

December 14, 2021

Via E-filing

Ms. Lisa Felice Michigan Public Service Commission 7109 W. Saginaw Hwy. P. O. Box 30221 Lansing, MI 48909

RE: MPSC Case No. U-20763

Dear Ms. Felice:

The following are attached for paperless electronic filing:

- Rebuttal Testimony of Richard B. Kuprewicz on behalf of Bay Mills Indian Community.
- Exhibit BMC-37 (RBK-1)
- Proof of Service

Sincerely,

Christopher R. Clark cclark@earthjustice.org

Christoph R. Clark

#### STATE OF MICHIGAN

#### BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the Application of Enbridge Energy, Limited Partnership for Authority to Replace and Relocate the Segment of Line 5 Crossing the Straits of Mackinac into a Tunnel Beneath the Straits of Mackinac, if Approval is Required Pursuant to 1929 PA 16; MCL 483.1 et seq. and Rule 447 of the Michigan Public Service Commission's Rules of Practice and Procedure, R. 792.10447, or the Grant of other Appropriate Relief

U-20763

**ALJ Dennis Mack** 

# TESTIMONY OF RICHARD B. KUPREWICZ ON BEHALF OF BAY MILLS INDIAN COMMUNITY

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1		I. <u>INTRODUCTION AND OUALIFICATIONS</u>
2	Q.	Please state for the record your name, job title, and business address.
3	A.	My name is Richard B. Kuprewicz. I am the president of Accufacts Inc., headquartered at
4		8151 164 <sup>th</sup> Ave NE, Redmond, Washington 98052.
5		
6	Q.	On whose behalf is this rebuttal testimony being offered?
7	A.	I am testifying on behalf of Bay Mills Indian Community (BMIC). This testimony contains
8		my independent opinions.
9		
10	Q.	Please summarize your educational background and professional experience.
11	A.	I am a chemical engineer with nearly fifty years of experience in the oil and gas industry.
12		My professional work has focused on the refining and production of hydrocarbons and the
13		transportation of hydrocarbons via pipelines. I have extensive experience in emergency
14		response and pipeline incident command.
15		
16		I completed my undergraduate studies in 1973 at the University of California, Davis and
17		hold a Bachelor of Science degree in both Chemistry and Chemical Engineering.
18		
19		In my current position as President of Accufacts Inc., I specialize in liquid and gas pipeline
20		investigation, auditing, risk management, siting, construction, design, operation,
21		maintenance, training, Supervisory Control and Data Acquisition (SCADA) systems, leak
22		detection, management review, emergency response, pipeline safety management, and
23		regulatory development and compliance. As President for the past twenty-two years, I have

	consulted for local, state, and federal agencies, non-governmental organizations, the
	public, and pipeline industry members on pipeline regulation, siting, operation,
	maintenance, and design. Most of my consulting work has related to pipeline operation in
	unusually sensitive areas of high population density or environmental sensitivity. Prior
	to my consulting work with Accufacts Inc., I worked in the private sector on gas and oil
	pipeline projects.
	I have also served on numerous state and federal committees concerning pipeline safety.
	By appointment of the Secretary of Transportation, I served for over fifteen years as a
	member of the federal Technical Hazardous Liquid Pipeline Safety Standards Committee,
	a technical committee established by Congress to advise the Pipeline and Hazardous
	Materials Safety Administration ("PHMSA") on pipeline safety regulations. By
	appointment of the governors of Washington, I also served seven years on the Washington
	State Citizens Committee on Pipeline Safety to advise the government on regulatory
	matters related to pipeline safety, routing, construction, operation, and maintenance. My
	educational background and non-confidential professional experience are set forth in more
	detail in my curriculum vitae, provided as Exhibit BMC 37 (RBK-1).
Q.	Have you previously testified before this Commission?
A.	No.
Q.	Have you provided expert testimony in other matters?
A.	Yes. The following are recent non-confidential examples:

1	1.	Submission to Pennsylvania Public Utilities Commission ("PAPUC"), "Accufacts
2		Comments on Proposed Pennsylvania Intrastate Liquid Pipeline Safety
3		Regulations," dated October 29, 2021, prepared for West Whiteland Township
4		Board of Supervisors, West Whiteland Township, PA. Filed to PAPUC public web
5		docket November 5, 2021, by West Whiteland Township under Reference Docket
6		Number L-2019-3010267, which addresses suggested improvements in proposed
7		pipeline safety rules for PA intrastate liquid transmission pipelines.
8	2.	Provided redacted report to Mississippi Public Utilities Staff ("MPUS"),
9		"Accufacts Review of Atmos Energy Corporation's Proposed Capital Budget for
10		Fiscal Year 2022 related to System Integrity Program Spending (Docket No. 2015-
11		UN-049)" dated August 18, 2021.
12	3.	Provided expert testimony on behalf of Save Our Illinois Soil and the Sierra Club
13		to the State of Illinois Commerce Commission related to the Dakota Access
14		Pipeline and Energy Transfer Crude Oil Company, LLC Optimization Project to
15		expand pipeline throughput to 1,100,100 bpd (Docket No. 19-0673), on March 5,
16		2020.
17	4.	Provided direct testimony before the Arizona Corporation Commission, In the
18		Matter of the Application of Southwest Gas Corporation for the Establishment of
19		Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of
20		Return on Fair Value of the Properties of Southwest Gas Corporation Devoted to
21		its Arizona Operations (Docket No. G-01551A-19-0055). Testified on behalf of the
22		Utilities Division of the Arizona Corporation Commission, February 19, 2020.
22		Utilities Division of the Arizona Corporation Commission, February 19,

