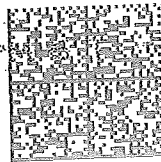


Line 3 Replacement Project DEIS

- The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.
- Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.
- Infrastructure replacement: As a maintenance project, the time is now to replace and modernize Line 3.

Docket numbers: CN-14-9161, EPC 15-137-1, 111



02 1P
0000879328 JUN 27 2017
MAILED FROM ZIP CODE 55811

Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
THOMAS A RADKE	920-723-3841	
ADDRESS		
940, E. LAKE ST.		
CITY, STATE, ZIP		
LAKE MILLS WIS 53551		

COMMENTS

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Jamie MacAlister

Environmental Review Manager

Minnesota Department of Commerce

85 7th Place East, Suite 500

St. Paul, MN 55101

June 6, 2017

RE: Enbridge Line 3 Replacement Project

This communication is to express my support for this project. This is the safest way to transport oil from the fields to storage facilities and refineries. There is such great risk to human life, property, and the environment using our rail system to transport crude. These trains go through many cities and towns, often traveling at great speeds. When a train de-rails there is imminent danger to anyone and anything surrounding the affected vicinity.

Shipping oil by rail also impedes the flow of other domestic products that vie for the availability of timely transportation. Lumber and grain are two examples. There are times farmers cannot secure shipment of their crops to market due to no available trains. They are then forced to "dump" the grain on the ground when storage facilities are full. This surely must have an effect on the quality. Our nation feeds many. The harvest needs to be distributed as quickly as possible.

It would be difficult to identify anyone who doesn't benefit from the oil production in this country. Even the most ardent opponents of this project enjoy the comforts of transportation, consume food produced on our farms, and use utilities supplied by our oil industry.

I have no doubt about Enbridge being good stewards of the earth. There are landowners in my family with "pipeline" installed in the 1960's. There has never been a problem and they are aware of the monitoring done by the company. The fact that Enbridge feels it is time to replace the existing infrastructure gives me confidence they are looking out for the good of all.

A. Radniecki

Angela Radniecki
1224 Birchwood Drive
Proctor, MN 55810

RECEIVED

JUN 09 2017

MAILROOM

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME

PHONE NUMBER

EMAIL

ADDRESS

CITY, STATE, ZIP

COMMENTS

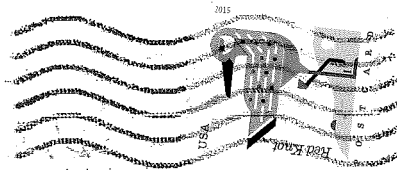
Reduce RAILROAD shipping
of oil. Install new pipe
which is safer to environment
and people.

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Line 3 Replacement Project DEIS

SAINT PAUL MN 550

10 JUL 2017 PM 2 L



- The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.
- **Years of environmental study:** Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.
- **Infrastructure replacement:** As a maintenance project, the time is now to replace and modernize Line 3.

Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

5101 Docket numbers: CN-14-916; PPL-15-137

Levi, Andrew (COMM)

From: lraisch@heartofiowa.net
Sent: Tuesday, July 04, 2017 10:05 AM
To: MN_COMM_Pipeline Comments
Subject: "Public Comment: Line 3 Project"
Attachments: Propose Enbridge Energy Project Line 3 Comments.doc

"Public Comment: Line 3 Project
(CN-14-916 and PPL-15-137")

Jamie Macalister
Environmental Review Manager
MN Dept. of Commerce
85 7th Place East, Suite 280
St. Paul, MN 55101-2198

From:
Name: Leslie R Raisch
Address: 5612 Cutgrass Lane NE
Outing, Minnesota
56662
lraisch@heartofiowa.net
641-640-0140

Levi, Andrew (COMM)

From: Steve Giorgi <SGiorgi@ramsmn.org>
Sent: Wednesday, July 05, 2017 10:47 AM
To: MN_COMM_Pipeline Comments
Subject: Attn: Jamie MacAlister - Line 3 Replacement Comments
Attachments: Letter to Dept of Commerce on Enbridge Line 3 project 070517.pdf

Jamie MacAlister – Environmental Review Manager

Please see attached correspondence submitted by the RAMS (Range Association of Municipalities & Schools) in support of the Enbridge Line 3 Replacement project.

Steve Giorgi
Executive Director
RAMS
SGiorgi@ramsmn.org
218-780-8877

Jamie MacAlister
Environmental Review Manager
Department of Commerce
85 7th Place East Suite 280
St Paul, MN 55101

OFFICIAL COMMENT ON THE ENBRIDGE LINE 3 REPLACEMENT PROJECT

RAMS (Range Association of Municipalities & Schools) Stands with Enbridge on Line 3 Replacement

The RAMS board of directors stands with Enbridge on the validity and need for the Line 3 Replacement project. Enbridge has built and maintained pipelines for decades in Canada, Minnesota, Wisconsin and other areas of the country. The pipeline currently carry oil to the refinery in Superior is in need of replacement to ensure the safety of our communities, the protection for the environment and the uninterrupted supply of fuel for our region.

The RAMS board of directors believes that the installation of a new pipeline installed by skilled American workers, using American made steel, utilizing the most modern monitoring equipment is a pathway to a safe and secure energy supply line that also pumps up our regional economy. The project will include a \$2.1 billion dollar investment by Enbridge in Minnesota alone, which will result in over 1500 high paying construction jobs, and dollars being spent in small town local communities during the construction of the pipeline. Enbridge is a great civic business partner, not only in the Twin Ports, but across the region.

In this day and age, it seems as if every construction project of any magnitude comes with controversy, divisiveness and politics. For the RAMS board of directors, having a company stand up and be responsible by proposing to build a new, modern, safer pipeline to replace an aging, failing pipeline makes the decision easy. RAMS supports the Line 3 Replacement project because it is the right thing to do.

On Behalf of the Board of Directors,



Steve Giorgi
RAMS Executive Director
sgiorgi@ramsmn.org
218-780-8877

Check us out at www.ramsmn.org

"One Range...One Voice"

From: [Steve Giorgi](#)
To: [MN COMM Pipeline Comments](#)
Subject: Enbridge Line 3 Replacement Project is the Right Thing To Do
Date: Friday, June 09, 2017 1:20:05 PM

Dear Ms. MacAlister,

As the Executive Director for RAMS (Range Association of Municipalities & Schools) a public sector organization that represents townships, cities and school districts located in the Taconite Assistance Area, I am proud to stand in support of the Line 3 Replacement Project. The RAMS board of directors has also taken a position of support as the replacement project will only enhance the safe delivery of needed energy fuel for our region while providing the most modern safety measures to protect our communities, citizens and the environment.

The economic benefits for our region will also be enhanced with an investment of \$2.1 billion dollars in Minnesota alone and local business owners will be directly impacted during the construction phase of the project. Enbridge's plan to replace an aging, failing pipeline with a new pipeline using American made steel, with American workers is good for America and the region. The proposed routing of the pipeline minimizes the overall footprint of the project and will provide long term safe delivery of a much need energy product.

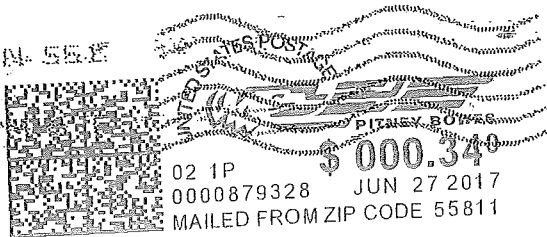
Sincerely,

S Giorgi/Executive Director RAMS
5525 Emerald Ave
Mountain Iron, MN 55768
sg Giorgi@ramsmn.org

Line 3 Replacement Project DEIS

- The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.
- Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.
- Infrastructure replacement: As a maintenance project, the time is now to replace and modernize Line 3.

Docket numbers: CN-14-916 RPP-15-387-173



Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
Allen Lee RAPP 218-3484236		
ADDRESS		
5350 Manger Shaw Rd		
CITY, STATE, ZIP		
Saginaw Mn 55779		

COMMENTS

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Levi, Andrew (COMM)

From: doug & kathy rasch <horsehillgarden@gmail.com>
Sent: Monday, July 10, 2017 5:59 PM
To: MN_COMM_Pipeline Comments
Subject: Public Comment: Line 3 Project (CN-14-916 and PPL-15-137)
Attachments: DEIS comments.docx

Attached are our comments on the DEIS for the Line 3 pipeline project.

Please respond – will they be included in the EIS?

Thank You,
Kathy and Doug Rasch



Virus-free. www.avast.com

July 10, 2017

Jamie MaCalister

Environmental Review Manager

MN Department of Commerce

85 7th Place East, Suite 280

St. Paul, MN 55101-2198

Dear Jamie MaCalister,

We would like to see RA-07 or RA-08 seriously considered as the route within the EIS to be recommended by the Department of Commerce. We wish the system alternative, SA-03 from the previous Sandpiper/Line 3 proposal, had been considered within the EIS. In the final EIS this route should be reconsidered and again offered and evaluated as an alternative route.

If this pipeline is built using the Enbridge preferred route there is serious concern in our community and others in Minnesota that the social and political effects will estrange people within their communities; it will result in physical activism that will require law enforcement to control and will make neighborhoods along the construction route unsafe for people who live there. Our greatest concern is that the relationship between Minnesota and the Native community will be hurt in ways that will be long-term and socially difficult to repair. Is Enbridge's preferred route so important that we would, as Minnesotans, divide ourselves and risk our promising community with the Tribes? We cannot imagine the financial rewards for Minnesota are great enough to allow Enbridge to use their proposed route when less divisive options are available. These long term impacts should be carefully evaluated in the EIS.

Chapter 9 in the DEIS discusses impacts to Tribal lands and the people who live and eat there. It is about time we include the Tribes in the process of pipeline routing. If we had done this when the first pipelines were constructed nearly 70 years ago we would not be having this discussion today. The pipelines would have routed to avoid any impacts to the tribes and resources they value and would not be where they are today. The Sandpiper/Line 3 SA-03 is one more option to acknowledge social and environmental justice.

Page ES-7 of the DEIS, near the bottom of the page, states "Enbridge would need to acquire permanent right-of-way in these locations through amicable agreements with tribal and federal landowners because it cannot use eminent domain to acquire a right-of-way across these lands..... Enbridge maintains that the ability to obtain limited term permits and easements is uncertain." This should not even be included in the EIS as a criterion or factor in route or system selection. This is a pre-mature leap to the use of eminent domain and an abuse of that power.

These are our comments on the DEIS. Please include them in the final EIS.

Respectfully Submitted,

Doug and Kathy Rasch

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
Alvin Rasmussen	694-2556	arr451@gutel.com
ADDRESS		
26233 300 th Street		
CITY, STATE, ZIP		
Bagley, MN 56621		

COMMENTS

We would like to see Line #3 replaced - and
oil to continue flowing through our
township and County.

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

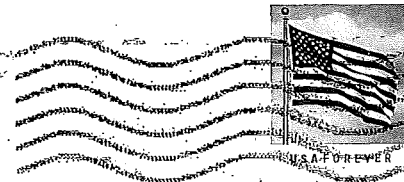
Line 3 Replacement Project DEIS

• The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.

• Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.

• Infrastructure replacement: As a maintenance project, the time is now to replace and modernize Line 3.

Docket numbers: CN-14-916; PPL-15-137



Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

June 27, 2017

Minnesota Department of Commerce

85 7th Place E, Suite 280

St. Paul, Minnesota 55101-2198

Attn: Jamie Macalister

Environmental Review Manager

Re: Line 3 Project Draft EIS

RECEIVED

JUL - 3 2017

MAILROOM

Dear Ms. Macalister,

I attended one of the 22 public meetings held throughout Minnesota (In Foley) regarding the EIS Draft on the Enbridge Line 3 pipeline proposal just to familiarize myself with what is being proposed. I knew very little about it and appreciated the work your agency has done to inform residents of Minnesota of the matter. It appears that the current line 3 is not being utilized to its full capacity due to its age and current condition. I get that. What I don't understand is the applicant's choice of a preferred route. Clearly, it appears that Enbridge has chosen the most economically feasible route, but at the same time, has chosen to look the other way and disregard its potential endangerment to the heart of Minnesota's pristine lake country.

Considering that the proposed routing:

1. Crosses the clearest lakes area in Minnesota (based on the census of water clarity –U of Mn Water Resources Center)
2. Crosses an area with the highest susceptibility for groundwater contamination impacting drinking water aquifers (Minnesota Pollution Control Agency)
3. Crosses the wild rice lakes area, which according to the DNR provides 50% of the world's hand picked rice annually
4. Crosses wetlands critical to waterfowl and other wildlife
5. Crosses 8 state forests (Including the Mississippi Headwaters), 3 wildlife management areas, 13 trout streams, as well as the North Country trail
6. Crosses the Mississippi River twice in Minnesota, jeopardizing clean drinking water for many cities downstream, including St. Cloud, Minneapolis and St. Paul,

. . . I join at least three fourths of the gathering in Foley (in my estimation) who spoke against the proposed route. The reason Minnesota is a destination for hundreds of thousands of people is because of our 10,000 plus lakes. If we want to speak "economically," the combined travel and tourism annual revenues during the recession years in 2007 – 2008 in Aitkin, Cass, Crow Wing, and Hubbard Counties alone amounted to \$713,699,246 and the state realized \$326,376,889 in state revenues (Univ. Of Mn Extension Service June 2007-May 2008, Davidson - Peterson & Associates) That's almost a Billion dollars! In addition, it provided over 17,000 jobs! The best Enbridge can do for the people of Minnesota is 1,500 temporary jobs.

My main concern, however is the danger that this routing would pose to our beautiful and popular Minnesota environment. It is one of our greatest treasures as a state. Why would we want to Jeopardize it's future. Furthermore, if there is an oil leak it would be almost impossible to clean up. Usually, when oil meets water, it floats on the surface and can be removed. But the kind of oil that comes from the tar sands of Alberta, (Diluted Bitumen) according to the National Academy of Sciences, is virtually impossible to clean out of a water based environment. Why? Because it sinks! – coating the bottom of the waterway. Enbridge's pipeline spill of 850,000 gallons of tar sands oil in Michigan in 2010 polluted nearly 35 miles of the Kalamazoo River and has become one of the costliest spills (\$1.2 Billion) in US history. Can you imagine that scenario happening in our beautiful lake region? Enbridge alone has had less than admirable record with 804 spills in the last decade amounting to 6,781,950 gallons spilled in the US and Canada.

At the public forum in Foley, I asked one of the team members if it wouldn't make sense to use an alternate route far to the North that passes through a section of the state that has very few lakes and waterways. His response was that the substrata in that part of the state is comprised of rock, making it difficult and costly. I suggested that perhaps it could be above ground where it might also be more effectively monitored. We do have that capability at a minimal cost today through the use of drones. He agreed that might be a solution. Also I have been made aware of another possibility that would by- pass Clearbrook, follow the I-29 corridor to the South Dakota Northern border and then cut across Southwestern Minnesota and Northeastern Iowa and Northern Illinois to deliver oil to Joliet. There are other options. They may not be as cost effective to Enbridge, but we have to think about what makes sense for our state and generations to come!

Again, thank you for the work you do and I sincerely hope that you will not put our state's environment in jeopardy by approving this proposed routing. We have nothing to gain by it and a whole lot to lose.

Sincerely,

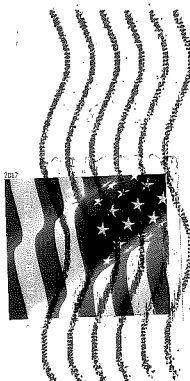
A handwritten signature in cursive script that reads "Dennis C. Raymond". The signature is written in dark ink and is positioned above the printed name.

