The Buried Facilities Working Group of the External Relations Committee

Issues with regard to BC Common Ground Alliance and CSA Standard CSA-Z247 "Damage Prevention for the Protection of Underground Infrastrucure"

Members: Greg Calvert – Chair
Aaron Shufletoksi, Milos Hinterbberger, Scott Rhodes
Roger Galibois ERC Liaison
Scott Netherton, ABCLS representative on the BCCGA board.

November 30, 2015

Background:

On June 18, 2015, Bill C-46, the *Pipeline Safety Act* received royal assent and became law. This Bill amended the National Energy Board Act and the Canada Oil and Gas Operations Act.. The bill applies to federally regulated pipelines. In the context of this paper the bill establishes a definition of "ground disturbance" and a definition of "prescribed area" in federal legislation. The definition of ground disturbance essentially applies to any activity to a depth exceeding 30cm. The definition of Prescribed Area refers to any activity causing ground disturbance within 30m of a pipeline. These definitions are concerning in that, by enshrining them in legislation, a precedent is set for subsequent legislation. Regulations to accompany the legislation are currently being developed. In addition to the definitions mentioned above, the regulations also call for a mandatory One call enquiry for anyone planning a "ground disturbance" within the prescribed area.

The CSA Z247 Standard was formed, in part, by the CSA (Canadian Standards Association) Taskforce. A Technical Committee on 'Damage Prevention for the Protection of Underground Energy and Utility Networks' provided significant input with the content of the Standard. Mike Sullivan chaired this committee; he is also the Chair of the CCGA (Canadian Common Ground Alliance) and President of Alberta One Call. Many stakeholders formed this committee, including NRC, BC Oil & Gas commission, Hydro Quebec, FortisBC Energy, TransCanada Pipelines and the CSA Group.

The CCGA, along with all stakeholders, works to reduce damages to underground infrastructure by promoting damage prevention practices. They promote national consistency for Damage Prevention legislation. They also call for mandatory membership and registration in a One Call Centre for buried infrastructure owners and operators and a ***mandatory "Call Before You Dig"*** system. *"…any party that will cause a ground disturbance must contact the One Call Centre to obtain a locate of buried infrastructure within the specified timeframe (5 days) prior to commencing their project*".

The BCCGA (BC Common Ground Alliance), as a regional partner, promotes the provincial interests of the CCGA. The executive director is Dave Baspaly and its main stakeholders include WorkSafe BC, Telus, BC Hydro, Fortis BC, BC One Call, Kinder Morgan, Spectra Energy and TransCanada.

Currently, CSA Z247 is not mandatory. However, there is extensive lobbying of government officials at the federal, provincial and municipal levels by interested stakeholders, including the CCGA and its regional partners, to achieve this. As a result, there is a strong likelihood that it will become mandatory in the near future. There is apparently a recommendation from the Senate Standing Committee on

Energy, the Environment and Natural Resources that states: “That the federal government reference the CSA Z247 standard for protection and prevention of damage to buried infrastructure in relevant federal legislation and encourage provinces and territories to reference the standard in legislation.” The Senate Standing Committee is developing damage prevention legislation governing federally-regulated underground infrastructure. The proposed legislation, BILL S-233, reached second reading in June 2015 before expiring in accordance with the commencement of the 2015 federal election process.

Excerpts from Damage and Prevention Standards (CSA Z247-15)

Definitions

Excavator-Any person, partnership, corporation, public agency, agent, or other entity that is responsible for carrying out a ***ground disturbance.***

Ground Disturbance- Any work, operation, or activity on or under the existing surface resulting in a disturbance or displacement of the soil or ground cover
Notes:

