

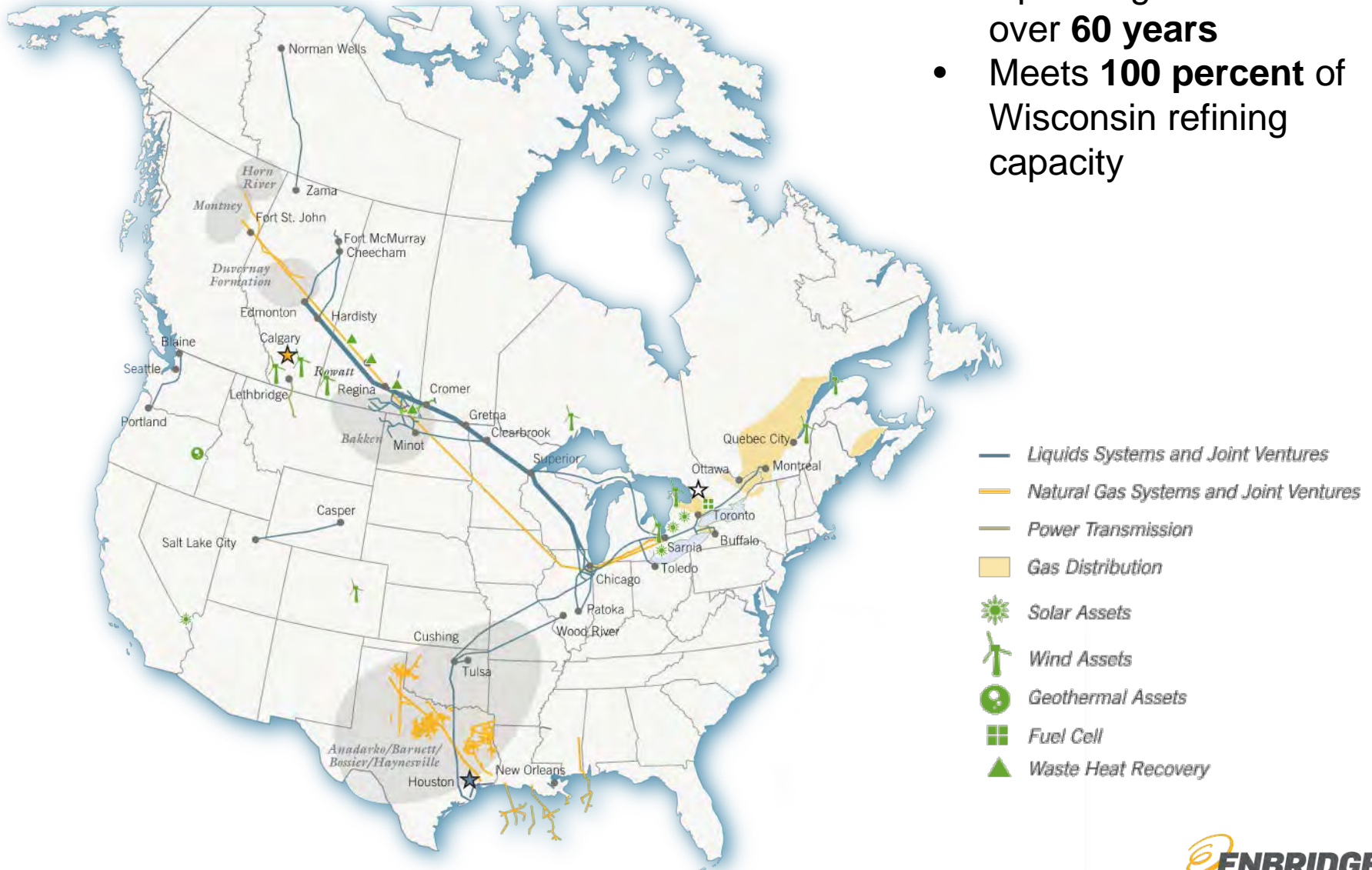
Line 61 Upgrade Project

Waterloo Pump Station Expansion
October 28, 2014



Enbridge Footprint

- Operating in Wisconsin over **60 years**
- Meets **100 percent** of Wisconsin refining capacity