Dennis C. Raymond

DENNIS L. RAYMOND
 613 19TH AVE. SE.
 ST. CLOUD, MN 56304

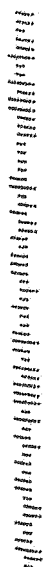
MINNEAPOLIS MN 553

30 JUN 2017 PM 5 L



ATTN: JAMIE MACALISTER
 ENVIRONMENTAL REVIEW MANAGER,
 MINNESOTA DEPT. OF COMMERCE,
 86 7TH PLACE E., SUITE 280
 ST. PAUL, MN.
 56101-2198

55101-601399





Comment Form

Line 3 Project Draft EIS Public Meeting

Please provide your contact information. This information and your comments will be publicly available.

Name: Ann M. Reckinger
 Street Address: 1815 N. Robin Av
 City: Duluth State: MN Zip Code: 55811-2000
 Phone or Email: reckfive@charter.net

Please share your comments on the Line 3 Project Draft EIS. What could be improved in the EIS? What is missing?

I am an environmentalist #1 because I have 3 children that appreciate the outdoors and we all want this beautiful earth a clean water for generations to come.

Yes, I am an employee of 30 years at Enbridge let me tell you 2 personal stories.

In 2008, I attended a Contractors Safety meeting at the DECC in Duluth. At one point I was an employee & sat in the back of the room of 200 people. As the contractor spoke, I listened. They mentioned that Enbridge was tough on safety, no slips by the book, even about the book. I was pleased to hear this but said nothing.

Another event I was present at was when our Enbridge VP's had to make major decisions for a pipeline leak. The meeting was behind closed doors & they could have taken the easy & cheaper way to fix the issue, never they did not. The choice to do the right thing, no matter the cost. The L3 replacement is the right thing to do now!

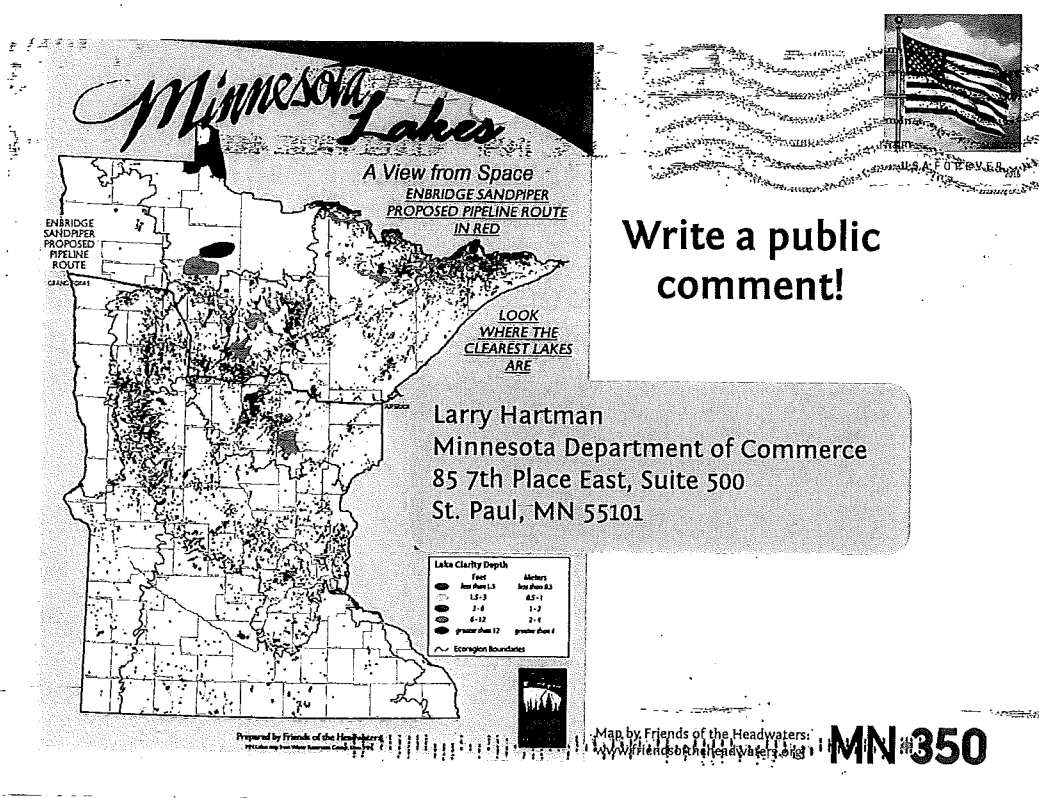
Thank you

From: [Ritaannreed](#)
To: [MN_COMM Pipeline Comments](#)
Subject: Pipelines
Date: Wednesday, May 31, 2017 2:13:18 PM

Please stop with the pipelines, other sources of energy can be profitable.

Shalom,
Rita Reed

Sent from my iPad



Minnesota Lakes

A View from Space
ENBRIDGE SANDPIPER
PROPOSED PIPELINE ROUTE
IN RED

LOOK
WHERE THE
CLEAREST LAKES
ARE

Larry Hartman
Minnesota Department of Commerce
85 7th Place East, Suite 500
St. Paul, MN 55101

Map by Friends of the Headwaters

MN-350

I oppose the Sandpiper pipeline!

PUC Docket: 13-474

This proposed expansion of Enbridge's pipeline network would perpetuate extreme climate disruption. The Sandpiper would enable even more extraction and burning of dirty Canadian tar sands and fracked Bakken oil, while climate science tells us we need to be keeping this oil in the ground for a livable future.

Please Protect Minnesota Waters!

Name:

Dan Reed

Phone:

Email:

tharrymacapitalist

Address:

Levi, Andrew (COMM)

From: Anne Reich <reichmn@gmail.com>
Sent: Thursday, June 22, 2017 3:22 PM
To: MN_COMM_Pipeline Comments
Subject: Comment re: Enbridge Line 3

Dear MN Department of Commerce:

RE: Docket numbers CN-14-916 and PPL-15-137

As a Minnesotan who relies on clean water for survival (as each and every one of us does), I find the Enbridge Line 3 Draft Environmental Impact Statement to be unacceptable for adequately protecting Minnesota's waters for humans, wildlife, and our ecosystem. The DEIS is unsatisfactory for the following reasons, among others:

RE: DEIS Chapter 10.2.4.1.1

Enbridge's record for oil spill incidents is unacceptable. The fact that "the annual probability of a spill incident for the Applicant's preferred route was estimated as 0.249 incidents per year with a recurrence interval of 4.0 years" is shocking. In reality, every year there would be a 25% risk of an oil spill, which means a risk of one spill every four years. **Minnesota should not permit a project with such a high risk probability.** There is no such thing as a "clean up" of an oil spill — impacts to the ecosystem *and economy* are negative and longterm.

**RE: MN Statute 103F.305 Scenic River Protection
 Policy <https://www.revisor.mn.gov/statutes/?id=103F.305>**

Our state government is charged with protecting our waters, among them Scenic Rivers. The proposed Enbridge Line 3 is in conflict with this state statute. It will be crossing either tributaries of scenic rivers (e.g., the Kettle River is crossed twice, and is a tributary of the St. Croix River, a National Wild and Scenic River) or the rivers themselves (our mighty Mississippi). The pollution risks listed in my point above are such that our great state, which relies on clean water for life *and livelihoods*, should reject this pipeline.

Thank you for doing all you can to protect Minnesota from destructive businesses that do little to benefit our state and have the potential to inflict great harm.

Sincerely,

Anne Reich
 Concerned citizen and voter
 751 Pine Cone Trail
 Marine on St. Croix, MN 55047
 651-433-1341

Levi, Andrew (COMM)

From: Julia Reich <jul.a.reich@gmail.com>
Sent: Thursday, June 22, 2017 4:20 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3 Draft Environmental Impact Statement (DEIS)

Dear Jamie MacAlister and MN Department of Commerce,

Re: CN-14-916 and PPL-15-137

I consider the St. Croix River my home. I am greatly concerned about the proposed Enbridge Line 3 pipeline and its negative impacts on not only the St. Croix River, but the other 191 rivers, lakes, marshes, and wild rice beds it will affect.

The criteria that have been presented by Enbridge are unacceptable. EIS requirements must be more stringent.

Regarding DEIS Chapter 10.2.4.1.1, it is estimated the annual probability of a spill incident for the applicant's preferred route was estimated as 0.249 incidents per year with a recurrence interval of 4.0 years. This means that every year there would be a 25% risk of an oil spill, which means a risk of one spill every four years. We cannot accept this high risk probability. Minnesota is home to pristine, fragile waters, and the risk of an oil spill is not worth the few benefits of the pipeline. There is no such thing as "cleaning up" an oil spill - waters will be forever damaged, and with them ecosystems and the economy.

Water is crucial to all aspects of life, and I believe our state of Minnesota cares too much about its people, economy, and environment to approve a pipeline that benefits essentially no citizens and has the potential to harm everyone.

Thank you for doing your part to ensure the safety and wellbeing of Minnesota's people, waters, and economy.

Sincerely,

Julia Reich
P.O. Box 145
Marine on St. Croix, MN 55047

Levi, Andrew (COMM)

From: Henry Reich <reichhen@gmail.com>
Sent: Monday, July 03, 2017 12:52 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3 Draft Environmental Impact Statement (DEIS) Comment

Dear Manager MacAlister,

I'm writing with a comment about the proposed Enbridge Line 3 pipeline (CN-14-916 and PPL-15-137).

I am **STRONGLY OPPOSED** to the construction of this pipeline or any similar to it, for reasons of likely environmental damage. The environmental impact statement Chapter 10.2.4.1.1 says that "The annual probability of a spill incident for the Applicant's preferred route was estimated as 0.249 incidents per year with a recurrence interval of 4.0 years" and Chapter 5.2.1.2.4 says there is a possibility of a frac-outs every 5.5 river crossings during the construction, both of which represent an **UNACCEPTABLY HIGH RISK** of polluting out state's pristine waters.

In addition, the pipeline will contribute to furthering the costly impacts of climate change, which is a serious long-term threat to the State of MN and our land, air, and water.

Please **REJECT** the Enbridge Line 3 pipeline.

Thanks,

Henry Reich
PO Box 145
Marine on St. Croix, MN

From: [Justin Reid](#)
To: [MN COMM Pipeline Comments](#)
Subject: Comment CN-14-916 and PPL-15-137
Date: Monday, June 05, 2017 11:40:04 AM

Dear Ms. MacAlister,

Enbridge spends millions of dollars to ensure environmental protection during these new pipeline installation projects. I worked as a contractor for the Enbridge Flanagan South Pipeline (Illinois) installation and the attention to environmental impact was very impressive. We had hundreds of inspectors dedicated to invasive species, environmentally sensitive areas, ROW, and soil management. Now that I am an Enbridge employee I can now witness the tremendous amount of effort that goes into the pre-planning for these projects to ensure our state resources are protected thru out the life-cycle of the project. Enbridge will do a great job installing and operating this pipeline, and will protect our environment resources during the process.

Sincerely,

Justin Reid
3978 Lavaque Rd
Hermantown, MN 55811
justin.reid@enbridge.com

Levi, Andrew (COMM)

From: Don Reiersen <drreiersen@gmail.com>
Sent: Wednesday, July 05, 2017 3:19 PM
To: MN_COMM_Pipeline Comments
Subject: PIPELINE

We would like the Enbridge Energy Pipeline 3 to follow the SA-04 route to avoid traveling through the Whitefish Chain and Pine River Watershed.

Thank you,

Don & Jane Reiersen
40874 West Fox Lake Road
Fifty Lakes, MN 56448

Levi, Andrew (COMM)

From: Andy Reiersen <andy.reiersen@flint-group.com>
Sent: Monday, July 10, 2017 10:44 AM
To: MN_COMM_Pipeline Comments
Subject: I support Enbridge Line 3 replacement

Dear Ms. MacAlister,

I am in full support of the replacement for Line 3. It is a known fact that pipelines are cost effective and safe energy transportation channels that provide North America with necessary crude oil. The prompt replacement of Line 3 will ensure the safety and environmental protection of our important natural resources as well as the continued safe transportation of crude oil to refineries in Minnesota, the Midwest and beyond.

The Line 3 Replacement Project in North Dakota, Minnesota, and Wisconsin will reduce the amount of future maintenance activities and landowner disruption otherwise required to maintain safe operations. Enbridge has gone above and beyond in their work with land owners and community members to ensure voluntary statements of consent were signed and public comments and concerns were addressed.

On top of the safe and efficient transport of crude, replacing Line 3 will significantly impact Minnesota's economy and bring jobs to the state - 8,600 jobs and long-term tax benefits to Minnesota communities.

We need the construction jobs and our communities benefit from the extra tax dollars. With 2.1 billion of the work done in Minnesota, this is a no-brainer for our state.

Thank you for your efforts to understand the issue and bring safe, smart projects like this to our state.

Sincerely,

Sincerely, Andy Reiersen
3900 Gladstone St
Duluth, MN 55804
andy.reiersen@flint-group.com

Levi, Andrew (COMM)

From: David Reisenweber <bigwater46@gmail.com>
Sent: Monday, July 10, 2017 4:43 PM
To: MN_COMM_Pipeline Comments
Subject: line 3

It's really stupid to run tar sands oil through
water rich Mn. DAVID REISENWEBER DULUTH MN.

Levi, Andrew (COMM)

From: john or Jane reish <jronloon@gmail.com>
Sent: Sunday, July 09, 2017 11:36 AM
To: MN_COMM_Pipeline Comments
Subject: Public Comment: Line 3 Project (CN-14-916 and PPL-15-137).

Dear Environmental Review Manager,

I'm writing to you today as a long time resident of Park Rapids in Hubbard County. Beside my husband John, we also have children and grandchildren living here and so I feel that I have a responsibility to write to you about this land we love.

Neither my husband nor I am opposed to pipelines in general. We are strongly opposed to the location of THIS pipeline. In a nutshell, if a pipeline can be placed where it will do the least harm in case of a leak that location should be used! **The state of Minnesota should be our staunchest warrior in this regard.**

From what I can determine, there is so much wrong or missing in the EIS: Conflict of interest with contractors hired to perform tests. Who hired them, State or Enbridge? What are the "drilling fluids" they use? I have heard they are toxic, but that question is not answered. Why this route when there is an excellent alternate route proposed?

Can I hope for answers? Will this be resolved in a way that is fair to the residents of Minnesota but particularly to Hubbard County? I want to believe someone is reading this note and my voice will be heard.

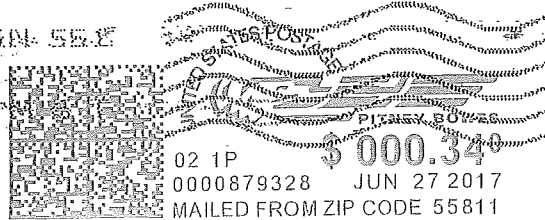
Respectfully yours,

Jane Reish
 19553 Grouse Rd
 Park Rapids, MN 56470
 218-252-6956

Line 3 Replacement Project DEIS

- The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.
- Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.
- Infrastructure replacement: As a maintenance project, the time is now to replace and modernize Line 3.