1	5.	Provided expert testimony on behalf of the Standing Rock Sioux Tribe to the State
2		of North Dakota Public Service Commission related to the Dakota Access Pipeline,
3		LLC, and Dakota Access Pipeline Optimization Emmons County plan to expand
4		pipeline throughput to 1,100,100 bpd (Case No. PU-14-842), on November 13,
5		2019.
6	6.	Assisted the Commonwealth of Massachusetts, Office of the Attorney General in
7		developing pipeline safety processes to be incorporated into the settlement
8		agreement related to Columbia Gas' sale of Assets to Eversource following the
9		Merrimack Valley, Massachusetts overpressure event and tragedy of September 13,
10		2018.
11	7.	Provided testimony to Administrative Law Judge on November 13, 2017, in the
12		matter of the Minnesota State Department of Commerce (Docket Nos. CN-14-916
13		& PPL-15-137) concerning the Draft Environmental Impact Statement for the
14		Enbridge Line 3 Pipeline Project (crude oil transmission). Prepared for the
15		Minnesota Department of Commerce, July 9, 2017, on behalf of Friends of the
16		Headwaters.
17	8.	Provided testimony in the matter West Goshen Township and Concerned Citizens
18		of West Goshen Township v. Sunoco Pipelines, L.P. before the Pennsylvania
19		Public Utilities Commission, Docket No. C-2017-2589346, on July 18, 2017,
20		concerning the proposed Mariner East hazardous volatile liquid transmission
21		pipeline projects.
22	9.	Provided redacted direct testimony on behalf of the District of Columbia
23		Government, before the Public Service Commission of the District of Columbia, in

1		the matter of the merger of AltaGas Ltd. and WGL Holdings, Inc., Formal Case
2		No. 1142, September 29, 2017.
3		10. Provided "Analysis of SWG's Proposed Accelerated EVPP and P70VSP
4		Replacement Plans, Public Utilities Commission of Nevada Docket Nos. 12-02019
5		and 12-04005," prepared for the State of Nevada Bureau of Consumer Protection,
6		dated August 17, 2012.
7		
8	Q.	What is the purpose of your testimony in this matter?
9	A.	I am providing the following expert opinions on behalf of BMIC to rebut: 1) the Staff and
10		MSCA testimony that inappropriately minimizes the inherent risks associated with the
11		Tunnel Project; and 2) that the Staff and MSCA testimony fails to identify reasonable
12		mitigation measures to abate the risks posed by the Dual Pipelines while it continues to
13		operate in the Straits.
14		
15	Q.	What information did you review in preparing your testimony in this case?
16	A.	In preparing my testimony in this case, I reviewed the testimony of and exhibits sponsored
17		by the following witnesses:
18		On Behalf of the Staff:
19		1. September 14, 2021 Testimony of David Chislea
20		2. September 14, 2021 Testimony of Daniel N. Adams
21		3. September 14, 2021 Testimony of Philip Martin Ponebshek
22		4. September 14, 2021 Qualification and Direct Testimony of Travis Warner
23		

1	On Behalf of the Mackinac Straits Corridor Authority:			
2	1. September 14, 2021 Direct Testimony of Daniel M. Cooper			
3		In evaluating the above listed testimony I also reviewed the Joint Permit Application.		
4				
5	Q.	Are you sponsoring any exhibits?		
6	A.	Yes, I am sponsoring the following exhibit:		
7		Exhibit BMC-37 (RBK-1): Curriculum Vitae of Richard B. Kuprewicz		
8				
9 10	п.	THE STAFF TESTIMONY INAPPROPRIATELY MINIMIZES THE INHERENT RISKS ASSOCIATED WITH THE TUNNEL PROJECT.		
11				
12	Q.	MPSC Staff Witness Travis Warner summarized the Alternatives Analysis by		
13	testifying that "the risks associated with the potential for a release of Line 5 products			
14	to enter the waters of the Great Lakes from a Straits tunnel crossing of a design, as			
15	proposed, is considered to be negligible, and un-quantifiably low." (Warner			
16	Testimony at 22:12-16). Do you agree with the statement that the potential for a			
17	release of Line 5 products from the tunnel into the Great Lakes is "negligible and un-			
18		quantifiably low?"		
19	A.	No.		
20				
21	Q.	Please explain why you disagree with Mr. Warner's testimony.		
22	A.	From an engineering standpoint, there is a potential for a release into the Straits from the		
23		tunnel by way of a catastrophic explosion. While a risk of release in this manner may be		
24		considered low, it is not negligible and, in my opinion, should not be downplayed in such		

1		a way by the Staff. A "low risk" does not equate to "no risk" or even a "negligible risk"
2		when transporting crude oil, and especially propane.
3		
4	Q.	Please elaborate on your disagreement with Mr. Warner's testimony and explain why
5		the risk of explosion due to transporting crude oil or propane in a pipeline through
6		an underground tunnel does not negate a risk of release into the Straits.
7	A.	Mr. Warner set forth the reasoning that the replacement of the Dual Pipelines within a
8		tunnel beneath the Straits would not only negate the threat of an anchor strike, but also
9		"serve as a secondary containment vessel in the event of a spill." (Warner testimony at
10		22:11-12). This testimony fails to recognize that both propane and crude oil are highly
11		hazardous and volatile substances and there is always a risk of explosion when handling
12		these substances. When transporting these substances through a pipeline enclosed in a
13		tunnel, the risk of an explosion is enhanced which in turn enhances the probability that the
14		secondary containment vessel will fail.
15		
16		In fact, Mr. Warner represents that the Tunnel Alternative Report (Exhibit A-9, page 6)
17		puts the probability of a release of product from the tunnel at "virtually zero," going so far
18		as to state that "there is no credible scenario that would result in a release of product from
19		the tunnel into the Straits." (Warner testimony at 28:14-16). In my opinion, this is a false
20		statement that minimizes the risk of an explosion which cannot be said to be "virtually
21		zero." An explosion within the tunnel could feasibly be caused by a hydrocarbon release
22		from the pipeline that generates a heavier than air vapor release. In this scenario, the vapor

release would quickly settle in low spots given the tunnel elevation profile. Then all that is

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required to create an explosion is an electrical spark within the air/fuel cloud. An ignition can be caused either by the equipment maintained within the tunnel (e.g. the sump pump), or brought in with a worker, or even by static electricity —to create an explosion.

Although the tunnel's design includes a ventilation system (see Exhibit A-11)—and that system is important to have—it is not infallible and cannot completely eliminate risk, especially given the large diameter of the tunnel which hinders the ability for the ventilation system to sweep released vapor from the tunnel. One intended purpose of the ventilation system is to sweep any released fuel vapor out of the tunnel or reduce the amount of released fuel vapor so that it is out of the flammability range, such that it will not ignite and detonate. But in evaluating the proposed system and summarizing their key findings to the Commission, the testimonies of Mr. David Chislea, Mr. Daniel Adams, Mr. Philip Martin Ponebsnek, and Mr. Warner omit the difficulty in controlling the fuel air mixture within the tunnel, which increases the possibility of multiple detonations/explosions within the tunnel. The ventilation system alone may help, but will not prevent, an explosion from occurring following the accumulation, or pocketing, of vapor in the tunnel.

