LIUNA Minnesota

Please see attached comment

Laborers' International Union of North America



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LIUNA Minnesota Comments on MPCA Draft 401 Permit for Line 3 Replacement

April 10, 2020

Laura Bishop, Commissioner Minnesota Pollution Control Agency

Commissioner Bishop,

Thank you for the opportunity to contribute to the Minnesota Pollution Control Agency (MPCA) permitting process for Enbridge Energy's proposed Line 3 Replacement Project. We hope that we can play a useful role in the agency's consideration of the proposal based on our members' deep experience with pipeline construction.

LIUNA Minnesota & North Dakota represents more than 12,000 proud construction laborers including hundreds of skilled pipeliners. We collaborate with dozens of construction partners, including some of the nation's largest and most reputable pipeline contractors, to build high-quality pipeline projects and deliver skills training to thousands of men and women each year at our state-of-the-art training center in Lino Lakes, Minnesota.

We have reviewed the proposed MPCA's draft 401 Water Quality Certification (401 Certification) determination, which we believe meets all of the requirements established by Minnesota law, and we urge its immediate adoption.

Despite the political noise surrounding the Line 3 Replacement project, the environmental impacts relevant to the 401 water quality permit are comparable to any large construction project. The impacts of construction activity are real, if largely temporary, but no more real than the impacts of building a large water pipe, and less significant than construction of a road or other linear above-ground infrastructure. We ask that MPCA keep this fact in mind when making your decision.

As the agency is no doubt aware, the Line 3 Replacement project does not propose construction activities or use of public lands that pose new, unique, or significant impacts. The project does not propose an industrial use of public (or any) waters. It would not emit pollutants, but will instead substantially reduces the likelihood of a spill that might impact Minnesota's water resources. Finally, the proposed use of lands and waterways would create minimal long-term impact during the operations phase.

We appreciate the fact that the draft permit provides seasonal flexibility to facilitate timely construction and implementation of best-practices regardless of the timing of a final permit. Seasonal weather conditions can significantly impact the pipeline construction process, and as a

consequence, union training programs and contractors have developed distinct procedures for winter and warm-weather construction.

At the end of the day, however, we have found that for pipeliners, as with postal employees, "neither snow nor rain nor heat nor gloom of night" affects the final product from an environmental or quality perspective. For example, our members and contractors have successfully completed pipeline projects in peat bogs and other swampy areas in summer and in winter months. The work can be easier to perform in the winter when the frost can be driven down to minimize the presence of liquid water in the trench. But our members are trained to achieve a comparable result when the ground is not frozen using pumps and trench boxes to keep soil in place.

While building pipelines in water-saturated soils is neither fun for LIUNA members nor cheap for owners, it is a common and well-understood practice in the pipeline industry that can deliver outcomes as successful as those of winter construction from both environmental and quality perspectives. Working in saturated environments is just one example of where the training offered by LIUNA and our brothers and sisters in the Operating Engineers and United Association has been specifically designed to support safe and environmentally sound construction practice. We encourage the agency to address any questions about the feasibility of construction in such environments and climate conditions to learn more about our training programs.

We believe that MPCA understands, just as the PUC understood when making its decision, that environmental standards, engineering practices, and construction techniques have changed markedly in the past decades. When once, pipeline engineering consisted of finding the shortest distance between Point A and Point B, today we measure distance in terms of the route that offers the fewest environmental impacts and safety hazards, and most feasible mitigation measures.

Advances in the understanding of areas such as hydrology, soil management, together with improvements in project oversight and training have made it possible for pipelines to be built in a manner that preserves local environmental features and resources -- even when construction takes place in difficult terrain or climate conditions. This means not only that we can successfully minimize and mitigate impacts on water and other environmental resources, but also that the new pipeline will have fewer impacts than work on the existing ines.

When evaluating the impact of the project, especially on sensitive ecological resources, we recommend that the agency consult with experts on modern pipeline engineering and construction practices, including LIUNA's own training staff and pipeline construction experts. We have enclosed testimony from Evan Whiteford, one of LIUNA's many pipeline experts, describing how pipeline construction practices have improved over the years. On the other hand, we think that it is critical that the agency not evaluate the likely impact of Line 3 Replacement based on the conditions of existing Line 3 or other legacy pipelines built using outmoded engineering and construction practices.