Docket numbers: CN-14-916, PPL 15-137



Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME <i>Richard A. Reimer</i>	PHONE NUMBER <i>218-780-6585</i>	EMAIL
ADDRESS <i>221 Cambridge Rd</i>		
CITY, STATE, ZIP <i>Hayt Lakes MN 55750</i>		

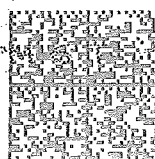
COMMENTS

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Line 3 Replacement Project DEIS

- The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.
- Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.
- Infrastructure replacement: As a maintenance project, the time is now to replace and modernize Line 3.

Docket numbers: CN-14-9161 PPI-15-137 L-111



02 1P
0000879328 JUN 27 2017
MAILED FROM ZIP CODE 55811

Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME <i>Chris Reville</i>	PHONE NUMBER <i>715 399-2252</i>	EMAIL <i></i>
ADDRESS <i>6955 S. City Rd W</i>		
CITY, STATE, ZIP <i>Foxboro WI 54836</i>		

COMMENTS

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Levi, Andrew (COMM)

From: John <fishes@brainerd.net>
Sent: Sunday, July 09, 2017 9:40 PM
To: MN_COMM_Pipeline Comments
Subject: Public Comment: Line 3 Project (CN-14-916 and PPL-15-137 Public Comment: Line 3 Project (CN-14-916 and PPL-15-137

Environmental Review Manager:

Please accept my comments into the public record. Leaving the current line 3 in the ground is very dangerous. I've worked on pipelines and around drill rigs. A full line is dangerous to the environment but an empty line is downright dangerous. It's only a matter of time before it corrodes through and allows the introduction of oxygen. Once that happens the pipeline becomes one very big and very long bomb.

At that point all it takes is a simple ignition which could be a grass fire or some other spark and the line begins to explode. Not only does it explode once, it continues to explode as the shock wave creates high pressure that cause another explosion and then another as the shockwave moves down the pipeline. It act like a giant diesel engine as explosions.

If this Canadian pipeline company wants to make a profit in MN it must do this in the least destructive manner. It cannot take the money and run and leave this state with the risk of injury or death and damage to our environment. The line 3 corridor is already disturbed and this is the ONLY place suitable for the new line 3.

I am intimately familiar with the area north of Crow Wing County after having trapped and hunted that area for the past 45 years. It is WET and is crisscrossed with small flowages that lead to the Whitefish Chain of lakes. It would be nearly impossible to clean up a spill at any time and nearly impossible to reach the spill in the summer. That chain supports a multi-million dollar tourist economy. Poison that with the inevitable oil spill and you will have just destroyed an economy so that a Canadian pipeline company can make a profit selling oil that should be left into the ground.

This is a BAD idea and I do not support it.

Sincerely,
 John Reynolds
 26385 County Road 3
 Merrifield MN 56465

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
Rodney Rhen	218-968-2341	
ADDRESS		
24001 2ND ST - P.O. BOX 35		
CITY, STATE, ZIP		
LEONARD - MINN - 56652		

COMMENTS

The pipeline is an asset to both the county & the townships for the taxes the pipeline pays & the jobs it provides & it is much safer than transporting oil by rail.

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Line 3 Replacement Project DEIS

ST PAUL MN 551

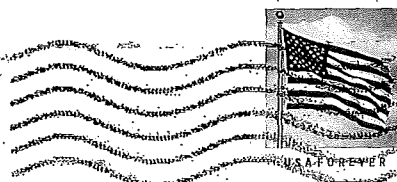
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• The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.

• Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.

• Infrastructure replacement: As a maintenance project, the time is now to replace and modernize Line 3.

Docket numbers: CN-14-916; PPL-15-137



Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

Levi, Andrew (COMM)

From: bteboup <bteboup@yahoo.com>
Sent: Monday, July 10, 2017 5:19 PM
To: MN_COMM_Pipeline Comments
Subject: Referencing :CN-14-916 and PPL15-137

In reference to Endbridge pipeline 3 for the sake of humanity, our future generations, the future of beautiful Minnesota golden waters, continued disregard disrespect of Native American culture treaties treatment the pipelines have to go. Endbridges continued pollution of our Mother Earth can not continue. Endbridge has to clean up their old decaying lines. They make millions while they continue to pollute our land and waters with no concern of the health hazards and the loss of clean waters of MILLIONS of people. Now they want to ruin Minnesota's wild rice, a food of Native Americans, a resource of money and culture. Shame on you for considering it to line your filthy pockets. What will your great grandchildren think of your decision??? Standing Rock will become the smallest gathering in the pipeline protest.

SAY NO TO ENDBRIDGE LINE 3

Respectfully
Lynn M Rice
Bteboup@yahoo.com
8948 Columbus Ave S
Bloomington Mn 55420

Sent from my Verizon Wireless 4G LTE smartphone

Levi, Andrew (COMM)

From: Diana Richardson <licketysplit777@gmail.com>
Sent: Sunday, July 09, 2017 10:00 PM
To: MN_COMM_Pipeline Comments
Cc: letters@oregonian.com
Subject: Comment on CN-14-916 and PPL-15-137, Draft Economic Impact Statement, Pipeline 3

My comments on the DEIS are extensive so I have chosen to limit my remarks to the arena of impacts of the proposed Pipeline 3 project of Enbridge on the Tribal Peoples living in the path of the proposed pipeline.

The State of Minnesota has treaty responsibilities to the Tribal Members who will be affected by the adverse effects, which are multiple and terminally damaging to overall well-being and sustainable life practices of Tribal People.

Chapter 11, “Environmental Justice,” acknowledges that pipeline impacts on tribal communities “**are part of a larger pattern of structural racism**” that tribal people face in Minnesota, which was well documented in a 2014 study by the MN Department of Health. It also concludes that “the impacts associated with the proposed Project and its alternatives would be an additional health stressor on tribal communities that already face overwhelming health disparities and inequities” (11.4.3).

The DEIS concludes that “disproportionate and adverse impacts would occur to American Indian populations in the vicinity of the proposed Project” (11.5) **But it also states that this is NOT a reason to deny the project!**

Clearly this statement that it is NOT a reason to deny the project is a contradicton of 11.4.3 and a violation of not only treaties but of the Minnesota Department of Health's findings.

The DEIS is obligated to take this into account in preparing the final EIS. To do anything less is to contribute materially to environmental injustice for which Minnesota can be held morally and legally liable.

Sincerely,
 Diana Richardson
 1905 SW Sunset Blvd.
 Portland, Oregon

Diana Richardson

Levi, Andrew (COMM)

From: Bruce Richardson <brichinariz@gmail.com>
Sent: Monday, July 10, 2017 2:10 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3 Replacement Project DEIS CN-14-916 and PPL-15-137

Dear Ms. MacAlister,

As a proud Minnesotan, I take great interest in issues that affect my way of life and safety. Our aging infrastructure is one of those issues that concerns me.

I have closely followed the progress of Enbridge's Line 3 replacement project as it has worked its way through the environmental review and public comment period.

Allow me to be one of those voicing support for the process, the proposed route of the line which largely follows an existing route, and the line itself, which supports the safe and efficient delivery of oil to refining operations.

Underground pipelines have proven to be safe and effective means for transporting oil, natural gas and fuel long distances, reducing the need for overland transport via truck and rail, which expose the public and our communities to greater risk.

No more review and study is necessary -- please honor the statutory deadline of 280 days for the review process.

Thank you for the opportunity to comment.

Sincerely,

Bruce Richardson
2961 Edward St
Saint Paul, MN 55109
brichinariz@gmail.com

I do not want the pipeline.

Let's get serious about
climate change.

Do not invest in things that
will cripple the planet.

Lew Rickert

Lg Rickert

Levi, Andrew (COMM)

From: Nora Rickey <norarickey@gmail.com>
Sent: Monday, July 10, 2017 10:46 PM
To: MN_COMM_Pipeline Comments
Subject: Enbridge's Line 3 Pipeline

To Whom It May Concern,

Please do what you can to reject this pipeline's creation! My community depends on our pristine waters and land for life, inspiration, and futures to come. A pipeline would certainly destroy this area as it has destroyed the other territories it has cut through. I do not stand with any decisions to approve this pipeline as it goes against everything I believe and hold dear to me. Help Minnesota make the change to protect our earth's future by STOPPING this pipeline!

CN-14-916 and PPL-15-137

Thank you,
Nora Rickey

Levi, Andrew (COMM)

From: Kara Rickson <kararickson@yahoo.com.au>
Sent: Monday, July 10, 2017 8:20 PM
To: MN_COMM_Pipeline Comments
Subject: US citizen abroad & registered MN 55113 voter: Comments regarding Line 3 and docket numbers CN-14-916 and PPL-15-137

To whom it may concern,

Thank you for accepting comments on the Draft Environmental Impact Statement (DEIS) for the proposed construction of a replacement Enbridge Line 3 pipeline through northern Minnesota. I am greatly concerned about several significant issues that have received little or no attention in the DEIS. My concerns, detailed further below, include the neglect of issues of Native sovereignty, the civil and human rights and wellbeing of tribal communities, the highly toxic nature of tar sands oil, the highly sensitive nature of related watersheds, impacts on global warming and air pollution, the lack of an investigation of a 'no pipeline' scenario, and the egregious track record of Enbridge itself including operational non-compliance, and safety, ethics and human rights violations, resulting among much else in massive environmental damage at extensively documented 'leak' or 'accident' sites and well beyond. Each of these issues are highly pertinent to the impacts any such project would have on people, communities and environments. Any of these issues alone should disqualify Enbridge from building another pipeline anywhere, or operating current ones, or being permitted to simply abandon them instead of removing them. Indeed, I submit that any of these points alone would be sufficient cause for the proposed project to be rejected outright, having failed to establish a legitimate basis to proceed. To do so would represent a grave injustice, imposing harm, and risking catastrophic, irreparable social and environmental damage. These harms and risks are simply unacceptable. I ask that the final EIS, at the very least, provide a thorough accounting of the issues above, and include project rejection (a 'no pipeline' scenario) in the identified options.

In terms of developing a final EIS, I also note that the nature of the crude oil that would be pumped daily in massive quantities through the proposed Line 3 replacement is particularly harmful, in terms of extraction processes in the region of the Alberta Tar Sands and the impacts upon environments subjected to spills along the length of its pipeline, transport and its end use. The exceptional impacts entailed, and what they will mean for the people and environments affected have not received a full accounting in the DEIS. Surely this is the purpose of an EIS undertaken in good faith? Furthermore, putting in place remediation requirements in conditions of operation assumes that damage is able to be detected and undone, that harm is tolerable, manageable, identifiable and able to be remedied. Current understanding of the impacts of crude oil spills does not support such assumptions, with significant and far-reaching, perhaps permanent, harms imposed upon related environments and watersheds. Agency, professional, and company resources to monitor and respond to spills, even to the best of currently recognized standards of practice (none of which Enbridge has demonstrated that it is willing or capable of upholding), are themselves limited by reserves of financial and human resources, of course, with limits also in the technological capability to address, and scientific understanding of, longer-term ecosystem impacts and interactions.

It clearly presents unacceptable risks to entrust the protection of people and their environments, including treaty lands, wild rice beds, and the watershed areas of several reservations, and the Great Lakes, to a company that has demonstrated little interest in or commitment to these goals, even when legally required to do so. A private company and their shareholders should not be privileged over the rights of Indigenous Peoples, and over our common heritage, environments, safety and wellbeing in this way.

Thank you for your time and consideration.

Sincerely,

Kara Rickson

United States citizen abroad and registered voter in Ramsey County, St. Paul, Minnesota, 55113-1610 (Please note address above is for voter registration purposes only)

Please accept, as my key points of contention, the issues cited below that were raised by Honor the Earth, a *Native-led environmental organization based on the White Earth Reservation*, as part of their 'Stop Line 3' campaign analysis of the DEIS

and related process (<https://www.stopline3.org/news/2017/6/19/10-things-tribal-communities-need-to-know-about-the-line-3-deis>)

1. NO FREE, PRIOR, AND INFORMED CONSENT OF TRIBAL NATIONS

Enbridge seems to have learned nothing from Standing Rock. Nowhere does the document say that free prior and informed consent of Tribal Nations must be attained through formal Nation-to-Nation consultation before any plans or decisions are made for this pipeline.

The State of Minnesota doesn't seem to understand the basic concept of tribal sovereignty. The route alternatives compared in the DEIS include two routes, called RA-07 and RA-08, that would cross the Leech Lake and Fond du Lac Reservations, despite the fact that the tribes clearly will not consent to a new pipeline. Enbridge's "preferred" route would skirt reservations boundaries while still crossing watersheds and lands of 1855 Treaty Territory. This is a clear attempt to circumvent tribal consent.

2. DISREGARD FOR THE HEALTH OF TRIBAL COMMUNITIES

Chapter 9 of the DEIS acknowledges that impacts on tribal communities "are part of a larger pattern of structural racism" that tribal people face in Minnesota. The DEIS also states that "the impacts associated with the proposed Project and its alternatives would be an additional health stressor on tribal communities that already face overwhelming health disparities and inequities", but concludes that is "insufficient reason" to deny the project.

3. NO CONSULTATION OR PLAN FOR PROTECTING SACRED SITES

Just as we saw in North Dakota, the assessment of archeological artifacts were performed by the company, whose best interest is to put the pipeline through their preferred route at any cost. Enbridge admits that 63 sacred sites are slated for destruction, but claims that only 3 are eligible for protection under the National Register of Historic Places (5.4.2.6.1). Pipeline corporations cannot be trusted to understand and implement protections for our numerous sacred sites.

4. NO PROTECTIONS FOR WILD RICE LAKES

The DEIS acknowledges that "traditional resources are essential to the maintenance and realization of tribal lifeways, and their destruction or damage can have profound cultural consequences." It also shows that Enbridge's preferred route would "impact more 1855 Treaty Territory wild rice lakes and areas rich in biodiversity than any of the proposed alternative routes." These sensitive areas would be the worst place for a tar sands oil spill.

5. LINE 3 IS GUARANTEED TO SPILL

The DEIS estimates the annual probability of different kinds of spills on the proposed route:

Pinhole leak = 27% (once every 3.7 years)

Small Spill = 107% (once every 11 months), Medium = 7.6%, Large = 6.1%

Catastrophic = 1.1% (once every 87 years)

Basically what this means is that in 50 years, the 1855 treaty territory can expect 14 pinhole leaks, 54 small spills, 4 medium, 3 large, and 1 catastrophic spill.

The DEIS also contains no spill analysis for tributaries of the St. Louis River (which is already a toxic superfund site) or Nemadji River, where a spill could decimate our sacred Gichigami, Lake Superior.

6. NO "WELLS TO WHEELS" ASSESSMENT OF IMPACT

There is zero discussion of how Line 3 starts at the sacrifice zone of the Alberta Tar Sands where Dene and Cree people continue to be poisoned, raped, and murdered by the most extreme extraction project in the world. Further, there is no mention of how with 370,000 bpd of additional capacity, Enbridge will need a new pipeline departing its terminal in Superior. We know that they plan to expand pipelines through Ojibwe and Ho-Chunk territories in Wisconsin to accommodate. Finally at the end of the line, refineries are poisoning communities of color. Residents live with fear of kidney failure, autoimmune diseases and cancer and early death due to chemical exposure from massive refineries. This big picture must be considered to truly assess the impacts the Line 3 pipeline.

7. NO PLAN TO HOLD ENBRIDGE ACCOUNTABLE

Neither the State of Minnesota nor the Federal Government have a plan for enforcing environmental regulations for Line 3. When searching through extensive databases of Enbridge's spill history, the numbers often disappear once they hit the reservation line. How many spills have already ruptured in our communities without any response or reporting? Many of the DEIS's environmental impacts and plans for minimizing them are drawn directly from Enbridge's permit application without any evidence of compliance or genuine consideration that Enbridge won't follow all the rules. History shows that they continually violate permit conditions.

