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Railway Safety Act Review 2017-2018
255 Albert Street
Ottawa, Ontario K1P 6A9

Attention: Mr. Richard Paton, Chair

Dear Mr. Paton:

Re: Railway Safety Act Review 2017-2018

This letter is SaskEnergy Incorporated's submission to the Railway Safety Act Review Panel. SaskEnergy and its related companies maintain approximatively 1,720 crossing areas where federally regulated railways and natural gas pipeline facilities intersect in Saskatchewan. Despite the dangers associated with unauthorized work near natural gas pipelines, to date, we do not have an agreement with any federally regulated railway on commonly accepted safety practices for work near our pipelines. Our submission contains proposals to deal with this problem.

Introduction

Like railways, energy pipelines that cross provincial borders are regulated by the federal government and those that are entirely within one province are regulated provincially. Provincially regulated lines include the smaller natural gas distribution pipelines that ultimately go to every house or business equipped with a natural gas furnace or water heater. They also include the largest and highest pressure transmission lines. There is an estimated 825,000 km of pipelines of all kinds in Canada: 250,000 km of gathering lines; 25,000 km of feeder lines; 100,000 km of large-diameter transmission lines and 450,000 km of local distribution lines. These pipelines are located in urban and rural areas, and in the case of distribution lines are found in great webs of infrastructure through backyards and alleys throughout the country. By necessity these pipelines must routinely and safely cross other pipelines, roads and railways, municipal infrastructure, telecommunication facilities, and electrical facilities.

SaskEnergy Incorporated

SaskEnergy is a Saskatchewan Crown Corporation that distributes natural gas in the Province of Saskatchewan. SaskEnergy serves approximately 390,000 residential, farm, commercial and industrial customers throughout Saskatchewan. SaskEnergy purchases natural gas from independent suppliers and transports it through its approximately 70,000 kilometre distribution system to 93% of Saskatchewan communities. SaskEnergy's subsidiary TransGas Limited is responsible for the transmission of natural gas within the Province, and SaskEnergy's subsidiary Many Islands Pipe Lines (Canada) Limited transports gas inter-provincially. This represents another 15,000 kilometres of pipeline in the Province, approximately, in addition to the

approximately 70,000 kilometre distribution system. SaskEnergy is a member of the Canadian Gas Association ("CGA") and TransGas is a member of the Canadian Energy Pipeline Association ("CEPA").

To put the size and scope of this provincial undertaking in context, the approximate size of the entire National Energy Board regulated pipeline infrastructure is 74,400 kilometres in aggregate, approximately, representing over 100 different pipeline operators.

Natural gas is a flammable substance, and if inadvertently released, can be explosive. Maintenance, inspection and evaluation of pipelines and pipeline coatings are a continuous concern. Protection of pipelines and pipeline coatings from inadvertent equipment contact, improper excavation, improper backfill, loss of cover, loss of cathodic protection, corrosion and weight loading above current capacity, is necessary to prevent an unintended and potentially disastrous release of natural gas.

Like roads or wire crossings, pipeline facilities and railways are both linear facilities that can and do traverse and segment the entire populated area of the Province. SaskEnergy and TransGas pipelines intersect with federally and provincially regulated railways in the Province of Saskatchewan at numerous locations. Most of this pipeline network has developed since the 1950's, with the first transmission line installed in 1952.

In Saskatchewan there are currently 819 active crossings by CP Rail and 901 crossings by CN of our active natural gas pipelines, approximately. This does not include abandoned railway crossings which require ongoing maintenance, or railway crossings that have been transferred to other railways. The active crossings, and the scope of the overlap between the parties' facilities, can be seen on the attached maps.

Standards Respecting Pipeline Crossings Under Railways (TC E-10)

The Standards Respecting Pipeline Crossings Under Railways (TC E-10) were developed by the Railway Association of Canada and approved by Transport Canada for use by its members under the federal Railway Safety Act. Once approved, the engineering standard had the same force and effect as if it were a regulation made by Transport Canada. These standards provide technical specifications for installation of new pipeline crossings under railways. While the standard imposes obligations on pipeline operators to maintain the pipe in good working order and condition to ensure safety, there is no corresponding requirement on railways to ensure that their activates do not inadvertently jeopardize the safety of the pipeline under their railway. For example, there is no obligation in the Standard which requires railways to request pipeline location information from a utility prior to excavating above a pipeline. Likewise, while the Standard prohibits pipeline companies from accessing the pipeline without the railways company's written approval, there is no corresponding obligation on the railway prior to performing excavation work in the crossing area that could put pipeline and public safety in jeopardy. There is no specification in the Standard providing setbacks or safe distances for railway work in the crossing area, or what comprises the crossing area.

Commonly accepted practices that protect buried natural gas pipelines which should be adopted by the railway industry include requirements:

a) to obtain pipeline locates prior to ground disturbance in the crossing area;
b) to use hand or hydro vac excavation techniques when working within 0.6 meters of natural gas pipeline (or such greater distances as may be appropriate);
c) to support pipelines during excavation;
d) to promptly notify utilities in the event of inadvertent pipeline contact including contact due to derailments and other rail emergencies;
e) not to operate heavy equipment over unprepared surfaces overlying pipelines without utility consent (the raised rail bed itself being a prepared surface generally); and
f) for utility consent, or a crossing agreement, prior to ground disturbance near a pipeline.