1) *Ground disturbance can include but are not limited to the following*:
    a) Digging
    b) Excavation
    c) Trenching
    d) Ditching
    e) Tunneling
    f) Boring/drilling/pushing
    g) Augering
    h) Topsoil stripping
    i) Land levelling/grading
    j) Plowing to install underground infrastructure
    k) Tree planting
    l) Clearing and stump removal
    m) Subsoiling
    n) Blasting/use of explosives
    o) Quarrying
    p) Grind and milling of asphalt/concrete
    q) Seismic exploration
    r) Driving fence posts, bars, rods, pins, anchors or pilings and
    s) Crossing of buried pipelines or other underground infrastructure by heavy loads off the travelled portion of a public roadway

2) For the purposes of this standard the definition of “ground disturbance” does not include agricultural cultivation to a depth less than 450mm that does not reduce the cover over the underground infrastructure-

Locating and ground disturbance

Except in the case of emergency situations, the excavator shall contact owners to inform of a ground disturbance ***at least five business days prior to ground disturbance***

a) Via a one-call service; or
b) Directly where there is no one-call service.

Planning a Ground Disturbance

Before requesting a locate of underground infrastructure, and where appropriate, the planner should conduct a review of the site for aboveground evidence of underground infrastructure. Indications of underground infrastructure can include signage or any visible warning signs near the site. The planner should also pay close attention to the area for indications of ground settling from previous work, or evidence of a previous ground disturbance that could indicate the presence of underground services. The planner should

a) consult the land titles office for the presence of easements or rights-of-way;
b) verify municipal records for the existence of underground infrastructure;
c) check survey, plot plans, and any other available maps or references;
d) communicate with landowners and residents, and the local or municipal authority regarding the scope of the planned ground disturbance; and
e) obtain third-party agreements as required for planned ground disturbance activities.

Life Span of a Locate

Locates shall be valid until any of the following occurs:
a) the length of time stipulated on the locate form has passed;
b) the locator's marks have not been maintained or are not visible; or
c) the conditions of the locate have changed. **Note:** *During long, complex projects, the marks for underground infrastructure might need to be in place longer than the locating method is durable. Paint, staking, and other marking techniques last only as long as the weather and other variables allow.*

Impact on Land Surveying Profession:

If the standards within CSA Z247 become mandatory through provincial legislation, placing any survey monuments of type 1, 4 or 5 (standard iron post) as defined by the General Survey Instructions, will trigger a One Call Centre notification. as all of these posts exceed the allowable 0.3m depth Since the type 5 standard iron post is by far the most common monument used in land surveying, it would greatly affect how a land surveyor plans monument placing activity. Five days prior notification would be required before any actual posting can be undertaken.

The main impact would be the overwhelming demand on the One Call Centre for locates. At the present time it is extremely unlikely they would be able to manage the demand placed upon them if every land surveyor requested a locate of underground infrastructure before posting.

Lengthy delays for completing many projects in a timely manner would be costly not only to the land surveyor and client but to the BC economy as well.

At present, BC One Call does not have the participation of all infrastructure owners. Although they are able to meet the current volume of voluntary notifications to BC One Call, with respect to locate requests, this will likely change drastically if mandatory notification is required.

Next steps:

1. Refer this report to the ERC and/or the Board of Management to review and provide Scott Netherton, as our representative on the BCCGA, with direction as to the position and level of conviction the Association wishes to take on these matters.

2. Work with Scott to develop a formal reporting procedure in order that the ERC and the Board remain apprised of developments in a timely manner.

3. Continue to research and discuss with the BCCGA their strategy and objectives with respect to mandatory implementation of the provisions of CSAZ247 at the provincial and municipal level.

4. Request that PSC (Professional Surveyors Canada) lobby government officials at the federal, provincial and municipal levels for an exemption or partial exemption to land surveyors (similar to what the agricultural industry has with respect to cultivation of fields). They will also need to submit a formal request to NRCan and the CCGA requesting support for an exemption to CSA Z247. The argument could be made that Land Surveyors, as members of a Professional body, should be allowed the discretion to determine when notification to a One Call Centre is required.