Minnesota can best minimize and mitigate impacts of pipeline construction activities by issuing the draft permit as proposed by MPCA. If the permit is denied, Enbridge will be required to conduct thousands of integrity digs along the current Line 3 corridor in order to ensure the safe operation of the existing pipeline, resulting in impacts that could be more greater and less well mitigated than the proposed project. Integrity digs can involve construction activities that are

comparable to new pipeline construction, such as movement of heavy equipment, excavation, trench de-watering, hydrostatic testing, and directional drilling or boring.

The existing Line 3 pipeline crosses nearly as many streams as the Applicants Preferred Route (15% fewer), and construction activities in the existing corridor are more than twice as likely to impact wetlands, based on our analysis of data published in the FEIS. Integrity digs are inherently more difficult to plan and to monitor than a large project such as the Line 3 Replacement, so the net impact of extensive integrity digs could easily exceed new construction. Further, the proposed permit includes a significant investment in stream restoration to compensate for impacts which might not occur if the permit is denied.

LIUNA members are trained and experienced when it comes to meeting the requirements of building pipelines in and around streams and wetlands, including use of Best Management Practices when implementing stormwater and other erosion controls; proper management of the water appropriations for dust control and hydrostatic testing; and avoidance of construction impacts through careful management of heavy equipment and personnel. Our members and partners contractors have successfully performed such work across diverse terrain in Minnesota and elsewhere, including calcareous fens, peat bogs, and wetlands, and we are committed to the same high standards for environmental performance on this project.

We have included with our comments testimony submitted by Evan Whiteford, a LIUNA member and staff person with extensive pipeline construction experience to the Public Utilities Commission. This testimony should help to provide our organization's perspective on the questions posed by the agency and explain why and how we believe the project can meet the requirements of Minnesota law.

Sincerely,

Kevin Pranis Marketing Manager

1 Q: Please state your name, affiliation, and address.

2 A: My name is Evan Whiteford. I am a member of LIUNA Local 563 which is affiliated with

3 both the Laborers District Council of Minnesota and North Dakota and the Laborers

4 International Union of North America (LIUNA). I currently live in Ray, North Dakota.

5 Q: What is the purpose of your testimony?

6 A: I am giving my testimony in this case in order to explain what skilled union pipeliners do,

7 how we work to protect public safety and the environment, what it's like to work on an Enbridge

8 project, and what approval of the Line 3 Replacement Project would mean to skilled local

9 pipeline workers and their families.

10 Q. What is your experience with pipeline construction?

11 A: I have completed more than 20,000 hours of work on dozens of pipeline construction and

12 maintenance projects since I began my pipelining career in 2007. During that time, I had the

13 opportunity to serve as rank-and-file laborer, union steward, and foreman, and to work for

14 leading national pipeline builders such as Henkel & McCoy, Infrasource, Michels, Minnesota

15 Limited, Otis Eastern, Precision, Price-Gregory, Rockford, Smith, and UPI.

- 16 During my career as a pipeline laborer, I helped to complete projects that ranged from 42-inch
- 17 mainlines to small gathering lines and well-site connections. My work and training have given

18 me a working knowledge of all major aspects of pipeline construction, including environmental

- 19 controls, coating, locating, lowering-in, tie-in, testing, and clean-up.
- 20 In addition to my experience as a front-line laborer and foreman, I served as a union steward on
- 21 pipeline projects for roughly four years. In that capacity, I was responsible for contract

compliance and oversight of safety and working conditions on a given project, as well as

- 23 working with management to address issues that come up on the job.
- 24 My current position as a Pipeline Marketing Representative for the Laborers Union's Great
- 25 Lakes Regional Organizing Committee, which I have held since January 2015, affords me

26 additional opportunities to observe pipeline construction work.

27 Q: What training have you received to perform pipeline construction work?

A: Union pipeliners receive three kinds of training. First, we receive classroom and hand-on

29 training through the Laborers' Training Center. I've personally completed more than 280 hours

30 of training, including classes on Pipeline Technologies, CPR/First Aid, Fire Watch, Flagging,

- 31 OSHA 30, Blueprint Reading, and Demolition (see Exhibit 1 for an outline of my union's
- 32 pipeline technology and safety training courses).

