control center asked to have the Marshall technician check the instrumentation at the pump station.²²

At 11:11 a.m., another 911 caller reports an odor to the Calhoun County Consolidated Dispatch Center, stating that “the entire downtown smells like natural gas.” The Marshall City Fire Department is dispatched.²³

At 11:18 a.m., an outside call was received at the Enbridge control center from Consumers Energy, a local gas utility, reporting oil in Talmadge Creek. The utility was onsite responding to as many as 48 customer complaints of natural gas odors.²⁴

At 11:20 a.m., the control center called the regional manager to discuss the gas utility call and confirmation of a leak. The pipeline controller began to isolate the line by closing block valves upstream and downstream of Marshall. Ten minutes later, the Enbridge Regional Manager contacted the Enbridge Marshall Maintenance Shop and instructed a technician to investigate the

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ *Timeline of incidents, supra note 9.*

²⁴ *NTSB Docket, supra note 5.*

area of the reported leak. The leak was confirmed by Enbridge personnel at 11:41 a.m., at which time booms were being deployed on the river.²⁵

At 11:39 a.m., personnel from Consumers Energy called 9-1-1 and stated that there was “a crude oil leak and it has filled the creek.” Fredonia Township Fire responded.²⁶

At 1:29 p.m., Enbridge reported the spill to the NRC. According to the NRC, Enbridge made two calls to the NRC related to the spill prior to the 1:29 p.m. report. The first call was received by NRC at 1:01 p.m. and the person calling hung up the phone after 10 seconds. The second call was received at 1:22 p.m. and the person hung up the phone after being in the call queue for 6 minutes and 17 seconds. The NRC spoke to Enbridge personnel reporting the incident for 15 minutes and 25 seconds.²⁷ Under existing regulations, pipeline operators are required to report incidents at the earliest practicable moment following discovery of a release of hazardous liquid.²⁸ On September 6, 2002, the Research and Special Programs Administration (RSPA), the predecessor to PHMSA, issued an advisory to owners and operators of gas distribution, gas transmission, and hazardous liquid pipeline systems, and liquefied natural gas facilities. Although the advisory does not set a specific timeframe to call the NRC following discovery of a release, RSPA infers that “earliest practicable moment” is defined as one to two hours following discovery. The advisory stated: “Owners and operators should ensure that telephonic reports of incidents to the [NRC] are both prompt and accurate and fully communicate the estimated extent of the damages.”²⁹ Enbridge documents, including their response plans, obtained by Committee staff pursuant to the oversight investigation, stated that reporting of a release must be within two hours of discovery.

In June, 2010, PHMSA asked all pipeline operators to review their existing response plans, amend them as appropriate to resolve any deficiencies, and certify to PHMSA that such plans have been reviewed and are appropriate to respond to an incident. On July 21, 2010, just a few days prior to the rupture, Enbridge sent a letter to PHMSA stating that the response plans were adequate to address an incident.

EMERGENCY RESPONSE³⁰

Environmental Protection Agency

Once Enbridge reported the spill to the NRC, the NRC notified the appropriate Federal agencies. Within hours, the NTSB, DOT’s PHMSA, the EPA, the U.S. Fish and Wildlife Service (FWS), the State of Michigan, and several State and local officials were on scene. EPA immediately assumed the role of Federal On-Scene Coordinator and established a Unified Incident Command

²⁵ *Id.*

²⁶ *Timeline of incidents, supra note 9.*

²⁷ Enbridge personnel reported to the NRC that the incident occurred at 9:41 a.m. local incident time, but later stated to Federal investigators that he was confused due to time zones in Alberta and that the incident actually occurred at 11:41 a.m.

²⁸ See 49 C.F.R. § 195.52.

²⁹ *Pipeline Safety: Required Notification of National Response Center, Research and Special Programs Administration*, 67 Fed. Reg. 173 (September 6, 2002).

³⁰ Information contained in this section is only a partial description of the response and recovery work.

structure to coordinate Federal, State, and local agencies' response to the spill. That evening, EPA served Enbridge with a Notice of Federal Interest in an Oil Pollution Incident. The following day, on July 27, 2010, EPA issued an Administrative Order, pursuant to section 311(c) of the Clean Water Act (33 U.S.C. § 1321(c)), to Enbridge directing it to, *inter alia*, stop the flow of oil and address the discharge. The Order required Enbridge to: (1) stop the flow of oil into the Talmadge Creek and Kalamazoo River by July 28, 2010; (2) remediate the oil and contaminated soils in and around the immediate vicinity of the release by August 27, 2010; (3) deploy appropriate oil recovery and containment devices and equipment, e.g. skimmers, vacuum trucks, absorbent/containment booms, by July 28, 2010; (4) perform air monitoring and sampling as directed by EPA and public health officials; (5) perform water and sediment sampling of impacted areas as directed by EPA; (6) remediate all impacted areas (including shoreline) along Talmadge Creek, the Kalamazoo River, and Morrow Lake (if impacted) by September 27, 2010; (7) dispose of all wastes at EPA approved disposal facilities; and (8) submit a report to EPA detailing all work completed including monitoring and analytical data, disposal records, and all documentation related to the response by November 27, 2010. EPA also required Enbridge to submit for approval an Operational Health and Safety Plan; Pipeline Repair Workplan; Sampling and Analysis Plan; Quality Assurance Project Plan; Oil Containment and Recovery Plan; Source Area Remediation Plan; Remediation Plan for Downstream Impacted Areas; and Waste Treatment, Transportation, and Disposal Plan.

On July 29, pursuant to the EPA Order, Enbridge submitted its initial workplans for EPA review and approval. On July 31, EPA disapproved Enbridge's initial workplans, with comments requiring Enbridge to submit revised plans by August 2. On August 3, EPA approved with modifications the Oil Recovery and Contamination Plan; the Waste Treatment, Transportation and Disposal Plan; and the Pipeline Repair Plan, but disapproved the Sampling and Analysis Plan and required Enbridge to submit a revised plan by August 4, 2010. On August 5, EPA approved with modifications the Operational Health and Safety Plan. On August 10, EPA disapproved the Remediation Plan for Downstream Impacted Areas and the Source Area Remediation Plan. On August 11, EPA disapproved Enbridge's Sampling and Analysis Plan (for the second time) and the Quality Assurance Project Plan and required Enbridge to submit revised plans by August 14. On August 15, EPA disapproved the Response Plan for Downstream Impacted Areas (for the second time), the Sampling and Analysis Plan (for the third time), the Quality Assurance Project Plan (for the second time), and the Source Area Remediation Plan. Enbridge submitted revised plans per EPA directive; all plans are now approved.

On September 12, EPA reported that it has received approval for up to \$18 million to fund the Federal Government's operations in response to the spill from the Oil Spill Liability Trust Fund (Fund). EPA can request additional funding from the Fund if it determines more is needed. EPA has stated that the Federal Government intends to seek full reimbursement for all money spent on this response from Enbridge. About 84.7 percent of the \$18 million ceiling had been spent through September 9, with a burn rate of \$196,979 per day.

The U.S. Fish and Wildlife Service

The FWS is providing technical assistance on natural resource and wildlife issues to the United Incident Command, and is working to collect evidence for the National Resource Damage

Assessment. FWS is also working in partnership with other Federal and State agencies to collect and analyze evidence of impacts to natural resources and wildlife as part of the Natural Resource Damage Assessment. FWS established a wildlife rehabilitation center in Marshall, Michigan to stabilize and rehabilitate wildlife that is being rescued by trained wildlife responders.



On September 14, 2010, FWS reported that 1,485 wildlife (indicated in the below chart) have been treated at the rehabilitation center.

Live in Care	Treated and released	Dead on arrival	Died in care	Euthanized
368 turtles	91 Canada Geese	6 Canada Geese	3 Canada Geese	7 Canada Geese
19 Canada Geese	11 Mallards	3 Mallards	1 Belted Kingfisher	1 Mute Swan
5 Mute Swans	1 Wood Duck	1 skunk	2 Great Blue Herons	4 muskrats
3 Great Blue Herons	2 domestic geese	6 muskrats	3 muskrats	1 beaver
2 beavers	1 Blackbird	1 beaver	1 snake	1 mink
1 snake	3 Great Blue Herons	1 mole	10 turtles	1 snake
2 mussels	1 Rock Pigeon	2 shrews	3 frogs	2 turtles
	8 muskrats	6 raccoons		
	2 beavers	1 opossum		
	3 meadow voles	1 unidentified		
	3 opossums	3 snakes		
	9 snakes	8 turtles		
	819 turtles	16 fish		
	35 frogs and toads			
Total: 400	Total: 989	Total: 55	Total: 24	Total: 17

National Transportation Safety Board

The NTSB also launched four investigators within hours of being notified of the spill. The NTSB is leading the safety investigation of the pipeline rupture.

Two sections of the pipe, 23 feet, 4-inches and another 26 feet, 10 inches have arrived at the NTSB for further examination. The below photographs show the length of the fracture, which extends about 6.5 feet longitudinally with the widest portion of the opening measuring 4.5 inches.

According to the NTSB, the fracture was located about 25 feet from the upstream joint in a 40 foot section of 30-inch pipe.



Pipeline and Hazardous Materials Safety Administration

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is responsible for overseeing the safety of the nation’s pipeline system; from design specifications and construction procedures to operation and maintenance of pipelines and onshore spill response planning. PHMSA only has jurisdiction over transportation-related facilities; it does not have jurisdiction over drilling or production facilities. PHMSA is working with the NTSB on the safety investigation and has enforcement authority over Enbridge.

Following the spill, on July 28, PHMSA’s Associate Administrator for Pipeline Safety issued a Corrective Action Order to Enbridge, which found “that the continued operation of [Enbridge’s] Line 6B pipeline without corrective measures would be hazardous to life, property and the environment. Additionally, after considering the age of the pipe, circumstances surrounding this failure, the proximity of the pipeline to populated areas, public roadways and high consequence areas, the hazardous nature of the product the pipeline transports, the pressure required for transporting the material, the uncertainties as to the cause of the failure, and the ongoing investigation to determine the cause of the failure, I find that a failure to issue this Order expeditiously to require immediate corrective action would result in likely serious harm to life, property, and the environment.”

The Order requires Enbridge to develop and submit a written plan for approval prior to resuming operation of the section of Line 6B that ruptured, which must: (1) provide for a daylight restart and detail advance communications with local emergency response officials; (2) ensure adequate patrolling of the pipeline segment during the restart process; (2) expose the pipeline extending 50 feet on either side of the failed pipe joint to examine for corrosion, coating conditions, or other issues; (3) repair or replace pipe or coating as necessary in accordance with Federal regulations; (5) verify adequate cathodic protection for the area where the failure occurred; (6) perform incremental start-up in 25 percent pressure increments with each increment to be held for at

least one hour; and (7) include sufficient surveillance on each increment to ensure that no leaks are present when operation of the line is resumed.

The Order also states that once Enbridge receives approval to restart the pipeline, Enbridge must maintain a 20 percent pressure reduction in the operating pressure of the line, which shall not exceed 80 percent of the operating pressure in effect immediately prior to the failure. Enbridge had already reduced pressure on the line prior to the incident so this would be an additional pressure reduction.