5. Develop strategies to take forward to the BCCGA to address our concerns

Attachments :

- NEB Call for Comments w/r to NEB Act Regulations.
- CCGA response to the Call for Comments.

National Energy Board

Office national de l'énergie

File Ad-GA-ActsLeg-Fed-NEBA-RRG-DPR 0201
20 October 2015

To: All Interested Parties

Dear Sir or Madam:

25-Day Comment Period on Update to the National Energy Board's Damage Prevention Regulatory Framework

Amendments to the NEB's Damage Prevention Regulations

The *Pipeline Safety Act* (Bill C-46) received Royal Assent on 18 June 2015, and the *Pipeline Safety Act* amendments to the *National Energy Board Act* (NEB Act) will be in force within one year of that date. Due to the *Pipeline Safety Act* amendments to the NEB Act, the NEB must update its pipeline Damage Prevention Regulations within one year.

The *Pipeline Safety Act* amends sections 2, 51, 51.1 and 112 of the NEB Act. The principle effect of these changes is to authorize the NEB to make regulations based on a positive requirement approach, rather than an exemption based approach. The update to the NEB's Damage Prevention Regulations resulting from the *Pipeline Safety Act* will also include the NEB's 2014 proposed amendments for incorporating damage prevention best practices and more clearly defining key safety requirements.

An overview of the proposed amendments for the affected regulations is listed below and can also be found on the NEB's website under "Acts and Regulations" (http://www.neb-one.gc.ca).

Yours truly,

Original signed by

Sheri Young
Secretary of the Board

517 Tenth Avenue SW
Calgary, Alberta T2R 0A8

517, Dixième Avenue S.-O.
Calgary (Alberta) T2R 0A8

Canada

Telephone/Téléphone : 403-292-4800
Facsimile/Télécopieur : 403-292-5503
http://www.neb-one.gc.ca
Telephone/Téléphone : 1-800-899-1265
Facsimile/Télécopieur : 1-877-288-8803

Update to the National Energy Board's Damage Prevention Regulatory Framework

Amendments for the NEB's Damage Prevention Regulations

Background

In the National Energy Board's (NEB) Damage Prevention Regulatory Framework, the responsibility to prevent pipeline damage is shared between anyone who plans to undertake construction or excavation near a pipeline and the pipeline company. Pipeline companies are required to ensure that people know how to safely conduct activities that involve excavation and construction near pipelines, and people planning these types of activities near pipelines are required to confirm the location of pipelines with the pipeline companies before they start activities near pipelines.

The NEB provides regulatory oversight of both, and must create a damage prevention framework necessary to hold people and companies accountable to carry out these responsibilities. The NEB's compliance verification, enforcement, and stakeholder engagement activities support this framework and are used to promote safety and environmental protection.

The *Pipeline Safety Act* received Royal Assent on 18 June 2015. The *Pipeline Safety Act* amendments to the *National Energy Board Act* will be in force within one year of that date. Due to the *Pipeline Safety Act* amendments to the *National Energy Board Act*, the NEB must update its pipeline damage prevention regulations by June 2016. The regulations affected are the:

- *National Energy Board Pipeline Crossings Regulations, Part I* (PCR I)
- *National Energy Board Pipeline Crossings Regulations, Part II* (PCR II)
- *National Energy Board Administrative Monetary Penalties Regulations* (AMPs)

Updates to the Damage Prevention Regulatory Framework

There are three main areas of the Damage Prevention Regulatory Framework that will be updated:

1. Modernizing the regulatory language. An example of this can be found in PCR I, section 4. In section 4, there is an exemption-based structure where 'Leave of the Board' is not required to undertake certain activities provided a series of specific conditions and

circumstances are met. Writing this section of the regulation in a modern way would require a positive structure. This means that certain activities will be authorized through the regulations. For example, construction of facilities may be authorized if the party wanting to undertake the activity conforms to the measures outlined in the regulations. An example of such a measure would be the need to complete the facility construction within two years after the date of receiving the pipeline company written permission.