Transporting North American Crude

- Secure sources from Western Canada and North Dakota
- All products meet strict quality specifications before entering the pipeline system
- Studies show crude from the Oil Sands Region of Alberta, Canada has the same low level of corrosivity as “conventional” heavy crude
- Crude from the Oil Sands Region runs at the same temperatures as “conventional” heavy crude
- Heavy crude from the Oil Sands Region has been transported through pipelines for over 45 years



So what's in a barrel of oil? More than you think...

Enbridge does not own but transports more than 80 different liquid petroleum commodities. As an interstate common carrier, all of the products we transport must meet strict pipeline quality specifications posted with the Federal Energy Regulatory Commission (FERC).

Light grades of crude can be refined into gasoline, diesel and jet fuel. These fuels make it possible to transport food, school children, travelers, and workers.

*Heavy grades offer the most versatile product refining including ingredients for countless products from fertilizers to **plastics**; fuels, heating oil, lubricants; and, asphalt for roads, roofs, runways, and the like.*

ALL OF THESE PRODUCTS ARE MADE FROM HIGHLY VERSATILE HEAVY CRUDE



Pipelines are the Safest Way...

Enbridge strives for safe delivery of the liquid petroleum we transport using:

- High quality materials and special coatings on our pipelines
- Cathodic protection to prevent corrosion
- 24-hour computerized pressure monitoring
- Routine aerial patrols
- Internal pipeline inspection tools
- On-going emergency response training

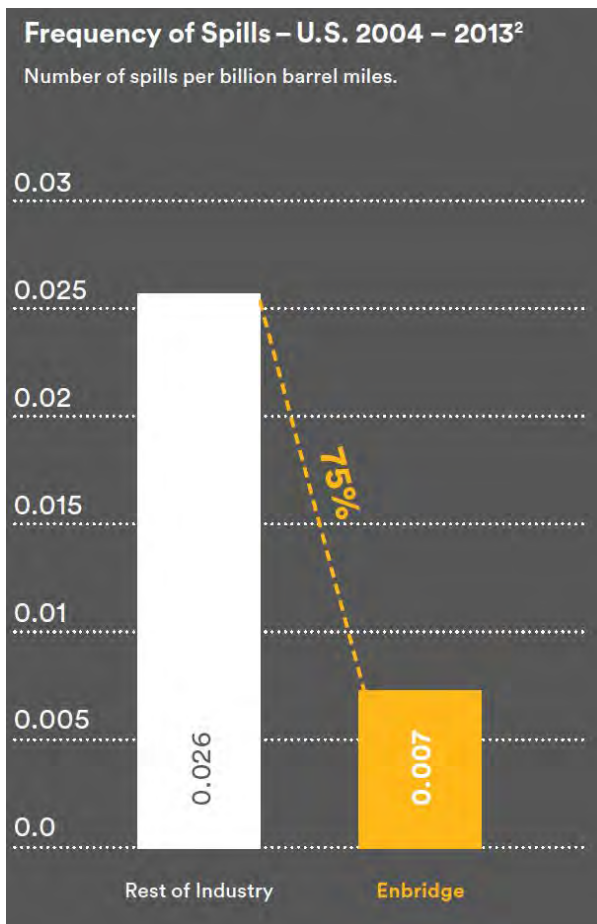


How Enbridge Compares

Frequency of spills

United States:

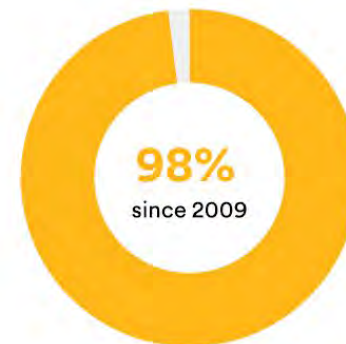
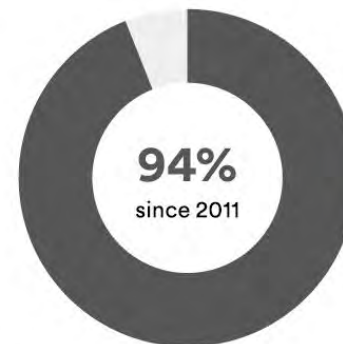
Over 2004 to 2013, Enbridge performed 75 per cent better than industry.