It is my understanding that all electrical equipment installed in the tunnel will comply with Class 1, Division 2 specifications. This fact does not alter my opinion that the MPSC staff's witnesses inappropriately minimize the risks presented by the tunnel. Such an electrical classification relies on adequate ventilation which will not be operated as a day-to-day practice and thereby ignores the additional risk of a crude oil or propane pipeline release within the unique confines of the tunnel. The more stringent Class 1 Division 1

<sup>&</sup>lt;sup>1</sup> Exhibit A-13, "Tunnel Design and Construction Report Michigan PSC Case No. U-20763," p.8 of 26.

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specifications intended to avoid the source of an electrical ignition would be a more appropriate measure. However, even this higher rating will not completely prevent an explosion from other ignition sources within the confines of the tunnel in the event of a pipeline release within the unique location. It is important to note that crude oil, and especially propane, in a confined space can generate a tremendous amount of pressure, especially upon detonation. Propane has a broad flammability range coupled with a lower autoignition temperature which makes this material easier to detonate or explode. In this way, propane differs from water or other materials that are typically transported through pipelines. In fact, based on the volatility of propane, the Tunnel Project is atypical, and I am not personally aware of other similar projects. A release in this unique environment carries the risk of both loss of human life and the release of crude oil and propane into the Great Lakes as an explosion in such a confined structure will most likely violate the tunnel's secondary containment intent. None of the Staff witnesses—Mr. Chislea, Mr. Adams, Mr. Ponebsnek, nor Mr. Warner have provided a sound scientifically-based reason to support the Staffs' conclusion that the Tunnel Project will prevent a release such that the risk can be said to be "negligible." Indeed, any release that does occur, either by an explosion within the tunnel or a release from the tie-in pipeline on either side, has the potential to be catastrophic. An explosion

within the tunnel could cause a high-pressure event usually, but not always, followed by

multiple fires and explosions, such as the 36-hour long fire that was the result of a vapor

cloud that was ignited in 1999.<sup>2</sup> Blast forces of this magnitude have the potential of shattering concrete, especially segment concrete linings. In short, an explosion would cause a high-pressure event that would put the concrete structures at risk. This in turn runs the risk of releasing material into the Straits.

In short, there is no absolute when dealing with crude oil or propane in a tunnel. A low risk does not equate to no risk. Crucially, an engineer needs to design a pipeline as if a release will occur and the Commission should evaluate the proposal in the same way.

Q. In their analysis of the Tunnel Project, and, specifically, when Mr. Warner concluded that the risk of a release would be "negligible," did the witnesses presented by the MPSC Staff correctly consider the capacity of the proposed pipeline segment that would run through the tunnel.

No. Mr. Warner stated that the Replacement Project will not impact the average annual capacity of Line 5. (Warner testimony at 8:14). Mr. Daniel Cooper likewise testified that replacement of the two existing 20-inch lines with one 30-inch line will have "very little influence on the overall transportation capacity of Line 5." (Cooper testimony at 13). But the Tunnel Project creates an opportunity to increase the volume, and thereby the capacity, of Line 5. Enbridge has publicly stated that the existing 20-inch pipelines crossing the Straits of Mackinac operate at a maximum operating pressure ("MOP") of 600 psig or "25 percent of its maximum pressure capacity" for the specific submerged pipe segments. By way of comparison, the new 30-inch pipeline segment spanning the tunnel will have a MOP

<sup>&</sup>lt;sup>2</sup> https://www.mlive.com/news/2017/04/enbridge line 5 spill history.html (last accessed 12/11/2021)

1		rating of 1440 psig. This allows the pipeline operator to increase the capacity on Line 5
2		without raising the MOP on the remainder of the onshore Line 5 pipeline segments. The
3		MPSC Staff's witnesses do not appear to have taken this into account.
4		
5	Q.	Exhibit S-16, Table 2, suggests that it would take 50 hours for the tunnel to fill with
6		fluids released from the pipeline, and that only after the tunnel was filled with fluid
7		would it leak to the environment outside of the tunnel. Do you agree?
8	A.	I do not agree with this premise, especially as it relates to timing, of this suggested
9		scenario. First, this table assumes that the capacity of the Proposed Project would be
10		identical to the Dual Pipelines. As stated above, however, the Proposed Project will be
11		able to operate at a greater capacity. Due to the increased capacity, there is a risk that a
12		release along Line 5 will be greater due to the higher rate and associated reduced safety
13		factors as operating pressure is increased along the pipeline, both onshore and within the
14		tunnel.
15		
16		Second, Exhibit S-16 scenarios assume that the only way for fluids to escape the tunnel is
17		if the entire tunnel has overflowed with liquids. Based on my experience with propane,
18		and as explained in more detail throughout my testimony, there is the potential for crude
19		oil or propane to be released from the tunnel and into the Great Lakes by way of an
20		explosion that causes the tunnel to not only fill with liquid from the pipeline failure, but
21		also with water pouring into the failed tunnel containment caused by an explosion and
22		loss of the concrete secondary containment integrity from explosion overpressure. Time

1 estimates provided in Exhibit S-16, Table 2 fail to consider this explosion/secondary 2 containment failure and thus the times provided are unduly long (i.e., overly optimistic). 3 4 Exhibit S-16, Table 2's approaches are predicated on the assumption the tunnel does not 5 lose secondary containment. And the table does not even consider the consequence of 6 possible explosion overpressure on the segmented concrete containment structure caused 7 by a failure of the pipeline within the tunnel. 8 9 There are no guarantees that anyone would notice a release of product in the underground 10 tunnel sooner than it takes for a release into the Straits to occur from the Dual Pipeline operation. 11 12 13 Q. Does the use of Computation Pipeline Monitoring alter your opinion about the way 14 the MPSC Staff's witnesses discuss the risks presented by the tunnel project? 15 No. In my opinion, the Staff is not taking into account that this Tunnel Project is relying A. too heavily on Computation Pipeline Monitoring ("CPM")-based release detection 16 approaches to justify its minimization of an explosion risk. Based on my knowledge and 17 expertise with pipeline safety measures, CPM-based released detection approaches defined 18 in federal pipeline safety regulation are not reliable enough nor rapid enough for timely 19 indication of leak detection of the pipeline segment in the unique siting/placement within 20 21 a tunnel. 22