8. NO PLAN TO STOP SEX TRAFFICKING IN PIPELINE MAN-CAMPS

The DOC assumes “all workers would re-locate to the area” and zero construction jobs will go to Minnesotans. We are all too familiar with how “the addition of a temporary, cash-rich workforce increases the likelihood that sex trafficking or sexual abuse will occur”. But the DEIS dismisses this problem quickly, saying that “Enbridge can prepare and implement an education plan or awareness campaign around this issue” (11.4.1). That is in no way an assurance that our women and children will be any safer come 2018 when construction is slated to begin.

9. INADEQUATE ASSESSMENT OF ABANDONMENT

Enbridge’s current plan is to cap off the crumbling old Line 3 pipe in sections and leave it in the ground for landowners to take care of, setting a dangerous precedent for future pipelines in Minnesota, including the NEW Line 3. The risks of abandoning pipelines are not adequately assessed in the DEIS. There is no discussion of the dangers of exposed pipe, how fast it will corrode, or how much currently buried pipe will become exposed once it is emptied. These rusting pipes are conduits, and could one day drain a lake or wetland and dump toxified water onto farm fields. What is the plan for cleaning up the contamination from the countless spills that have already occurred along Line 3? There is also no mention of the abandonment of the other 3 ancient pipelines in Enbridge’s existing mainline corridor (Lines 1, 2, and 4), which we expect Enbridge will very soon attempt to follow suit. It should also be known that Enbridge will stop paying taxes to the MN counties along the mainline corridor. For many of these poor northern counties including the Leech Lake and Fond du Lac reservations, revenue from Enbridge’s property tax makes up a significant portion of the county budget.

10. THE “NO BUILD” OPTION IS NOT GENUINELY CONSIDERED

The DEIS includes an option of the “Continued Use of Existing Line 3” (Chapters 3 and 4), but nowhere is the “No Build” Alternative considered. Enbridge already has a massive pipeline corridor leaking across our territories. It is not the responsibility of our communities to continue to sacrifice our waters and lands so the a foreign corporation can maintain their bottom line. When will the is the “Shut Line 3 Down Because It’s Falling Apart and Poisoning Our Communities” option be considered?

I cite also comments from Thane Maxwell, Honor the Earth (<https://www.minnpost.com/community-voices/2017/07/reading-between-lines-minnesota-s-draft-eis-enbridges-line-3-pipeline>):

Also missing is a discussion of Enbridge’s **track record** in complying with regulation, despite state law requiring that consideration before issuing the permit (Administrative Rules Part 7853.0130 (D)). Many of the environmental impacts and plans for mitigation are copied and pasted directly from Enbridge’s permit application without any evidence of compliance. And since Minnesota agencies don’t have the jurisdiction or capacity to monitor construction, the DEIS proposes that the fox watch the henhouse: Enbridge inspectors will have stop-work authority, and “third-party monitors” that relay information to the agencies will not (2.7.1.1).

Levi, Andrew (COMM)

From: Don R-Crenshaw <dgrc@crowswood.com>
Sent: Saturday, July 01, 2017 8:39 PM
To: MN_COMM_Pipeline Comments
Cc: Emily Goldthwaite Fries
Subject: Line 3 pipeline

I'm Donald Rideaux-Crenshaw from Burnsville, MN. As a person of faith and as a resident of Minnesota, I am very concerned about the new Line 3 proposed by Enbridge. Though the environmental impact statement acknowledges many severe consequences to land, water, and local communities, it appears the no-build option is not being seriously considered.

I am alarmed by the plans for this pipeline, which disregard the severe impacts of potential spills to ricing lakes, rivers, and even to Lake Superior. Furthermore, I find it unacceptable that we, as a state, continue to expect Native communities to disproportionately endure the impacts of extracting and transporting oil. These risks are outlined but not considered reason enough to reject the pipeline.

We have a responsibility to current and future generations, locally and globally, to keep out Tar Sands oil that could pollute MN waters and contribute significantly to climate change. Climate scientists agree it is time to leave the oil in the ground.

I implore you to weigh the dire consequences of this pipeline and strongly consider rejecting it.

Sincerely,
Donald Rideaux-Crenshaw

Levi, Andrew (COMM)

From: Patty Rieck <user@votervoice.net>
Sent: Wednesday, July 05, 2017 7:08 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3 Replacement Project

Dear Ms. MacAlister,

Enbridge's commitment to replacing Line 3 will significantly impact Minnesota's economy and bring jobs to the state. Line 3 Replacement Program will provide about 8,600 jobs and long-term tax benefits to Minnesota communities. Workers need the construction jobs and our communities benefit from the extra tax dollars a new Line 3 will create. Communities along the right-of-way directly benefit from the patronage to local businesses by employees and contractors of Enbridge, these dollars spent recirculate in the communities.

Sincerely,

Patty J Rieck
26090 490th St
Staples, MN 56479
nystrompj@aol.com

Line 3 Replacement Project DEIS

- The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.
- Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.
- Infrastructure replacement: As a maintenance project, the time is now to replace and modernize Line 3.

Docket numbers: CN-14-916, RPL-15-137



Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
Leroy Brewer	218-694-6326	clbrewer@gotel.com
ADDRESS		
36340 211 th Ave		
CITY, STATE, ZIP		
Bakery, MN 56621		

COMMENTS

Enbridge would not be spending this amount of time and money if they didn't feel Line 3 should be replaced.
Pipelines are the safest way to move crude oil.
- Lets get this line built

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Levi, Andrew (COMM)

From: Ken Risdon <krisdon@d.umn.edu>
Sent: Friday, July 07, 2017 5:10 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3 replacement

Dear Ms. MacAlister,

The choice is simple. A pipeline is much safer in all ways than any other mode. Updating an existing line makes perfect sense.

Solar and wind cannot replace the 42 million barrels of gasoline we use a day.. We need the oil, no question.

Line 3 provides increased national security simply because it is not in the Middle East!

Those against replacing the line should pay more for the gasoline!

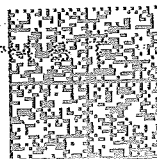
Sincerely,

Ken Risdon
131 Waverly Pl
Duluth, MN 55803
krisdon@d.umn.edu

Line 3 Replacement Project DEIS

- The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.
- Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.
- Infrastructure replacement: As a maintenance project, the time is now to replace and modernize Line 3.

Docket numbers: CN-14-9161 PPI-15-337



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0000879328 JUN 27 2017
MAILED FROM ZIP CODE 55811

Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME <i>Roger RIVERA JR.</i>	PHONE NUMBER <i>214 074 8107</i>	EMAIL <i>roger_r1@kotexil</i>
ADDRESS <i>12050 330TH ST.</i>		
CITY, STATE, ZIP <i>New Tolden MN 56736</i>		

COMMENTS

I am a land owner. Enbridge has been good to work with & for. I painted for years for Enbridge & thought they were great to work for.

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
MARK W ROBERTS	218-260-9369	mrrob256@gmail.com
ADDRESS		
809 Adams St		
CITY, STATE, ZIP		
Clognet, MN 55720		

COMMENTS

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

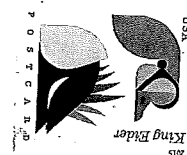
Line 3 Replacement Project DEIS

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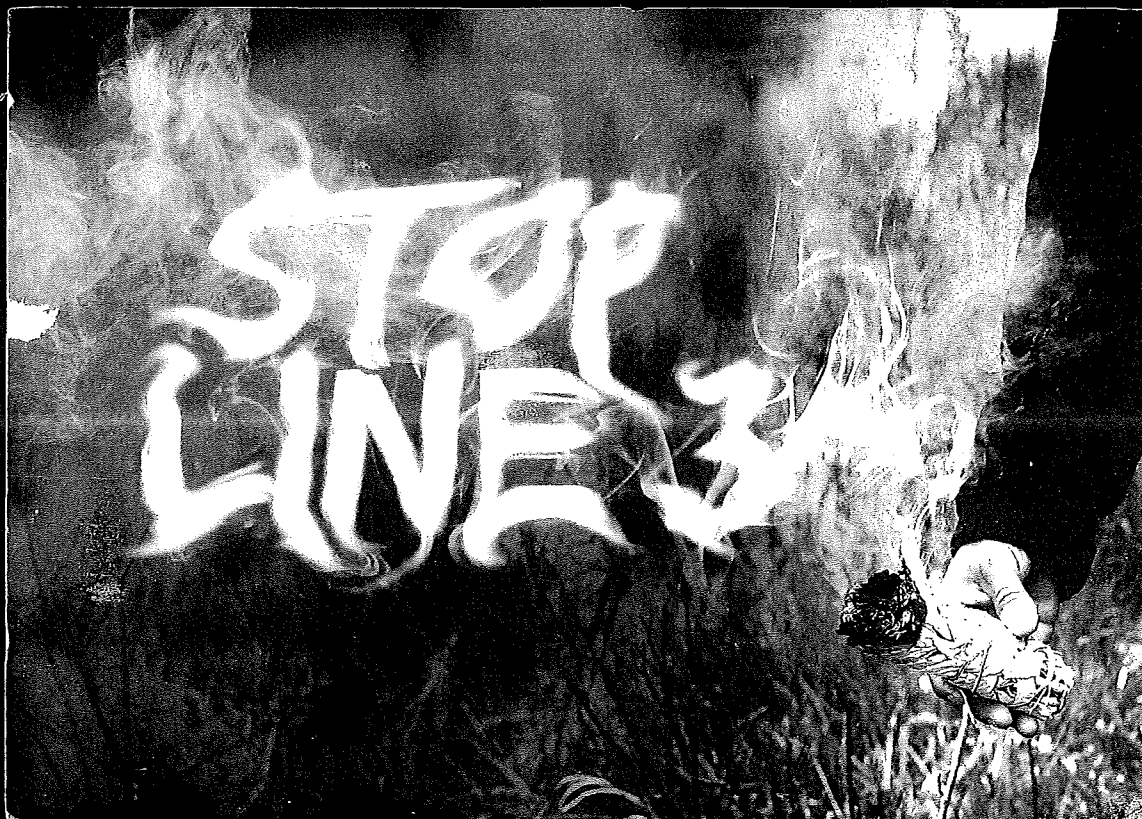
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Docket numbers: CN-14-916; PPL-15-137



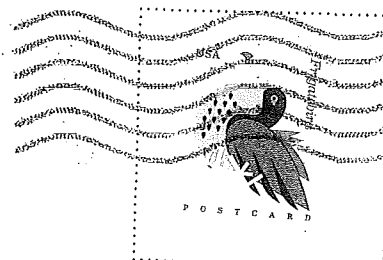
Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198



DEAR DEPARTMENT OF COMMERCE,
PLEASE INCLUDE THIS COMMENT ON THE DEIS FOR
LINE 3 IN DOCKETS CN-14-916 AND PPL-15-137.

WINNEAPOLIS MN 553

21 JUL 2017 PM 6 L



Line 3 hurts indigenous
communities and young
native girls targeted
by sex trafficking. Please
consider the lives and
livelihoods of the people
who are affected by this
pipeline before trampling
over them.

JAMIE MACALISTER
ENVIRONMENTAL REVIEW MANAGER
MN DEPARTMENT OF COMMERCE
85 7TH PLACE EAST, SUITE 280
ST. PAUL, MN 55101-2198

SINCERELY,

Maia Roberts

Levi, Andrew (COMM)

From: becky robles <brobles8888@yahoo.com>
Sent: Friday, June 23, 2017 2:36 PM
To: MN_COMM_Pipeline Comments
Cc: Rebecca Robles
Subject: Comment on Draft, EIS, Lines 67&3

To Whom it May Concern,

I am a concerned mother reaching out about this portion of your draft documents concerning Line 67. Specifically the "Certificate of need can not be issued" language on pages 1-6 section 1.4.1.2 'need for fossil fuels' comprehensive policy level assessment for fossil fuels in our society and associated tribal rights is beyond the scope of an EIS for a single pipeline"

Why would you ignore such an important piece of how this process works? We the people not only deserve to be able to comment on our concerns here but, we deserve more than just the brush off your people are pushing on us thinking somehow we are too dumb to need an EIS. Our children mean more to us than your "progress" we are seeing the genocidal circumstances moving like this across our country. In North Dakota, we saw the illegal moves perpetrated on a nation of people for profit. We know there is a federal judge who has just shown the world they broke the law. That brings me to this line 67. We feel as citizens you are breaking the law by not allowing an EIS.

Your own rule defines areas of high consequence where the potential consequences of a gas pipeline accident may be significant or may do considerable harm to people and their property. The definition includes: current class 3 and 4 locations; facilities with persons who are mobility impaired, confined, or hard to evacuate and places where people gather for recreational and other purposes. For facilities with mobility-impaired, confined, or hard-to-evacuate persons and places where people gather, the corridor of protection from the pipeline is 300 feet, 660 feet or 1000 feet depending on the pipeline's diameter and operating pressure. The offices of Pipeline Safety (OPS), Research and Special Programs Administration (RSPA), Department of Transportation (DOT) all failed to follow Laws based on licensing here. There is a mediation process in the licensing procedures for any contractor and we the people never got any mediation. Why is that? As a witness to the behaviors the oligarchs and their corporations have handed down to all people, we can say in all confidence you are trying to kill us. You don't care that cancer is rampant; you don't care that emission regulations were scrubbed all for a pipeline to make its profit. You don't care that the president of the United States willfully agreed to let you all move forward placing himself as the head of this conspiracy, charges need to be brought against him for this and you all know it. The mere fact Det Norske Veritas (DNV-GL), your independent contractor was fired says so much. How they were involved with the State EIS process while holding contracts with Enbridge shows the blatant laws being broken in this organization as well. We know your company tried to bury the spills of Kalamazoo. We will never forget the lives lost there due to your mixing the words around in illegal documents all over the country. We feel Enbridge and its associates are very guilty of multiple crimes that have been shared and crimes that are yet to come based on their willful and bias extremes to get oil no matter who dies. We see Enbridge is in the business of writing contracts that violate the law with all their dealings worldwide and are asking you shut this pipeline down. We are not agreeing to this pipeline and we insist you dig up line 3 as well. We are encouraging people to stand up in the courts now and bring civil suits against the president, the government employees who took oil contributions, these corporations, banks and the ceo's there in to get our justice. For it is what the dead deserve, the sick they deserve justice, my son who lives so far away from this issue yet feels threatened because he is losing his constitutional right to life, deserves justice. His generational rights are being stomped all over and we want change. We want you to switch your efforts to cleaning sites you have destroyed and move to renewable energies. It's time for God's sake.

Thank You,
 Rebecca Maria Robles
 San Diego, CA 92114

Levi, Andrew (COMM)

From: Robin RODENBORG <projectmora@gmail.com>
Sent: Thursday, July 06, 2017 9:46 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3

Dear Ms. MacAlister,

Who goes back to remove the old line, check for any leakage or soil damage along that line and what is the expectation for reporting? What is the plan for "any" future leakage and can citizens and commission hold Enridge liable when total cleanup is not completed. No lines near drinking water sources.