Pipeline Integrity Program

- In-line inspection using sophisticated tools
 - Use imaging technology adapted from cutting-edge medical science such as ultrasound and magnetics
- Pipe replacement and hydrostatic testing key components in our pipeline integrity program

Liquids Pipelines



Total km we are able to inspect: 23,254km

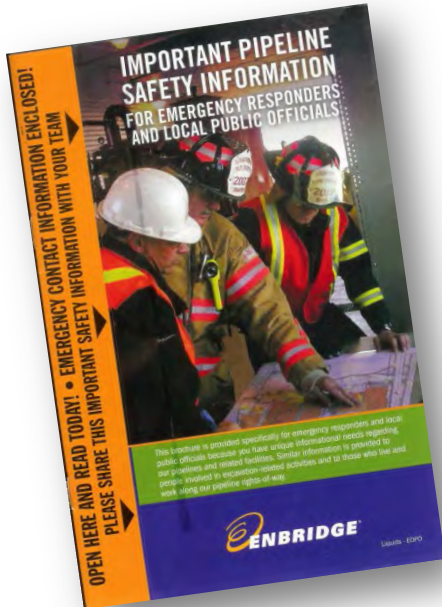
■ Total km inspected since 2011: 21,973 km

■ Total km inspected since 2009: 22,897 km



U.S. Pipeline Public Awareness Program

- Enbridge mailed approximately **one million new brochures** in 2013 to people who live, work and congregate along Enbridge pipeline systems including:



- **schools,**
- **excavators,**
- **farmers,**
- **emergency officials and**
- **public officials along our U.S. pipeline rights-of-way.**

- Supplemental programs
 - In-person,
 - **group meetings like this event,**
 - and other activities.

- **National Pipeline Mapping System** www.npms.phmsa.dot.gov



U.S. Pipeline Emergency Responder Program

- Free for ERs
- Approx. 4 hours
- Bookmark option
- Certificate and wallet card
- Based on the National Association of State Fire Marshal's "Pipeline Emergencies"

BETA TESTING SITE

ENBRIDGE Vector Pipeline

Home Account FAQ Log Out Support My

Welcome to the Enbridge and Vector Pipeline Emergency Responder Education Program

Training Login

Login with your username and password and begin your training online.

USERNAME

PASSWORD

Forgot your password?

Thank you for your interest in the Enbridge and Vector Pipeline Emergency Responder Education Program. This online education program will provide emergency responders in our areas of operation with the information needed to safely and effectively respond to a pipeline emergency. The program is free, and you can complete it all at once or at your own pace.

The content in this course is based on the "Pipeline Emergencies" program, which is an industry-leading pipeline emergency response training program developed by the National Association of State Fire Marshals. The program also includes information specific to the Enbridge and Vector Pipeline systems.

In this course, you will learn:

- The basics of gas and liquids pipeline operations
- The hazards of the products transported by Enbridge and Vector Pipeline
- Pipeline emergency response tactics
- How to apply the information to real-life situations

www.mypipelinetraining.com



SAFEcommunity

ENBRIDGE BUILDING SUSTAINABLE COMMUNITIES

- Monetary grants up to **\$1,500** per year that can be used for:
 - Equipment
 - Training
- Free online training available
- Both Marshall and Waterloo Fire have been recipients of grants
- Enbridge has provided Emergency response support/clean up to both Columbia and Jefferson Counties during diesel fuel spills



Apply for funding at:

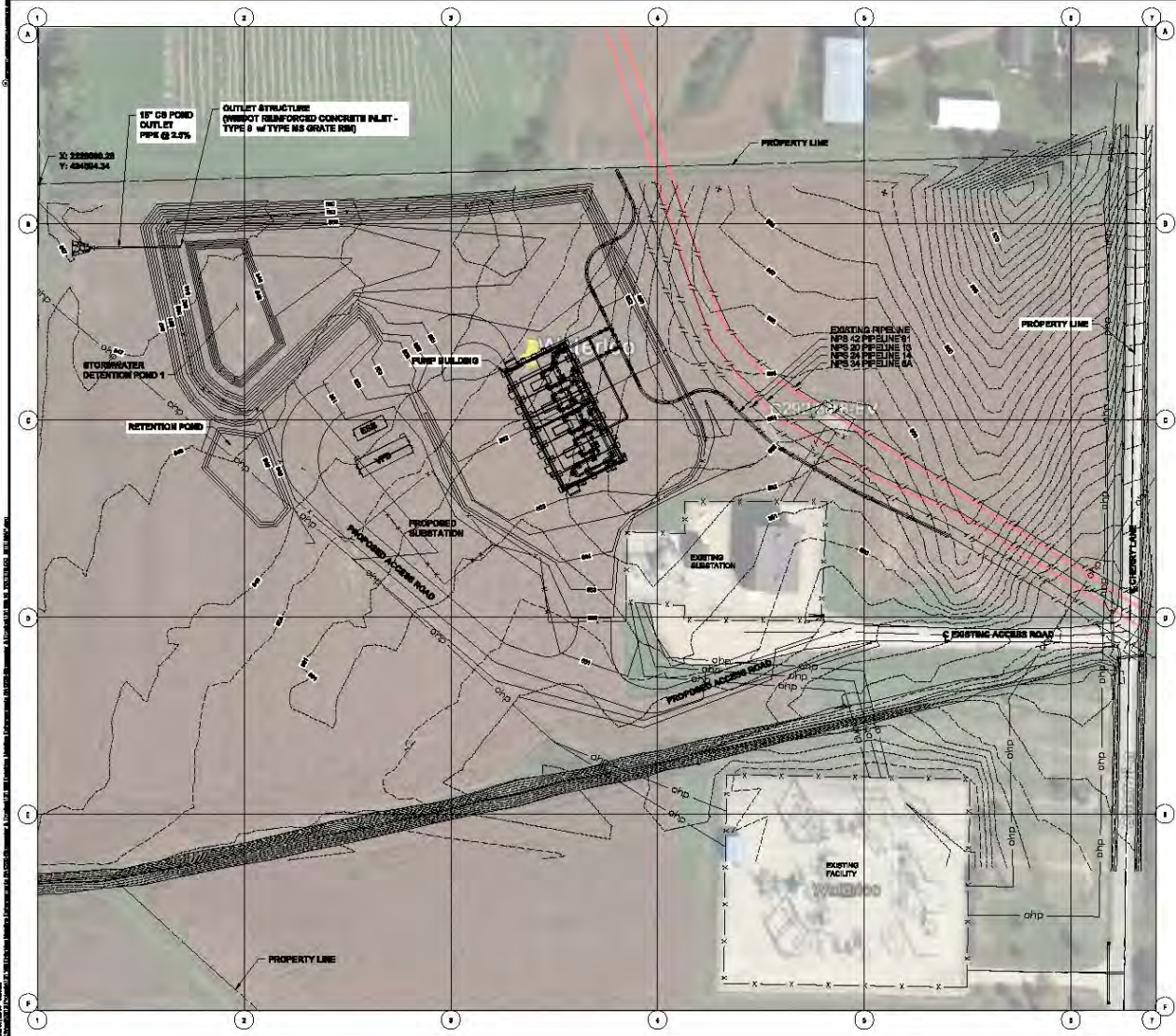
www.enbridgeUS.com/community

Line 61 Upgrade Project Specifics



- Expanding average annual capacity from 400,000 bpd to 1.2 million bpd
- Upgrading/Building pump stations along Line 61
- Original Construction in 2007
 - In-service in 2009
- Phase I construction in 2013
 - In-service in 2014
- Phase II construction in 2014
 - In-service 2015