In addition, the Order required Enbridge to submit within 60 days an integrity verification and remedial work plan to PHMSA's Regional Director for approval. The plan must include: (1) a review of the failure history of the entire U.S. portion of Line 6B over the past 20 years and develop a written report containing all available information on the locations of failures, dates of failures, and cause of failures and describing Enbridge's plans to confirm that the remainder of the line is not susceptible to more such failures; (2) an evaluation of the remainder of Line 6B to determine whether the conditions involved in the rupture, or any other integrity threatening conditions, are present; (3) a detailed description of the inspection and repair criteria to be used in the field evaluation of any anomalies that are excavated, which must include a description of how any defects are to be graded and the schedule for repairs or replacement; and (4) provisions for continuing long-term periodic testing and integrity verification measures to ensure the ongoing safe operation of the affected segment.

On August 9, Enbridge submitted its restart plan to PHMSA for review and approval. Once a restart plan is approved, an operator must carry out the plan and upon completion seek additional approval from PHMSA for the actual restart of the line.

On August 10, PHMSA rejected Enbridge's restart plan and specified various additional requirements that Enbridge needed to fulfill before returning Line 6B to service. Specifically, PHMSA noted that the plan did not contain "sufficient technical details or adequate steps to permit a conclusion that no immediate threats are present elsewhere on the line that require repair prior to any restart of the pipeline, even at a further reduced pressure." In its denial, PHMSA noted it would not approve any restart plan that "did not include excavating and exposing additional pipe and repairing or replacing additional pipe as necessary." PHMSA required Enbridge to: (1) determine, investigate, and remediate as necessary at least four additional anomalies in Line 6B subject to similar operating parameters and conditions as the anomaly associated with the pipeline failure; (2) provide inline inspection vendor reports and details of all reviews to PHMSA; (3) provide information on the anomalies reported at Mile Posts 710.74 and 751.22; (4) perform a hydrostatic test; and (5) provide additional clarifications, including a response to whether there are any other immediate threats elsewhere on Line 6B that require repair prior to restart of the pipeline at the prescribed reduced pressure.

On August 13, Enbridge submitted a revised restart plan to PHMSA for review and approval. PHMSA requested additional materials from Enbridge. PHMSA is now reviewing the restart plan.

On August 31, Enbridge provided the additional materials requested by PHMSA and notified PHMSA that it had completed the actions described in the unapproved restart plan and stated: “Adequate steps have been taken to safely restart Line 6B at reduced pressures and that the supplementary monitoring measures taken during such restart protect public and environmental safety.” In the letter, Enbridge officially requested approval to restart Line 6B.

On September 2, Enbridge met with PHMSA personnel to review the current conditions of Line 6B pipeline, pre- and post-release integrity assessments, and further measures employed by Enbridge to validate Line 6B integrity. Enbridge reiterated its conclusion that Line 6B is safe for restart. PHMSA is considering Enbridge’s restart request; the line is still shutdown.

FEDERAL REGULATIONS ON INTEGRITY MANAGEMENT OF HAZARDOUS LIQUID PIPELINES

In 2000, in the wake of several tragic pipeline incidents, PHMSA issued a Final Rule requiring pipeline operators to continually evaluate the potential consequences of failure of their pipeline segments that could affect a HCA, and set priorities for inspecting, operating, and maintaining the pipeline based on whether people, property, or the environment might be at risk should a pipeline failure occur.³¹ According to PHMSA, pipeline segments that could affect an HCA represent about 44 percent of the total hazardous liquid pipeline mileage in the United States.

Specifically, all hazardous liquid pipelines operators are required to determine which of their pipeline segments could affect HCAs on an ongoing basis. For example, an area that an operator once determined did not affect an HCA might later affect an HCA, depending on the circumstances (e.g. new high population or environmentally sensitive areas). Once the pipeline segments are identified, the operator is then required to comprehensively assess the structural integrity of those pipeline segments that could affect those HCAs, using a variety of assessment methods determined appropriate by the operator. Based on these assessments, operators must take prompt action to repair any defects that could reduce a pipeline’s integrity. Integrity management assessments must be performed at least once every five years. However, an additional eight months may be added to the reassessment interval to allow for unforeseeable events (e.g., permitting delays, weather, tool failures) that could affect the ability of the operator to successfully complete an assessment.

Federal regulations allow each pipeline operator to determine the best method(s) of assessing the structural integrity of their pipelines, using one or more of the following three approaches: in-line inspection, hydrostatic testing, or direct assessment.³² Alternative assessment methods can be employed if they can be shown to be effective. Certain defects are required under the regulations to be repaired within specified timeframes. If the defects are not repaired within those specified timeframes, Federal regulations allow the operator to reduce pressure on the line as an alternative method of remediation for a total of 365 days following discovery of a defect. If the operator wants to exceed 365 days then the operator must provide notice to PHMSA of the long-term pressure reduction, which must include proposed remedial actions.

³¹ See PHMSA and Pipeline FAQs, available at <http://www.phmsa.dot.gov/about/faq>.

³² U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration Office of Pipeline Safety, prepared by Michael Baker Jr., Inc., *Pipeline Corrosion Final Report* (November 2008), at 33, available at http://primis.phmsa.dot.gov/im/docstr/FinalReport_PipelineCorrosion.pdf.

As part of the program, PHMSA requires each hazardous liquid pipeline operator to maintain a written integrity management plan at the operators' place of business. Federal regulations specify eight elements that a pipeline operator's integrity management plan must include, but the plan is not submitted to PHMSA for review or approval prior to implementation of the plan (or when a plan is revised).³³ The plans are provided to PHMSA (at PHMSA's request) just prior to each Federal inspection, but they are not kept on file with PHMSA. [Note: PHMSA also does not keep pipeline operator response plans that are reviewed on file.] According to PHMSA, each pipeline operator has been inspected once to review their integrity management program; all major operators have been inspected twice; and some are on their third round of inspections. Enbridge's Line 6B was last inspected by PHMSA in 2006.

As stated, large portions of Enbridge's Line 6B are located in HCA's. Talmadge Creek and the Kalamazoo River are bordered by marshland and developed properties. Enbridge must therefore comply with the Federal regulations described above.

SAFETY OF LINE 6B

Since Line 6B was constructed in 1969, the line has been evaluated for corrosion seven times. According to Enbridge, in 2007, 12 high priority Magnetic Flux Leakage (MFL) inspections were scheduled across the Enbridge system to compensate for technological limitations with previously completed Ultrasonic Technology (UT) inspections.^{34 35} These limitations include false negatives, echo loss, and tool variability. According to Enbridge, the volume of data to analyze the integration of the MFL data with existing UT data, at the time, overloaded the capabilities of the contractor that Enbridge hired to conduct the in-line inspection. As a result, Enbridge did not receive the final 2007 MFL report until June 4, 2008. Enbridge asserts that the company "did not have sufficient information about the condition of the pipeline to make discovery" until that time.

The final 2007 MFL report that was received by Enbridge in June, 2008 identified 140 corrosion defects that required repair under Federal regulations within 180 days.³⁶ Enbridge repaired 26 of those defects, leaving 114 defects remaining to be repaired. These include seven

³³ 49 C.F.R. § 195.452.

³⁴ MFL can detect corrosion by sensing magnetic leakage. First, it initiates a magnetic field in the pipeline. If there are any flaws in the pipeline wall, some of the magnetic field will escape. Sensors onboard the pigs detect and measure that leakage. Smart pigs equipped with MFL technology can determine whether the corrosion is internal or external, and they can also measure for changes in the thickness of the walls.

³⁵ Measurements are made when the pigs emit ultrasonic signals whose echoes are timed and compared with data to determine the wall's thickness. The same ultrasonic technology can detect longitudinal cracks, crack-like defects, and longitudinal weld defects.

³⁶ Federal regulations require certain repairs to be made within 180 days of discovery: (1) a dent greater than two percent of nominal pipe diameter; (2) a top dent greater than two percent of pipe diameter; (3) a bottom dent greater than six percent of pipe diameter; (4) calculated operating pressure less than maximum operating pressure at anomaly; (5) area of general corrosion with predicted metal loss greater than 50 percent of nominal wall thickness; (6) predicted metal loss greater than 50 percent of nominal wall thickness at a crossing of another pipe, in an area of widespread circumferential corrosion, or in an area that could affect a girth weld; (7) potential crack that on excavation is shown to be a crack; (8) corrosion of or along a longitudinal seam weld; and (9) a gouge or groove greater than 12.5 percent of nominal wall thickness.

dents, one of which is a 5.5 percent dent (about 1.9 feet from the start of the dent and 2.4 feet to the deepest point of the dent) oriented in the 12:26 o'clock position within the St. Clair River. Enbridge initiated an internal analysis to determine whether the 114 remaining defects should be repaired or whether the pipe should be replaced. According to Enbridge, an area between Mile Post 650 and 753 showed a relatively high population of required repairs and was a candidate for potential pipe replacement. Internal documents show that Enbridge believed it may be more economically feasible to replace the pipe than to make repairs. In June, 2009, a year after Enbridge first discovered the repair conditions were present, Enbridge decided to reduce pressure on the line in accordance with Federal regulations, rather than repairing the 114 defects while it continued to evaluate whether to repair the defects or replace pipe.

In June, 2009, Enbridge again inspected the line for corrosion using UT; 250 defects were identified for repair within 180 days.³⁷ According to Enbridge, the 250 defects were in addition to the 140 defects identified in the 2007 MFL report. Of those 250 defects, Enbridge repaired just 35, leaving 215 remaining defects identified in the June, 2009 inspection on the line.

In total, there are 329 defects that remain on the Line 6B, which require repair under Federal regulations within 60 to 180 days. Enbridge decided to maintain the pressure restrictions on the line rather than make the repairs while it continued to determine whether to repair the defects or replace pipe. According to Enbridge, the most severe defects are between Mile Posts 661 and 719. Enbridge calculated that the defects would take about 11 years to grow to a corrosion leak and 16 years to grow to a failure pressure.

Under Federal regulations, if a pipeline operator does not conduct the required repair, then the operator may reduce pressure on the line for 365 days; if the operator wants to exceed 365 days at reduced pressure, the operator must submit a report to PHMSA providing notice of a long-term pressure reduction which must include proposed remedial actions. On July 15, 2010, the same day that Enbridge testified before the Subcommittee on Railroads, Pipelines, and Hazardous Materials, at a hearing focused on integrity management of hazardous liquid pipelines, Enbridge submitted a request for long-term pressure reduction on Line 6B to provide the operator with more time to determine whether to repair the defects on the line or replace pipe. Enbridge requested a two-and-one-half year extension to the end of 2012 – more than four years following discovery of the defects – to make that decision and the necessary repairs or replacement.

On August 20, 2010, while Enbridge was in the process of cleaning Talmadge Creek and the Kalamazoo River due to the Marshall rupture, Enbridge submitted another long term pressure reduction notification on Line 6B focused on the St. Clair River defect identified in the 2009 UT inspection. This defect is located at Mile Post 751.33 and is located 73.1 miles from the Howell Pump Station and 6.9 miles from the suction station in Sarnia. Depth of the cover at the location is in the order of 15 feet under the river bed and includes layers of gravel, boulders, construction spill pile backfill, and silt. The depth of water at the dent location is about 30 feet.