Sincerely,

Robin Rodenborg
421 Ashland St N
Cambridge, MN 55008
projectmora@gmail.com

Levi, Andrew (COMM)

From: Wachtler, John (COMM)
Sent: Tuesday, June 20, 2017 5:33 PM
To: MN_COMM_Pipeline Comments
Subject: FW: Emailing: Piping-Engineering.pdf
Attachments: Piping-Engineering.pdf

-----Original Message-----

From: Steve Roe [mailto:roetreat@crosslake.net]
Sent: Friday, June 16, 2017 11:25 AM
To: Wachtler, John (COMM) <john.wachtler@state.mn.us>
Subject: Emailing: Piping-Engineering.pdf

John,

I will be sending my calculations. Longitudinal stress and surge pressures are not allowed for in Enbridge design. No wonder the pipe shows stress cracks which should be considered a failure. This is a pretty simple calculation. Showing the pictures/graphics of the of how the stresses should be accounted. The pipe they are proposing should only be used at greatly reduced pressure.

Thanks,
Steve



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Home » Stress analysis » Induced Stresses in Pipe- Hoop, Longitudinal and Radial Stresses

Induced Stresses in Pipe- Hoop, Longitudinal and Radial Stresses

3 Comments

Topics covered

Introduction

Circumferential or Hoop Stresses

Longitudinal Stresses

Radial Stress

Introduction to Induced Stresses:

When the ends of the pipe ends are closed and pipe is subjected to an internal pressure 'P' there are various stresses that develop in the pipe. Each element of pipe are subjected to the below mentioned stresses which act in the direction as shown in the fig.1.

Circumferential (hoop) stress σ_H

Longitudinal Stress σ_L

Radial Stress σ_R

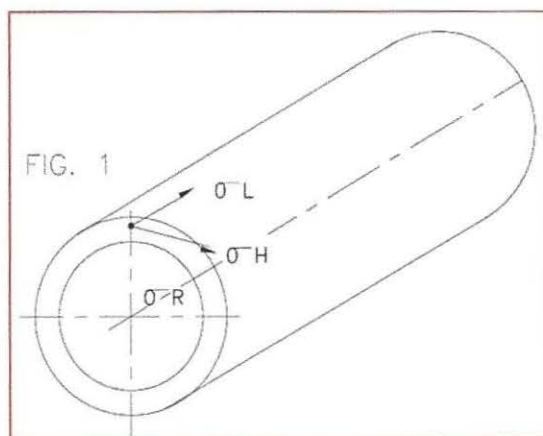


Fig 1: Different stresses induced in pipe

CIRCUMFERENTIAL OR HOOP STRESS: σ_H

The effect of this may split the pipe into two halves as shown in fig.2. The failure of the pipe in two halves in fact is possible across any plane, which contains diameter and axis of the pipe. Elements resisting this type of failure would be subjected to stress and

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direction of this stress is along the circumference. Hence the above stress is called Circumferential or Hoop Stress.

If –

D = Diameter of the pipe

L = Length of the pipe

t = thickness of the pipe.

Then

Bursting force, F_B	=	Pressure * Area
	=	$P * D * L$
Resisting force, F_R	=	Resisting metal area * Stress, σ_H
Equating F_B & F_R		
$P * D * L$	=	$2t * L * \sigma_H$
$\therefore t$	=	$(P * D) / 2 * \sigma_H$
or σ_H	=	$(P * D) / (2 * t)$ _____ (1)

This equation is used for calculating the thickness of pipe so as to withstand pressure 'P' where σ_H is allowable circumferential stress.

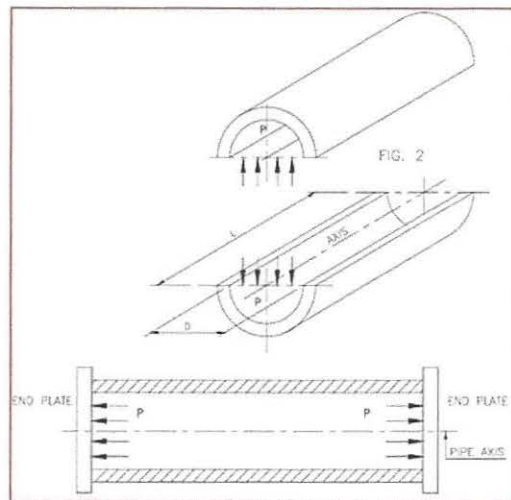


Fig 2: Circumferential or Hoop stress

LONGITUDINAL STRESS: σ_L

Considering that the pipe ends are closed and pipe is subjected to an internal pressure 'P' the pipe may fail as shown in Fig.3. Elements resisting this type of failure would be subjected to stress and direction of this stress is parallel to the longitudinal direction of the pipe. Hence this stress is called longitudinal stress.

Then

Bursting force, F_B	=	Pressure * Area
	=	$P * (\pi D * L) / 4$
Resisting force, F_R	=	Resisting metal area x Stress, σ_L
	=	$\pi D t * \sigma_L$ (when t is significantly small as compared to D)
Equating F_B & F_R		
$P * (\pi D * L) / 4$	=	$\pi D t * \sigma_L$
$\therefore t$	=	$(P D) / 4 * \sigma_L$
or σ_L	=	$(P D) / (4 * t)$ _____ (2)

NOTES:

- 1) On comparing equations 1 & 2, it is clear that when a pipe having diameter 'D' and thickness 't' is subjected to an internal pressure 'P', the induced circumferential stress is double the induced longitudinal stress.
- 2) Normally, the pipe is considered as a thin wall cylinder i.e. $t < D/6$
- 3) Usually D is substituted by D_o (outside diameter) in order to have higher safety margin.

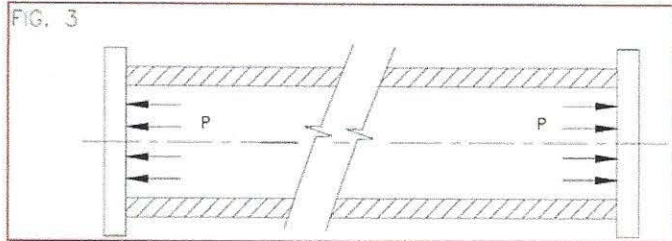


Fig 3: Longitudinal stress

RADIAL STRESS: σ_R

Radial stress is a stress in directions coplanar with but perpendicular to the symmetry axis.

The radial stress for a thick-walled pipe is equal and opposite to the gauge pressure on the inside surface, and zero on the outside surface.

The radial stress is always compressive.

Each element of the pipe is subjected to radial stress which acts in radial direction as shown in Fig.4 and calculated as

$$\sigma_R = P$$

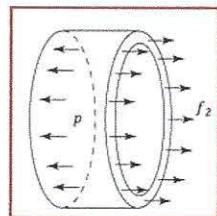


Fig 4: Radial stress

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March 16, 2016

3 COMMENTS

*rupak*

May 27, 2016 at 5:04 am

wonderful explanation!

*Ganesh S Kharote*

October 11, 2016 at 5:23 am

its so useful insight as it bridges theoritical and practical aspect

*Haofeng*

March 6, 2017 at 2:52 am

Thanks for the explanation! Helpful!

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Design of Pressure Pipes

The design methods for buried pressure pipe installations are somewhat similar to the design methods for gravity pipe installations which were discussed in Chap. 3. There are two major differences:

1. Design for internal pressure must be included.
2. Pressure pipes are normally buried with less soil cover so the soil loads are usually less.

Included in this chapter are specific design techniques for various pressure piping products. Methods for determining internal loads, external loads, and combined loads are given along with design bases.

Pipe Wall Stresses and Strains

The stresses and resulting strains arise from various loadings. For buried pipes under pressure, these loadings are usually placed in two broad categories: internal pressure and external loads. The internal pressure is made up of the hydrostatic pressure and the surge pressure. The external loads are usually considered to be those caused by external soil pressure and/or surface (live) loads. Loads due to differential settlement, longitudinal bending, and shear loadings are also considered to be external loadings. Temperature-induced stresses may be considered to be caused by either internal or external effects.

Hydrostatic pressure

Lamé's solution for stresses in a thick-walled circular cylinder is well known. For a circular cylinder loaded with internal pressure only, those stresses are as follows:

Tangential stress:
$$\sigma_t = \frac{P_i a^2 (b^2/r^2 + 1)}{b^2 - a^2}$$

Radial stress:
$$\sigma_r = \frac{P_i a^2 (b^2/r^2 - 1)}{b^2 - a^2}$$

where P_i = internal pressure

a = inside radius

b = outside radius

r = radius to point in question

The maximum stress is the tangential stress σ_t , and it occurs at $r = a$ (Fig. 4.1). Thus,

$$\sigma_{\max} = (\sigma_t)_{r=a} = \frac{P_i a^2 (b^2/a^2 + 1)}{b^2 - a^2}$$

or
$$\sigma_{\max} = \frac{P_i (b^2 + a^2)}{b^2 - a^2} \quad (4.1)$$

For cylinders (pipe) where $a \approx b$ and $b - a = t$,

$$b^2 - a^2 = (b + a)(b - a) = \bar{D}t \quad (4.1a)$$

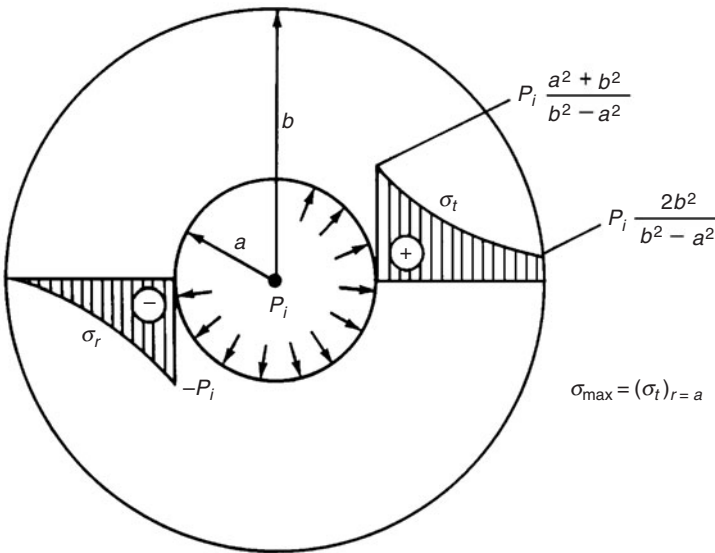


Figure 4.1 Thick-walled cylinder with internal pressure.

where \bar{D} = average diameter = $b + a$ and t = thickness = $b - a$. Also,

$$(b + a)^2 = \bar{D}^2 = b^2 + a^2 + 2ab \quad (4.1b)$$

$$b^2 + a^2 = \bar{D}^2 - 2ab \approx \bar{D}^2 - 2\bar{r}^2 = \bar{D}^2 - \frac{\bar{D}^2}{2}$$

Thus Eq. (4.1) can be rewritten using Eqs. (4.1a) and (4.1b) as follows:

$$\sigma_{\max} = \frac{P_i (\bar{D}^2/2)}{\bar{D}t} = \frac{P_i \bar{D}}{2t} \quad (4.2)$$

Equation (4.2) is recognized as the equation for stress in a thin-walled cylinder (Fig. 4.2). This equation is sometimes called the Barlow formula, but is just a reduction from Lamé's solution. This equation is the form most often recognized for calculating stresses due to internal pressure P_i .

If the outside diameter D_o is the reference dimension, Eq. (4.2) can be put into another form by introducing

$$\bar{D} = D_o - t$$

That is, the average diameter is equal to the outside diameter minus thickness. Equation (4.2) becomes

$$\sigma_{\max} = \frac{P_i (D_o - t)}{2t} \quad (4.3)$$

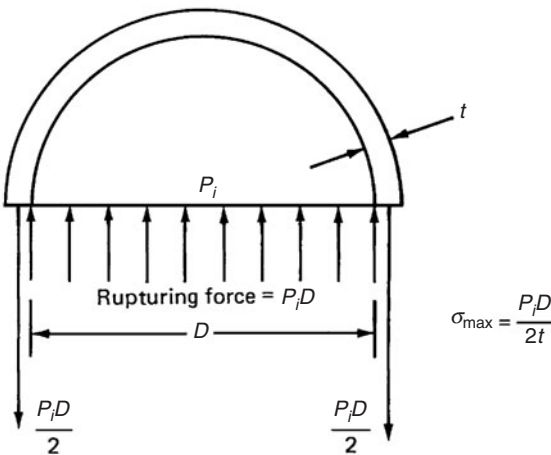


Figure 4.2 Free-body diagram of half section of pipe with internal pressure.

Certain plastic pipe specifications refer to a dimension ratio (DR) or a standard dimension ratio (SDR), where

$$\text{DR} = \frac{D_o}{t} \quad \text{or} \quad \text{SDR} = \frac{D_o}{t}$$

Both DR and SDR are defined the same. However, SDR often refers to a preferred series of numbers that represents D_o/t for standard products. By introducing $D_o/t = \text{SDR}$ into Eq. (4.3), it can be rewritten as follows:

$$\sigma_{\max} = \frac{P_i}{2} (\text{SDR} - 1) \quad (4.4)$$

The above equation may be expressed as

$$\frac{2\sigma_{\max}}{P_i} = \text{SDR} - 1 \quad (4.5)$$

Equation (4.5) is often referred to as the ISO (International Standards Organization) equation for stress due to internal pressure. However, this basic equation has been known to engineers for more than a century and was originally given by Lamé in “Leçons sur la theorie de l’elasticité,” Paris 1852. Obviously, ISO is a relative newcomer and should not be given credit for Lamé’s work.

To calculate these tangential stresses in the pipe wall produced by internal pressure, either Eq. (4.2) or Eq. (4.4) are often suggested by the manufacturer or by national standards. All forms are derived from Lamé’s solution and will produce comparable results.

Surge pressure

Pressure surges are often divided into two categories: transient surges and cyclic surges. Cyclic surging is a regularly occurring pressure fluctuation produced by action of such equipment as reciprocating pumps, undamped pressure control valves or interacting pressure regulating valves, oscillating demand, or other cyclic effects. Cyclic surges may cause fatigue damage and should be designed out of the system.

Transient surges are just that—transient in nature, occurring over a relatively short time and between one steady state and another. A transition surge may occur, and the system then returns to the same steady state as before the surge. Transient surges are usually not cyclic in nature although they may be repetitive. A transient surge is often referred to as *water hammer*.

Any action in a piping system that results in a change in velocity of the water in the system is a potential cause of a water hammer surge.

A partial listing of some typical causes of water hammer is given below.

1. Changes in valve settings (accidental or planned)
2. Starting or stopping of pumps
3. Unstable pump or turbine characteristics

The magnitude of water hammer pressures generated by a given change in velocity depends on (1) the geometry of the system, (2) the magnitude of the change in velocity, and (3) the speed of the water-hammer wave for the particular system.

These variables are expressed quantitatively as

$$\Delta H = \frac{a}{g} \Delta V \quad (4.6)$$

where ΔH = surge pressure, feet of water

a = velocity of the pressure wave, ft/s

g = acceleration due to gravity (32.17 ft/s²)

ΔV = change in velocity of fluid, ft/s

The pressure rise, in pounds per square inch, may be determined by multiplying Eq. (4.6) by 0.43 lb/in² per feet of water as follows:

$$\Delta P = \frac{a}{g} \Delta V (0.43) \quad (4.7)$$

The wave speed is dependent upon

1. Pipe properties
 - a. Modulus of elasticity
 - b. Diameter
 - c. Thickness
2. Fluid properties
 - a. Modulus of elasticity
 - b. Density
 - c. Amount of air, and so forth

These quantities may be expressed as

$$a = \frac{12\sqrt{K/\rho}}{\sqrt{1 + (K/E) (D/t) C_1}} \quad (4.8)$$

where a = pressure wave velocity, ft/s

K = bulk modulus of water, lb/in²

ρ = density of water, slug/ft³

- D = internal diameter of pipe, in
- t = wall thickness of pipe, in
- E = modulus of elasticity of pipe material, lb/in²
- C_1 = constant dependent upon pipe constraints ($C_1 = 1.0$ for pipe with expansion joints along its length)

For water at 60°F, Eq. (4.8) may be rewritten by substituting $\rho = 1.938$ slug/ft³ and $K = 313,000$ lb/in².

$$a = \frac{4822}{\sqrt{1 + (K/E)(D/t)C_1}}$$

(4.9)

Equations (4.6), (4.7), and (4.8) can be used to determine the magnitude of surge pressure that may be generated in any pipeline. The validity of the equations has been shown through numerous experiments.