33 Second, we receive owner- and project-specific training on the environmental, quality, and safety

34 standards set by each owner, and the circumstances of each project. Third, new hands learn on

35 the job from more experienced pipeliners like me, including many who have worked on projects 36 all over the U.S.

Q: What experience do you have with the implementation of environmental measures on pipeline construction projects?

- 39 A: I have worked both as a laborer on the environmental crew, which is the crew responsible for
- 40 the installation and maintenance of environmental protection measures on a project, and for
- 41 restoring the land to its natural state once the project is complete. Our top priority on the
- 42 environmental crew is protection of wetlands and waterways. The measures we installed
- 43 included silt fences, hay bales, water logs, and berms which are designed to contain runoff or
- 44 prevent soil erosion. At the end of a project, our work included seeding and mulching to restore
- 45 vegetation.
- 46 While environmental controls are the primary responsibility of the environmental crew,
- 47 environmental preservation is a priority for every laborer on the job. At the beginning of each
- 48 project, everyone on the job is trained on the specific environmental features we will encounter,
- 49 the plan to preserve those features, and how those features will be marked to ensure that they are
- 50 properly preserved.
- 51 Foreman tie-ins

Q: What knowledge and experience do you have regarding pipeline integrity and spillprevention?

- 54 A: My pipeline construction experience has given me a detailed knowledge not only of proper
- 55 construction and maintenance techniques, but also of pipeline integrity risks that these
- 56 techniques are designed to manage. In addition, in my capacity as a Pipeline Marketing
- 57 Representative, I have spent hundreds of hours observing proper and improper construction
- 58 practices, and investigated dozens of pipeline integrity failures.
- 59 As someone who takes pride in his work as a pipeliner and who also values our natural
- 60 resources, and spends most of his life outdoors, I take pipeline integrity issues very seriously. My
- 61 union has worked actively to raise construction, maintenance and operating standards in the
- 62 pipeline industry, especially in North Dakota where poor-quality construction of gathering lines
- 63 has contributed to too many avoidable incidents. I believe that the Line 3 Replacement is
- 64 essential precisely because it is the best way to prevent future spills.

65 Q. Does your union's members have direct knowledge of Enbridge projects?

- 66 A: Yes, our members have extensive experience working on both maintenance and new
- 67 construction projects for Enbridge. In my experience, Enbridge is the leading source of pipeline
- 68 construction employment in Minnesota and North Dakota, and I would estimate that hundreds of
- 69 our members have worked on Enbridge projects. I also personally performed maintenance on
- 70 existing Enbridge pipelines when I was employed by UPI.

71 O. Do you have any observations about Enbridge projects compared non-Enbridge

72 projects?

A: Enbridge does more to set and enforce high quality and safety standards, in my experience 73 74 and the experience of many of our members, than any other pipeline owner. The first thing our 75 members often observe about Enbridge jobs is that they use more third-party inspectors to 76 oversee the work. Every pipeline owner employs third-party inspectors, but most owners assign a

- 77 single inspector to cover four or five crews who may work many miles apart, while Enbridge
 - 78 typically provides an inspector for each crew.
 - 79 It's no fun when you have someone watching over your shoulder, but you end up with better-
 - 80 quality work and you catch problems earlier. In my experienced, strong oversight by qualified
 - third-party inspectors and use of capable contractors are the most important factors in the success 81
 - 82 of a project and the quality of the infrastructure in the ground.
 - 83 The second notable aspect of working for Enbridge, in my experience, was the commitment to
 - 84 safety. The company was incredibly strict in its implementation of both safety regulations and
 - 85 policies. While safety is critically important for the well-being of the workforce, in my
 - experience, a strong safety culture can also contribute to spill prevention because it encourages 86
 - 87 careful work and puts a priority on doing a job right the first time.