³⁷ *Id.*

From a regulatory perspective, the dent meets Federal regulatory requirements for a 60-day repair condition.³⁸ According to Enbridge, due to the inaccessibility of the dent for field assessment, the regulatory requirement for a 60-day repair was unachievable. As an alternative, Enbridge decided to reduce maximum operating pressure on the line by 50 percent (operating stress is now 18 percent Specified Minimum Yield Strength) and implement an action plan for an additional engineering assessment to assess the risk associated with the dent and determine the need for remediation, including a review of previous in-line inspection data, additional in-line inspection, third party Fatigue Life Assessment, and an internal engineering assessment. According to Enbridge, “Based on the results of the completed assessments, Enbridge is confident that the dent does not compromise the integrity or safety of the pipeline. The Fatigue Life Assessment determined that the minimum estimated fatigue life of the feature is at least 280 years.” However, Enbridge notes that “although the safety and integrity of the pipeline is considered secure in the short-term, due to limitations of in-line inspection technology, there is a small degree of uncertainty of the long-term integrity of the pipeline if unidentified small fatigue cracking is present.” Enbridge added that while the probability of failure is low, the consequence of a failure of the pipeline at the St. Clair River is high. In the interim, Enbridge is continuing to determine whether to repair or replace the pipe. The operator is expected to present its analysis of its options to PHMSA by September 26, 2010. According to Enbridge, once it decides how it would like to address the defect “additional time will be required to plan, permit and execute the remediation strategy. The repair option assessment is ongoing and a construction timeline has not been estimated. Initial conceptual timeline for the replacement option is about 12 months for planning, assessments, acquisition of permitting and construction.” According to PHMSA, Enbridge has known about this defect since construction based on 1978 in-line inspection data.

Although the most severe defects on Line 6B are downstream of the rupture in Marshall, Michigan, which is located at Mile Post 608, according to Enbridge a 2005 inspection utilizing an Ultrasonic Crack Detection tool (USCD) showed a defect at Mile Post 608 that was smaller than the required repair threshold at the time of inspection. The 2007 MFL corrosion inspection and the 2009 Ultrasonic Wall Measurement corrosion inspection also identified metal loss in the area of the rupture, similarly showing shallow features through a narrow band, but (according to Enbridge) did not meet repair criteria under Federal regulations.

According to Enbridge, there is also evidence of stress corrosion cracking on the line. As mentioned earlier, upon construction of the pipeline, the pipe was coated in the field using then-commonly used polyethylene tape as a corrosion barrier. Polyethylene tape enables the ingress of water (from groundwater), and the insulating properties of disbonded polyethylene also limit the amount of cathodic protection in the line, which can protect the steel surface.³⁹ Enbridge was aware

³⁸ Federal regulations require that certain defects identified as a result of operator assessments be repaired within 60 days of discovery: (1) a top dent greater than three percent of nominal pipe diameter, and (2) a bottom dent with any indication of metal loss, cracking, or stress riser.

³⁹ Cathodic protection is a technique to control the corrosion of a metal surface by making it the cathode of an electrochemical cell. The simplest method to apply cathodic protection is by connecting the metal to be protected with another more easily corroded metal to act as the anode of the electrochemical cell. Electrochemical corrosion takes place when two different metals come into contact with a conductive liquid -- usually impure water or soil moisture -- resulting in a flow of direct current electricity. The current always flows away from the anodic metal (anode), and the anode is corroded. The current flows through the electrolyte to the cathodic metal (cathode), but the cathode is not

of this and had implemented a stress corrosion cracking program specific to Line 6B in the mid 1990's. Early on, Enbridge monitored stress corrosion cracking through field investigations during maintenance for other activities. The first crack detection in-line inspection was conducted in 2005 and was followed by investigative excavations based on the results of the 2005 inspection. Line 6B was in the process of being re-inspected using a specialized crack-detection internal inspection device when the Marshall rupture occurred. The tool for the 2010 inspection remains stranded in a location upstream of the Marshall rupture near Niles, Michigan.

In addition, Enbridge has identified Line 6B as being susceptible to internal corrosion, based upon data from a 1994 in-line inspection which showed internal corrosion defects on the pipeline. Line 6B has historically shipped low water and sediment content heavy crude oils. Enbridge's experience transporting these commodities demonstrates that the bulk hydrocarbon fluid is non-corrosive. However, at lower flow rates, isolated pitting corrosion can occur where sediment and water accumulate in the pipeline. In 1996, Enbridge initiated a mechanical cleaning and chemical inhibitor program. The inhibitor chemical used for Line 6B was selected to provide film-forming corrosion protection and an ability to reduce bacterial activity. In order to remove accumulated materials (sediment and water) and prepare the pipe surface for treatment, the chemical is preceded by a pipeline pig equipped with wire brushes to clean dirt and debris from the line. Treatments of Line 6B are being conducted twice each year. According to Enbridge, the operator has been successful in reducing Line 6B's susceptibility to internal corrosion; almost all of the internal corrosion is of "low severity with depths less than 30 percent."

Corrosion monitors dedicated to Line 6B include an electrical resistance wall loss monitor installed at Mile Post 495.2434, and a weight loss coupon installed in the Stockbridge station. The Mile Post 495.2434 wall loss monitor is capable of detecting pipe wall thickness changes of 0.00025 inches, and has shown a corrosion growth rate of 0.0001 inches per year.⁴⁰

PHMSA, the Federal agency that is charged with overseeing the safety of our nation's pipeline system, was first made aware of the vast majority of the defects on Line 6B in 2009. On a media call last week, PHMSA stated that it has been aware of the dent in the St. Clair River since the 1980's. Enbridge provided presentations to PHMSA staff regarding the defects on Line 6B in November 2009, February 2010, and March 2010. Of particular concern, however, is Enbridge's and PHMSA's omission of this critical safety information in briefings with Committee staff leading up to a July 15, 2010 hearing held by the Subcommittee on Railroads, Pipelines, and Hazardous Materials. The purpose of that hearing was to evaluate the integrity management of hazardous liquid pipelines. Enbridge appeared as a witness at that hearing. Prior to hearings, it is common for Committee staff to request briefings from Federal agencies and witnesses on issues related to the hearing. The briefings with Enbridge and PHMSA career staff leading up to the July 15 hearing

corroded. The potential that causes the current to flow in this manner is always due to some kind of difference between the anode and the cathode, such as a difference in the two metals, concentration of the conductive liquid, a difference in temperatures, a difference in the amount of oxygen present, or some other difference in conditions.

⁴⁰In January 2010, PHMSA sent a warning letter to Enbridge about its disconnection of five corrosion control monitors on the line. Enbridge claims that the disconnection was due to their selection of alternative corrosion control methodologies.

included discussions on the safety of operations and, in PHMSA's case, the safety of Enbridge and another operator invited to the hearing. At no point did either Enbridge or PHMSA mention the safety concerns with Line 6B or the fact that PHMSA had been pressuring Enbridge to deal with the defects on the line. Further, Enbridge failed to mention to Subcommittee Members at the hearing that it had submitted a notification to PHMSA on the day of the hearing for a two and one-half year extension on remediating the defects in the line (an issue that is directly relevant to integrity management).

Following the rupture in Marshall, Michigan, Committee staff requested a timeline of activities related only to Enbridge's Lakehead System since 2002 and communications between PHMSA and Enbridge since 2002. Committee staff also requested a failure history on Enbridge. PHMSA reported to Committee staff that Enbridge and its affiliates are responsible for 163 pipeline incidents since 2002, 83 of which occurred on the Lakehead System. *See Attachment A.*

RELEASES OF LIABILITY AND MEDICAL INFORMATION

Committee staff conducted nearly 100 interviews with residents impacted by the Line 6B rupture in Marshall, Michigan, in addition to interviews of Enbridge, Federal, State, and local officials, and healthcare providers in the Marshall area. Committee staff also consulted with officials charged with overseeing claims processes in other oil spills, including the BP oil spill in the Gulf of Mexico. Kenneth Feinberg, who is charged with administering BP's compensation fund, informed Committee staff that the Gulf Coast Claims Facility (Facility) is providing emergency advance payments to individuals and businesses that are experiencing financial hardship resulting from damages incurred by the BP oil spill, without requiring any release from the individual or business. Individuals and businesses may apply for an emergency advance payment on a monthly basis or for six months of losses. In addition, the Facility has a comprehensive claim form which each individual must complete and sign. At some point in the future, the Facility will offer a lump sum payment to compensate victims of the spill for their present and future losses; at that time, the injured individual will need to sign an agreement releasing BP of any future liability.

Following the Marshall rupture, Enbridge opened two claims offices: one in Marshall and one in Battle Creek. Although evacuations were on a voluntary basis, many residents, in particular, those who resided in the red zone (most impacted by the spill), decided to evacuate. Enbridge informed those individuals that they should keep their receipts from the hotel and submit them for reimbursement. Many residents interviewed by Committee staff stated that they were required by Enbridge to sign Full and Final Releases from Liability in order to be reimbursed for hotel accommodations and food. The releases discharged "Enbridge, its employees, agents, partners, directors, and officers and affiliated companies and their agents, partners, directors, and officers, from and against all liability, claims, actions, causes of action, costs, and expenses, including without limitation claims for personal injuries, property damage, that [the signer] ever had, has, or may have against Enbridge, whether known or unknown related to the incident." *See Attachment B.*

Enbridge also provided air purifiers and air conditioners to residents in the red zone (an area designated for voluntary evacuation of residents) and other locations. Residents stated that they

were required to sign liability releases in exchange for that assistance. Other residents stated they were required to sign releases upon filing a claim, prior to evaluation and approval of their claim.

In addition to the liability releases, residents seeking medical attention by contacting the Enbridge hotline were required to sign broad authorizations for release of medical information, which Enbridge claimed was required by the Health Insurance Portability and Accountability Act of 1996 (HIPAA) (P.L. 104-191), a law which governs health care providers, health care plans, and health care clearinghouses and designed to protect the privacy and security of patients' medical information. *See Attachment C.*

Following the pipeline rupture, Enbridge developed an arrangement with the Family Health Center of Battle Creek (FHC) to refer patients to the Center for care. FHC is recognized as a Federally-qualified health center by the U.S. Department of Health and Human Services (HHS), Bureau of Primary Health. FHC serves about 30,000 patients annually, and focuses on aiding the uninsured and under-insured. FHC offers a discount program through a grant from the Public Health Service within the HHS to help patients pay for healthcare; it is a sliding fee discount program with minimum co-pay for uninsured patients, which means payment is according to one's income level and family size. FHC informed Committee staff that they do not turn away patients in need of care.

Pursuant to the arrangement, Enbridge personnel would complete an Authorization for Care, which authorized persons seeking medical care to obtain care from the FHC. This Authorization for Care would indicate to FHC that Enbridge would take care of the patient's medical expenses. Enbridge, however, also required persons seeking medical care to sign a form entitled, "Authorization for Release of Medical Records Pursuant to 45 CFR 164.508 (HIPAA)." This form authorized the release of "any and all inpatient admissions all ER visits, outpatient clinic notes, diagnostic testing, radiology films, consults, doctors orders, progress notes, nurses notes, laboratory testing, social service records, reports, correspondence, consultations, memoranda, treatment plans, admission records, discharge summaries, medical summaries, diagnoses, and/or any writing of any kind ... [including] drug and alcohol records, communicable disease, HIV and AIDS records, and mental health records (not including psychotherapy notes)" to Enbridge. The form authorized the release of any of these records for a period of one year from the date signed, or the date a claim has been legally concluded, to any representative of Enbridge Energy Partners, L.P., of Houston, Texas.