Waterloo Pump Station



LEGEND

--- 000 ---	EXISTING MAJOR CONTOUR
--- 001 ---	EXISTING MINOR CONTOUR
--- 000 ---	PROPOSED MAJOR CONTOUR
--- 001 ---	PROPOSED MINOR CONTOUR
---	PROPERTY LINE
-X-X-	EXISTING FENCE
-X-X-	PROPOSED FENCE
-	EXISTING PIPELINE

KRECH O'NEAL Division of
Engineering & Architecture
 1000 WEST WISCONSIN AVENUE
 SUITE 200
 MADISON, WISCONSIN 53703
 TEL: 608.261.1100
 FAX: 608.261.1101
 WWW.KRECHOONEAL.COM

ISSUED FOR PERMITTING



DATE	REV	DESCRIPTION	REV. BY

ENBRIDGE
 ENBRIDGE MAINLINE ENHANCEMENT
 WATERLOO (WI) STATION
 DANE COUNTY, WISCONSIN

SITE MAP

JOB No: 131166.10
 DATE: 8/18/2014
 DRAWN BY: DJJ
 CHECKED BY: JDO

EX-1.0

Waterloo Pump Station – Facility Details

- Metal frame/skinned pump shelter
 - Four (4) 6,000 HP electric pumps
 - 160' x 82' x 42'
- Electrical Sub-station
- Two Electrical services buildings
 - 40' x 15' x 16'
 - 68' x 24' x 14'
- Associated valves and appurtenances
- Stormwater Management Pond
 - Stormwater Permits from Dane County and WDNR were issued spring of this year
- Containment Berms

Facility Lighting, Sound & Landscaping

— Lighting

- Door packs on timers
- Security lighting around perimeter

— Sound

- Restricted to 50 decibels at property line
- Sound Study has been completed and submitted to Planning & Zoning.

— Landscaping

- Native plantings and trees
- Erosion control as required by WDNR and Dane County Permits
- Vegetative Screen Plantings along the north property line.



Built-In Pipeline Safety Measures

- Pump station is monitored 24hrs/365days a year from a manned control center
 - Control Center has a complete redundant backup facilities that can be used in an emergency.
 - Communications from all pipeline facilities are conveyed via both fiber optic hardline and satellite back up systems.
- Mainline block valves are located at all pump stations and at intermediate points along the pipelines
 - Should an event be detected, valves can be closed remotely from the control center or manually to isolate the failed portion of the pipeline. This significantly reduces the volume that could escape from the pipeline.
 - In addition to pump stations, these valves are also located at areas of high consequence. These are areas where a pipeline failure could result in a major waterway or wetland being impacted.
 - Currently there is a valve located upstream from the proposed Waterloo Station at the Maunsha River and downstream at the Rock River.
 - Installation of the Waterloo station will almost half the distance between these two valves, further reducing the volume of product that could be released.
- Each station has multiple pressure transmitters that are continuously monitored by the control center.
 - Should an abnormal pressure be seen, the pipeline is shut down and an operation technician will respond immediately to determine the cause.
 - Each pressure transmitter has a redundant backup, a variation between the two also would indicate need for Technician inspection/repair
- Enbridge utilizes a mass balance leak detection system to ensure that all product that enters the pipeline in Superior is accounted for when it enters into tanks at Flanagan Terminal.
 - Currently there are meters at the 5 existing facilities. With the 12 additional facilities that are part of this project additional meters will be added, thereby increasing the accuracy of the leak detection system.

Waterloo Pump Station Safety

- Each pump station has multiple levels of leak containment that meet or exceed PHMSA requirements
 - A metal skinned shelter with concrete floor enclosing the pumps and majority of the valves
 - Earth berms surrounding the facility
 - The berm and interior area are constructed with impervious clay liner.
- In response to comments raised by the Town of Medina, the bermed containment area has been doubled in size from the originally proposed volume, large enough to contain flow from 60 minutes of full pipeline flow rate.
- Full perimeter site security fencing
- Fire and Gas Detection monitors located within Pump Shelter, Electrical Buildings, and on the site.
 - Detectors are monitored via the control center, any alarms will trigger an immediate response from operations technician.