Figure 4.3 is a plot of the pressure rise in pounds per square inch as a function of velocity change for various values of wave speed. Tables 4.1 and 4.2 give the calculated wave speed according to Eq. (4.8) for ductile iron and PVC pipe, respectively. In general, wave speeds vary from 3000 to 5000 ft/s for ductile iron and from 1200 to 1500 for PVC pipes.

Example Problem 4.1 Determine the magnitude of a water hammer pressure wave induced in a 12-in class 52 ductile iron pipe and in a class 235 DR 18 PVC pipe if the change in velocity is 2 ft/s.

solution From Tables 4.1 and 4.2 and Fig. 4.3:

Pipe	Wave speed, ft/s
Class 52 DI	4038
Class 235 PVC	1311

The resulting pressure surges are

Pipe	Surge pressure, lb/in ²
Class 52 DI	105
Class 235 PVC	35

Some appropriate rules of thumb for determining maximum pressure surges are listed below in pounds per square inch of surge per 1 ft/s change in velocity.

Pipe	Surge pressure rise, lb/in ² , per 1 ft/s velocity change
Steel pipe	45
DI (AWWA C150)	50
PVC (AWWA C900)	20
PVC (pressure-rated)	16

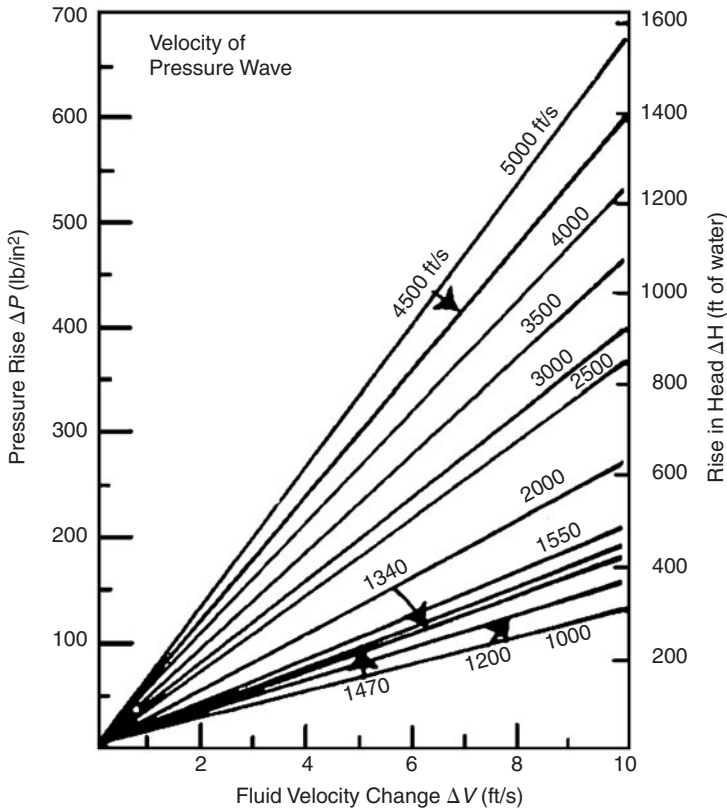


Figure 4.3 Water hammer surge calculation.

TABLE 4.1 Water Hammer Wave Speed for Ductile Iron Pipe, ft/s

Size	Class						
	50	51	52	53	54	55	56
4	—	4409	4452	4488	4518	4544	4567
6	4206	4265	5315	4358	4394	4426	4454
8	4085	4148	4202	4248	4289	4324	4356
10	3996	4059	4114	4162	4205	4242	4276
12	3919	3982	4038	4087	4130	4169	4205
14	3859	3921	3976	4024	4069	4108	4144
16	3783	3846	3902	3952	3998	4039	4076
18	3716	3779	3853	3887	3933	4038	4014
20	3655	3718	3776	3827	3874	3917	3957
24	3550	3614	3671	3723	3771	3815	3855
30	3387	3472	3547	3615	3676	3731	3782
36	3311	3409	3495	3571	3638	3700	3755
42	3255	3362	3456	3539	3612	3678	3737
48	3207	3323	3424	3512	3590	3659	3721
54	3201	3320	3423	3512	3591	3599	3724

TABLE 4.2 Water Hammer Wave Speed for PVC Pipe, ft/s

Size	(AWWA C900) DR			Pressure-rated PVC SDR			
	25	18	14	21	26	32.5	41
4	1106	1311	1496	1210	1084	967	859
6	1106	1311	1496	1210	1084	967	859
8	1106	1311	1496	1210	1084	967	859
10	1106	1311	1496	1210	1084	967	859
12	1106	1311	1496	1210	1084	967	859

Since velocity changes are the cause of water hammer surge, proper control of valving may eliminate or minimize water hammer. If fluid approaching a closing valve is able to sense the valve closing and adjust its flow path accordingly, then the maximum surge pressure as calculated from Eq. (4.6) may be avoided. To accomplish this, the flow must not be shut off any faster than it would take a pressure wave to be initiated at the beginning of valve closing and returning again to the valve. This is called the *critical time* and is defined as the longest elapsed time before final flow stoppage that will still permit this maximum pressure to occur. This is expressed mathematically as

$$T_{\text{cr}} = \frac{2L}{a}$$

where T_{cr} = critical time

L = distance within the pipeline that the pressure wave moves before it is reflected back by a boundary condition, ft

a = velocity of pressure wave for the particular pipeline, ft/s

Thus, the critical time for a line leading from a reservoir to a valve 3000 ft away for which the wave velocity is 1500 ft/s is

$$T_{\text{cr}} = \frac{2(3000) \text{ ft}}{1500 \text{ ft/s}} = 4 \text{ s}$$

Unfortunately, most valve designs (including gate, cone, globe, and butterfly valves) do not cut off flow proportionate to the valve-stem travel (see Fig. 4.4). This figure illustrates how the valve stem, in turning the last portion of its travel, cuts off the majority of the flow. It is extremely important, therefore, to base timing of valve closing on the *effective closing time* of the particular valve in question. This effective time may be taken as about one-half of the actual valve closing time.

Levi, Andrew (COMM)

From: Marty Roers <mroers@csjstpaul.org>
Sent: Wednesday, July 05, 2017 1:20 PM
To: MN_COMM_Pipeline Comments
Subject: Concern for the proposed Enbridge Oil Pipeline #3 through Northern Minnesota
CN-14-916 and PPL-15-137

Dear MN Public Utility Commission:

As a concerned Minnesota State citizen, I am writing to express my deep concerns regarding the proposed Enbridge Oil Pipeline #3 through Northern Minnesota (**CN-14-916 and PPL-15-137**). I am writing to express my concern with this project specifically because of the serious the lack of collaboration with impacted communities, especially the Native American communities of Northern Minnesota. In addition, I am troubled by the potential impacts of climate change and the lack of clarity regarding how long the Enbridge company will “indefinitely” monitor the abandoned pipe. Furthermore, I am deeply troubled by the secrecy and lack of public review in the Enbridge Company’s “worst-case” scenarios of spill data and the impact on water and wildlife. I am deeply worried about the impacts on water and wildlife in our state of Minnesota now and for future generations.

Thank you for listening to my concerns and demanding more accountability and protections for all Minnesotans with this proposed pipeline project. I do not support the proposed Enbridge Line #3 through Northern Minnesota. Thank you, Marty Roers

Levi, Andrew (COMM)

From: Chuck Rogers <user@votervoice.net>
Sent: Thursday, June 29, 2017 5:49 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3 Replacement Project DEIS CN-14-916 and PPL-15-137

Dear Ms. MacAlister,

Please cut the red tape and allow the new Enbridge Line 3 project to proceed. It is the right thing to do for Minnesotans and is environmentally sound.

Chuck Rogers
Fisher, MN
218-891-4199

Sincerely,

Chuck Rogers
26337 365th Ave SW
Fisher, MN 56723
chuckdashbob@aol.com

Levi, Andrew (COMM)

From: Deb <beerog804@aol.com>
Sent: Friday, July 07, 2017 8:50 AM
To: MN_COMM_Pipeline Comments
Subject: CN-14-916 and PPL-15-137 Comment

I live on a beautiful pristine lake in Hubbard County. I have deep concerns about the Line 3 pipeline that Enbridge proposes to "rebuild" very close to my lake and near other lakes and rivers in Minnesota lake country. I am not against pipelines, however, I do object to their preferred route because of the potential serious damage a spill or leak could cause to our environment and wildlife. Clean up of this poisonous tar sands oil is nearly impossible in lakes and streams and would have a devastating effect on those natural resources. It is imperative that the EIS for Line 3 be complete, unbiased, and accurate.

As this is the first EIS ever being done on a pipeline in Minnesota there is probably a learning curve for the DOC in its preparation. Their DEIS doesn't appear to have some very important considerations that are critical in making any decision on Line 3 such as an economic need analysis and a contamination plan or oil spill analysis. This data will be necessary before first determining if there is even a NEED for this pipeline, and if so, then the best route with least impact on the environment and wildlife. Enbridge's preferred route is right beside Itasca State Park, a Minnesota treasure, and that was not even mentioned in the DEIS.

Also, I have a concern as to where some of the reports used in the DEIS came from. Information from Enbridge is suspect as they are not an impartial source. Cardno and Barr have ties with Enbridge as well so may not be impartial either. To what extent does the DEIS rely on information from expert, unbiased sources such as the MPCA and DNR?

This comes down to Risk vs. Profit. Why would Minnesota risk its most pristine environment and tourist dollars so that a Canadian oil conglomerate can make more profit? This EIS and the PUC's ultimate decision must be based on comprehensive, accurate and impartial information to shape Minnesota's future.

Thank you for your time and considering my comments.

Deb Rogers
 21852 Duck Lake Rd.
 Park Rapids, MN 56470

Levi, Andrew (COMM)

From: Annie Rohde <annierohde2@gmail.com>
Sent: Monday, July 10, 2017 12:27 PM
To: MN_COMM_Pipeline Comments
Subject: Non-starter

REMOVE, CLEAN UP, ENHANCE CURRENT ROUTE INFRASTRUCTURE, AND REPLACE OLD PIPE!!

NO other option is acceptable, PERIOD!!

Annie Rohde, Rochester, MN

From: [Sylvie Rokab](#)
To: [MN COMM Pipeline Comments](#)
Subject: STOP LINE 3
Date: Wednesday, May 31, 2017 12:21:43 AM

REF: Docket numbers CN-14-916 and PPL-15-137

To whom it may concern,

In general, it is critical that we move away from fossil fuels and in the direction to create a sustainable future for our children. But more specifically, line 3 is even more critical in that it is corroding, it has a history of ruptures and contamination and it violates the treaty and therefore the rights of tribal members.

I urge you to stop line 3 immediately.

Thank you,

Sylvie

"Let the beauty of what you love be what you do. There are a thousand ways to kneel and kiss the earth" Rumi

Sylvie Rokab
Los Angeles, CA, 90272

Levi, Andrew (COMM)

From: Philip Romanek <floodwoodphil@gmail.com>
Sent: Thursday, June 29, 2017 10:16 PM
To: MN_COMM_Pipeline Comments
Subject: Comment CN-14-916 and PPL-15-137

Dear Ms. MacAlister,

I believe the deactivated pipeline line 3 should be removed. All deactivated pipeline should be taken out of the ground at all private property along the route. My land or anyone's land was not given to Enbridge for perpetuity when it isn't being used as an active pipeline and no plans to be used ever again. That is not right and is not fair to all landowners. The land should be returned to the owners to do as they wish without having a pipeline that may become hazardous sometime in the future. The owners didn't ask for the pipeline to be installed on their property. They should get full use of their property returned to them if the pipeline is now obsolete.

Sincerely,

Philip Romanek
PO Box 273
Floodwood, MN 55736
floodwoodphil@gmail.com

Line 3 Replacement Project DEIS

The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.

• Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.

• Infrastructure replacement: As a maintenance project, the time is now to replace and modernize Line 3.

Docket numbers: CN-14-916; PPL-15-137

JAMIE MACALISTER
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

02 1P
0001956485 JUN 21 2017
MAILED FROM ZIP CODE 55419

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
Tia Ronchi	218-248-0885	tia.ronchi@berdtec.com
ADDRESS		
11911 E. POWE RD.		
CITY, STATE, ZIP		
Lake Nebagamon, WI 54849		

COMMENTS

Pipeline projects get stopped, our business suffers

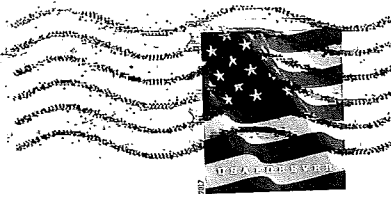
DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Line 3 Replacement Project DEIS

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- Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.
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Docket numbers: CN-14-916; PPL-15-137

Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198



I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
DAVID RENGSTAD	218-556-9484	
ADDRESS		
23929 800 LINE ROAD		
CITY, STATE, ZIP		
LEONARD MN 56652		

COMMENTS

TO BAD MINNEAPOLIS DONT WANT
PIPE LINES... SHOULD HAVE ALREADY BEEN
COMPLETED.

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Levi, Andrew (COMM)

From: Deana Rook <2emaildeana@gmail.com>
Sent: Monday, July 10, 2017 9:10 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3

It's hard to phathom even the consideration of a pipeline through the organic wild rice fields, much less that it could actually happen.

Pipelines leak. Leaks destroy the water and land our natives and others who care depend on for livelihood. We don't have a right to do this.

You wouldn't want someone running a pipeline through your living room, don't run a pipeline through theirs.

Deana Rook,
Edmond, Oklahoma

From: [Miller, Julia \(COMM\)](#)
To: [MN COMM Pipeline Comments](#)
Subject: Line 3 Comment via Facebook
Date: Thursday, June 01, 2017 12:19:55 PM
Attachments: [image001.png](#)

**Kathleen Rose**[View Profile](#)

Actions ▾

WED 9:02AM

Regarding the proposed pipeline project docket numbers CN-14-916 and PPL-15-137: I am opposed to this project because this massive new tar sands pipeline threatens our territories and our survival as Anishinaabe people. It would poison our water and bring more climate chaos. Please decide to forgo this project and seek alternative sources of energy that will not harm people or our environment.



Thanks for messaging us. We try to

Julia Miller

Deputy Communications Director

Minnesota Department of Commerce

85 7th Place East, Suite 280, Saint Paul, MN 55101

P: 651-539-1467

C: 651-587-7213

Logo



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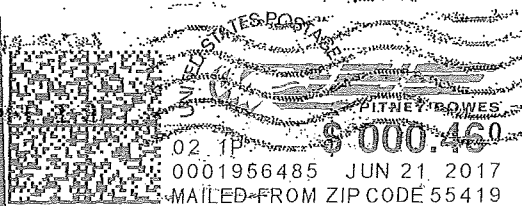
Line 3 Replacement Project DEIS

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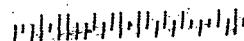
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Docket numbers: CN-14-916; PPL-15-137



Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198



I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
Robert J Roseth	218-391-6725	
ADDRESS		
156 WREN DR		
CITY, STATE, ZIP		
Duluth, MN 55811		

COMMENTS

I support the LINE 3 Replacement
Project 100%!!!