2. Amending the regulations to reflect the legislative changes made to the *National Energy Board Act* by the *Pipeline Safety Act*. These include:
    a. removing the term 'excavation' and replacing it with the broader term 'ground disturbance*' (legislative definition provided below);
    b. defining the term 'prescribed area' in which unauthorized ground disturbances are prohibited;
    c. identifying the measures required to be met in order to safely construct a facility on, across, along or under a pipeline or engage in an activity that causes a ground disturbance within the prescribed area; and
    d. identifying the measures to be met in order to safely cross a pipeline by vehicle or mobile equipment.

3. Amending the regulations to reflect the results from the last public consultation period conducted in September 2014. These include adding:
    a. a damage prevention program requirement to the *Onshore Pipeline Regulations* for NEB-regulated pipeline companies to develop, operate and maintain within their management system;
    b. a requirement for third parties to initiate a locate request with their local one-call centre before commencing any ground disturbance (PCR I);
    c. a requirement for NEB-regulated pipeline companies to be members of one-call centres where they operate a pipeline (PCR II); and
    d. the intent the NEB's Exemption Order *MO-21-2010 (Low Risk Crossings by Agricultural Vehicles)* into the regulations.

*The phrase 'excavation within 30 metres of the pipeline using power equipment or explosives' has been replaced by "ground disturbance" as defined in the *Pipeline Safety Act* (s.2):

"ground disturbance"

"ground disturbance" does not include a ground disturbance caused by

(a) any activity that is specified in the orders or regulations made under subsection 112(5),

(b) cultivation to a depth of less than 45 cm below the surface of the ground, or

(c) any other activity to a depth of less than 30 cm and that does not result in a reduction of the earth cover over the pipeline to a depth that is less than the cover provided when the pipeline was constructed;

Opportunity to Comment

If you have comments on the proposed updates for the NEB's pipeline damage prevention regulations please submit them by email, fax, or mail to the address listed below. The deadline is 13 November 2015.

After the close of the comment period, the written comments will be posted on the NEB website. The NEB will consider the comments received by the deadline and update the proposed damage prevention regulations as necessary. The proposed regulations will then be pre-published in the *Canada Gazette*, Part I, for a 30 day comment period. Information concerning the *Canada Gazette,* Part I comment period will be posted on the on the NEB's website, under the 'What's New?' section at a later date. Interested parties will be able to review the proposed regulations and provide additional comments at that time.

NEB Pipeline *Damage Prevention Regulations*
Sheri Young
Secretary of the Board
National Energy Board
517-10th Avenue SW
Calgary, AB T2R 0A8
Canada
Fax: 403-299-5503
Fax (toll free): 1-877-288-8803
Email: damagepreventionregs@neb-one.gc.ca

Canadian Common Ground Alliance

Ms Sheri Young
Secretary of the Board
National Energy Board
517 Tenth Avenue SW
Calgary, Alberta T2R O8A

By Email: damagepreventionregs@neb-one.gc.ca

DATE 2015

Re: 25-Day Comment Period on Update to the National Energy Board's Damage Prevention Regulatory Framework Amendments to the NEB's Damage Prevention Regulations (File Ad-GA-ActsLeg-Fed-NEBA-RRG-DPR 0201)

The Canadian Common Ground Alliance (CCGA) respectfully submits the attached response to the National Energy Board ("NEB" or "the Board") following its October 20, 2015 general request for comments on the Proposed Regulatory Amendments to the NEB's Damage Prevention Regulations.

The CCGA represents the collective voice of its twenty-three member Board of Directors dedicated to working toward damage prevention solutions that will benefit all Canadians. Through our Board, the CCGA reaches roughly 1.3 million Canadians who are stakeholders of the Damage Prevention Process. Through shared responsibility among these stakeholders, the CCGA works to reduce damages to underground infrastructure; ensuring public safety, environmental protection, and the integrity of services by promoting effective damage prevention practices.

