

ATTACHMENT K

PHMSA Reportable Incidents on Lakehead System since 1996.

Mainline Pipeline Incidents
 Enbridge Energy, Limited Partnership (Lakehead System)
 Pipeline System Leaks Reportable to U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration
 1996-2006

Date	City	County	State	Milepost	Public/ Private Property Damage	Cost of Emergency Response	Cost of Environmental Remediation	Other Public Costs	Value of Product Lost	Value of Operator Property Damage	Other Operator Costs	Total Cost of Incident	Product Spilled (2)	Volume Spilled (barrels)	Volume Recovered (3)	Primary Cause	Additional Cause Detail
15-Apr-96		ST LOUIS	MN	1044.49								\$100,000	Crude	15.0	12.0	FAILED PIPE	
16-Sep-98			MN	878.10								\$100,000	Crude	5700.0	5415.0	OUTSIDE FORCE DAMAGE	DAMAGE BY OTHERS
19-Oct-98			MN	878.10								\$100,000	NGL	950.0	0.0	OUTSIDE FORCE DAMAGE	DAMAGE BY OTHERS
16-Jan-99	SUPERIOR	DOUGLAS	WI	1097.60								\$365,000	NGL	130.0	30.0	CORROSION	EXTERNAL
22-Feb-99			MN	834.50								\$50,000	Crude	400.0	385.0	OTHER	LOOSE BOLTS ON THE FLANGE DAMAGE BY NATURAL FORCES
02-Nov-99			MI	1286.00								\$250,000	NGL	5300.0	2750.0	OUTSIDE FORCE DAMAGE	NATURAL FORCES
15-Nov-99		TAYLOR	WI	116.03								\$63,800	Crude	15.0	14.0	OTHER	ORIGINAL CONSTRUCTION
07-Feb-00		CLEAR-WATER CASS	MN	920.60								\$192,000	Crude	25.0	10.0	FAILED WELD	PINHOLE LEAK ON LONGITUDINAL
23-Feb-00			MN	957.10								\$100,000	Crude	10.0	5.0	OTHER	WELD FAILED SIDSEAM WELD OF REPAIR SLEEVE
09-May-00			MN	913.05								\$55,200	Crude	25.0	20.0	OTHER	

- (1) Cost information was not recorded in records by incident nor required to be reported by PHMSA until 2002
- (2) Product NGL = Natural Gas Liquids transported along Enbridge Energy, Limited Partnership's northern pipelines and not through the state of Illinois.
- (3) Initial volume recovered is the free oil and drain-up from pipe with special vacuum equipment and typically returned to pipeline system. Remaining oil in soil recovered by removing contaminated soils or other remedial actions under the oversight and approval by appropriate state environmental agencies.

Cont'd
Mainline Pipeline Incidents
 Enbridge Energy, Limited Partnership (Lakehead System)
 Pipeline System Leaks Reportable to U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration
 1996-2006

Date	City	County	State	Milepost	Public/ Private Property Damage	Cost of Emergency Response	Cost of Environ- mental Remediation	Other Public Costs	Value of Product Lost	Value of Operator Property Damage	Other Operator Costs	Total Cost of Incident	Product Spilled (2)	Volume Spilled (barrels)	Volume Recover- ed (barrels) (3)	Primary Cause	Additional Cause Detail
22-Jul-00			MN	914.10								\$306,000	Crude	50.0	10.0	OTHER	FAILED REPAIR SLEEVE SIDESEAM WELD
25-Jan-01			MN	918.70								\$200,000	Crude	25.0	10.0	OTHER	FAILED SLEEVE
04-Mar-01			MN	955.05								\$200,000	Crude	25.0	15.0	FAILED WELD	
04-Jul-02			MN	1002.70	\$244,800	\$1,109,600	\$840,000	\$3,232,900	\$120,000	\$50,000	\$0	\$5,597,300	Crude	6000.0	2574.0	MATERIAL AND/OR WELD	PIPE SEAM WELD
14-Apr-03			MN	892.95	\$0	\$500,000	\$200,000	\$300,000	\$0	\$0	\$0	\$1,000,000	Crude	125.0	75.0	FAILURES MATERIAL AND/OR WELD	BUTT WELD
19-Feb-04			MN	1007.33	\$0	\$27,500	\$27,500	\$0	\$34,790	\$0	\$1,000,000	\$1,089,790	Crude	1003.0	9.0	FAILURES NATURAL FORCES	EARTH MOVEMENT
29-Dec-04			MI	1677.50	\$0	\$1,000	\$0	\$0	\$0	\$0	\$5,000	\$6,000	HVL	1.0	1.0	NATURAL FORCES EQUIPME NT	
14-Jan-05			WI	268.82	\$0	\$0	\$0	\$0	\$0	\$0	\$15,600	\$15,600	Crude	3.0	3.0	MATERIAL AND/OR WELD	BODY OF PIPE
01-Apr-05			IL	379.16	\$0	\$0	\$0	\$7,500	\$0	\$0	\$90,000	\$97,500	Crude	5.0	5.0	MATERIAL AND/OR WELD	
22-Dec-05			WI	182.30	\$0	\$0	\$0	\$0	\$0	\$0	\$40,000	\$40,000	Crude	0.1	0.1	FAILURES MATERIAL AND/OR WELD	