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The Tunnel Project primarily relies on CPM as the first level of defense with little emphasis on the importance and criticality of a secondary system, and with zero regard for how human error impacts the monitoring and effectiveness of this "secondary" approach. Staff does not take into account Enbridge's failure to include critical details in Exhibit A-13, including the type, location, independency, calibration, maintenance frequency, and reliability of the gas detection approach. Such a second system should be given greater priority over CPM-based release detection approaches for the tunnel segment, especially given the confined space of the tunnel and the risks associated with a possibility of not only a crude oil, but a possible propane release. This second leak detection system should incorporate mandatory (even automatic) pipeline shutdown/isolation and tunnel ventilation procedures, so it should be very important that the system be designed to not generate false signals/alarms. O. For how long would the risk of a catastrophic explosion within the tunnel continue? The risks would continue for the length of time that the pipeline is in operation within the A. tunnel. III. THE MPSC STAFF TESTIMONY FAILED TO IDENTIFY REASONABLE MITIGATION MEASURES TO ABATE THE RISKS POSED BY THE DUAL PIPELINES WHILE IT CONTINUES TO OPERATE IN THE STRAITS. Q. Did Mr. Warner acknowledge in his testimony the risk of a release into the Straits by the currently operating dual pipelines?

1	A.	Yes, Warner acknowledged these risks on pages 29-30 of his testimony. He described two
2		incidents when a release could have occurred, but fortunately did not: the 2018 anchor drag
3		in the Straits and the 2020 damage to a screw anchor support on the East Leg of the dual
4		pipelines (an incident where the pipeline was not shut down until a court ordered it to be).
5		
6	Q.	Mr. Warner's testimony summarized the mitigation measures implemented to
7		protect the current risks to the Straits set forth in Exhibit S-6. In your opinion, do
8		these mitigation measures really act to prevent the catastrophic event that this entire
9		project is designed to eliminate?
10	A.	No. Mr. Warner summarized the mitigation measures as including shore-based and/or on-
11		water observations to monitor vessels transiting the Straits to identify any anchor strike
12		risk, and the continuous positioning of at least one patrol boat over the Line 5 Dual
13		Pipelines to monitor all vessel traffic operating in proximity to the Dual Pipelines. His
14		summary relies on two factors: communication and patrol boat monitoring. When proper
15		communication is not established from a threatening vessel, the flow of hydrocarbons
16		through the pipeline will cease. It is my opinion that there are significant flaws with these
17		mitigation measures.
18		
19		First, monitoring of patrol boats is a factor that is weather-dependent. It is well known that
20		the weather in the Straits of Mackinac is unpredictable, thus creating reliance on an
21		unpredictable factor.
22		

Second, temporarily stopping the flow of products through the pipeline is not enough of an action to prevent a major release of material into the Straits. The Exhibit S-6 Enbridge Maritime Pipeline Protection Program, or EMP3, fails to require that, in addition to temporarily stopping the flow of product through the pipeline, the two 20-inch pipeline segments be isolated to prevent the mainline pipeline from draining into the Straits from the force of gravity, should either of the 20-inch pipelines be punctured. In addition, Enbridge fails to demonstrate that adequate protection will be implemented to prevent thermal over pressure of the dual 20-inch segments if one or both are shut down and isolated.

Finally, even with additional measures in place, both monitoring and communication measures, as well as the decision to temporarily shut down the Dual Pipelines in the event of a release, remain subject to human error.

- Q. Based on your expertise, and the materials that you reviewed to evaluate and rebut the testimony submitted by the MPSC staff, did you form an opinion about whether the Tunnel Project should be approved?
- 18 A. Yes. It is my opinion that the Tunnel Project should not be approved as proposed on the
  19 basis that the Staff minimized the risk of a catastrophic event when running crude oil, and
  20 especially propane, through an enclosed underground tunnel in the following ways: First,
  21 the MPSC Staff testimony does not acknowledge that human error creates a risk that crude
  22 oil and/or propane will be released in the tunnel, that there will be a delay in recognizing a
  23 release, and that the released crude oil or propane will ignite. This chain of events has the

potential to result in a catastrophic explosion. Second, the Staff does not acknowledge that relying on technology does not eliminate the risk of either a release or an explosion. Third, while the ventilation system may reduce the risk of an explosion, it will not eliminate that risk.

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Finally, an over-reliance on compliance with PHMSA regulations (and a presumption that PHMSA will approve the Tunnel Project in response to Staff's April 16, 2021 letter) as exhibited by the Staff, including Mr. Chislea (Chislea testimony at 9) and MSCA witness Mr. Cooper (Cooper testimony at 30), is not a guarantee of safety. PHMSA's regulations are minimum pipeline safety requirements. Prudent pipeline operators will often exceed PHMSA's minimum pipeline safety regulations. By way of example, 49CFR§195.234 requires that at least 10 percent of all girth welds be nondestructively tested. PHMSA has the authority to regulate only that percentage. However, the pipeline associated with the Tunnel Project should have 100 percent of all girth welds (both within the tunnel and the tie-ins) radiologically tested, and all girth welds properly heat treated to avoid cracking in weld heat affected zones (HAZs) that can result in a pipeline failure and release. Most new liquid pipeline construction exceeds minimum federal pipeline safety regulation in this girth weld nondestructive testing and heat treatment areas, carefully spelling out additional requirements in written Quality Administration / Quality Control ("QA/QC") girth weld procedures that can be independently field verified and audited. MPSC testimony focuses on meeting the PHMSA standards but is silent on exceeding such standards. However, such assessments/treatments are especially important given the nature of the pipe anchoring and pipeline flexibility utilized within the tunnel. In my experience, if the girth welds and

1		associated HAZs are not of sufficient quality, the pipe will crack and release crude oil or
2		propane in a manner that inline inspection tools will not likely find, creating a known and
3		avoidable risk to the Straits.
4		
5		The MPSC Staff Testimony misrepresents or overstates PHMSA's role in "approving"
6		such actions, such as emergency and oil spill response plans, especially as to the
7		effectiveness of such efforts. In short, any position that minimizes risk without sound
8		technical approaches is in and of itself a dangerous position to advance.
9		
10	Q.	Does this complete your testimony?
11	A.	Yes.
12		

# EXHIBIT BMC-37

#### **Curriculum Vitae.**

Initial Testimony of Richard Kuprewicz BMC-37 (RBK-1)

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#### Richard B. Kuprewicz

Tel: 425-802-1200 (Office)
E-mail: kuprewicz@comcast.net

#### 8151 164<sup>th</sup> Ave NE Redmond, WA 98052

#### **Profile:**

As president of Accufacts Inc., I specialize in gas and liquid pipeline investigation, auditing, risk management, siting, construction, design, operation, maintenance, training, SCADA, leak detection, management review, emergency response, and regulatory development and compliance. I have consulted for various local, state and federal agencies, NGOs, the public, and pipeline industry members on pipeline regulation, operation and design, with particular emphasis on operation in unusually sensitive areas of high population density or environmental sensitivity.