The CCGA wishes to thank the National Energy Board for the opportunity to provide comment and looks forward to continuing a collaborative dialogue that will assist the Board in reaching our mutual goal of effective damage prevention governance.

Sincerely,

Mike Sullivan - Executive Director
CANADIAN COMMON GROUND ALLIANCE
T: 403.531.3712 / C: 403.650.3661

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1. Modernizing the regulatory language.

   In its correspondence of October 20, 2015, the Board states:

   In the Pipeline Crossing Regulations, Part I, section 4, there is an exemption-based structure where 'Leave of the Board' is not required to undertake certain activities provided a series of specific conditions and circumstances are met. Writing this section of the regulation in a modern way would require a positive structure. This means that certain activities will be authorized through the regulations. For example, construction of facilities may be authorized if the party wanting to undertake the activity conforms to the measures outlined in the regulations. An example of such a measure would be the need to complete the facility construction within two years after the date of receiving the pipeline company written permission.

   Question: *The CCGA questions the Board's direction to modernize the regulatory language of the DPRs. What are the motivating factors driving the Board to do so?*

   Feedback provided to the NEB over the past fifteen years of DPR development has consistently underlined the need for regulatory clarity. Additionally, the CCGA's Damage Prevention White Paper's, "Damage Prevention Legislation Elements Required for Canada", first element states:

   > *"**Clarity:** Regulatory language should be clear and concise in defining the accountabilities, roles and responsibilities of all parties."*

   The current language of the Pipeline Crossing Regulations, Part I and Part II, is very clear and explicitly defines the roles of the excavator and pipeline company. Modernizing the regulatory text in the manner described could lead to regulatory ambiguity.

   The CCGA does not support modernizing the regulatory language of the DPRs.

2. Amending the regulations to reflect the legislative changes made to the National Energy Board Act by the Pipeline Safety Act.

   These include:

   a) removing the term 'excavation' and replacing it with the broader term 'ground disturbance*' (legislative definition provided below);

   The CCGA prefers the definition for ground disturbance in CSA Z247, published in English in June 2015 with French publication expected November 2015.

   CSA Z247 was developed, in part, to offer damage prevention symmetry across regulatory jurisdictions. In an effort to achieve that goal, the CCGA reached out to request active engagement of five underground infrastructure regulators - the Technical Standards and Safety Authority – Ontario, the Alberta Energy Regulator, the British Columbia Oil & Gas Commission, Natural Resources Canada and the National Energy Board. As an active participant in the 2.5

year development of the damage prevention standard, the CCGA urges the NEB to adopt the ground disturbance definition captured in CSA Z247 (below).

***Ground disturbance** — any work, operation, or activity on or under the existing surface resulting in a disturbance or displacement of the soil or ground cover.*

Notes:

1) Ground disturbances can include, but are not limited to, the following:
- *a) digging;*
- *b) excavation;*
- *c) trenching;*
- *d) ditching;*
- *e) tunnelling;*
- *f) boring/drilling/pushing;*
- *g) augering;*
- *h) topsoil stripping;*
- *i) land levelling/grading;*
- *j) plowing to install underground infrastructure;*
- *k) tree planting;*
- *l) clearing and stump removal;*
- *m) subsoiling;*
- *n) blasting/use of explosives;*
- *o) quarrying;*
- *p) grinding and milling of asphalt/concrete;*
- *q) seismic exploration;*
- *r) driving fence posts, bars, rods, pins, anchors, or pilings; and*
- *s) crossing of buried pipelines or other underground infrastructure by heavy loads off the travelled portion of a public roadway.*

2) For the purposes of this Standard, the definition of "ground disturbance" does not include agricultural cultivation to a depth less than 450 mm that does not reduce the cover over the underground infrastructure.

b) defining the term 'prescribed area' in which unauthorized ground disturbances are prohibited;

The CCGA is aware that the term "Safety Zone" does not appear in regulatory text; however, the "prescribed area" being offered by the NEB is well-known as the "30 metre safety zone and pipeline right of way". The federally-regulated pipeline industry and the NEB have promoted awareness of how to live and work near pipelines, the rules to follow when working in the safety zone and right of way; and, the authority of both the pipeline company and the NEB relative to the safety zone and right of way, for decades through countless pamphlets, documents, presentations, and other awareness materials. It is the CCGA's view that these awareness efforts have been effective.