According to residents, Enbridge never informed them that their refusal to sign the release would not result in denial of medical care. Residents were led to believe that to receive medical care, they had to sign the release. However, even if they did not sign the release, the FHC informed Committee staff that they would still have provided them with medical care under the FHC's normal operating practices.

There were also no limits on what Enbridge could do with the patients' information. FHC reported to Committee staff that FHC had concerns regarding the arrangement so they asked Enbridge to enter into a patient care agreement. FHC submitted a draft agreement to Enbridge in mid-August, which would have limited Enbridge's use of the medical information to oil spill claims

and prohibited Enbridge from sharing patients' medical information outside of the organization. Enbridge did not sign the agreement. *See Attachment D.*

On September 1, 2010, Chairman James L. Oberstar and Congressman Mark H. Schauer sent letters to the U.S. Department of Justice and U.S. Department of Health and Human Services (HHS) requesting inquiries into Enbridge's practices relating to the liability releases and medical information forms. Chairman James L. Oberstar and Congressman Mark H. Schauer also wrote to Enbridge regarding the allegation, and asked Enbridge to voluntarily rescind any and all releases of full and final settlement and any and all authorizations for releases of medical records that have been signed pursuant to the oil spill in Marshall, Michigan. They requested an immediate halt of Enbridge's practice of asking residents to sign the forms, and asked for copies of all signed forms and related materials.

On September 3, 2010, Enbridge sent a letter to Chairman James L. Oberstar and Congressman Mark H. Schauer stating that residents or businesses that were not satisfied with the claims process or Enbridge's approach have the option to seek legal recourse. Enbridge, however, committed to reviewing their claims process and discontinuing the use of releases that precluded the claimant from bringing future claims for physical injuries or medical conditions that result from the leak until Enbridge has an opportunity to meet with the parties to the letter. Enbridge did not state what it would do with releases signed prior to September 3. Enbridge also agreed to discontinue the efforts to obtain authorizations for release of medical information and that it would return the one file it had received from FHC. FHC maintains that it is still legally bound by the forms to continue sending the medical information to Enbridge; it is in the process of reviewing that requirement.

In response to the Committee letter, on September 7, 2010, Secretary Sebelius sent a letter to Patrick Daniel, President and Chief Executive Officer of Enbridge and stated that if the reports that the company had "misled or coerced individuals to sign forms authorizing the release of personal medical records to Enbridge upon referral to a local family health center; that these forms authorize the disclosure of an inappropriately broad amount of medical information, including information wholly unrelated to their current conditions or complaints; that the form could be directed to any provider, not only the one(s) to which the patient has sought treatment for the potentially oil spill-related condition; and that Enbridge has failed to adequately inform these individuals of their privacy rights under the Health Insurance Portability and Accountability Act (HIPAA) ... that the company's actions are a deplorable affront to patients' privacy rights" and called on Enbridge to cease such practices immediately.

According to the HHS, "[a] health care provider may not coerce an individual into signing a HIPAA-compliant authorization in exchange for treatment, and an individual may revoke an authorization in writing at any time. In addition, providers in this situation may not deny treatment to individuals because they refuse to sign a HIPAA authorization."

HHS opened its own inquiry into the matter and requested copies of all Enbridge medical release forms used regarding the Michigan oil spill and "an explanation of their extraordinary scope." HHS further asked Enbridge to explain how they were advising Michigan residents of their ability to receive medical treatment even if they would not sign a release.

The Committee also requested copies of all liability releases and medical release forms and other relevant materials. Enbridge failed to provide the materials as requested.

HHS has reported to the Committee that Enbridge's form is not HIPAA compliant. HHS also reported that Enbridge is not covered under HIPAA; only health care providers, health care plans, and health care clearinghouses are governed under HIPAA and may authorize a patient to release medical records. Enbridge is not a health care provider, a health care plan, or a health care clearinghouse. In fact, HHS informed Committee staff that it has never seen a HIPAA form that provides such protected information to the entity that is responsible for causing the need medical care. It appears that Enbridge led people who signed the release to believe that the form was required under Federal regulations: "Authorization for Release of Medical Records Pursuant to 45 CFR 164.508 (HIPAA)." Residents who signed the form reported to Committee staff that they thought it was a requirement. Unfortunately, because Enbridge is not covered under HIPAA there are no protections for how the information it obtained from the medical provider may be used. Further, HHS has no Federal recourse against Enbridge because it is not covered under HIPAA. The only Federal recourse is through the U.S. Department of Justice.

EXPECTED WITNESSES

Ms. Michelle Barlondsmith
Resident, Battle Creek, Michigan

Mr. Andy Buchsbaum
Executive Director of Great Lakes Regional Center
National Wildlife Federation

Mrs. Susan Connelly
Resident, Marshall, Michigan

Mr. Patrick Daniel
President and Chief Executive Officer
Enbridge, Inc.

The Honorable Deborah Hersman
Chairman
National Transportation Safety Board

The Honorable Lisa Jackson
Administrator
U.S. Environmental Protection Agency

Mr. James Lee
Resident, Marshall, Michigan

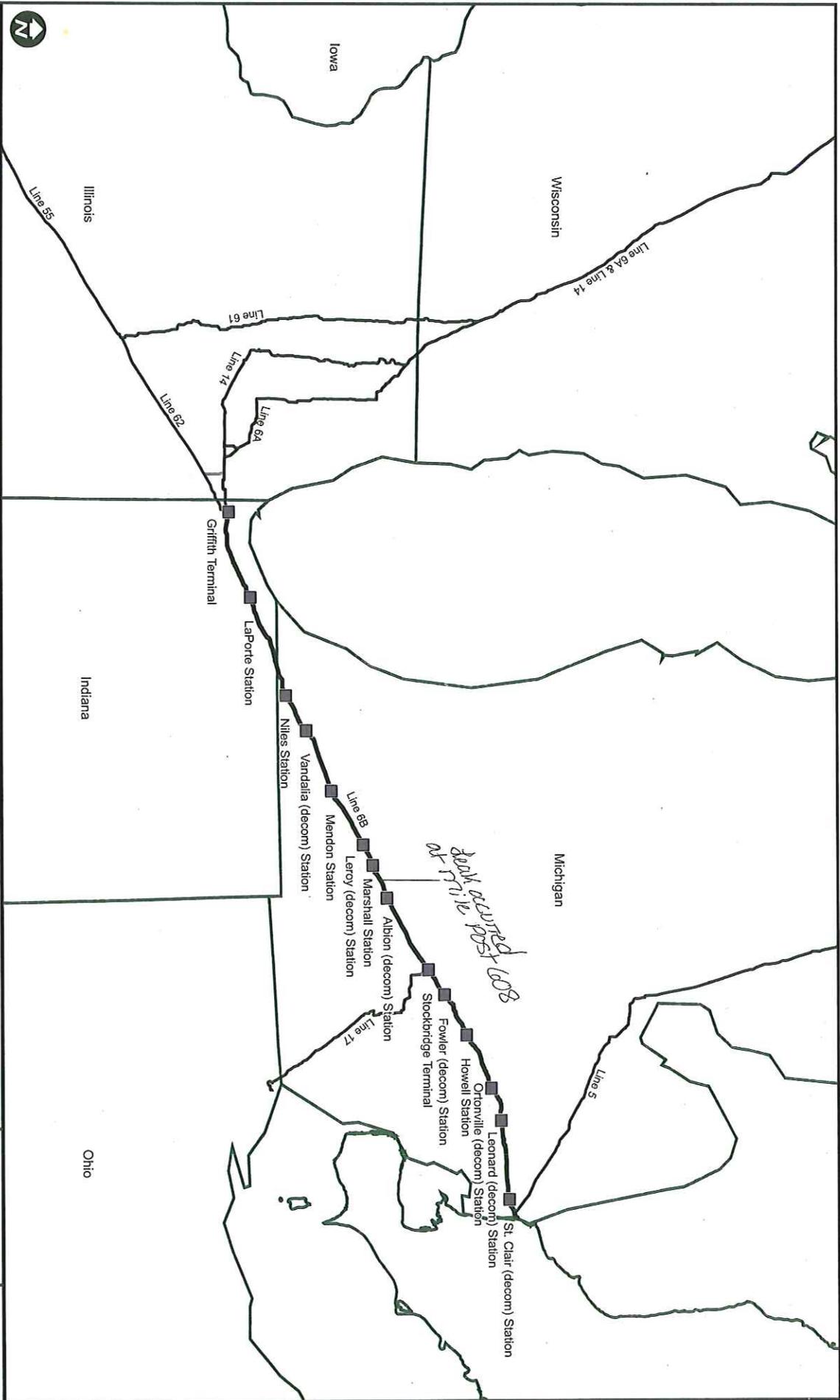
Mr. Scott Masten
Senior Scientist, National Toxicology Program
National Institute of Environmental Health Sciences
National Institutes of Health

Mrs. Debra Miller
Resident, Ceresco, Michigan

The Honorable John D. Porcari
Deputy Secretary
U.S. Department of Transportation

Ms. Kelli D. Scott
Administrator/Controller
Calhoun County, Michigan

Mrs. Darla Thorpe and Mrs. Denise Green
Residents, Ceresco, Michigan



Book covered LOS at mile post

- Legend
- Station
 - Line 6B
 - Other Enbridge Pipeline
 - Idle Enbridge Pipeline

Enbridge Energy, Limited Partnership
Line 6B (30") HCA Overview Map
Crude Oil

DATE ISSUED:	March 2010
SERIES:	Line 6B HCA
SCALE:	1:2,000,000
DRAWN BY:	JAI
MAP:	Line 6B Overview



Timeline of PHMSA's Oversight of Enbridge, Inc. and Related Subsidiaries

May 7-18, 2001 June 11-22, 2001 August 27, 2001	PHMSA conducted an onsite pipeline safety inspection of the Lakehead pipeline facilities and records at Duluth, MN (records), Bay City, MI (records); Superior, WI (records); and field inspections in Michigan, Indiana, Illinois, and Wisconsin (see NOA dated April 16, 2002; Warning Letter, NOPV, and LOC dated June 5, 2002).
January 4, 2002	PHMSA conducted a construction inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
February 14, 2002	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Cass County, Minnesota. The spill was reported to result in a release of 50 barrels and \$10,100 of property damage. See Report ID 20020085.
February 19, 2002	PHMSA conducted a failure investigation on Enbridge Energy's Minnesota lines related to the February 14, 2002 incident.
February 22, 2002	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Clearwater County, Minnesota. The spill was reported to result in a release of 50 barrels and \$120,000 of property damage. See Report ID 20020083.
February 25, 2002	PHMSA conducted a failure investigation on Enbridge Energy's Minnesota lines related to the February 22, 2002 incident. PHMSA did not initiate an enforcement action.
February 26-27, 2002	PHMSA conducted an Integrity Management Segment Identification and Completeness Check of Enbridge Energy's integrity management program in Duluth, MN. PHMSA initiated an enforcement action. [3-2002-5008M]
April 16, 2002	PHMSA issued a Notice of Amendment (NOA) to Enbridge Energy requiring the company to modify its operation and maintenance manuals including procedures on first discovery reports, valve inspections, conditions that could adversely affect the safe operation of the Lakehead system, and inspections of breakout tanks. In response to the NOA, Enbridge updated its operation and maintenance manuals. [3-2002-5005M]
April 18, 2002	PHMSA conducted a public inquiry investigation on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
April 26, 2002	PHMSA conducted a unit inspection on Enbridge Energy's Lakehead unit. PHMSA did not initiate an enforcement action.
May 15, 2002	PHMSA issued a Notice of Amendment (NOA) to Enbridge Energy related to the February 2002 Integrity Management Segment and Identification Completion Check of its integrity management program. In particular, PHMSA alleged that Enbridge's integrity management procedures for identifying segments that could affect HCAs were inadequate. In response, Enbridge amended its procedures. [3-2002-5008M]