#### **Employment:** Accufacts Inc.

1999 - Present

Pipeline regulatory advisor, incident investigator, and expert witness on all matters related to gas and liquid pipeline siting, design, operation, maintenance, risk analysis, and management.

Position: President

**Duties:** > Full business responsibility

> Technical Expert

#### Alaska Anvil Inc.

1993 - 1999

Engineering, procurement, and construction (EPC) oversight for various clients on oil production facilities, refining, and transportation pipeline design/operations in Alaska.

Position: Process Team Leader

**Duties:** > Led process engineers group

> Review process designs > Perform hazard analysis > HAZOP Team leader

> Assure regulatory compliance in pipeline and process safety management

#### ARCO Transportation Alaska, Inc. 1991 - 1993

Oversight of Trans Alaska Pipeline System (TAPS) and other Alaska pipeline assets for Arco after the Exxon Valdez event.

Position: Senior Technical Advisor

**Duties:** > Access to all Alaska operations with partial Arcoownership

> Review, analysis of major Alaska pipeline projects

#### ARCO Transportation Co. 1989 – 1991

Responsible for strategic planning, design, government interface, and construction of new gas pipeline projects, as well as gas pipeline acquisition/conversions.

**Position:** Manager Gas Pipeline Projects

**Duties:** > Project management

> Oil pipeline conversion to gas transmission

> New distribution pipeline installation

> Full turnkey responsibility for new gas transmission pipeline, including FERC filing

#### Four Corners Pipeline Co.

1985 - 1989

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Managed operations of crude oil and product pipelines/terminals/berths/tank farms operating in western U.S., including regulatory compliance, emergency and spill response, and telecommunications and SCADA organizations supporting operations.

**Position:** Vice President and Manager of Operations

**Duties:** > Full operational responsibility

> Major ship berth operations

> New acquisitions

> Several thousand miles of common carrier and private pipelines

#### **Arco Product CQC Kiln**

1985

Operations manager of new plant acquisition, including major cogeneration power generation, with full profit center responsibility.

Position: Plant Manager

**Duties:** > Team building of new facility that had been failing

> Plantdesign modifications and troubleshooting

> Setting expense and capital budgets, including key gas supply negotiations > Modification of steam plant, power generation, and environmental controls

#### Arco Products Co.

1981 - 1985

Operated Refined Product Blending, Storage and Handling Tank Farms, as well as Utility and Waste Water Treatment Operations for the third largest refinery on the west coast.

Position: Operations Manager of Process Services

**Duties:** > Modernize refinery utilities and storage/blending operations

> Develop hydrocarbon product blends, including RFGs

> Modification of steam plants, power generation, and environmental controls

> Coordinate new major cogeneration installation, 400 MW plus

#### **Arco Products Co.**

1977 - 1981

Coordinated short and long-range operational and capital planning, and major expansion for two west coast refineries.

Position: Manager of Refinery Planning and Evaluation

Duties: > Establish monthly refinery volumetricplans

> Develop 5-year refinery long range plans

Perform economic analysis for refineryenhancementsIssue authorization for capital/expense major expenditures

#### **Arco Products Co.**

1973 - 1977

Operating Supervisor and Process Engineer for various major refinery complexes.

**Position:** Operations Supervisor/Process Engineer

**Duties:** > FCC Complex Supervisor

> Hydrocracker Complex Supervisor

> Process engineer throughout major integrated refinery improving process yield

and energy efficiency

#### Qualifications:

Served for over fifteen years as a member representing the public on the federal Technical Hazardous Liquid Pipeline Safety Standards Committee (THLPSSC), a technical committee established by Congress to advise PHMSA on pipeline safety regulations.

Committee members are appointed by the Secretary of Transportation.

Served seven years, including position as its chairman, on the Washington State Citizens Committee on Pipeline Safety (CCOPS).

Positions are appointed by the governor of the state to advise federal, state, and local governments on regulatory matters related to pipeline safety, routing, construction, operation and maintenance.

Served on Executive subcommittee advising Congress and PHMSA on a report that culminated in new federal rules concerning Distribution Integrity Management Program (DIMP) gas distribution pipeline safety regulations.

As a representative of the public, advised the Office of Pipeline Safety on proposed new liquid and gas transmission pipeline integrity management rulemaking following the pipeline tragedies in Bellingham, Washington (1999) and Carlsbad, New Mexico (2000).

Member of Control Room Management committee assisting PHMSA on development of pipeline safety Control Room Management (CRM) regulations.

Certified and experienced HAZOP Team Leader associated with process safety management and application.

#### **Education:**

MBA (1976) BS Chemical Engineering (1973) BS Chemistry (1973) Pepperdine University, Los Angeles, CA University of California, Davis, CA University of California, Davis, CA