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Similar to our first response regarding the NEB's goal to "modernize regulatory language", the CCGA questions why the NEB is introducing a new term for this 'zone' when instead it could solidify it by simply including the term "Safety Zone" in regulatory text?

The CCGA does not support introducing the term "prescribed area" to describe the area in which unauthorized ground disturbances are prohibited (ie: "Safety Zone" and right of way).

c) identifying the measures required to be met in order to safely construct a facility on, across, along or under a pipeline or engage in an activity that causes a ground disturbance within the prescribed area; and

Agreed. The CCGA supports regulatory clarity.

d) identifying the measures to be met in order to safely cross a pipeline by vehicle or mobile equipment.

Agreed. The CCGA supports regulatory clarity.

3. Amending the regulations to reflect the results from the last public consultation period conducted in September 2014. These include adding:

a) a damage prevention program requirement to the *Onshore Pipeline Regulations* for NEB-regulated pipeline companies to develop, operate and maintain within their management system;

Agreed.

b) a requirement for third parties to initiate a locate request with their local one-call centre before commencing any ground disturbance (PCR I);

Agreed.

c) a requirement for NEB-regulated pipeline companies to be members of One-Call centres where they operate a pipeline (PCR II); and

Agreed.

d) the intent the NEB's Exemption Order *MO-21-2010 (Low Risk Crossings by Agricultural Vehicles)* into the regulations.

Agreed.

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CCGA General Comments:

1. CSA Z247

Regulatory symmetry is one of the more significant challenges facing effective damage prevention governance in Canada. With the eventual promulgation of the DPRs, the NEB has a unique advantage to overcome this challenge by referencing CSA Z247, *Damage prevention for the protection of underground infrastructure*, in the DPRs. As an active and engaged participant throughout the development of CSA Z247, the CCGA urges the NEB to do so.

In support of this, the Senate Standing Committee on Energy, the Environment and Natural Resources' publication, *DIGGING SAFELY - One-Call Notification Systems and the Prevention of Damage to Canada's Buried Infrastructure*, recommends the federal government reference CSA Z247. Among over a dozen witnesses, the NEB's Chair at the time, Gaetan Caron, delivered witness testimony during the Standing Committee's study.

Senate Standing Committee's Recommendations, Recommendation 1:

"That the federal government reference the CSA Z247 standard for protection and prevention of damage to buried infrastructure in relevant federal legislation and encourage provinces and territories to reference the standard in legislation."

2. BILL S-233

Further to the published findings and recommendations of the Standing Senate Committee's report, the CCGA has been working with Senator Grant Mitchell's Legislative Assistant and Parliamentary Counsel since April 2015 to develop damage prevention legislation governing federally-regulated underground infrastructure. The proposed legislation, BILL S-233, reached second reading in June 2015 before expiring in accordance with the commencement of the 2015 federal election process. At that time, the legislation was made public and comments / feedback were requested.

BILL S-233 remains under development. To date, the CCGA notes the NEB has not provided written feedback to the CCGA or to any Regional Partner of the Common Ground Alliance in Canada on the proposed legislation. In this context, the CCGA is curious whether or not BILL S-233 has been contemplated by the Board in the development of the DPRs or, whether or not the language in BILL S-233 should be amended to better reflect NEB damage prevention governance.

Closing Comment:

The CCGA continues to recognize the long history behind the development of the DPR and congratulates the NEB on securing language that will protect the integrity of Canada's transmission pipeline network while balancing with effective and existing legislation.