88 O. How do you think approval of the Project would directly affect Minnesota construction 89 workers?

- A: If the project were approved, it would create hundreds of high-quality job opportunities for 90
- 91 local workers, including workers who are already employed in the construction industry as well
- 92 as young people looking to get started in a construction career.
- 93 Northern Minnesota has many skilled pipeliners who would welcome an opportunity to work
- 94 close to home. We also have a lot of locals who are struggling to find family-supporting work in
- 95 the area where they grew up. A big project like the proposed Line 3 Replacement could give 96
- hundreds of local residents a chance to gain experience and become union members. While many
- 97 pipeliners travel for work, our union contracts require that at least 50% of workforce be hired
- 98 through local union halls.
- 99 I have participated in several major projects like the Line 3 Replacement, and seen hundreds of
- 100 individuals go from a single pipeline job to a career. In my role as a steward, it was my job to
- recruit new members, and I estimate that in my career, I have brought nearly 200 into the union. 101
- 102 Many of those I recruited continue to work in the pipeline industry or in other aspects of union
- 103 construction.

1 Q: Please state your name, affiliation, and address.

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3 both the Laborers District Council of Minnesota and North Dakota and the Laborers

4 International Union of North America (LIUNA). I currently live in Ray, North Dakota.

5 Q: What is the purpose of your testimony?

6 A: I am giving my testimony in this case to in order to explain what skilled union pipeliners do,

7 how we work to protect public safety and the environment, what it's like to work on an Enbridge

8 project, what approval of the Line 3 Replacement Project would mean to skilled local pipeline

9 workers and their families, and specifically to respond to testimony provided by Ms. Kate

10 O'Connell and Mr. Chris Joseph.

11 Q: Ms. O'Connell argues in her testimony that Enbridge has not shown a need for the Line

12 **3** replacement because Line **3** is still operating and Enbridge has not provided a date when

13 the existing line will be taken out of service. Do you agree?

14 That doesn't make any sense to me. As I understand it, Enbridge plans to take the existing Line 3

- 15 out of service as soon as the proposed Replacement pipeline is operational. I've never heard of a
- 16 pipeline company committing to shut down a pipeline that's operating safely before requesting a
- 17 permit to build a replacement.
- 18 When you're talking about fixing a problem with a piece of critical infrastructure that's used
- 19 daily, you figure out how you're going to solve it, and how long it will take, before you commit
- 20 to shutting it down. If we had a section of a major highway that had seasonal flooding problems,
- 21 we wouldn't tell MnDOT to shut it down first and build the replacement later unless there was an
- 22 immediate safety hazard, and that's not the case here.
- 23 The state's criteria define need based on a showing that the "probable result of denial would
- 24 adversely affect the future adequacy, reliability, or efficiency of energy supply," and Enbridge
- 25 has shown that all three are at risk if the Line 3 Replacement isn't approved because of the
- 26 deteriorated state of existing Line and customer demand. There's nothing in the criteria that
- 27 requires Enbridge to shut down an operating pipeline to prove the point that it's not up to the job.

28 Q: Why do you believe that Enbridge has made the case for the need to replace Line 3?

- A: In my opinion, it comes down to safety and reducing the risk and consequences of
- 30 environmental incidents. Enbridge has provided evidence that replacing Line 3 would make their
- 31 system more efficient and help better meet the need of customers, and the project would also
- 32 help with jobs and economic development in Northern Minnesota, but to my organization the
- 33 most important consideration is pipeline safety.
- 34 In our opinion, pipeline safety failures represent a direct threat to the well-being of our members.
- 35 We have many members who work in the pipeline industry, and these failures threaten their
- 36 livelihood by eroding public confidence and fueling opposition to needed projects. We also we

37 represent many members who live, work, and recreate in communities that are crossed by

38 pipelines like Line 3, and as an organization that knows something about pipelines, we believe

39 it's our job to help make sure they operate safely. Our organization has gained a reputation for

40 our aggressive advocacy for better regulation and greater accountability in the pipeline industry,

41 which led the Fargo Forum to describe us as an "environmental watchdog".