#### **Publications in the Public Domain:**

- 1. "An Assessment of First Responder Readiness for Pipeline Emergencies in the State of Washington 14, 2021 prepared for the Office of the State Fire Marshall, by Hanson Engineers Inc., Elway Research Inc., and Accuracts Inc., and dated June 26, 2001.
- 2. "Preventing Pipeline Failures," prepared for the State of Washington Joint Legislative Audit and Review Committee ("JLARC"), by Richard B. Kuprewicz, President of Accufacts Inc., dated December 30, 2002.
- 3. "Pipelines National Security and the Public's Right-to-Know," prepared for the Washington City and County Pipeline Safety Consortium, by Richard B. Kuprewicz, dated May 14, 2003.
- 4. "Preventing Pipeline Releases," prepared for the Washington City and County Pipeline Safety Consortium, by Richard B. Kuprewicz, dated July 22, 2003.
- 5. "Pipeline Integrity and Direct Assessment, A Layman's Perspective," prepared for the Pipeline Safety Trust by Richard B. Kuprewicz, dated November 18, 2004.
- 6. "Public Safety and FERC's LNG Spin, What Citizens Aren't Being Told," jointly authored by Richard B. Kuprewicz, President of Accufacts Inc., Clifford A. Goudey, Outreach Coordinator MIT Sea Grant College Program, and Carl M. Weimer, Executive Director Pipeline Safety Trust, dated May 14, 2005.
- 7. "A Simple Perspective on Excess Flow Valve Effectiveness in Gas Distribution System Service Lines," prepared for the Pipeline Safety Trust by Richard B. Kuprewicz, dated July 18, 2005.
- 8. "Observations on the Application of Smart Pigging on Transmission Pipelines," prepared for the Pipeline Safety Trust by Richard B. Kuprewicz, dated September 5, 2005.
- 9. "The Proposed Corrib Onshore System An Independent Analysis," prepared for the Centre for Public Inquiry by Richard B. Kuprewicz, dated October 24, 2005.
- 10. "Observations on Sakhalin II Transmission Pipelines," prepared for The Wild Salmon Center by Richard B. Kuprewicz, dated February 24, 2006.
- 11. "Increasing MAOP on U.S. Gas Transmission Pipelines," prepared for the Pipeline Safety Trust by Richard B. Kuprewicz, dated March 31, 2006. This paper was also published in the June 26 and July 1, 2006 issues of the Oil & Gas Journal and in the December 2006 issue of the UK Global Pipeline Monthly magazines.
- 12. "An Independent Analysis of the Proposed Brunswick Pipeline Routes in Saint John, New Brunswick," prepared for the Friends of Rockwood Park, by Richard B. Kuprewicz, dated September 16, 2006.
- 13. "Commentary on the Risk Analysis for the Proposed Emera Brunswick Pipeline Through Saint John, NB," by Richard B. Kuprewicz, dated October 18, 2006.
- 14. "General Observations On the Myth of a Best International Pipeline Standard," prepared for the Pipeline Safety Trust by Richard B. Kuprewicz, dated March 31, 2007.
- 15. "Observations on Practical Leak Detection for Transmission Pipelines An Experienced Perspective," prepared for the Pipeline Safety Trust by Richard B. Kuprewicz, dated August 30, 2007.
- "Recommended Leak Detection Methods for the Keystone Pipeline in the Vicinity of the Fordville Aquifer," prepared for TransCanada Keystone L.P. by Richard B. Kuprewicz, President of Accufacts Inc., dated September 26, 2007.
- 17. "Increasing MOP on the Proposed Keystone XL 36-Inch Liquid Transmission Pipeline," prepared for the Pipeline Safety Trust by Richard B. Kuprewicz, dated February 6, 2009.
- 18. "Observations on Unified Command Drift River Fact Sheet No 1: Water Usage Options for the current Mt. Redoubt Volcano threat to the Drift River Oil Terminal," prepared for Cook Inletkeeper by Richard B. Kuprewicz, dated April 3, 2009.

- 19. "Observations on the Keystone XL Oil Pipeline DEIS," prepared for Plains Justice by Richard Richard Richard Repril 10, 2010.

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- 20. "PADD III & PADD II Refinery Options for Canadian Bitumen Oil and the Keystone XL Pipeline," prepared for the Natural Resources Defense Council (NRDC), by Richard B. Kuprewicz, dated June 29, 2010.
- 21. "The State of Natural Gas Pipelines in Fort Worth," prepared for the Fort Worth League of Neighborhoods by Richard B. Kuprewicz, President of Accufacts Inc., and Carl M. Weimer, Executive Director Pipeline Safety Trust, dated October, 2010.
- 22. "Accufacts' Independent Observations on the Chevron No. 2 Crude Oil Pipeline," prepared for the City of Salt Lake, Utah, by Richard B. Kuprewicz, dated January 30, 2011.
- 23. "Accufacts' Independent Analysis of New Proposed School Sites and Risks Associated with a Nearby HVL Pipeline," prepared for the Sylvania, Ohio School District, by Richard B. Kuprewicz, dated February 9, 2011.
- 24. "Accufacts' Report Concerning Issues Related to the 36-inch Natural Gas Pipeline and the Application of Appleview, LLC Premises: 7009 and 7010 River Road, North Bergen, NJ," prepared for the Galaxy Towers Condominium Association Inc., by Richard B. Kuprewicz, dated February 28, 2011.
- 25. "Prepared Testimony of Richard B. Kuprewicz Evaluating PG&E's Pipeline Safety Enhancement Plan," submitted on behalf of The Utility Reform Network (TURN), by Richard B. Kuprewicz, Accufacts Inc., dated January 31, 2012.
- 26. "Evaluation of the Valve Automation Component of PG&E's Safety Enhancement Plan," extracted from full testimony submitted on behalf of The Utility Reform Network (TURN), by Richard B.Kuprewicz, Accufacts Inc., dated January 31, 2012, Extracted Report issued February 20, 2012.
- 27. "Accufacts' Perspective on Enbridge Filing to NEB for Modifications on Line 9 Reversal Phase I Project," prepared for Equiterre Canada, by Richard B. Kuprewicz, Accufacts Inc., dated April 23, 2012.
- 28. "Accufacts' Evaluation of Tennessee Gas Pipeline 300 Line Expansion Projects in PA & NJ," prepared for the Delaware RiverKeeper Network, by Richard B. Kuprewicz, Accufacts Inc., dated June 27, 2012.
- 29. "Impact of an ONEOK NGL Pipeline Release in At-Risk Landslide and/or Sinkhole Karst Areas of Crook County, Wyoming," prepared for landowners, by Richard B. Kuprewicz, Accufacts Inc., and submitted to Crook County Commissioners, dated July 16, 2012.
- 30. "Impact of Processing Dilbit on the Proposed NPDES Permit for the BP Cherry Point Washington Refinery," prepared for the Puget Soundkeeper Alliance, by Richard B. Kuprewicz, Accufacts Inc., dated July 31, 2012.
- 31. "Analysis of SWG's Proposed Accelerated EVPP and P70VSP Replacement Plans, Public Utilities Commission of Nevada Docket Nos. 12-02019 and 12-04005," prepared for the State of Nevada Bureau of Consumer Protection, by Richard B. Kuprewicz, Accufacts Inc., dated August 17, 2012.
- 32. "Accufacts Inc. Most Probable Cause Findings of Three Oil Spills in Nigeria," prepared for Bohler Advocaten, by Richard B. Kuprewicz, Accufacts Inc., dated September 3, 2012.
- 33. "Observations on Proposed 12-inch NGL ONEOK Pipeline Route in Crook County Sensitive or Unstable Land Areas," prepared by Richard B. Kuprewicz, Accufacts Inc., dated September 13, 2012.
- 34. "Findings from Analysis of CEII Confidential Data Supplied to Accufacts Concerning the Millennium Pipeline Company L.L.C. Minisink Compressor Project Application to FERC, Docket No. CP11-515-000," prepared by Richard B. Kuprewicz, Accufacts Inc., for Minisink Residents for Environmental Preservation and Safety (MREPS), dated November 25, 2012.
- 35. "Supplemental Observations from Analysis of CEII Confidential Data Supplied to Accufacts Concerning Tennessee Gas Pipeline's Northeast Upgrade Project," prepared by Richard B. Kuprewicz, Accufacts Inc., for Delaware RiverKeeper Network, dated December 19, 2012.