June 3-7, 2002 PHMSA and its state partners conducted an onsite pipeline safety inspection of Enbridge's Operation and Maintenance procedures at the company's Duluth, MN facility. PHMSA initiated an enforcement action. [3-2003-5009M]

June 4, 2002 PHMSA and its state partners conducted an onsite pipeline safety inspection of Enbridge's Operator Qualification Plan at the company's Duluth, MN location. PHMSA initiated an enforcement action. [3-2003-5003M]

June 5, 2002 PHMSA issued a Warning Letter to Enbridge Energy cautioning the company on probable violations of welder qualifications requirements and the accuracy of its contact information on its line markers and signs placed along the Lakehead pipeline. [3-2002-5014W]

June 5, 2002 PHMSA issued a Notice of Probable Violation (NOPV) to Enbridge Energy for its alleged failure to maintain pressure test records and documentation of breakout tank inspections. The NOPV also noted obstructions in the right-of-way for the Lakehead pipeline. The Final Order made findings for all probable violations and assessed a civil penalty of \$5,000. [3-2002-5015]

June 5, 2002 PHMSA issued a Letter of Concern to Enbridge Energy noting an inoperable mainline valve on the Lakehead pipeline system, inadequate atmospheric protection at the Griffith station and on Line 6A, low pipe-to-soil readings on Line 6B, and inoperable rectifiers. In response, Enbridge confirmed that these deficiencies were corrected. [3-2002-5016C]

June 17-21, 2002
August 19-23, 2002
October 22, 2002 PHMSA conducted an onsite pipeline safety inspection of Enbridge's operating and maintenance manuals at its Minot, ND facility in conjunction with a system type inspection of Enbridge Pipelines (North Dakota) facilities. PHMSA initiated an enforcement action. [3-2003-5004, 3-2003-5006M]

July 4, 2002 Enbridge Energy experienced a reportable incident on a crude oil pipeline in Itasca County, Minnesota. The spill was reported to result in a release of 6,000 barrels of product and \$5,597,300 of property damage. See Report ID 20020238. PHMSA conducted a failure investigation on Enbridge Energy's Minnesota lines. PHMSA initiated an enforcement action. [3-2002-5017H]

July 5, 2002 PHMSA issued a Corrective Action Order (CAO) on July 5, 2002 to Enbridge Energy regarding the July 4, 2002 spill on Line 4. It was later determined that the spill was caused by a fatigue crack initiated during transportation at the time of original construction. NTSB investigated the failure. PHMSA required a series of in-line inspections and pressure reductions before the matter was ultimately closed on October 23, 2007. [3-2002-5017H]

September 3-6, 2002
October 15-16, 2002
March 10-11, 2003 PHMSA and its state partners conducted an onsite pipeline safety inspection of Enbridge's Vector pipeline facilities and records in Illinois, Indiana, and Michigan. PHMSA initiated an enforcement action. [3-2004-1007]

October 7, 2002	PHMSA conducted a public inquiry investigation on Enbridge Energy's Griffith unit. PHMSA did not initiate an enforcement action.
October 28, 2002	PHMSA conducted a compliance inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
October 29, 2002	PHMSA held meetings with Enbridge to discuss pigging program and crack detection tool developments relating to corrective action order issued by the Central Region.
November 4, 2002	Enbridge Energy experienced a reportable incident on a crude oil pipeline in St. Louis County, Minnesota. The spill was reported to result in a release of 4 barrels and \$150,000 of property damage. See Report ID 20020386.
December 17, 2002	PHMSA held meetings with Enbridge to discuss pigging program and crack detection tool developments relating to corrective action order issued by the Central Region.
January 17, 2003	PHMSA conducted a specialized inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
January 24, 2003	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Douglas County, Wisconsin. The spill was reported to result in a release of 1 barrel and \$5,000 of property damage. See Report ID 20030083.
February 20, 2003	PHMSA issued a Notice of Amendment (NOA) to Enbridge Energy after the 2002 inspection of Enbridge's operator qualification procedures. Specifically, PHMSA alleged deficiencies in the covered task list and qualification procedures for contractors. In response, Enbridge corrected the deficiencies. [3-2003-5003M]
February 20, 2003	PHMSA issued a Notice of Probable Violation to Enbridge Pipelines (North Dakota) LLC alleging deficiencies in pressure records. PHMSA did not propose a civil penalty. [3-2003-5004]
February 25, 2003	PHMSA issued a Notice of Amendment to Enbridge Pipelines (North Dakota) LLC alleging 16 deficiencies in Enbridge's operations and maintenance procedures including the failure to have adequate procedures for prompt response to natural disasters, inspecting relief valves and breakout tanks, minimizing stray currents, and establishing effective cathodic protection. In response, Enbridge amended its procedures. [3-2003-5006M]
February 27, 2003	Enbridge Pipelines (Toledo) experienced a reportable incident on a crude oil pipeline in Monroe County, Michigan. The spill was reported to result in a release of 130 barrels of oil and \$255,000 of property damage. See Report ID 20030109.
March 3, 2003	PHMSA issued a Notice of Amendment to Enbridge Energy for various deficiencies in its operation and maintenance manuals including inadequate procedures for reporting accidents. In response, Enbridge amended its procedures. [3-2003-5009M]

April 14, 2003	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Polk County, Minnesota. The spill was reported to result in a release of 125 barrels and \$1,000,000 of property damage. See Report ID 20030187.
April 22, 2003	PHMSA held meetings with Enbridge to discuss pigging program and crack detection tool developments relating to corrective action order issued by the Central Region.
May 12, 2003 June 2, 2003	PHMSA conducted an inspection of Enbridge's HCA Management Plan at its facility in Superior, Wisconsin. PHMSA initiated an enforcement action. [3-2004-5038]
May 26, 2003	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Clearwater County, Minnesota. The spill was reported to result in a release of 100 barrels and \$20,000 of property damage. See Report ID 20030233.
June 16, 2003	PHMSA conducted a construction inspection on Enbridge Energy's Griffith unit. PHMSA did not initiate an enforcement action.
July 14, 2003	PHMSA conducted a unit inspection on Enbridge Energy's North Dakota unit. PHMSA did not initiate an enforcement action.
August 11, 2003	PHMSA conducted a unit inspection on Enbridge Energy's Escanaba unit. PHMSA initiated an enforcement action. [3-2003-5025C]
August 13-14, 2003 September 16-18, 2003	PHMSA conducted an onsite pipeline safety inspection of Enbridge Energy's facilities located within the states of Michigan and Wisconsin (see LOC issued on November 10, 2003)
September 8, 2003	PHMSA conducted a unit inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
September 23-25, 2003	Enbridge, United States Coast Guard, and Office of Pipeline Safety held a table top drill based on deliberate sabotage of the pipeline by a suspected unknown terrorist.
October 13, 2003	PHMSA conducted an inspection of Enbridge's North Dakota HCA Management Plan at the Minot, ND facility.
October 13, 2003	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Bay County, Michigan. The spill was reported to result in a release of 500 barrels and \$120,000 of property damage. See Report ID 20030413.
October 14, 2003	PHMSA held meetings with Enbridge to discuss pigging program and crack detection tool developments relating to corrective action order issued by the Central Region.
October 19, 2003	Enbridge Pipelines (Louisiana Liquids) experienced a reportable incident on its HVL pipeline in Plaquemines County, Louisiana. The spill was reported to result in a release of 17 gallons of product and \$400,025 of property

damage. See Report ID 20040008.

October 22, 2003 Enbridge Pipelines (Louisiana Liquids) experienced a reportable incident involving its HVL pipeline in Plaquemines County, Louisiana. The spill was reported to result in a release of 17 gallons of product and \$425,000 of property damage. See Report ID 20040103.

November 10, 2003 PHMSA issued a Letter of Concern to Enbridge Energy noting two sections of the company's right-of-way that were overgrown with weeds and small trees. [3-2003-5025C]

January 27, 2004 PHMSA held a general meeting with Enbridge North Dakota personnel to discuss hydrostatic test records of Enbridge facilities.

February 19, 2004 PHMSA conducted an investigation of a leak on Enbridge Energy's 26" Line 2 in Grand Rapids, MN. PHMSA initiated an enforcement action. [3-2004-5009W]

February 19, 2004 Enbridge Energy experienced a reportable incident on a crude oil pipeline in Itasca County, Minnesota. The spill was reported to result in a release of 1,003 barrels and \$1,089,790 of property damage. See Report ID 20040063. PHMSA conducted a failure investigation on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.

March 26, 2004 PHMSA issued a Warning Letter to Enbridge Energy indicating that it violated PHMSA's incident notification requirements by reporting a leak 12 days after it was discovered. The leak was caused by a crack within a dent at the bottom of the pipe and was discovered during an in-line inspection. PHMSA could have, but did not, impose a penalty. [3-2004-5009W]

April 2, 2004 Enbridge Energy experienced a reportable incident on a crude oil pipeline in Douglas County, Wisconsin. The spill was reported to result in a release of 2 barrels of product and \$25,000 of property damage. See Report ID 20040100.

April 5, 2004 PHMSA issued a Notice of Probable Violation to Enbridge Energy for failure to monitor external corrosion, inspect two relief valves and review the capacity of each relief device. Enbridge was also warned for failure to timely inspect three rectifiers and conduct leak surveys at three locations. The Final Order assessed a civil penalty of \$5,000. [3-2004-1007]

April 26-30, 2004
September 13-17, 2004
September 20-24, 2004
October 18-22, 2004 PHMSA inspected Enbridge's facilities in Michigan, Ohio, Indiana, Illinois, and Wisconsin. PHMSA initiated an enforcement action. [3-2005-5004C]

April 26, 2004 PHMSA conducted an inspection of records for the Lakehead Crude System at the Griffith, Indiana office. PHMSA did not initiate an enforcement action.

May 13, 2004 Enbridge Energy experienced a reportable incident on a crude oil pipeline in

Douglas County, Wisconsin. The spill was reported to result in a release of 40 barrels and \$81,764 of property damage. See Report ID 20040139.