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

From: [Terry Ross](#)
To: [MN COMM Pipeline Comments](#)
Subject: No pipeline
Date: Thursday, June 01, 2017 7:56:20 AM

Hello,

I live in your neighboring state of Wisconsin, where I also oppose Enbridge pipelines and stand with the Anishinaabe people. Please be mindful of the impact of the pipeline on your indigenous people and also the health of all Minnesotans. Pipelines leak, they are dangerous, they contribute to climate change: they are the past. It's time to shift our focus to clean energy and preserving our beautiful states.

Thank you for doing the right thing.

Sincerely,
Terry Ross
Madison, Wisconsin

Levi, Andrew (COMM)

From: Armin Ross <akross@gvtel.com>
Sent: Saturday, July 01, 2017 8:27 AM
To: MN_COMM_Pipeline Comments
Subject: Line 3 Replacement Project DEIS CN-14-916 and PPL-15-137

Dear Ms. MacAlister,

I have been a farmer for many years. We need oil and it is the safest way to go. We have pipeline on our land for 20 years and have never had a problem.
Needs to be replace than it should be for the environment.

Sincerely,

Armin Ross
23512 370th St SE
McIntosh, MN 56556
akross@gvtel.com

Levi, Andrew (COMM)

From: Amanda R <mandarex87@gmail.com>
Sent: Monday, July 10, 2017 8:38 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3 public comments

Dear MN department of commerce,

I find the risks noted in the Environmental Impact statement for the proposed Line 3 pipeline to be implemented by Enbridge Partners to be unacceptable. Choosing this route likely would endanger some of MN most sensitive watershed areas. It could limit the use of treaty lands for hunting fishing and wild rice harvest for multiple Native Tribes. In addition 1. DEIS Chapter 5.2.1.4 Enbridge plans to store and apply petroleum products within 100ft of surface waters. The risk to these sensitive waters is too great. DEIS Chapter 10.2.4.1.1 The annual probability of a spill incident for the Applicant's preferred route was estimated as 0.249 incidents per year with a recurrence interval of 4.0 years. Every year there would be a 25% risk of an oil spill and one every four years. We should not accept this high risk probability.

These comments are in reference to docket numbers CN-14-916 and PPL-15-137.

Please take these risks into consideration and try to establish a less hazardous route, or even better a more sustainable source of energy!

Amanda Ross

Levi, Andrew (COMM)

From: Judy Rothschadl <judyrothschadl@gmail.com>
Sent: Monday, July 10, 2017 10:38 AM
To: MN_COMM_Pipeline Comments
Subject: No Oil Pipelines in MN!!

Dear MN Department of Commerce:

I strongly oppose any oil pipeline coming through Minnesota. Specifically, I oppose the Enbridge pipeline coming through Minnesota's lake country!

The Mississippi Headwaters is not only a huge tourist attraction, it is the entry point to one of the greatest sources of fresh water in the world.

The Enbridge PIPES WILL BREAK. THEY ALWAYS DO. Our land & water will be forever tainted by these toxic chemicals. We must not let this happen!

And if you don't care about our health, maybe you should care about the BILLIONS OF DOLLARS IN TOURIST DOLLARS MN WILL LOSE! Who wants to go swimming in a toxic waste site?!

What is wrong with you people to even consider such a foolish move for our state?! Are you so blinded by big oil money that you've lost site of what's good for Minnesota?

I'm really angry that I have to spend my time begging you -- who supposedly should be advocating for the best interest of our state -- to stop this pipeline from happening.

Say NO TO ENBRIDGE OIL PIPELINE!

Sincerely,
Judy Rothschadl
1035 Roosevelt Avenue #313
Detroit Lakes, MN 56501
E: judyrothschadl@gmail.com

Levi, Andrew (COMM)

From: zazie courier <zizazie@gmail.com>
Sent: Monday, July 10, 2017 1:09 PM
To: PUC, Docketing (PUC)
Subject: No more pipeline please

CN-14-196 and PPL15-137

Enbridge should not route their new larger capacity Line 3 tar sands oil pipeline through sensitive Minnesota wetlands. This line adversely affects native communities - directly threatening watersheds connected to the largest and the only certified organic wild rice lakes in Minnesota. This is a bad investment which needs much more study because it threatens our water. This Canadian company gets all the benefit and American's get all the risk. In addition Enbridge needs to clean up all it's old pipe and not leave it in the ground for future generations.

Water is life as well as clean ground, now and tomorrow.

I.Roussel

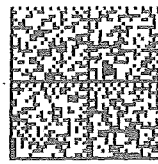


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Line 3 Replacement Project DEIS

- The Draft Environmental Impact Statement (DEIS) is an in-depth analysis that took more than 15 months and 27 public meetings to scope and develop.
- Years of environmental study: Enbridge conducted more than 1,200 meetings with local stakeholders over four years and has spent thousands of hours studying the replacement route.
- Infrastructure replacement: As a maintenance project, the time is now to replace and modernize Line 3.

Docket numbers: CN-14-916; PRL-15-187



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Jamie MacAlister
Environmental Review Manager
Department of Commerce,
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME <i>MATO ROYNAK</i>	PHONE NUMBER <i>612 214 2685</i>	EMAIL <i>MAT.ROYNAK@LEVEENSTEEL.COM</i>
ADDRESS <i>2265 Yunnan Ave</i>		
CITY, STATE, ZIP <i>ST PAUL MN 55116</i>		

COMMENTS

*REDUCE THE RISK TO ENVIRONMENT
BY UPGRADING / REPLACING THIS
LINE.
CREATE JOBS, UPGRADE INFRASTRUCTURE*

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Levi, Andrew (COMM)

From: Robert Rowley <quietechoes@outlook.com>
Sent: Sunday, July 02, 2017 8:43 PM
To: MN_COMM_Pipeline Comments
Subject: Pipeline.Comments

Dear Jamie MacAlister

Oil, coal, and gas companies have for years pledged to protect the health of the environment and the people of their respective states and countries for many years and have continually failed in that pledge resulting in the illness and death of tens of thousands due to exposure to the very same toxic chemicals they lobby to keep deregulated to avoid the necessary costs it would require to handle and dispose of these toxic chemicals if they were regulated as hazardous substances. These toxic chemicals and poisons are not only showing up in the air we breath and the water we drink, they are also entering our food supply.

Their current safety features cannot detect leaks that fall below the threshold of 1.5 % of the capacity of the oil they carry and these leaks may well go undetected for months before making themselves apparent and require years to clean up. They have continually used inferior materials, used existing pipelines long after their life expectancy for safe operation has run out, and ignored warnings from qualified agencies and individuals about corrosion and the likelihood of failure as was made readily apparent in 2010 when Enbridge ignored warnings about Line 6, a 30 inch line, from federal regulators that failed several months later spilling over one million gallons of tar sands oil into the Kalamazoo River just 60 miles from Lake Michigan. Line 5 has had a similarly dismal record in its 64 year history.

Enbridge's dismal record has resulted in by their own data over 804 spills just in the 11 year period from 1999 to 2010 prior to the Line 2 rupture, spilling an estimated 161,475 barrels of crude oil into the environment containing hundreds if not thousands of Carcinogenic and debilitating chemicals - often not disclosed - that end up in the water supply of the communities in proximity and downstream of not just their accident sites but also the wells from where these tar sands oils are removed and processed.

The crude oil released in these accidents also contain a whole array of heavy metals with their own impact on human health and the environment such as manganese, (a neurotoxin), nickel and chromium, which are toxic at high doses, and arsenic and lead, which can damage the nervous system even at relatively low doses. Chemicals such as Benzene, Sulfur Dioxide (SO₂), Nitrogen Oxides (Nox), Petroleum Coke, Formaldehyde, Polycyclic Aromatic Hydrocarbons (an entire class of toxic chemicals), Radon (from fracking), Hydrofluoric Acid, and Hydrogen Fluoride are released into our ground water, rivers, and streams by fracking activities as well as pipe line leaks and ruptures resulting in an array of neurological illnesses, cancers, and even deaths for tens of thousands of individuals living within the proximity the areas of contamination.

Residents are left to deal with the consequences of increased occurrences of a whole array of illnesses associated with these chemicals such as leukemia, decreased auto immune cell function (T cells and B cells), breast and urinary track cancer, chromosome and sperm abnormalities, significant increases in non-hodgkins lymphoma, lung cancer and other cardiopulmonary conditions such as pulmonary

edema, chronic lung disease, asthma, heart disease, emphysema, bronchitis, rare nasopharyngeal cancers, DNA damage resulting in birth defects, miscarriages and infertility as well as a higher mortality rate and mental development disorders in children exposed to these chemicals.

And yet Enbridge and other companies like them Lobby for waivers from the federal clean air and water regulations known as the Haliburton Loophole, to allow them to use un-named proprietary chemicals of which only they know the carcinogenic properties and chemical composition of, to process and transport crude all over the country. They deliberately underestimate quantities of oil spilled in accidents, down play the risks to the public, abandon efforts to mitigate the damage when allotted funding runs out, or deliberately attempt to cover and conceal the damage in efforts to cut costs and increase profits for their investors.

These corporations have long been aware of the toxicity of the crude oils they transport and the chemicals and heavy metals they contain as well as the impact on public health through studies conducted by reputable scientist from institutions such as Emory University, Colorado School of Public Health, The Canadian Centre For Occupational Health, Columbia University, as well as many others yet they continue to knowingly refuse to disclose the chemicals introduced into the environment and the risk to public safety and health.

These very same corporations have sued for the right and been recognized by the courts as people in the eyes of the law. If I as an individual were to dump these very same poisons into the very same water supply that these corporations continue to contaminate I would be arrested for poisoning the very same people these companies are poisoning and charged for the injuries or deaths that resulted as a consequence of my actions and more than likely I would also face charges for an act of terrorism. Shouldn't these corporations also face the same consequences? Should we continue to let them put our lives and environment at risk due to their consistent cutting of corners to increase their profit margins and lack of regard for the very people their actions impact? In the fast growing age of solar and wind power it is time that we put a stop to these pipelines and the hazards they entail to the health of our families.

Thank you for your attention and consideration on this matter.

Yours Truly, Robert M. Rowley

E-mail Quietechoes@outlook.com

Sent from [Outlook](#)

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME

RICHARD ROYCRAFT

PHONE NUMBER

763-464-3217

EMAIL

richard.roycraft@
m etc . state . mn . us

ADDRESS

10731 REDWOOD ST. NW

CITY, STATE, ZIP

COON RAPIDS, MN 55433

COMMENTS

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Levi, Andrew (COMM)

From: Ginner <ginnerruddy@gmail.com>
Sent: Monday, July 10, 2017 1:59 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3

I attended the hearing in St Paul on Tuesday, June 13th and was pleased with all the information available at that time. Thank you.

I am opposed to Line 3 for numerous reasons but the first I would like to comment on is the climate change effects if this pipeline would be built. It is written that the impacts over 30 years could be as high as 287 billion dollars. However, the state must update the DEIS to include what the cost would be over a 60 yr lifespan—or even greater!!

Most important to me is to consider the cost of oil—and the wisdom of going 100% green! If pipeline money was put to solar and wind power how much better for everyone—health, environment and on and on. Of course, big oil would not like that—they are interested in profits at the expense of the common good.

Water—the source of all life. If past history is a true indication, oil spills are a given—and who will clean them up???? Is Enbridge putting up money to clean up the spills??? And remove the old pipeline that is leaking???

May all the suggestions submitted be considered and the draft statement revoked at in a more realistic manner—and hopefully then say NO to Enbridge.

Ginner Ruddy

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
Loretta Rudebeck	218-389-6032	
ADDRESS		
2188 Schelinder Rd		
CITY, STATE, ZIP		
CARLTON, MN 55718		

COMMENTS

safer than TRANSPORT on top of GROUND

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
Rick Rudebeck	218-389-6032	
ADDRESS		
2188 SHELINDER RD		
CITY, STATE, ZIP		
CARLTON MN. 55718		

COMMENTS

SAFER THAN TRACK OR TRAIN

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

Levi, Andrew (COMM)

From: anetspring@lycos.com
Sent: Monday, July 10, 2017 5:45 PM
To: MN_COMM_Pipeline Comments
Subject: Line 3 commentary
Attachments: Line3 DEIS commentary.docx

Dear Jamie MacAlister

Please see my attached letter of commentary on the DEIS for line 3.

Thankyou,

Sincerely,

Annette Ruedenberg

Annette Ruedenberg PA, LGSW
 27815 Northwoods Drive
 Laporte, MN 56461

To: Jamie MacAlister, Pipeline.Comments@state.mn.us

Please include this comment on the Line 3 DEIS in Dockets CN-14-916 and PPL-15-137.

My family owns property in Laporte, MN. The Line 3 Pipeline and the DEIS concern me. There is no assessment of the decline in oil demand. The entire study assumes that society needs X amount of oil, simply because Enbridge says they can sell it. That assumption ignores the massive fossil fuel subsidies and debts that make Enbridge's profits possible, and avoids the moral question of what is good for people and the planet.

We know we must stop burning fossil fuels. In the DEIS it is acknowledged that Line 3 would contribute to climate change. It analyses 3 different types of emissions - direct, indirect, and lifecycle. Direct emissions are those that the pipeline infrastructure itself emits, and these are very small. Indirect emissions are those created by the power plants that provide electricity for the pipeline's pumping stations, and these are significant. Lifecycle emissions are those caused by the refinement and eventual use of the oil, and these are massive. Line 3's direct and indirect emissions alone would be 453,000 tons of CO2 per year. Over a 50-year lifespan, that would cost society an estimated \$1.1 billion. (Executive Summary p.18). The lifecycle emissions of Line 3 would be 193 million tons of CO2 each year. Over a 50-year lifespan, that would cost society an estimated \$478 billion (5.2.7.3) In the DEIS there is no discussion of the unprecedented challenges of human casualty, displacement, conflict, natural disaster, biodiversity loss, etc, that climate change is causing, or the consensus from the scientific community that we must leave fossil fuels in the ground. The no-build alternative is not considered in the DEIS.

I value the well water I drink. My well-being is connected to the delicate balance of the healthy and vibrant ecosystems of nearby water systems including the headwaters of the Mississippi through which Line 3 would run. In the DEIS it is estimated that the annual probability of different kinds of spills on the proposed route in MN is Pinhole leak = 27%, Catastrophic = 1.1%, Small Spill = 107%, Medium = 7.6%, Large = 6.1%. So in 50 years, we can expect 14 pinhole leaks, 54 small spills, 4 medium, 3 large, and 1 catastrophic. This is unacceptable. There is no analysis of Enbridge's leak detection system, or their inability to respond quickly to major emergencies. The 7 sites chosen for spill modeling are not representative of the locations and resources put at risk along the entire corridor. A more thorough analysis of different locations is needed - for example, what about Lake Superior?

Line 3 would have a long-term detrimental effect on tribal members and tribal resources. In the DEIS it is concluded that "disproportionate and adverse impacts would occur to American Indian populations in the vicinity of the proposed Project" (11.5). It is time to stop disproportionately putting native communities in harm's way.