Initial Testimony of Richard Kuprewicz 36. "Report on Pipeline Safety for Enbridge's Line 9B Application to NEB," prepared by Richard Kuprewicz, December 14, 2021 Accufacts Inc., for Equiterre, dated August 5, 2013. Page 6 of 8

- 37. "Accufacts' Evaluation of Oil Spill Joint Investigation Visit Field Reporting Process for the Niger Delta Region of Nigeria," prepared by Richard B. Kuprewicz for Amnesty International, September 30, 2013.
- 38. "Accufacts' Expert Report on ExxonMobil Pipeline Company Silvertip Pipeline Rupture of July 1, 2011 into the Yellowstone River at the Laurel Crossing," prepared by Richard B. Kuprewicz, November 25, 2013.
- 39. "Accufacts Inc. Evaluation of Transco's 42-inch Skillman Loop submissions to FERC concerning the Princeton Ridge, NJ segment," prepared by Richard B. Kuprewicz for the Princeton Ridge Coalition, dated June 26, 2014, and submitted to FERC Docket No. CP13-551.
- 40. Accufacts report "DTI Myersville Compressor Station and Dominion Cove Point Project Interlinks," prepared by Richard B. Kuprewicz for Earthjustice, dated August 13, 2014, and submitted to FERC Docket No. CP13-113-000.
- 41. "Accufacts Inc. Report on EA Concerning the Princeton Ridge, NJ Segment of Transco's Leidy Southeast Expansion Project," prepared by Richard B. Kuprewicz for the Princeton Ridge Coalition, dated September 3, 2014, and submitted to FERC Docket No. CP13-551.
- 42. Accufacts' "Evaluation of Actual Velocity Critical Issues Related to Transco's Leidy Expansion Project," prepared by Richard B. Kuprewicz for Delaware Riverkeeper Network, dated September 8, 2014, and submitted to FERC Docket No. CP13-551.
- 43. "Accufacts' Report to Portland Water District on the Portland Montreal Pipeline," with Appendix, prepared by Richard B. Kuprewicz for the Portland, ME Water District, dated July 28, 1014.
- 44. "Accufacts Inc. Report on EA Concerning the Princeton Ridge, NJ Segment of Transco's Leidy Southeast Expansion Project," prepared by Richard B. Kuprewicz and submitted to FERC Docket No. CP13-551.
- 45. Review of Algonquin Gas Transmission LLC's Algonquin Incremental Market ("AIM Project"), Impacting the Town of Cortlandt, NY, FERC Docket No. CP14-96-0000, Increasing System Capacity from 2.6 Billion Cubic Feet (Bcf/d) to 2.93 Bcf/d," prepared by Richard B. Kuprewicz, and dated Nov. 3, 2014.
- 46. Accufacts' Key Observations dated January 6, 2015 on Spectra's Recent Responses to FERC Staff's Data Request on the Algonquin Gas Transmission Proposal (aka "AIM Project"). FERC Docket No. CP 14-96-000) related to Accufacts' Nov. 3, 2014 Report and prepared by Richard B. Kuprewicz.
- 47. Accufacts' Report on Mariner East Project Affecting West Goshen Township, dated March 6, 2015, to Township Manager of West Goshen Township, PA, and prepared by Richard B. Kuprewicz.
- 48. Accufacts' Report on Atmos Energy Corporation ("Atmos") filing on the Proposed System Integrity Projects ("SIP") to the Mississippi Public Service Commission ("MPSC") under Docket No. 15-UN-049 ("Docket"), prepared by Richard B. Kuprewicz, dated June 12, 2015.
- 49. Accufacts' Report to the Shwx'owhamel First Nations and the Peters Band ("First Nations") on the Trans Mountain Expansion Project ("TMEP") filing to the Canadian NEB, prepared by Richard B. Kuprewicz, dated April 24, 2015.
- 50. Accufacts Report Concerning Review of Siting of Transco New Compressor and Metering Station, and Possible New Jersey Intrastate Transmission Pipeline Within the Township of Chesterfield, NJ ("Township"), to the Township of Chesterfield, NJ, dated February 18, 2016.
- 51. Accufacts Report, "Accufacts Expert Analysis of Humberplex Developments Inc. v. TransCanada Pipelines Limited and Enbridge Gas Distribution Inc.; Application under Section 112 of the National Energy Board Act, R.S.C. 1985, c. N-7," dated April 26, 2016, filed with the Canadian Nation Energy Board (NEB).
- 52. Accufacts Report, "A Review, Analysis and Comments on Engineering Critical Assessments as proposed in

PHMSA's Proposed Rule on Safety of Gas Transmission and Gathering Pititelliness; properties Safety BMC-37 (RBK-1)

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53. Accufacts' Report on Atmos Energy Corporation ("Atmos") filing to the Mississippi Public Utilities Staff, "Accufacts Review of Atmos Spending Proposal 2017 – 2021 (Docket N. 2015-UN-049)," prepared by Richard B. Kuprewicz, dated August 15, 2016.