Ms. Kennett's testimony shows that the existing Line 3 is more vulnerable to integrity problems than any other pipeline in the Enbridge system, not only because it's old, but also because it was built with outdated technologies such as flash-welded pipe and tape coating that haven't been used for decades. We don't have to take the company's word for it, because we have members with thousands of hours of hands-on experience inspecting and repairing Line 3 and the rest of the Enbridge system. We know that these problems will only grow over time, as Ms. Kennett's testimony indicates, and that you can't always predict how quickly pipelines will deteriorate as

49 they near or pass the end of their useful life.

50 Having worked on many old and new pipelines, I can attest that the technology and construction

51 techniques used to build modern pipelines is much safer and more reliable than the technology

52 used to build the existing Line 3. The steel is stronger, the seam welds are stronger and more

53 durable, and the pipe is inspected more carefully and with better tools. Welding processes are

54 more reliable and there are higher performance standards and tighter inspections of welds

55 including use of X-ray technology to evaluate every single weld. Modern coating materials are

56 more reliable, the application of coating is better regulated, the workforce is better trained, and 57 the coating is thoroughly inspected using a device that detects even minor imperfections. Pipe

57 the coating is thoroughly inspected using a device that detects even minor imperfections. Pipe 58 handling is emphasized through training and more carefully monitored at every stage, from

58 transport and stringing to placement of fill in the trench. As a result, we can confidently say that

60 the average pipeline built today is much safer, more durable, and more resilient than a 50 year-

61 old pipeline, even before accounting for the effects of aging.

62 Beyond the need to replace an outdated line, the potential consequences of an environmental

63 incident are greater along the existing Line 3 corridor than the company's proposed route. We

64 know this, because the Final Environmental Impact Statement (FEIS) shows that the proposed

65 route is estimated to expose fewer than half as many acres of High-Consequence Areas (12,318

66 vs. 27,528) and roughly 25-percent fewer acres of harvested wild rice lakes (182 vs. 242) to 67 notential spills in addition to virtually eliminating exposure for Tribal reservations

67 potential spills, in addition to virtually eliminating exposure for Tribal reservations.

68 Further, the 50,000-foot analysis from the FEIS significantly underestimates the environmental

advantages of the proposed replacement because the new right-of-way will be engineered, and

70 the line built, with greater care for environmental consequences than the old Line 3 right-of-way.

71 If you talk to retired pipeliners, as I've done, you would know that when Line 3 was originally

built, the main job of the pipeline engineers was to get from Point A to Point B as quickly and
 cheaply as possible. There was little understanding of environmental impacts and few rules

75 cheapity as possible. There was note understanding of environmental impacts and 74 forcing pipeline builders to address environmental concerns along the route.

75

- 76 Today the process is completely different. Environmental issue are front-and-center from the
- 77 first stages of route evaluation to the staking of the right-of-way to final reclamation when the
- right-of-way is put back together and seeded. If you took a 50 year-old right-of-way and a new
- right-of-way side by side, anyone who knows pipeline could show you environmental shortfalls
- 80 of the old right-of-way that would never be allowed today. As a simple example, 50 years ago it
- 81 was customary for a pipeline to cut through wetland rather than boring underneath, which is the
- 82 industry practice today. This means that wetlands along a 50 year-old right-of-way are more
- 83 vulnerable to spills than wetlands along a new right-of-way.