Regardless of whether or not Enbridge can find customers, the DEIS shows that the negative impacts far outweigh the benefits. Please shut down Line 3 and develop renewable energy infrastructure. I want the Department of Commerce to deny the permit for the proposed Line 3, shut down the old line, and remove it from the ground.

Thank you for your attention.

Sincerely,

Annette Ruedenberg

Levi, Andrew (COMM)

From: Dan Ruiz <ruizd19@gmail.com>
Sent: Monday, July 10, 2017 11:20 AM
To: MN_COMM_Pipeline Comments
Subject: Comments regarding CN-14-916 and PPL-15-137

Comments regarding docket numbers CN-14-916 and PPL-15-137

The DEIS does not consider the costs of closing the current Line 3 pipeline and not constructing an alternative.

In Chapter 8, Section 3.1.1.1. Contamination Outside of the Pipeline

The DEIS explains that potential impacts on soil and water resources are highly uncertain as there could be undiscovered contamination along the existing pipeline. The section further explains that Enbridge would develop a management plan to identify, manage and mitigate the historically contaminated areas.

- Does this mean that the costs identified in all of the route options outlined in the DEIS are highly uncertain?
- The DEIS could be made better if the management plan and projected costs was completed before the route options were weighed against each other.
- The public should be able to see the plan before a route decision is made.

The DEIS explains that 1,683 acres of current carbon sequestering forested areas will be cleared for the pipeline that will both create greenhouse gasses during construction, increase our current levels of transporting oil, and increase our State's contribution to greenhouse gasses in the future. I am concerned about climate change. The DEIS would be better if it considered Minnesota's commitment to curbing and mitigating climate change. I do not think the current pipeline should be left in place. I do not think a new pipeline should be constructed.

Thanks,

Dan Ruiz

Levi, Andrew (COMM)

From: Matthew Runion <runmat@icloud.com>
Sent: Monday, July 10, 2017 2:00 PM
To: MN_COMM_Pipeline Comments
Subject: Public Comment: Line 3 Project (CN-14-916 and PPL-15-137)

I'm writing to provide some comments on the proposed Enbridge Line 3 Project in Northern Minnesota. As a member of the public, I consider these lands to be a shared interest and I personally share in that interest. As someone who enjoys Minnesota's lakes, streams, and forests, these things are important to me. As is good science and reason--all of these things inform my 4 comments:

1. The draft Line 3 Project Draft EIS could be improved by prioritizing the removal AND remediation of the old line 3 before any construction occurs on any new route.
2. As a Minnesota resident, I support, advocate for, and urge the MN Department of Commerce to authorize alternate route SA-04. This route is the best balance between Enbridge interests, the interests of the Minnesota public, and the State Forests and wild rice lakes that overlap the Line 3 Project Draft EIS. State Forests and public lands in the route of the proposed new line 3 project should be protected from this project, as this is the desire of much of the MN public interest.
3. I urge the improvement of the Draft EIS by providing specific response plans (budget, personnel responsible for corrective actions, and time frame) in the case of oil spills.
4. While the EIS contains valid scientific process, the EIS could be improved by acknowledging that routing the line around lakes containing wild rice (17 of them), thus leaving the lakes completely untouched by any new line developments, would be not only beneficial to the lakes, but is also valid in terms of scientific process. It would be biased and disgraceful to science to exclude this option in the EIS. It should be stated clearly in the EIS that routing the line around wild rice lakes would contain the lowest-risk possible in terms of harm to these lakes.

Thank you,
Matthew Runion
Resident
Minneapolis, MN

I SUPPORT THE LINE 3 REPLACEMENT PROJECT

FULL NAME	PHONE NUMBER	EMAIL
Nathaniel J Runke	(507) 244-1082	nrunke@local49.org
ADDRESS		
611 28 ST NW		
CITY, STATE, ZIP		
Rochester, MN, 55901		

COMMENTS

The proposed plan for line 3 replacement is the best overall option available. Any further delay only exacerbates the risk of the project overall.

DECLARE THE EIS ADEQUATE WITHIN 280 DAYS

From: [Dawn Runquist](#)
To: [MN COMM Pipeline Comments](#)
Subject: Draft Environmental Impact Statement for Line 3 Replacement CN-14-916 and PPL-15-137
Date: Monday, June 05, 2017 9:40:07 AM

Dear Ms. MacAlister,

I am a Minnesotan and want to see the environment protected like most others. I believe replacing aging infrastructure like pipelines is imperative to protecting the environment. The MPCA has recently released the Mississippi River Watershed report that shows the cleanest waters in the state are in northern Minnesota. Energy infrastructure and clean waters can co-exist.

It is preferable for me to locate pipelines in more rural areas, rather than to site them in the middle of cities and towns. Enbridge has found a route that follows existing utility corridors. Pipelines are everywhere in Minnesota, according to the Environmental Quality Board's report. I'm familiar with pipeline right of ways in northern Minnesota around Bemidji, Grand Rapids, Cass Lake and Alexandria. Pipelines and natural resources have gone hand-in-hand in northern Minnesota for decades.

As a resident of northern Minnesota, I've watched the regulatory process for more than 2 years for the Line 3 Replacement Project. I feel there has been ample time for public comment and urge the Department of Commerce to move the process forward to replace Line 3. No further time or study is needed to evaluate the environmental impacts due to the thorough and well-prepared EIS. Please keep the EIS timeline to the statutory deadline of 280 days.

Sincerely,

Dawn Runquist

Sincerely,

Dawn Runquist
1409 Hammond Ave
Superior, WI 54880
dawn.runquist@enbridge.com

Levi, Andrew (COMM)

From: Dawn Runquist <user@votervoice.net>
Sent: Thursday, July 06, 2017 9:21 AM
To: MN_COMM_Pipeline Comments
Subject: Comment CN-14-916 and PPL-15-137

Dear Ms. MacAlister,

I am a resident of Minnesota, and truly believe that replacing Line 3 would be imperative for the infrastructure to protect the environment. Pipelines are everywhere in Minnesota, according to the Environmental Quality Board's report. I'm familiar with pipeline right of ways in northern Minnesota around Bemidji, Grand Rapids, Cass Lake and Alexandria. Pipelines and natural resources have gone hand-in-hand in northern Minnesota for decades.

As a resident of northern Minnesota, I've watched the regulatory process for more than 2 years for the Line 3 Replacement Project. I feel there has been ample time for public comment and urge the Department of Commerce to move the process forward to replace Line 3.

Sincerely,

Dawn Runquist
418 W 7th Ave
Floodwood, MN 55736
runquistd@yahoo.com

Levi, Andrew (COMM)

From: Kathryn Russell <simmons.kat@gmail.com>
Sent: Monday, July 10, 2017 1:45 PM
To: MN_COMM_Pipeline Comments
Subject: Stop Line 3

To whom it may concern:

This pipeline does NOTHING for the people of Minnesota, in fact it is harmful. It will also negatively affect Minnesota by bringing CRIME, there are acknowledgments that pipeline construction is known to bring criminal activities to the area. And finally, the impact the pipeline will have for the climate, which is could be catastrophic.

People of Minnesota

Chapter 9, "Tribal Resources," states that ANY of the possible routes for Line 3 "would have a long-term detrimental effect on tribal members and tribal resources" that cannot be accurately categorized, quantified, or compared (9.6). It also acknowledges that "traditional resources are essential to the maintenance and realization of tribal lifeways, and their destruction or damage can have profound cultural consequences" (9.4.3). This does not acknowledge the treaty responsibilities the state of Minnesota has to the tribal members.

Chapter 5, "Existing Conditions, Impacts, and Mitigation" states that Line 3 will create ZERO permanent jobs. Enbridge's application states that "existing operations staff would be able to operate the [pipeline] and that few additional employees would be hired to assist the staff" (5.3.4).

Also in Chapter 5, the DOC assumes "all workers would re-locate to the area" and ZERO construction jobs will go to Minnesotans. The pipeline would have "no measureable impact on local employment, per capita household income, median household income, or unemployment" (5.3.4).

The DEIS does not acknowledge that when the existing Line 3 shuts down, Enbridge will stop paying taxes to the MN counties along the mainline corridor. For many of these poor counties in the north, revenue from Enbridge's property tax makes up a significant portion of the county budget. There is also the issue that Enbridge is now in the process of appealing years of back taxes, burdening two of the poorest counties in Minnesota with over \$10 million due.

Acknowledged Crime

The DEIS acknowledges that "The addition of a temporary, cash-rich workforce increases the likelihood that sex trafficking or sexual abuse will occur," and that these challenges hit Native communities the hardest. But the DEIS dismisses this problem quickly, saying that "Enbridge can prepare and implement an education plan or awareness campaign around this issue" (11.4.1). What experience does Enbridge have planning and implementing an anti-sex trafficking program?

Construction & Prep (analyzing spills and other environmental impacts)

The DEIS contains no spill analysis for tributaries of the St. Louis River or Nemadji River, where spills could decimate Lake Superior and the harbors of the Twin Ports.

For calculations of impact, the lifespan of the new Line 3 is estimated at 30 years. But Lines 1-4 are 55-65 years old! And hasn't the technology improved?

There is no analysis on Enbridge's leak detection system, or their inability to respond quickly to major emergencies.

The DEIS estimates the annual probability of different kinds of spills on the proposed route in MN:

Pinhole leak = 27%

Catastrophic = 1.1%

Small Spill = 107%, Medium = 7.6%, Large = 6.1%

So in 50 years, we can expect 14 pinhole leaks, 54 small spills, 4 medium, 3 large, and 1 catastrophic!

Cathodic protection, which applies electric current to the pipeline in order to protect it from corrosion caused by nearby utility lines, will not be installed for up to 1 year after pipeline construction (2.3.2.3). Lack of cathodic protection is what caused many pinhole leaks in the Keystone pipeline, almost immediately after construction. The proposed route for Line 3 follows a utility corridor for much of its length - this is a recipe for disaster. Even the US Army Corps's rubber-stamp approval of the Dakota Access pipeline required the cathodic protection system to be installed within 6 months!

Maintenance

There is also no discussion of exposed pipe, how fast it will corrode, or how much currently buried pipe will become exposed once it is emptied. "When a pipe is empty, the weight of the liquid load that once contributed to buoyancy control is lost. As a result, the pipe could become buoyant and begin rising toward the surface at watercourse crossings, in wetlands, and in locations where soil density is low and the water table is high" (8.3.1).

The DEIS states that it will be very risky to remove and clean up the existing Line 3 because the pipelines are very close together. "The distance between pipelines within this corridor varies, but they are generally 10 to 15 feet apart" (8.3.1). This is not consistent with our extensive observations and physical measurements on the land. Also, don't they dig up pieces of pipe for maintenance purposes all the time? Why is it suddenly risky? End of Life Pipeline Items (Abandonment)

The DEIS simply states that "Enbridge has indicated that it would develop a contaminated sites management plan to identify, manage, and mitigate historically contaminated soils and waters" found during the abandonment or removal of the existing Line 3 (8.3.1.1.1). We want to see that plan.

The risks of pipeline abandonment are not adequately assessed. For example, there is no discussion of landowner property values and the effect that an abandoned pipe could have on them, especially if there is indeed "legacy contamination" on people's land.

Climate Change

The DEIS acknowledges that Line 3 would contribute to climate change. It analyses 3 different types of emissions - direct, indirect, and lifecycle. Direct emissions are those that the pipeline infrastructure itself emits, and these are very small. Indirect emissions are those created by the power plants that provide electricity for the pipeline's pumping stations, and these are significant. Lifecycle emissions are those caused by the refinement and eventual use of the oil, and these are massive. Line 3's direct and indirect emissions alone would be 453,000 tons of CO2 per year. Over a 50-year lifespan, that would cost society an estimated \$1.1 billion. (Executive Summary p.18).

The lifecycle emissions of Line 3 would be 193 million tons of CO2 each year. Over a 50-year lifespan, that would cost society an estimated \$478 billion (5.2.7.3)

Please stop Line 3. It does nothing good for the people, state, and climate. Thank you for your time.

Kathryn Russell

Levi, Andrew (COMM)

From: Mary R <maryruth42@gmail.com>
Sent: Monday, July 10, 2017 5:50 PM
To: MN_COMM_Pipeline Comments
Subject: please

I live in Owatonna, MN, and have kept up with the news of Enbridge, the Canadian Co., wanting to come through the beautiful northeastern watery areas of MN. I cannot impart the deep sadness I feel about this. Please keep the pipeline out of the area.

We already know that in a very short time solar and wind will completely take over oil. This is so very unnecessary. What is the most troublesome is that the company is known for promises not kept in relation to reporting and fixing leaks, always after the fact. By then it's too late. Help protect all of our citizens from this very horrible proposal to place the pipeline across the beautiful state.

Mary Ruth
Owatonna, MN



Comment Form

Line 3 Project Draft EIS Public Meeting

Please provide your contact information. This information and your comments will be publicly available.

Name: JOHN RUTSEN

Street Address: 6794 45TH AV SW

City: PEQUOT LAKES State: MN Zip Code: 56472

Phone or Email: 218-568-5186

Please share your comments on the Line 3 Project Draft EIS. What could be improved in the EIS? What is missing?

1. USING THE SANDPIPER ROUTE FOR LINE 3 REPLACEMENT IS NOT A GOOD PLAN. DIFFERENT OILS, CHEMICALS, PRESSURES, CAPACITIES, ETC.
2. ROUTE NEEDS TO BE AWAY FROM WATERWAYS. INACCESSABLE BOG COUNTRY NOT A GOOD IDEA.
3. WHO IS LIABLE FOR SPILLS? LLC & SUB-CONTRACTORS.
4. LINE 3 ABANDONMENT: ENBRIDGE PUT IT IN, THEY SHOULD TAKE IT OUT.
5. I AM A WILD RICE PICKER & HAVE DOUBTS OF ANY REALISTIC CLEAN UP IN RICE & BOG LANDS.
6. MUCH OF THIS AREA IS TREATY PROTECTED FOR NATIVES, CEDED LANDS YET LITTLE REGARD FOR CULTURAL, RELIGIOUS, HISTORICAL USAGE IS BEING RECOGNISED.
7. ENBRIDGE HAS NOT PROVEN TO BE RESPONSABLE.
8. AREA OF PIPELINES CROSSES MOST OF THE WATER FLOWAGE OF MISSISSIPPI WATER IN CENTRAL U.S. WAY GAMBLE? OUR WATER SUPPLY IS MORE IMPORTANT THAN FOREIGN CORP, BANKING INVESTMENTS.
9. AS A 70YR OLD DISABLED VETERAN LANDOWNER VOTER I ASK YOU TO CONSIDER THE CONSEQUENCES!
John H. Rutzen

If including additional pages please number them and tell us how many you are providing: _____ pages

Levi, Andrew (COMM)

From: Lisa Rydin Erickson <lisakayrydin@gmail.com>
Sent: Monday, July 10, 2017 4:36 PM
To: MN_COMM_Pipeline Comments
Subject: CN-14-916 and PPL15-137

Enbridge should not route their new larger capacity Line 3 tar sands oil pipeline through sensitive Minnesota wetlands. This line adversely affects native communities - directly threatening watersheds connected to the largest and the only certified organic wild rice lakes in Minnesota. This is a bad investment which needs much more study because it threatens our water. This Canadian company gets all the benefit and American's get all the risk. In addition Enbridge needs to clean up all it's old pipe and not leave it in the ground for future generations.

CN-14-916 and PPL15-137

Lisa Erickson