Emergency Response Preparations

- Emergency response plan is submitted to and approved by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA)
- We have done outreach to local Emergency Responders directly impacted by this proposed station
 - Met with and provided our emergency response plans to both the Marshall and Waterloo Fire Departments
 - Both fire departments have received MSDS sheets for products shipped on our pipelines.
- Absorbent boom supplies are stored at pump stations, Waterloo Station will have supplies on site.
- Ft. Atkinson and Vesper Pipeline Maintenance Offices ER Equipment
 - 23 people based out of our Fort Atkinson and Vesper locations. All employees are trained in Emergency Response. Our employees all carry I-Phones and are on call 24/7.
 - ER equipment (3 – Crane trucks, 3500 gal. Vac truck, 3000 gal. Vac Truck, tracked excavator, 2 - tracked dozer, 2- tracked skid steer as well as multiple smaller trucks and trailers)
 - 3 – Semi trailers stocked with ER supplies. (6 skimmers, >3,300' absorbent boom, absorbent pads)
 - 3 – smaller trailers stocked with all ER supplies.
 - 7 – Boats for water recovery
 - Emergency repair fittings for all line sizes including emergency stock repair pipe and sleeves.
 - 5 – Sets of Stopple equipment that can be used to plug the pipeline at locations that do not have block valves
- Contractual agreements with local environmental clean-up companies for support during an event

Enbridge Energy Company, Inc.
Enbridge (U.S.) Inc.
Superior City Center
1409 Hammond Avenue
3rd Floor
Superior, WI 54880-5247
www.enbridgepartners.com

Lee Monthei
V.P., Major Projects Execution
Major Projects
Tel 715 398 4720
lee.monthei@enbridge.com



September 24, 2014

Town of Medina
50 East Waterloo Road
Waterloo, WI 53594

ATTN: Board of Supervisors
Planning Commission Members

In recent communications with Town officials, Enbridge was asked to provide a summary of responsibilities related to the operation of its facilities and pipelines. Maintaining strong partnerships with landowners and local government units is a top priority for Enbridge, and we are happy to provide you with the information you've requested.

Enbridge is responsible for the safe and reliable delivery of liquid petroleum products. To fulfill this obligation, we employ a variety of measures to ensure the safety of the products, as well as the people who work and live near our pipelines and associated facilities. These measures include:

- Incorporating the highest safety standards and best practices in the planning, design and operation of the pipeline, including compliance with extensive federal pipeline safety regulations administered and enforced by the Pipeline and Hazardous Materials Safety Administration, a unit of the U.S. Department of Transportation;
- Designing and manufacturing steel pipe and connected facilities with a safety factor that meets or exceeds federal regulations and applicable technical standards;
- Thorough inspection of pipeline installation processes during construction;
- Testing the pipeline before operations commence;
- A state-of-the-art pipeline control system that is operated and staffed around the clock, allowing for safe pipeline shutdown in emergency circumstances;
- Regular inspection and maintenance of the pipelines and facilities by highly-trained technicians;
- An educational outreach program for landowners, excavators, emergency responders and public officials regarding the locations of pipelines and facilities and best practices for emergency response;

- Active and supportive membership in 811, the federally-mandated national "Call Before You Dig" initiative; and
- A federally approved emergency response plan and a region-specific inventory of emergency response equipment to be used to minimize impacts to landowners and the environment in emergency scenarios.

In the unlikely event of a release, cleanup and remediation is overseen by state and federal regulatory agencies. As an interstate transmission pipeline operator, Enbridge would be a responsible party under applicable federal or state law in the event of a release incident. As the pipeline operator, it will be intimately involved from initial response to clean-up and remediation. In the event of an incident caused by a third party, Enbridge will also be involved in clean-up and restoration. However, under federal or state law Enbridge may seek restitution from the third-party whose actions caused or contributed to the incident. Our obligation to operate safely and responsibly along every mile of our pipeline operations and in every one of our facilities is something we take very seriously. Since 2010, we have invested more than \$4 billion in advanced technology, training and tools to maintain the integrity of our pipelines and facilities. For more than 60 years, Enbridge has proudly operated in Wisconsin and the Dane County/Medina Township region, and we look forward to continuing that relationship.