- May 20, 2004 Enbridge Energy filed an incident report stating that 21 gallons of product were released and \$100,000 of property damage occurred. See Report ID 20040150. PHMSA's interstate agent, the Minnesota Office of Pipeline Safety, received notification of a leak at an above-ground breakout tank in Clearwater, Minnesota and initiated an investigation. PHMSA initiated an enforcement action. [3-2005-5021]
- June 16, 2004 PHMSA conducted a failure investigation on Enbridge Energy's Minnesota lines. PHMSA initiated an enforcement action. [3-2005-5021]
- June 21, 2004 PHMSA conducted a unit inspection on Enbridge Energy's Lakehead unit. PHMSA did not initiate an enforcement action.
- July 8, 2004 PHMSA held meetings with Enbridge to discuss return to service commitments, crack growth rate calculations, crack susceptibility and detection, and risk assessment.
- July 28-29, 2004 PHMSA and its state partners conducted an onsite pipeline safety inspection of Enbridge's Operator Qualification records and procedures at the Superior, Wisconsin facility. PHMSA initiated an enforcement action. [3-2004-5029M]
- September 13, 2004 PHMSA conducted a unit inspection on Enbridge Energy's Bay City unit. PHMSA initiated an enforcement action. [3-2005-5004C]
- September 13, 2004 PHMSA conducted a unit inspection on Enbridge Energy's Griffith unit. PHMSA initiated an enforcement action. [3-2005-5004C]
- September 14, 2004 PHMSA conducted a specialized investigation on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
- September 16, 2004 Enbridge Pipelines (Ozark) experienced a reportable incident at an above-ground storage tank in Payne County, Oklahoma. The incident was reported to result in \$2,337,100 of property damage. Enbridge specified lightning as the cause in the incident report. See Report ID 20040276.
- September 20, 2004 PHMSA issued a Notice of Amendment to Enbridge Energy after the 2004 Operator Qualification procedure inspection. Specifically, PHMSA stated that Enbridge's procedures for covered tasks were inadequate. In response, Enbridge amended its procedures. [3-2004-5029M]
- September 20, 2004 PHMSA conducted a unit inspection at Enbridge Energy's Fort Atkinson unit. PHMSA initiated an enforcement action. [3-2005-5004C]
- September 27, 2004 Enbridge Pipelines (Ozark) experienced a reportable incident on a crude oil pipeline in Lincoln County, Oklahoma. The spill was reported to result in a release of one barrel of oil and \$100,005 of property damage. See Report ID 20040298.

October 14, 2004	Enbridge Pipelines (Ozark) experienced a reportable incident on a crude oil pipeline in Payne County, Oklahoma. The spill was reported to result in a release of 90 barrels of oil and \$38,000 of property damage. See Report ID 20040325.
December 21, 2004	PHMSA issued a Warning Letter and Notice of Amendment to Enbridge Energy regarding Enbridge's Integrity Management Plan, its analysis of HCAs, and failure to meet the 180-day requirement to make anomaly repairs. PHMSA did not assess a civil penalty. [3-2004-5038]
January 6, 2005	PHMSA issued a Letter of Concern and Notice of Amendment to Enbridge Energy for failure to provide an engineering analysis to document the risks of longitudinal seam failure for pre-1970 ERW pipe. Enbridge also failed to provide a technical justification for its assessment intervals. In response, Enbridge amended its procedures and provided the necessary documentation. [3-2005-5001]
January 18, 2005	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Bay County, Michigan. The spill was reported to result in a release of 100 barrels and \$45,750 of property damage. See Report ID 20050056.
January 20, 2005	PHMSA issued a Letter of Concern to Enbridge Energy for pipe wrap deterioration, low pipe to soil readings at one location, and corrosion in annular spaces. [3-2005-5004C]
February 7, 2005	PHMSA held a conference call with Enbridge.
February 16, 2005	PHMSA conducted a compliance inspection. PHMSA did not initiate an enforcement action.
February 16, 2005	Enbridge presented information regarding the Spearhead Project and Ozark Pipeline to Office of Pipeline Safety Staff in the Central Region Office.
April 1, 2005	Enbridge Energy experienced a reportable incident on a crude oil pipeline in McHenry County, Illinois. The spill was reported to result in a release of 5 barrels and \$97,500 of property damage. See Report ID 20050121.
April 5, 2005	PHMSA conducted a failure investigation at Enbridge Energy's Fort Atkinson's unit. PHMSA did not initiate an enforcement action.
April 21, 2005	PHMSA held meetings with Enbridge to discuss risk reduction, valve placement process, and valve locations.
May 19, 2005	PHMSA issued a Notice of Amendment to Enbridge Energy for inadequate procedures for inspecting above-ground storage tanks. PHMSA also issued a Warning Letter for failure to timely inspect its breakout tanks. In response, Enbridge amended its procedures. [3-2005-5021]
July 14, 2005	PHMSA conducted a specialized inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.

July 28, 2005	PHMSA conducted a unit inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
August 18, 2005	PHMSA issued a Notice of Amendment to Enbridge regarding its Operator Qualification plans for facilities acquired from Shell Gas Gathering, LLC. [4-2005-2001M]
September 19, 2005	PHMSA conducted a unit inspection on Enbridge Energy's Escanaba unit. PHMSA did not initiate an enforcement action.
September 24, 2005	Enbridge Offshore (Gas Gathering) experienced a reportable incident on an offshore pipeline. The incident resulted in \$151,000 of property damage. See Report ID 20050141.
October 21, 2005	Enbridge Pipelines (Ozark) experienced a reportable incident on a crude oil pipeline in Butler County, Kansas. The spill was reported to result in a release of 2,350 barrels of oil and \$24,976 of property damage. See Report ID 20050336.
October 17-20, 2005 November 20-21, 2005	PHMSA inspected Enbridge's records and facilities for the Vector natural gas pipeline in Illinois and Indiana. [3-2007-101M]
January 10, 2006	PHMSA conducted a failure investigation on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
January 15, 2006	Enbridge Offshore (Gas Transmission) experienced a reportable incident on an offshore pipeline. The incident resulted in \$2,653,941 of property damage. See Report ID 20060020.
January 18, 2006	PHMSA held meetings with Enbridge to discuss the Liquid Integrity Management program.
January 19, 2006	PHMSA conducted integrity management plan field verification on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
February 1, 2006	Enbridge made a presentation to PHMSA regarding Line 3 crack management.
March 1, 2006	Enbridge Offshore (Gas Transmission) experienced a reportable incident on an offshore pipeline. The incident resulted in \$1,500,000 of property damage. See Report ID 20060037.
March 6, 2006	Enbridge Offshore (Gas Gathering) experienced a reportable incident on an offshore pipeline. The incident resulted in \$150,000 of property damage. See Report ID 20060039.
April 13, 2006	PHMSA conducted a specialized inspection on Enbridge Energy's Lakehead unit. PHMSA did not initiate an enforcement action.
April 20, 2006	Enbridge held meetings with PHMSA and MNOPS.

April 20, 2006	Enbridge Pipelines (Toledo) experienced a reportable incident on a crude oil pipeline in Lenawee County, Michigan. The spill was reported to result in a release of 25 barrels of oil and \$115,000 of property damage. See Report ID 20060138.
May 8, 2006	PHMSA conducted an inspection of Enbridge's written hazardous liquid system procedures. PHMSA initiated an enforcement action. [4-2007-5006M]
May 9, 2006	PHMSA held a meeting regarding hazardous liquid operations and maintenance system procedures.
May 8-12, 2006	PHMSA inspected Enbridge Energy's procedures for operation and maintenance at the Superior, WI facility. PHMSA initiated an enforcement action. [4-2007-5006M]
May 31, 2006	Enbridge Energy experienced a reportable incident on a crude oil pipeline in St. Clair County, Michigan. The spill was reported to result in a release of 20 barrels and \$150,000 of property damage. See Report ID 20060183.
June 12, 2006	PHMSA conducted a compliance inspection. PHMSA did not initiate an enforcement action.
July 10, 2006	Enbridge Offshore (Gas Transmission) experienced a reportable incident on an offshore pipeline. The incident resulted in \$1,319,510 of property damage. See Report ID 20060095.
July 24-26, 2006	PHMSA inspected Enbridge Offshore Gas Gathering LLC's facilities in Houma, LA. PHMSA initiated an enforcement action. [4-2007-2001]
August 13, 2006	Enbridge Pipelines (Ozark) experienced a reportable incident on a crude oil pipeline in Butler County, Kansas. The spill was reported to result in a release of 140 barrels of oil and \$90,140 of property damage. See Report ID 20060255.
August 29, 2006	Enbridge Pipelines (Ozark) experienced a reportable incident on a crude oil pipeline in Lincoln County, Oklahoma. The spill was reported to result in a release of one gallon of oil and \$150,035 of property damage. See Report ID 20060280.
September 18, 2006	PHMSA conducted a unit inspection at Enbridge Energy's Fort Atkinson unit. PHMSA did not initiate an enforcement action.
October 10, 2006	PHMSA conducted a unit inspection on Enbridge Energy's Lakehead unit. PHMSA did not initiate an enforcement action.
October 12, 2006	PHMSA held a meeting with Enbridge to discuss construction plans for the Southern Access and Southern Lights Pipeline Expansion Projects to bring Canadian crude into the United States.

October 16, 2006 PHMSA conducted a unit inspection on Enbridge Energy's Bay City unit. PHMSA did not initiate an enforcement action.

October 23, 2006 PHMSA conducted a unit inspection on Enbridge Energy's Griffith unit. PHMSA did not initiate an enforcement action.

January 1, 2007 Enbridge Energy experienced a reportable incident on a crude oil pipeline in Clark County, Wisconsin. The spill was reported to result in a release of 1,500 barrels and \$702,500 of property damage. See Report ID 20070029. PHMSA conducted a failure investigation at Enbridge Energy's Fort Atkinson unit. PHMSA did not initiate an enforcement action.

January 23, 2007 PHMSA issued a Warning Letter to Enbridge Energy for failure to document an internal inspection of the hot tap at the Crete Meter station. [3-2007-1003W]

January 23, 2007 PHMSA issued a Letter of Concern to Enbridge Energy regarding low potentials at the Crete Meter station in Illinois. [3-2007-1004C]

January 25, 2007 PHMSA was notified of an incident involving a pipeline operated by Enbridge Pipelines (North Dakota) LLC. The incident occurred near the Stanley, ND pump station and resulted in a release of crude oil. Enbridge Pipelines (North Dakota) LLC's incident report stated that the Stanley, ND spill resulted in a release of 215 barrels of product and \$75,750 of property damage. See Report ID 20070043.

February 2, 2007 Enbridge Energy experienced a reportable incident on a crude oil pipeline in Exeland, Wisconsin. The spill was reported to result in a release of 4,800 barrels of product and \$4,503,458 of property damage. See Report ID 20070048. PHMSA conducted a failure investigation at Enbridge Energy's Fort Atkinson unit. PHMSA initiated an enforcement action. [3-2009-5006]

February 12, 2007 PHMSA conducted a construction inspection at Enbridge Energy's Fort Atkinson unit. PHMSA did not initiate an enforcement action.

February 13, 2007 PHMSA held meetings with Enbridge regarding the Southern Access audit.