(1) Cost information was not recorded in records by incident nor required to be reported by PHMSA until 2002
 (2) Product NGL = Natural Gas Liquids transported along Enbridge Energy, Limited Partnership's northern pipelines and not through the state of Illinois.
 (3) Initial volume recovered is the free oil and drain-up from pipe with special vacuum equipment and typically returned to pipeline system. Remaining oil in soil recovered by removing contaminated soils or other remedial actions under the oversight and approval by appropriate state environmental agencies.

FAILURES

- (1) Cost information was not recorded in records by incident nor required to be reported by PHMSA until 2002.
- (2) Product NGL = Natural Gas Liquids transported along Enbridge Energy, Limited Partnership's northern pipelines and not through the state of Illinois.
- (3) Initial volume recovered is the free oil and drain-up from pipe with special vacuum equipment and typically returned to pipeline system. Remaining oil in soil recovered by removing contaminated soils or other remedial actions under the oversight and approval by appropriate state environmental agencies.

Incidents Occurring Within Enbridge Station or Terminals
 Enbridge Energy, Limited Partnership (Lakehead System)
 Pipeline System Leaks Reportable to U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration
 1996-2006

Date	City	County	State	Milepost	Total Cost of Incident	Product Spilled	Volume Spilled (barrels)	Initial Volume Recovered (barrels)	Primary Cause	Additional Cause Detail
15-May-96	VIKING		MN	847.91	\$40,000	Crude	50.0	5.0	OTHER	HEADER PIPING FAILED
24-Aug-96		DONALDSON	MN	814.00	\$500,000	Crude	5000.0	4252.0	CORROSION	EXTERNAL
28-May-98		COOK	IL	438.39	\$250,000	Crude	300.0	250.0	OUTSIDE FORCE DAMAGE	DAMAGE BY OPERATOR OR ITS CONTRACTOR
25-Aug-99	CLEARBROOK		MN	1226.24	\$0	Crude	1.0	0.0	OTHER	FAILURE TO USE PROPER LOCKOUT/TAGOUT PROCEDURES
27-Jul-00		DOUGLAS	WI	1098.00	\$200,000	Crude	1200.0	1150.0	OTHER	FAILED GASKET
02-May-01	DEER RIVER		MN	995.83	\$57,500	Crude	5.0	4.0	OTHER	LOOSE BLIND FLANGE
20-Jan-02	SUPERIOR	DOUGLAS	WI	1096.95	\$52,515	Crude	10.0	9.0	MATERIAL AND/OR WELD FAILURES	BUTT WELD
13-Feb-02	CASS LAKE	CASS	MN	953.04	\$5,020	Crude	1.0	0.0	EQUIPMENT	
14-Feb-02	CASS LAKE	CASS	MN	953.04	\$10,100	Crude	50.0	45.0	EXCAVATION DAMAGE	OPERATOR EXCAVATION DAMAGE
22-Feb-02	CLEARBROOK	CLEARWATER	MN	909.10	\$120,000	Crude	50.0	50.0	INCORRECT OPERATION	
03-Apr-02	SUPERIOR	DOUGLAS	WI	1096.95	\$15,025	Crude	1.0	0.0	EQUIPMENT	
19-Sep-02	LA PORTE	LA PORTE	IN	499.35	\$2,006	Crude	0.2	0.2	EQUIPMENT	
04-Nov-02	FLOODWOOD	ST LOUIS	MN	1044.37	\$150,000	Crude	4.0	1.0	MATERIAL AND/OR WELD FAILURES	FILLET WELD
28-Nov-02	SUPERIOR	DOUGLAS	WI	1096.00	\$5,000	Crude	2.0	1.0	EQUIPMENT	
12-Dec-02	NILES	BERRIEN	MI	538.13	\$10,000	Crude	3.0	0.0	INCORRECT OPERATION	
19-Dec-02	ADAMS	ADAMS	WI	227.53	\$5,000	Crude	1.0	0.0	EQUIPMENT	
24-Jan-03	SUPERIOR	DOUGLAS	WI	1096.95	\$2,853,000	Crude	4500.0	4450.0	MATERIAL AND/OR WELD FAILURES	BUTT WELD
01-Mar-03	CLEARBROOK	CLEARWATER	MN	909.36	\$48,000	Crude	1.0	0.0	NATURAL FORCES	
22-Apr-03	CLEARBROOK	CLEARWATER	MN	909.18	\$20,000	Crude	1.0	0.0	NATURAL FORCES	
08-May-03	GRIFFITH	LAKE	IN	465.38	\$10,000	Crude	700.0	695.0	OTHER	MISCELLANEOUS