Thank you for allowing us to address your questions, and we hope this information is helpful. Should you have any further questions, please do not hesitate to contact me.

Sincerely,



E. Lee Monthei
Vice President Execution, US
Major Projects



We Energies
231 W. Michigan St.
Milwaukee, WI 53203
www.we-energies.com

September 8, 2014

Town of Medina
50 East Waterloo Road
Waterloo, WI 53594

**RE: CONDITIONAL USE APPLICATION, DANE COUNTY
 ENBRIDGE ENERGY CO
 5635 CHERRY LANE, TOWN OF MEDINA, DANE COUNTY, WI**

Dear Town of Medina Board,

Wisconsin Electric Power Company, a Wisconsin corporation doing business as We Energies signed the attached Conditional Use Application prepared by the Agent, Enbridge Energy Company, on August 19, 2014 as Owner of the property of 5635 Cherry Lane, for Enbridge Energy Company to upgrade an existing pump station at that address per an Easement Agreement between Wisconsin Electric Power Company and Enbridge Energy, Limited Partnership recorded April 4, 2014 as Document No. 5062073.

Sincerely,

A handwritten signature in black ink that reads "James T. Raabe".

James T. Raabe
Management of Property Management
We Energies

Enclosure



Marshall Volunteer Fire Department, Inc

119 Industrial Drive/P.O. Box 430

Marshall, WI 53559-0430

608-655-3322

MarshallFireDepartment@hotmail.com

September 24, 2014

Town of Medina
50 East Waterloo Road
Waterloo, WI 53594

ATTN: Medina Planning Commission
Medina Board of Supervisors

As you may be aware, Enbridge Energy, Limited Partnership (Enbridge) has been in the process of securing permits to allow for the construction of a new pumping station adjacent to the existing station on Cherry Lane, in Medina. One of the issues raised during this process concerned emergency response, a function that rests with the Marshall & Waterloo Fire Departments.

As a representative of the Marshall Fire Department, I can attest that I have met with Enbridge and received copies of their latest emergency action response plan. Contained within the plan are details on emergency equipment available, material safety data sheets and other information essential for our operation should an emergency occur. I was also made aware of the emergency response equipment that Enbridge has; equipment that is ready to respond from Fort Atkinson. In addition, it is important to note that those who work on the pipeline and pumping station on a daily basis (and who would also respond in an emergency) live in our nearby communities and are available for an immediate, timely response. Finally, once the pumping station is completed, Enbridge had agreed to host both departments at the station for a training exercise.

From an emergency response perspective, I am comfortable with the Marshall Fire Department responding to any emergency that may occur at the Cherry Lane station, and I feel that all material we need to ensure adequate planning and response has been properly provided.

Sincerely,

Blair Pierce
Fire Chief, Marshall Fire Department

Cc: Aaron Madsen, Enbridge Energy Partners

WATERLOO FIRE & RESCUE
900 INDUSTRIAL LANE
WATERLOO, WISCONSIN 53594



September 2, 2014

Town of Medina
50 East Waterloo Road
Waterloo, WI 53594

ATTN: Medina Planning Commission
Medina Board of Supervisors

As you may be aware, Enbridge Energy, Limited Partnership (Enbridge) has been in the process of securing permits to allow for the construction of a new pumping station adjacent to the existing station on Cherry Lane, in Medina. One of the issues raised during this process concerned emergency response, a function that rests with the Marshall & Waterloo Fire Departments.