March 1, 2007 PHMSA issued a Notice of Amendment to Enbridge Energy for inadequate corrosion control, emergency response, and damage prevention procedures. In response, Enbridge amended its procedures. [4-2007-5006M]

June 4, 2007 PHMSA issued a Notice of Probable Violation to Enbridge Offshore (Gas Gathering) LLC for alleged violations of internal and external corrosion control monitoring and valve maintenance. PHMSA proposed a \$38,000 civil penalty in the Notice. A hearing was held on March 11, 2009. [4-2007-2001]

June 27, 2007 PHMSA issued a Notice of Amendment to Enbridge Energy for inadequate procedures. Specifically, PHMSA noted problems with Enbridge's procedures for external corrosion control, abandonment of pipelines, and the placement of warning signs along its Vector pipeline. In response, Enbridge

amended its procedures. [3-2007-1011M]

July 18, 2007 PHMSA conducted a construction inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.

August 6, 2007 PHMSA conducted a unit inspection on Enbridge Energy's North Dakota unit. PHMSA initiated an enforcement action. [3-2007-5031W, 3-2007-5032C]

August 6, 2007 PHMSA conducted a unit inspection on Enbridge Energy's Minnesota lines. PHMSA initiated an enforcement action. [3-2007-5031W, 3-2007-5032C]

August 6-10, 2007
September 24-28, 2007 PHMSA and its state partners inspected Enbridge's records at its Superior, WI, North Dakota, and Minnesota facilities. PHMSA initiated an enforcement action. [3-2007-5032C]

August 21, 2007 PHMSA issued a Notice of Probable Violation to Enbridge Pipelines (North Dakota), LLC related to a release that occurred on January 25, 2007 at the Stanley, North Dakota pump station. The release occurred on a section of crude oil piping that had been temporarily idled during a construction project. PHMSA assessed a civil penalty of \$105,000 for failure to provide a pressure relief device for this section of pipe. [3-2007-5022]

September 20, 2007 PHMSA held a conference call with Enbridge regarding the crack program.

October 2007 Enbridge conducted an integrity management assessment of Line 6B with a magnetic flux leakage in-line inspection device. Enbridge found 140 anomalies and 26 were immediately repaired. The remaining 114 anomalies were on external surface of pipe between mileposts 650 and 753. Enbridge was required to remediate these areas in accordance with PHMSA's regulations.

November 13, 2007 PHMSA conducted a failure investigation on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.

November 15, 2007 PHMSA issued a Warning Letter to Enbridge Energy for inaccurate reporting of its highly volatile liquid mileage in its 2005 and 2006 Annual Reports, lack of line markers at the Necktie River Crossing, and missed cathodic protection readings. [3-2007-5031W]

November 15, 2007 PHMSA issued a Letter of Concern to Enbridge Energy. Specifically, in its records, Enbridge was documenting the date an Abnormal Operating Condition was entered into its database, rather than the date the condition occurred. [3-2007-5032C]

November 24, 2007 Enbridge Pipelines (North Dakota) LLC experienced a reportable incident on its crude oil pipeline in Bottineau County, ND. The spill was reported to result in a release of 84 barrels and \$10,300 of property damage. See Report ID 20070352.

November 28, 2007 Enbridge Energy experienced a reportable incident on its Line 3 crude oil

	pipeline in Clearwater County, MN. The spill was reported to result in a release of 325 barrels and \$2,625,000 of property damage. See Report ID 20070362. PHMSA initiated an investigation of the accident which resulted in 2 fatalities and a spill of 325 barrels of crude oil. [3-2008-5011]
January 14, 2008	PHMSA held a conference call with Enbridge regarding Phase II of examination protocol.
January 17, 2008	PHMSA and its state partners conducted inspections on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
January 29, 2008	Enbridge made a presentation to PHMSA regarding safety and integrity performance.
February 4, 2008	PHMSA conducted public inquiry investigation on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
April 3, 2008	PHMSA conducted a specialized inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
April 6, 2008	Enbridge Pipelines (Ozark) experienced a reportable incident on a crude oil pipeline in Butler County, Kansas. The spill was reported to result in a release of 550 barrels of product and \$476,127 of property damage. See Report ID 20080148.
April 8, 2008	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Lake County, Indiana. The spill was reported to result in a release of 260 barrels and \$192,002 of property damage. See Report ID 20080162.
April 29, 2008	PHMSA held meetings with Enbridge regarding MP 912.
May 12, 2008	PHMSA conducted a construction inspection at Enbridge Energy's Fort Atkinson unit. PHMSA did not initiate an enforcement action.
May 13, 2008	PHMSA conducted a construction inspection on Enbridge Energy's Griffith unit. PHMSA did not initiate an enforcement action.
May 14, 2008	PHMSA conducted a construction inspection on Enbridge Energy's Griffith unit. PHMSA did not initiate an enforcement action.
May 28, 2008	PHMSA conducted a failure investigation on Enbridge Energy's Griffith unit. PHMSA did not initiate an enforcement action.
August 14, 2008	PHMSA held meetings with Enbridge to discuss the results of the Line 3 rupture and proposed plan for Line 3.
August 25, 2008	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Douglas County, Wisconsin. The spill was reported to result in a release of 115 barrels and \$50,800 of property damage. See Report ID 20080284.
September 18, 2008	PHMSA held an update meeting with Enbridge regarding Southern Access.

October 1, 2008	PHMSA issued a Notice of Probable Violation (NOPV) and proposed a \$2.4 million dollar civil penalty related to the November 2007 Clearbrook, MI accident. PHMSA alleged that Enbridge did not follow its procedures during a pipeline repair.
October 2, 2008	PHMSA conducted a construction inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
October 6, 2008	PHMSA conducted a unit inspection on Enbridge Energy's Griffith unit. PHMSA initiated an enforcement action. [3-2010-5002W]
Oct. 6-8, 28, 2008 January 21-22, 2009	PHMSA inspected Enbridge's facilities in Griffith, Indiana that included Line 6B. PHMSA initiated an enforcement action. [3-2010-5002W]
October 14, 2008	PHMSA conducted a unit inspection on Enbridge Energy's Lakehead unit. PHMSA did not initiate an enforcement action.
October 17, 2008	PHMSA held a conference call with Enbridge to discuss Line 61 and the 20" pipeline.
October 21, 2008	PHMSA conducted OPA activity on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
October 21, 2008	PHMSA attended Enbridge's emergency response drill at Clearbrook Terminal. Firefighters and Enbridge personnel also attended the drill.
December 8, 2008	PHMSA held a conference call with Enbridge regarding Line 55 pressure restrictions and conclusions.
December 12, 2008	PHMSA held a meeting with Enbridge to discuss intent to place Line 61 back into service.
January 1, 2009	PHMSA conducted an Enbridge operator inspection. PHMSA did not initiate an enforcement action.
January 22, 2009	PHMSA held a meeting with Enbridge to get updates on the planned Alberta Clipper Project for 2009.
February 27, 2009	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Marshall County, Minnesota. The spill was reported to result in a release of five gallons of product and \$4,006 of property damage. See Report ID 20090071.
March 13, 2009	PHMSA conducted a failure investigation on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
April 21, 2009	PHMSA held a meeting with Enbridge regarding the Cushing Region tank program.
May 21, 2009	Enbridge Energy experienced a reportable incident on a crude oil pipeline in

Douglas County, Wisconsin. The spill was reported to result in a release of 154 barrels and \$117,257 of property damage. See Report ID 20090170.

- June 2009 Enbridge conducted an integrity management assessment that covered Line 6B with an ultrasonic in-line inspection device. Enbridge found 250 anomalies and 35 were immediately repaired. The remaining anomalies are between mileposts 650 and 753.
- June 1, 2009 PHMSA conducted a construction inspection on Enbridge Energy's North Dakota unit. PHMSA did not initiate an enforcement action.
- June 1, 2009 PHMSA conducted a construction inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
- June 9, 2009 Enbridge reported a weeping sleeve 4 miles downstream of the Gowan, MN station. PHMSA conducted a failure investigation on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
- June 24, 2009 PHMSA held a meeting with Enbridge regarding the Southern Lights construction project, which experienced two girth weld failures during hydrostatic testing. The failures were determined by metallurgical analysis to be subject to hydrogen assisted cracking (HAC). Enbridge provided the results of their analysis, and the Central Region Office provided additional questions, comments, and points for consideration.
- June 29, 2009 PHMSA conducted a unit inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
- June 29, 2009 PHMSA issued a Notice of Probable Violation (NOPV) assessing \$100,000 penalty for failure to follow written procedures and maintain minimum clearances when excavating, related to the February 2007 Exeland, WI release. [3-2009-5006]
- July 8, 2009 PHMSA conducted a failure investigation on Enbridge Energy's Fort Atkinson unit. PHMSA did not initiate an enforcement action.
- July 13, 2009 PHMSA conducted a compliance inspection on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.
- October 15, 2009 PHMSA conducted an operator qualifications inspection. PHMSA did not initiate an enforcement action.
- November 17, 2009 PHMSA conducted a compliance inspection. PHMSA did not initiate an enforcement action.
- November 17, 2009 PHMSA held a meeting with Enbridge regarding weld issues on the Southern Lights project, construction from the Canadian border to Wisconsin, updates on plans for Line 3 operational changes, and plans for remediation of anomalies identified on Line 6B from MP 650 to 720, as well as a dent anomaly at the St. Clair River, near Sarnia, Ontario.

Dec. 7-11, 2009	PHMSA inspected the procedures of Enbridge's Cushing crude oil terminal facility in Cushing, OK. [4-2010-5009M, 4-2010-5008]
January 2010	PHMSA issued an Advisory Bulletin reminding hazardous liquid pipeline operators of the importance of prompt and effective leak detection capability in protecting public safety and the environment.
January 8, 2010	Enbridge Energy experienced a reportable incident on a crude oil pipeline in Pembina County, North Dakota. The spill was reported to result in a release of 3,784 barrels of product and \$4,127,775 of property damage. See Report ID 2010021. PHMSA conducted a failure investigation on Enbridge Energy's North Dakota unit. PHMSA initiated an enforcement action. [3-2010-5001H]
January 12, 2010	PHMSA held a conference call with Enbridge regarding Line 2 pipe cutout and testing.
January 19, 2010	PHMSA issued a Corrective Action Order to Enbridge after a January 8, 2010 failure on Line 2 caused by pipe seam split in Neche, ND. [3-2010-5001H]
January 21, 2010	PHMSA issued a Warning Letter to Enbridge related to the October 2008 inspections and January 21-22, 2009 follow-up inspections. The warning letter related to the disconnection of five hydrogen permeation internal corrosion monitors installed on Line 6B, one in January 2006, two in May 2006, and two in October 2007. Enbridge reported that the monitoring systems were disconnected due to communications/instrumentation problems. The warning noted that while Enbridge is in the process of implementing an alternative method of internal corrosion monitoring on Line 6B utilizing Electrical Resistance Tomography technology, implementation would not be complete until later in 2010. Enbridge was not able to prove to PHMSA that its interim measures properly managed the threat of internal corrosion. [3-2010-5002W]
February 4, 2010	PHMSA called a meeting with Enbridge executive staff from Calgary, including the President of Enbridge Pipelines, Inc., to discuss performance issues with entire Lakehead pipeline system (not just Line 6B). PHMSA was concerned about Enbridge's repair methodologies and a series of major failures. PHMSA requested that Enbridge review its methodologies and report back to PHMSA.
March 1, 2010	Enbridge reported an incident regarding Line 81 through Clearbrook. 3bbls were spilled.
March 8, 2010	PHMSA issued a Notice of Amendment to Enbridge Pipelines (Ozark) LLC related to the Cushing facility inspection in Fall 2009, requiring Enbridge to amend their procedures related to investigating pipeline failures, timeliness of break-out tank inspections, and monitoring for atmospheric (a type of external) corrosion. Enbridge agreed with PHMSA's assessment of the inadequacy of its procedures. [4-2010-5009M]

March 8, 2010 PHMSA issued a Notice of Probable Violation to Enbridge Pipelines (Ozark) LLC related to the Cushing facility inspection in Fall 2009 for failure to timely inspect its in-service break-out tanks. The NOPV proposed a penalty of \$28,000. [4-2010-5008]

March 31, 2010 As follow-up to the February 2010 meeting, Enbridge met with Central Region staff.