- 54. Accufacts Report, "Accufacts Review of the U.S. Army Corps of Engineers (USACE) Environmental Assessment (EA) for the Dakota Access Pipeline ("DAPL")," prepared for Earthjustice by Richard B. Kuprewicz, dated October 28, 2016.
- 55. Accufacts' Report on Mariner East 2 Expansion Project Affecting West Goshen Township, dated January 6, 2017, to Township Manager of West Goshen Township, PA, and prepared by Richard B. Kuprewicz.
- 56. Accufacts Review of Puget Sound Energy's Energize Eastside Transmission project along Olympic Pipe Line's two petroleum pipelines crossing the City of Newcastle, for the City of Newcastle, WA, June 20, 2017.
- 57. Accufacts Review of the Draft Environmental Impact Statement for the Line 3 Pipeline Project Prepared for the Minnesota Department of Commerce, July 9, 2017, filed on behalf of Friends of the Headwaters, to Minnesota State Department of Commerce for Docket Nos. CN-14-916 & PPL-15-137.
- 58. Testimony of Richard B. Kuprewicz, president of Accufacts Inc., in the matter West Goshen Township and Concerned Citizens of West Goshen Township v. Sunoco Pipelines, L.P. before the Pennsylvania Public Utilities Commission, Docket No. C-2017-2589346, on July 18, 2017, on Behalf of West Goshen Township and Concerned Citizens of West Goshen Township.
- 59. Direct Testimony of Richard B. Kuprewicz, president of Accufacts Inc., on Behalf of Friends of the Headwaters regarding Enbridge Energy, Limited Partnership proposal to replace and reroute an existing Line 3 to the Minnesota Office of Administrative Hearings for the Minnesota Public Utilities Commission (MPUC PL-9/CN-14-916 and MPUC PL-9/PPL-15-137), September 11, 2017 and October 23, 2017.
- 60. Direct Testimony of Richard B. Kuprewicz On Behalf of The District of Columbia Government, before the Public Service Commission of the District of Columbia, in the matter of the merger of AltaGas Ltd. and WGL Holdings, Inc., Formal Case No. 1142, September 29, 2017.
- 61. Report to Mississippi Public Utilities Staff ("MPUS"), "Accufacts Review on Atmos Energy Corporation's Proposed Capital Budget for Fiscal Year 2018 related to System Integrity Program Spending (Docket N. 2015-UN-049)." prepared by Richard B. Kuprewicz, dated December 4, 2017.
- 62. Report to Hugh A. Donaghue, Esquire, Concord Township Solicitor, "Accufacts Comments on Adelphia Project Application to FERC (Docket No. CP18-46-000) as it might impact Concord Township," dated May 30, 2018.
- 63. Report to Mississippi Public Utilities Staff ("MPUS"), "Accufacts Review on Atmos Energy Corporation's Proposed Capital Budget for Fiscal Year 2019 related to System Integrity Program Spending (Docket N. 2015-UN-049)," prepared by Richard B. Kuprewicz, dated August 20, 2018.
- 64. Report to West Goshen Township Manager, PA, "Accufacts report on the repurposing of an existing 12-inch Sunoco pipeline segment to interconnect with the Mariner East 2 and Mariner East 2X crossing West Goshen Township," dated November 8, 2018.
- 65. Report to West Whiteland Township Manager, PA, "Accufacts Observations on Possible Pennsylvania State Pipeline Safety Regulations," prepared by Richard B. Kuprewicz, dated March 22, 2019.
- 66. Accufacts Public Comments on the Proposed Joint Settlement, BI&E v. Sunoco Pipeline L.P. ("SPLP"), Docket No. C-2018-3006534 ("Proposed Settlement"), submitted on August 15, 2019 to the Pennsylvania Public Utility Commission on the behalf of West Goshen Township as an intervener.
- 67. Report to West Whiteland Township Manager, Ms. Mimi Gleason, "Accufacts Perspective on Two Questions from West Whiteland's Board of Supervisors on Proposed Changes to ME 2 and ME 2X Construction/Operational Activities within West Whiteland," dated September 5, 2019."

- 68. Report to West Goshen Township Manager, Mr. Casey LaLonde, "Accufacts Report on the Heigh of the evening of 8-5-19 at the Mariner East Boot Road Pump Station ("Event"), Boot Road, West Goshen Township, PA," dated September 16, 2019.
- 69. Provided direct testimony before the Arizona Corporation Commission, In the Matter of the Application of Southwest Gas Corporation for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on Fair Value of the Properties of Southwest Gas Corporation Devoted to its Arizona Operations (Docket No. G-01551A-19-0055), testified on behalf of Utilities Division Arizona Corporation Commission, February 19, 2020.
- 70. Report to West Goshen Township Manager, Mr. Casey LaLonde, "Accufacts Report on the Mariner East 2X Pipeline Affecting West Goshen Township," dated July 23, 2020.
- 71. Assisted the Commonwealth of Massachusetts, Office of the Attorney General in developing pipelinesafety processes to be incorporated into the settlement agreement related to Columbia Gas' sale of Assets to Eversource following the Merrimack Valley, Massachusetts overpressure event of September 13, 2018.
- 72. Report to Natural Resources Defense Council, Inc., "Accufacts' Observations on the Use of Keystone XL Pipeline Pipe Exhibiting External Coating Deterioration Issues from Long Term Storage Exposure to the Elements." October 1, 2020.
- 73. Report to Pennsylvania Public Utilities Commission ("PAPUC"), "Accufacts Comments on Proposed Pennsylvania Intrastate Liquid Pipeline Safety Regulations," dated October 29, 2021, prepared for West Whiteland Township Board of Supervisors, West Whiteland Township, PA. Filed to PAPUC public web docket November 5, 2021 by West Whiteland Township under Reference Docket Number L-2019-3010267. Addresses suggested improvements in proposed pipeline safety rules for PA intrastate liquid transmission pipelines.

#### STATE OF MICHIGAN

#### BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the Application of Enbridge Energy, Limited Partnership for the Authority to Replace and Relocate the Segment of Line 5 Crossing the Straits of Mackinac into a Tunnel Beneath the Straits of Mackinac, if Approval is Required Pursuant to 1929 PA 16; MCL 483.1 et seq. and Rule 447 of the Michigan Public Service Commission's Rules of Practice and Procedure, R 792.10447, or the Grant of other Appropriate Relief

U-20763

ALJ Dennis Mack

#### PROOF OF SERVICE

On December 14, 2021, an electronic copy of *Rebuttal Testimony of Richard B. Kuprewicz on behalf of Bay Mills Indian Community* and *Exhibit BMC-37 (RBK-1)* was served on the following parties:

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Date: December 14, 2021

By: Christoph R. Clark

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