As a representative of the Waterloo Fire Department, I can attest that I have met with Enbridge and received copies of their latest emergency action response plan. Contained within the plan are details on emergency equipment available, material safety data sheets and other information essential for our operation should an emergency occur. I was also made aware of the emergency response equipment that Enbridge has; equipment that is ready to respond from Fort Atkinson. In addition, it is important to note that those who work on the pipeline and pumping station on a daily basis (and who would also respond in an emergency) live in our nearby communities and are available for an immediate, timely response. Finally, once the pumping station is completed, Enbridge had agreed to host both departments at the station for a training exercise.

From an emergency response perspective, I am comfortable with the Waterloo Fire Department responding to any emergency that may occur at the Cherry Lane station, and I feel that all material we need to ensure adequate planning and response has been properly provided.

Sincerely,


Chief Verrn Butzine
Waterloo Fire Department

Cc: Aaron Madsen, Enbridge Energy Partners



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Ave., S.E.
Washington, DC 20590

JUL 11 2013

Mr. Stephen Lloyd
Enbridge Pipelines Inc.
10201 Jasper Avenue
Edmonton, AB Canada T5J 3N7

RE: APPROVAL: Enbridge Integrated Contingency Plan- including Sequence Numbers- #866 (Superior Region); #867 (Chicago Region); #1666 (Cushing Region) and #665 (North Dakota Region)

Dear Mr. Lloyd:

PHMSA has received copies of the Enbridge Integrated Contingency Plan (the Plan) and the above referenced Region Annexes. After review, I conclude that the Plan and Annexes comply with the requirements of PHMSA's regulations concerning onshore oil pipelines, found at 49 Code of Federal Regulations (CFR) Part 194. This letter is your notice that the referenced Plan and Region Annexes have been approved.

These approvals are valid for five years from the date shown above. You must revise and submit these plans for approval prior to five years from this approval. Additionally, you must update these Plans and submit to PHMSA Headquarters if there are new or different operating conditions or information that would substantially affect the implementation of these plans. See 49 CFR § 194.121(b) for examples.

If you have any questions, please contact me at 202-366-4595 or by email at phmsa.opa90@dot.gov.

Sincerely,

John C. Hess, Director
Emergency Support and Security Division
Office of Pipeline Safety

cc: PHMSA Central and Southwest Region Offices

October 7, 2014 Response to fuel tanker spill

Columbia County Wisconsin

From: "Cadigan, Pat" <Pat.Cadigan@co.columbia.wi.us>

Date: October 10, 2014 at 7:32:15 AM CDT

To: "brad.tenbarge@enbridge.com" <brad.tenbarge@enbridge.com>, "Beghin, Patrick" <Patrick.Beghin@co.columbia.wi.us>

Cc: "Lorfeld, Tom" <Tom.Lorfeld@co.columbia.wi.us>, "Statz, William" <William.Statz@co.columbia.wi.us>, "Dahl, Norm" <Norm.Dahl@co.columbia.wi.us>, "Steingraeber, Craig" <Craig.Steingraeber@co.columbia.wi.us>, "Nichols, Donald" <Donald.Nichols@co.columbia.wi.us>

Subject: Fuel Tanker Rollover

Brad,

Columbia County Highway and Transportation would like to thank you and Enbridge for the assistance in recovering the Fuel Tanker rollover on STH 73 North on Randolph on 10/7/14. The response I received from Enbridge was greatly appreciated. The willingness to help protect the environment and contain the fuel leak was beyond our expectation. Enbridge's resources and capabilities were very impressive. Portage Daily Register recognized Enbridge as one of the First Responders to the accident. Here is a link to the article http://www.wiscnews.com/bdc/news/article_517db2d1-15d1-55da-abb7-abad5f1e2078.html Thanks again for all the Help!

Our phone conversation yesterday afternoon in regards to doing training exercises or be included in some of Columbia County exercises would be a good idea. Pat Beghin is Columbia Counties Emergency Manager and I have included Pat in this email. I hope it works out to incorporate some cross training.

Pat Cadigan, Field Superintendent
Columbia County Highway and Transportation

Notice: This email is on a publicly owned system, subject to open records (sec. 19.21, et seq.) and archival (sec. 16.61, et seq.) requirements under Wisconsin State Law.