March 31, 2010 With respect to Line 6B, Enbridge met with Central Region and provided an update on its integrity management plan (see October 2007 and June 2009 assessments) and actions to address in-line inspection results and mitigating measures.

March 31, 2010 With respect to the January CAO and incident, Enbridge met with Central Region staff to discuss the results of the failure investigation and an integrity verification plan for Line 2.

April 17, 2010 In an incident casually related to the January 2010 failure, Enbridge discovered a leaking seam defect on Line 2, in Deer River, MN. The leak was initially sleeve repaired and was, at that time, planned for a cutout in June 2010 for metallurgical inspection. Initial assessments failed to classify the defect as requiring correction. The spill was reported to result in a release of 5 barrels of product and property damage of \$966,350. See Report ID 2010081.

PHMSA conducted a failure investigation on Enbridge Energy's Minnesota lines. PHMSA did not initiate an enforcement action.

May 7, 2010 Enbridge Offshore (Gas Transmission) experienced a reportable incident on an offshore pipeline. The incident resulted in \$180,000 of property damage. See Report ID 20100030.

June 2010 PHMSA met with the Canada National Energy Board to discuss issues of mutual concern, including concerns related to Enbridge. At the meeting, they established plans for future meeting in September in Kansas City to include Enbridge and Minnesota Office of Pipeline Safety.

June 28, 2010 In light of the Deepwater Horizon incident, PHMSA published an Advisory Bulletin reminding hazardous liquid pipeline operators to review their oil spill response plans and update them as necessary to ensure that adequate resources are available to respond to a worst case discharge.

June 28, 2010 Enbridge Pipelines (East Texas) experienced a reportable incident on a pipeline in Polk County, Texas. The incident resulted in \$128,133 of property damage. See Report ID 20100045.

June 29, 2010 PHMSA held a meeting with Enbridge to discuss tank management updates.

July 2, 2010 Enbridge Energy experienced a reportable incident on a crude oil pipeline in Itasca County, Minnesota. The spill was reported to result in a release of ten barrels of oil and \$137,000 of property damage. See Report ID 20100156.

July 15, 2010	The T&I Subcommittee held a hearing on PHMSA’s Integrity Management Program, including solutions to address corrosion, leak detection, and leak mitigation. Enbridge testified on a separate panel.
July 15, 2010	Enbridge issued notification that they exceeding maximum time period for anomaly repair on Line 6B between mileposts 650 and 753.
July 21, 2010	Enbridge responded to the June 2010 Advisory Bulletin. Enbridge noted they have new pipeline construction that constituted a substantial new operating condition, and that in April they had finished a “thorough review and update of our FRP,” in conjunction with their regular annual review of their Facility Response Plan. They reassessed their FRP and concluded that the April 2010 plan is appropriate for responding to a worst cast discharge in the Chicago Region Response Zone.
July 25-26, 2010	A failure in Marshall, MI occurred on Enbridge’s Lakehead system, Line 6B, at milepost 608.
July 26, 2010	PHMSA sent the Region Director, three inspectors, and one CATS representative to Michigan and one investigator to the control center in Edmonton, Alberta.
July 28, 2010	PHMSA issued a Corrective Action Order declaring that further operation of Line 6B without corrective measures would be hazardous to life, property and the environment. The order prevents the restart of Line 6B, until mitigating measures acceptable to PHMSA are in place to ensure safety and protection of the environment. PHMSA continues to ensure compliance with this order. [3-2010-5008H]
July 27-30, 2010	PHMSA is supporting NTSB, the primary incident investigators for cause, in its investigation of the pipeline incident. In this role, PHMSA is a party to the NTSB working groups that interviews witnesses, gathers documents and data, and makes physical observations at the site.

Release / Full and Final Settlement

DATE:

CLAIMANT('S) NAME(S):

CLAIMANT ADDRESS:

CLAIMANT PHONE NO.:

INCIDENT: On or about the 26th day of July 2010, Enbridge Energy, Limited Partnership's ("Enbridge") oil pipeline no. 6B located near Marshall, Michigan leaked oil causing damage to Claimant ("Incident").

PAYMENT AMOUNT: \$

By execution hereof Enbridge and Claimant(s), are agreeing to settle all of their claims related to the Incident.

In consideration of the payment of the sum stated above ("Payment Amount") to be paid to Claimant(s), Claimant(s) hereby releases and discharges Enbridge, its, employees, agents, partners, directors, and officers and affiliated companies and their agents, partners, directors, and officers, (jointly "Enbridge Released Parties") from and against all liability, claims, actions, causes of action, costs, and expenses, including without limitation claims for personal injuries, property damage, that Claimant(s) ever had, has or may have against the Enbridge Released Parties, whether known or unknown related to the Incident.

This Agreement reflects the entire settlement agreement between the Claimant(s) and Enbridge, and the terms of this release are contractual, and not a mere recital.

Claimant(s) Signature:

Witness Signature

Witness Name:

AUTHORIZATION FOR RELEASE OF MEDICAL RECORDS PURSUANT TO 45 CFR 164.508 (HIPAA)

Patient Name: _____ Social Security # : _____ - _____ - _____
Date Of Birth: ____ / ____ / ____ Date of Illness: ____ / ____ / ____

TO: Any physician, surgeon, dentist, hospital, rehabilitation/convalescent/custodial facility, pharmacist, ambulance, nurse, other health care provider or insurance company.

I, _____, authorize you to disclose and release the following protected health information: **Any and all inpatient admissions, all ER visits, outpatient clinic notes, diagnostic testing, radiology films, consults, doctors orders, progress notes, nurses notes, laboratory testing, social service records, reports, correspondence, consultations, memoranda, treatment plans, admission records, discharge summaries, medical summaries, diagnoses, and/or any writing of any kind.**

Also, please disclose and release the following protected health care information (only if checked below):

- Drug and Alcohol Records
- Communicable disease, HIV and AIDS Records
- Mental Health Records (not including Psychotherapy Notes)

This protected health information is disclosed for the following purposes: verifying, evaluating, negotiating and or other pertinent legal uses, with respect to the patient's insurance claim.

You are authorized to release the above records, or copies thereof, to any representative of Enbridge Energy Partners, L.P. ("Enbridge") at the following address: 1100 Louisiana, Suite 3300, Houston, Texas 77002, ATTN: Mark Maki

I further authorize any health care provider to release any and all tests, reports, notes (excluding psychotherapy notes) and all other information concerning my medical and/or psychological conditions and/or treatment and to meet with, discuss and/or to correspond and report directly to Enbridge or any representative(s) Enbridge may designate to discuss my medical and/or psychological condition(s) or treatment.

I also authorize the provider of treatment to: 1) communicate directly with my employer, Enbridge and/or its representatives on his/her own initiative, if necessary, concerning my medical and/or psychological condition(s) and/or treatment; and 2) consult with my employer, Enbridge and/or its representatives upon request provided that the responsibility for any charges for such consultation will lie solely with the requesting party of the consultation. I expressly waive any and all rights that I may have to be notified of these communications and to be present at consultations.

The purpose of such communications, correspondence, consultations and meetings is the same as set forth above with respect to my authorization for the disclosure of protected health information.

This authorization shall be in force and effect until the later of one year from the date signed or the date the claim has been legally concluded at which time this authorization expires.

I have the right to revoke this authorization, in writing, by sending written notification to you with copy to Enbridge at the above address. I understand that a revocation is not effective to the extent that you have relied on my authorization to disclose protected health information.

I acknowledge that information used or disclosed pursuant to this authorization may be subject to redisclosure by the recipient and no longer be protected by Subpart E of the Regulations promulgated by the U.S. Department of Health and Human Services pursuant to the Health Insurance Portability and Accountability Act of 1996 ("HIPAA") relating to the privacy of individually identifiable health information.

I further agree that a photocopy or facsimile copy of this Authorization shall be valid and effective just as the original.

I understand that I have the right to: 1) inspect or copy the individually identifiable health information to be disclosed; 2) refuse to sign this authorization; 3) receive a copy of this Authorization upon request.

Signature of Patient or Personal Representative

Name of Patient or Personal Representative

Dated

Description of Personal Representative's Authority to Sign for Patient (if applicable)



Family Health Center of Battle Creek

Agreement for Confidentiality of Patient Information

Enbridge Energy Company, Inc. ("Enbridge") will have access to certain protected patient information regarding oil spill claimants receiving healthcare at the Family Health Center of Battle Creek ("FHC") on behalf of Enbridge. Patient information is protected by federal regulations including the Health Insurance Portability and Accountability Act of 1996 ("HIPAA") and the Health Information Technology for Economic and Clinical Health Act ("HITECH") of 2009. Protected health information includes any information that individually identifies or could potentially identify a patient; demographic information collected from an individual; information related to the past, present or future physical or mental health or condition of an individual; the provision of health care to an individual; and past, present or future payment for the provision of health care.

Enbridge agrees to maintain the privacy and security of FHC patient information at all times. This commitment to confidentiality includes, but is not limited to, an obligation to:

- Use patient information only for the purpose of processing oil spill claims,
- Limit access to patient information only to those employees who require the information to perform the duties of their job, who will access only the minimum information necessary to carry out their job responsibilities,
- Not disclose patient information outside the organization,
- Dispose of any paper or electronic media containing patient information in a manner that will prevent inappropriate access or disclosure, including shredding of any items placed in trash containers,
- Use administrative, physical and technical safeguards to prevent inappropriate access, use and disclosure of patient information,
- Immediately report to FHC any breach of confidentiality, disclosure, inappropriate use or access and/or security incident regarding FHC patient information, and
- In a case of potential or known breach of confidentiality or security incident regarding FHC patient information make its internal records relating to the use and disclosure of protected health information available to FHC and/or the Department of Health and Human Services to investigate compliance with HIPAA and HITECH regulations.

FHC assumes no responsibility for any losses or liability that result, directly or indirectly, from breaches of confidentiality or security of FHC patient information caused by Enbridge and/or its employees.

8-30-10 7-7

Failure on the part of Enbridge or its employees to maintain confidentiality and security of FHC patient information may result in the termination of healthcare services for oil spill claimants on behalf of Enbridge at FHC. In addition, Enbridge and the employee(s) involved could be subject to legal action and civil and/or criminal penalties.

A.J. Jones ND, President/CEO
Family Health Center of Battle Creek

Date

Enbridge Energy Company, Inc.

Date