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August 15, 2019

VIA ELECTRONIC MAIL

British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, B.C. V6Z 2N3

Attention: Patrick Wruck, Commission Secretary and Manager, Regulatory Support

Dear Sirs/Mesdames:

Re: FortisBC Energy Inc. ("FEI") Certificate of Public Convenience and Necessity Application for the Inland Gas Upgrade Project ~ Project No. 1598988

We are counsel to the Commercial Energy Consumers Association of British Columbia (the "**CEC**"). Attached please find the CEC's third set of Information Requests to FEI with respect to the above-noted matter.

If you have any questions regarding the foregoing, please do not hesitate to contact the undersigned.

Yours truly,

OWEN BIRD LAW CORPORATION

Christopher P. Weafer

CPW/jj

cc: CEC
cc: FortisBC Energy Inc.
cc: Registered Interveners

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COMMERCIAL ENERGY CONSUMERS ASSOCIATION OF BRITISH COLUMBIA ("CEC")

INTERVENER INFORMATION REQUEST NO. 3
TO FORTISBC ENERGY INC.

FortisBC Energy Inc. Certificate of Public Convenience and Necessity Application for the Inland Gas Upgrade Project - Project No. 1598988

August 15, 2019

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44. Reference: Transcript #1 page 46-47 and page 48

> MR. CHERNIKHOWSKY: First of all, I don't think we are saying that it is exactly the same. What we're saying is it can be exactly the same, and the corrosion mechanism is independent of the age of the pipeline, whether it's 60-year old construction, it's 60-year old steel, or 20-year old construction and 20-year old steel. The mechanism of corrosion is the same. Fundamentally the steel is not really any different over the years. Yes, the construction methods may have changed, but the steel that actually composes the pipeline wall hasn't. And so it is still appropriate to use that same assumption regardless of the age of the pipeline.

MR. BALMER: I'd say type of coating is a factor that is considered by industry, but as we've presented is that there are factors other than coating that can impact the presence of corrosion, such as rocks. And so the uncertainty is such that it's not sufficient indicator for us to rely on for future performance. And that is consistent with industry practice.

44.1. Please discuss the changes in construction methods over time and how they would impact the corrosion of the various laterals.

44.2. Please discuss the various coatings used over time, and how these impact the corrosion of the various laterals.

44.3. If available, please provide a list of laterals associating the differing construction methods and coatings.

45. Reference: Exhibit B-17, PDF page 3/150 and Transcript 1 pages 11-12

Further to the update provided for Q1 2019, the following activities have been undertaken by FEI during Q2 2019:

- October 2018 – present: FEI's contracts with JANA Corporation pertaining to integrity data improvements and Quantitative Risk Assessment are progressing. FEI's first iteration of a segment-by-segment risk assessment process will be demonstrated through this work. FEI has been, and will continue to work closely with JANA through completion of these contracts, which is expected by year-end 2019.

- April 16, 2019: FEI and JANA delivered presentations to the BC Utilities Commission staff and Interveners on its planned Transmission Integrity Management Capabilities (TIMC) Project, which is anticipated to provide required upgrades for enabling in-line inspection with crack-detection (EMAT) tools or alternate crack-management strategies that may be deemed preferable through FEI's analysis. JANA's presentations comprised a general overview of quantitative risk assessments as well as updates on both the integrity data improvements and FEI's quantitative risk assessment. Copies of these presentations are attached.

- Preliminary documentation (e.g. methodology) has been made available by JANA for FEI review beginning in Q2 2019.
- Preliminary results have been presented by JANA to FEI in Q2 2019.

Further technical workshops are being scheduled between FEI and JANA representatives for Q3 2019 to confirm technical defensibility and documentation of these results are in line with FEI's expectation. FEI expects to meet with the BC OGC to review the results of the first iteration Quantitative Risk Assessment in Q4 2019 or Q1 2020.

FEI will submit its next update in Q4 2019 for the preceding quarter.

45.1. Please provide a summary of the preliminary results.

45.2. At what stage is the 'First Iteration' of the QRA at present?

45.3. Has FEI scheduled the appointment with the BC OGC? If yes, please provide the date.

45.4. What outcomes does FEI expect from its meeting with the BC OGC? Please explain.

45.5. Please comment, with quantification to the extent possible, on the likely increases in risks that could accrue if the Commission decision were to be deferred:

A) until after the FEI has met with BC OGC; and

B) for 1 year.

45.6. Please comment, with quantification to the extent possible, on the likely savings in costs that could accrue if the Commission decision were to be deferred for 1, 2 or 3 years.

46. Reference: Transcript Volume 1 pages 11-12

So here is a zoomed in, 3D view, and it shows a portion of a condominium complex in Kelowna, and these are the buildings in the bottom. It is an adult community with over 200 units in four residential buildings. Effectively we are seeing two of them here. And again, you can see the Kelowna 1 Loop pipeline corridor. These are the red lines.

> Now, when we talk of pipeline ruptures, one of the things we can calculate is the so-called potential impact radius, if an ignition occurs. And this is defined as, the radius of a circle within which the potential failure of a pipeline could have a significant impact on people or property. In other words, at the edge of the circle, there is a one percent chance of mortality, and that risk increases as one approaches the centre. It is a fairly simple calculation and it is based on the pipeline diameter and operating pressure, and it is explained in the Gas Research Institute Reference cited in the response to CEC IR 1.3.2.
>
> In the case of the Kelowna 1 Loop, that PIR, potential impact radius, works out to about 140 feet, and would encompass much of one of the buildings in that complex. As mentioned, individuals within this radius would expect serious injuries or worse.

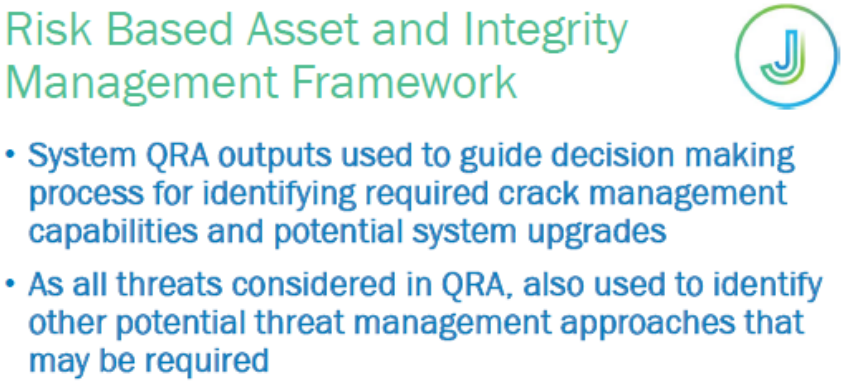
46.1. Has FEI conducted any assessments of the highest potential impacts from ruptures?

46.1.1. If yes, please provide.

46.1.2. If not, please explain why not?

46.2. Please comment, with quantification if possible, on the potential for cost savings to accrue if FEI were able to prioritize transmission laterals according to overall risk, such that the project could be conducted over a period of time five years longer than is currently planned.

47. Reference: Exhibit B-17, PDF page 61/150



47.1. Please discuss the 'other potential threat management approaches' that may be required.