- (1) Cost information was not recorded in records by incident nor required to be reported by PHMSA until 2002
- (2) Product NGL = Natural Gas Liquids transported along Enbridge Energy, Limited Partnership's northern pipelines and not through the state of Illinois.
- (3) Initial volume recovered is the free oil and drain-up from pipe with special vacuum equipment and typically returned to pipeline system. Remaining oil in soil recovered by removing contaminated soils or other remedial actions under the oversight and approval by appropriate state environmental agencies.

Cont'd
Incidents Occurring Within Enbridge Station or Terminals
 Enbridge Energy, Limited Partnership (Lakehead System)
 Pipeline System Leaks Reportable to U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration
 1996-2006

Date	City	County	State	Milepost	Total Cost of Incident	Product Spilled	Volume Spilled (barrels)	Initial Volume Recovered (barrels)	Primary Cause	Additional Cause Detail
14-May-03	DEER RIVER	ITASCA	MIN	995.83	\$25,000	Crude	0.2	0.0	EQUIPMENT	
26-May-03	CLEARBROOK	CLEARWATER	MIN	909.19	\$20,000	Crude	100.0	100.0	MATERIAL AND/OR WELD FAILURES	JOINT
27-May-03	ADAMS	ADAMS	WI	227.53	\$1,000	Crude	2.0	0.0	EQUIPMENT	
19-Jun-03	SUPERIOR	DOUGLAS	WI	1096.95	\$10,000	Crude	2.0	0.0	CORROSION	
19-Jun-03	DEER RIVER	ITASCA	MIN	995.83	\$10,000	Crude	1.0	0.0	INCORRECT OPERATION	
30-Jul-03	CLEARBROOK	CLEARWATER	MIN	909.19	\$49,200	Crude	1.0	0.0	EQUIPMENT	
13-Oct-03	BAY CITY	BAY	MI	1636.70	\$120,000	Crude	500.0	430.0	MATERIAL AND/OR WELD FAILURES	COMPONENT
10-Nov-03	SUPERIOR	DOUGLAS	WI	1096.95	\$10,000	Crude	0.5	0.0	NATURAL FORCES	
02-Dec-03	CLEARBROOK	CLEARWATER	MIN	909.19	\$96,200	Crude	47.0	40.0	MATERIAL AND/OR WELD FAILURES	BODY OF PIPE
20-Dec-03	MINONG	WASHBURN	WI	41.24	\$25,000	Crude	15.0	14.0	MATERIAL AND/OR WELD FAILURES	COMPONENT
10-Mar-04	SUPERIOR	DOUGLAS	WI	1096.95	\$25,000	Crude	3.0	1.0	NATURAL FORCES	
20-Mar-04	LOCKPORT	WILL	IL	426.78	\$15,000	Crude	0.2	0.2	EQUIPMENT	
02-Apr-04	SUPERIOR	DOUGLAS	WI	1096.95	\$10,000	Crude	2.0	2.0	EQUIPMENT	COMPONENT
08-Apr-04	SUPERIOR	DOUGLAS	WI	1096.95	\$5,000	Crude	1.0	1.0	EQUIPMENT	
15-Apr-04	SUPERIOR	DOUGLAS	WI	1096.95	\$7,000	Crude	2.0	2.0	EQUIPMENT	
15-Apr-04	SUPERIOR	DOUGLAS	WI	1096.95	\$5,000	Crude	0.5	0.2	EQUIPMENT	
13-May-04	SUPERIOR	DOUGLAS	WI	1096.95	\$100,000	Crude	40.0	38.0	CORROSION	INTERNAL
20-May-04	CLEARBROOK	CLEARWATER	MIN	909.19	\$100,000	Crude	0.5	0.5	MATERIAL AND/OR WELD FAILURES	FILLET WELD
03-Jun-04	SUPERIOR	DOUGLAS	WI	1096.95	\$10,020	Crude	0.5	0.0	EQUIPMENT	
09-Jun-04	SUPERIOR	DOUGLAS	WI	1096.95	\$5,020	Crude	0.5	0.0	EQUIPMENT	