84 Q: If you contend that Line 3 needs to be replaced, at least in part, to reduce the risk of

- 85 environmental incidents, then do you agree with Ms. O'Connell that Enbridge should shut
- 86 Line 3 down in the absence of a replacement plan due to the "high environmental risks"
- 87 that she alleges the pipeline poses to Minnesota
- A: No. I find it difficult to understand Ms. O'Connell's argument because she seems to believe
- that existing Line 3 is too dangerous to operate but not dangerous enough to replace, and I don't think either claim is true or supported by her testimony.
- 91 I believe, and my organization believes, that Enbridge can and will operate Line 3 safely for the
- 92 foreseeable future for two reasons. First, many of our members, including myself, have first-
- hand experience working for Enbridge on the maintenance of the company's pipelines in
- 94 Minnesota, and we have seen the company's commitment to identifying flaws in the system and
- 95 fixing them long before they turn into immediate spill risks.
- 96 Our members perform work all over the country for a wide variety of pipeline owners, and we've
- 97 found Enbridge to be one of the most responsible and safety-conscious pipeline operators out
- 98 there. We think it's part of the reason Minnesota's pipeline safety track record is so much better
- 99 than the country as a whole, which is one of the findings of the Final Environmental Impact
- 100 Statement. Between Enbridge, which operates the most pipelines, and our local skilled
- 101 workforce, Minnesota's in good hands.
- 102 Second, our members, including myself, are very familiar with the techniques and technologies
- that are used to identify flaws repair legacy pipelines, and we've found them to be highly and
- 104 increasingly reliable. We've seen incredible advances in the technology that's used to detect
- 105 operational problems and find anomalies in the pipe wall, including so-called "smart pigs" and
- 106 other remote sensing tools, even in the decade or so since I started been working in the industry.
- 107 These tools have become very accurate, and we know that because see relatively few false
- negatives, where we show up for a dig and there's nothing wrong with the pipe, or false
- 109 positives, where a problem comes out of nowhere that was missed earlier.
- 110 Once the problem has been identified, Enbridge and other pipeline operators have well-
- 111 developed procedures for uncovering the problem pipe segment or valve without damaging the
- line or any nearby lines, inspecting the problem, and restoring or replacing the problem piece as
- 113 needed. In some cases it's as simple as sandblasting and re-coating an area where the coating has
- been compromised and the pipe has begun to corrode or is at risk of corrosion. In other cases, a
- segment of pipe or a valve needs to be replaced, or the pipe needs to be "sleeved", which is a

- 116 process that basically involves a second pipe around a compromised pipe segment, and is a
- technique that we have to use more frequently when we work on Line 3 due to the problems
- 118 outlined in Ms. Kennett's testimony.
- 119 On the other hand, I think it would be irresponsible to kick the can down the road knowing that
- 120 the alternative is a safer pipeline that runs along a safer, better-engineered route. There are
- 121 pipeline owners out there that we believe are harming the environment and the reputation of the
- 122 pipeline industry by failing to make needed investments in maintenance and replacement of
- aging pipeline infrastructure. When we have a pipeline operator willing to step forward and
- 124 invest billions of dollars in the solution, we should welcome that with open arms.

Q: Do you agree with Ms. O'Connell's conclusion that the proposed Line 3 Replacement would create "risks to high-quality water resources" and "disproportionate and adverse impacts to tribal communities"?

- 128 A: I don't believe that conclusion accurately represents her own testimony or is consistent with
- the findings of the FEIS. Ms. O'Connell and the FEIS both find that there are potential risks and

impacts to the environment and tribal communities involved in the proposed project and <u>all</u> of

131 the proposed alternatives including the alternative routes, use of truck or rail, and the "no action"

132 alternative, which I would call kicking the can down the road.

- 133 Saying that the project will have risks and impacts is no more useful than me saying I run a risk
- every time I step out of the door and I run a risk when I stay home. What matters is which
- option offers the lowest risk and the greatest rewards, and the evidence shows that the proposed
- replacement is the least risky option on the table that also happens to meet a need for more
- 137 pipeline capacity and create thousands of high-quality construction jobs.

138 Q: Ms. O'Connell among her key findings that there "may be increased traffic congestion

139 in places along with effects on cropland." Do you agree that there may be impacts, and

140 would you expect them to significant?

- 141 A: In my experience, those impacts are minimal and don't even deserve mention. I've worked on
- dozens of pipeline projects all over the United States, observed hundreds more, and had quite a
- 143 few go through the area where I currently live. In that time, I only saw one project have a
- significant impact on traffic, which was the Dakota Access Pipeline, and there it wasn't the
- 145 construction work that tied the roads up, it was the protesters.
- 146 On every pipeline project where I've been employed, we have bent over backward to make sure
- 147 that we didn't inconvenience locals by tying up the roads. Our pipeline owners and contractors
- make it a point to stay in regular communication with local residents and officials and plan our
- 149 work to minimize impacts on traffic.
- 150 I can't tell you how many times we held off moving equipment or took other steps to work
- around a single farmer so he could get his tractor where it needed to go. I'm pretty sure I've
- spent more time delayed by your average road construction project than the delays caused by all
- 153 the projects I've worked put together.