The utility or pipeline operator consent itself is important, because the operator will possess information as to the maintenance, location and integrity of the pipe, its coatings and composition, that random contractors hired to work for the railway will not. The practice is not to deny consent, but to impose conditions such that the work may be done safely, and under appropriate supervision, and so as to avoid immediate pipeline ruptures or long term corrosion, pipeline stress cracking or other issues.

Despite the dangers of unauthorized work near natural gas pipelines, SaskEnergy has been unsuccessful in reaching agreement with the railways on these commonly accepted safety practices. The operability, application and effect of various provincial laws in the federal railway context have been very much in dispute. Further, CP Rail has suggested that the pipeline operator's safety concerns are "exaggerated, founded on hypothetical assertions, and fail to appreciate the depth of the applicable legislative and regulatory framework in existence". In the circumstances SaskEnergy respectfully submits that a communication gap and a safety gap exists and needs to be addressed under the Railway Safety Act by requiring federally regulated railways to follow these simple precautions.

Canadian Transportation Agency Ruling

SaskEnergy had taken its concerns to the Canadian Transportation Agency, in a case where CP Rail was constructing a new rail spur across pre-existing pipelines. It was a significant proceeding with a 3300 page motion record on leave to appeal. SaskEnergy did not oppose the crossing, but opposed unfettered re-entry by the railway to excavate and install new facilities in the crossing area. Before the Agency, several expert reports are filed in support of the pipeline operator's safety concerns. Copies of these reports are attached.

The position of the railway was that the application was "not a referendum on TC E-10 or re-statement of the safety standards and protocols that are required to facilitate/govern/oversee the safe operation of the intersection of railways and utilities." Although the Agency found that it saw no reason why provincial pipeline safety laws would not apply to a federally

regulated railway in the contexts argued, it also found that it did *not* have the jurisdiction to evaluate or impose the pipeline safety conditions requested by SaskEnergy.

> [25] With respect to the terms and conditions of the crossing, the Agency notes that both parties (i.e. the Utilities and CP) presented arguments and evidence regarding issues associated with ground disturbance of land surrounding the location of utility facilities, as well as best practices. The Agency considers these matters to be in relation to safety and therefore within Transport Canada's purview. As such, the Agency did not consider those issues.

A copy of the CTA decision is enclosed.

As is routinely the case with crossing applications, Transport Canada was apparently provided with some or all of the materials before the Agency, including subsequently requested technical drawings not in dispute between the parties.

A copy of the reply letter, finding no safety concerns, and referencing TC E-10 and "construction of the utility crossing works, the crossing area or utility line" is attached.

SaskEnergy's experience in this case was not positive from a public and worker safety perspective. This was a railway operator constructing facilities across multiple existing transmission and distribution lines. By the time a written reply was prepared to the railway's application for crossing, construction of the railway facilities had commenced, and two separate incident reports were filed alleging multiple contraventions of provincial law or existing agreements, by railway contractors. There are alleged instances of pipe loading contrary to the engineering recommendation of the pipeline operator, failure to get line locates, failure to maintain required depth of cover, failure to wait for the utility to alter its facilities, and unsupervised excavation. Whether the railway operator views these contractor incidents as "real, non-hypothetical" safety incidents or whether the various railway codes and guidelines recognize them as safety concerns, they are in fact safety issues.

This is an example only, where the relevant reports are public and part of both the Agency and Federal Court file. SaskEnergy is able to provide other examples as well on request.

Conclusion

Excavation best practices near underground infrastructure have evolved in recent decades, and public safety has been enhanced in Canada in essentially every industry except the rail industry. Safety is important and public confidence is important.

Failure to acknowledge these concerns as legitimate is the most significant issue, together with a tendency to portray these issues as legal, contractual, constitutional, jurisdictional or property rights issues, rather than as public safety issues. Pipeline protection issues cannot be left to the sole expertise, knowledge and discretion of the railway operator, or to the whims of its contractors. Failure to account for and recognize excavation best practices in the arrangements between federally regulated railways and gas pipeline utility companies leaves

both industries open to legitimate criticism in the event of an incident involving or threating the safety of workers or the public due to an inadvertent release of natural gas. By making the straight forward changes recommended here, and ensuring that *both* the pipeline operator *and* the railway operator receive the appropriate guidance in the crossing area, Canada can avoid a potentially catastrophic future accident in its federally regulated railway industry.

We would be pleased to meet with the Panel on your visits to Saskatchewan this fall and to provide further information on the necessity for Canada's railways to adopt the safety best practices mentioned in this submission.

Sincerely,
SASKENERGY INCORPORATED

Derrick Mann
Vice President, Engineering, Integrity & Construction

cc:
Brigitte Diogo, Director General, Rail Safety, Transport Canada