- (1) Cost information was not recorded in records by incident nor required to be reported by PHMSA until 2002
- (2) Product NGL = Natural Gas Liquids transported along Enbridge Energy, Limited Partnership's northern pipelines and not through the state of Illinois.
- (3) Initial volume recovered is the free oil and drain-up from pipe with special vacuum equipment and typically returned to pipeline system. Remaining oil in soil recovered by removing contaminated soils or other remedial actions under the oversight and approval by appropriate state environmental agencies.

Enbridge Energy Company Inc.
 ICC Staff Data Request ENG 1.24
 Attachment K
 Page 6 of 7

18-Jun-04	CLEARBROOK	CLEARWATER	MN	909.19	\$50,000	Crude	10.0	9.0	CORROSION	INTERNAL
13-Jul-04	DEER RIVER	ITASCA	MN	995.83	\$20,000	Crude	1.0	0.5	EQUIPMENT	

- (1) Cost information was not recorded in records by incident nor required to be reported by PHMSA until 2002
- (2) Product NGL = Natural Gas Liquids transported along Enbridge Energy, Limited Partnership's northern pipelines and not through the state of Illinois.
- (3) Initial volume recovered is the free oil and drain-up from pipe with special vacuum equipment and typically returned to pipeline system. Remaining oil in soil recovered by removing contaminated soils or other remedial actions under the oversight and approval by appropriate state environmental agencies.

Incidents Occurring Within Enbridge Station or Terminals
 Enbridge Energy, Limited Partnership (Lakehead System)
 Pipeline System Leaks Reportable to U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration
 1996-2006

Date	City	County	State	Milepost	Total Cost of Incident	Product Spilled	Volume Spilled (barrels)	Initial Volume Recovered (barrels)	Primary Cause	Additional Cause Detail
18-Jan-05	BAY CITY	BAY	MI	1637.05	\$45,750	Crude	100.0	85.0	NATURAL FORCES	TEMPERATURE
11-Feb-05	MOKENA	WILL	IL	438.39	\$40,000	Crude	0.2	0.2	EQUIPMENT	
29-Mar-05	MARYSVILLE	ST. CLAIR	MI	1732.20	\$500	Crude	0.5	0.0	OTHER	
21-Apr-05	SCHERER-VILLE	LAKE	IN	465.38	\$20,005	Crude	0.1	0.1	EQUIPMENT	
03-Oct-05	SUPERIOR	DOUGLAS	WI	1096.95	\$25,100	Crude	3.0	3.0	EQUIPMENT	
09-Jan-06	CLEARBROOK	CLEARWATER	MN	909.39	\$25,030	Crude	1.0	1.0	NATURAL FORCES	
07-Mar-06	SCHERERVILLE	LAKE	IN	n/a	\$3,600	Crude	2.0	2.0	INCORRECT OPERATION	
28-Mar-06	CLEARBROOK	CLEARWATER	MN	909.10	\$5,000	Crude	2.0	2.0	EQUIPMENT	
31-May-06	MARYSVILLE	ST. CLAIR	MI	1727.60	\$150,000	Crude	20.0	20.0	EQUIPMENT	RUPTURED OR LEAKING SEAL/PUMP PACKING
8-Aug-06	CLEARBROOK	CLEARWATER	MN	909.81		Crude	2.0	1.0		

- (1) Cost information was not recorded in records by incident nor required to be reported by PHMSA until 2002
- (2) Product NGL = Natural Gas Liquids transported along Enbridge Energy, Limited Partnership's northern pipelines and not through the state of Illinois.
- (3) Initial volume recovered is the free oil and drain-up from pipe with special vacuum equipment and typically returned to pipeline system. Remaining oil in soil recovered by removing contaminated soils or other remedial actions under the oversight and approval by appropriate state environmental agencies.