154 **Q: Ms. O'Connell recommends that any Line 3 replacement be built using three-quarter-**155 inch thick pipe across Minnesota to "mitigate risks of harm". Do you agree?

156 A: No. Three-quarter-inch is appropriate for areas where you're boring under streams or

157 wetlands or road crossings where you need the additional strength and wall thickness to handle

158 the stress that's put pipe during installation and the load it carries as a result of being buried

159 deeper underground or under a road. But I've never seen an entire pipeline built with three-

160 quarter-inch pipe. In my opinion, it would be overkill. I don't believe that the pipeline would be

161 any safer, and there could be unintended consequences that would cancel out any safety benefits

162 while exacerbating safety hazards and environmental impacts.

Q: What kind of unintended consequences would you anticipate as a result of a decision to require any Line 3 replacement to be built with three-quarter-inch pipe?

165 A: First, three-quarter-inch pipe is a lot heavier than half-inch pipe, and the effects of increasing

the weight would ripple through the whole project. A standard 36-inch pipe with a 0.515-inch

167 wall weighs almost 200 pounds per foot or 8,000 pounds per 40-foot segment. If you bump it up

to three-quarter inch you're adding about 85 pounds per foot or 3,200 pounds per segment. It's a

big deal because you're talking about using more fuel for transport, more trucks to work around

170 weight restrictions, and in some cases heavier equipment to handle the pipe. If you're concerned

about carbon emissions or environmental impacts like soil compaction, all of those get worse

172 when you increase the weight of the pipe by nearly half.

173 When heavy pipe segments get a lot heavier, they also become harder to work with and create

additional safety hazards for workers. It gets harder to safely position the pipe during stringing,

175 welding, coating, lowering in, and tie-ins, and the consequences are that much worse if

something goes wrong. For example, the pipe will rests on skids from stringing through coating

and welding to lowering-in, and it will expand and contract with temperature changes, which can

178 create instability. The heavier the pipe, the greater the risk that the skids fail and the greater the

179 risk of injury if the pipe comes off the skids. You're looking at similar challenges every time you

180 lift the pipe during coating, welding and tie-ins, as well as when it's being lowered in the trench:

181 heavier pipe is trickier to maneuver and does more damage when it comes loose.

182 Second, in addition to the weight problem, three-quarter-inch pipe is harder to weld and a lot

harder to bend than half-inch pipe. It can be done, but the more work that we have to put into

184 welding and bending the pipe, the greater the risk that something goes wrong. That's especially

true for bending which is one of the more hazardous aspects of pipeline construction. When

186 you're primarily using three-quarter-inch pipe for bores, you can engineer your way around a lot

187 of the problems that come with the added weight and bending heavier-duty pipe, but that's not

really an option if you require that the whole line be built that way.

189 In my opinion, anyone who assumes that thicker pipe automatically equals a safer line doesn't

190 understand how pipelines work or how they're built. By making the pipeline harder to build,

191 you're introducing risk factors that could end up outweighing any pipeline integrity benefit that

192 might come from use of heavier-duty pipe. Add the increased safety hazards and environmental

193 consequences, and now you're talking about a project that will generate more carbon, create

194 more negative impacts during construction, and put more workers at risk without any guaranteed 195 payoff when it comes to preventing spills.

Q: Mr. Joseph argues that the employment benefits of Line 3 may be overstated because Minnesota's unemployment rate is currently low. Do you agree?

A: I disagree because what a major union pipeline project offers isn't simply a "job." A man or
woman making \$10 an hour with no benefits in a fast-food restaurant has a "job", but not one
that can support a family or protect against illness or guarantee a decent retirement. Among the
200 or so people I've recruited into the union pipeline industry, many had jobs but a lot of times
they were jobs that couldn't support a family or offer a future, and that's what our union provides
to pipeline construction workers.

- 204 If we help put money in the pockets of thousands of union construction workers and help
- 205 hundreds of Northern Minnesotans who are new to construction move from low-paid jobs to find
- 206 family-supporting careers, then we've done a lot more for workers' lives and local economies
- than if Wal-Mart opened dozens of new stores in the area.