November 25, 2020

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File No. T1023082

VIA RESS

Ms. Christine E. Long
Registrar
ONTARIO ENERGY BOARD
P.O. Box 2319, 27th Floor
2300 Yonge Street
Toronto, Ontario
M4P 1E4

Dear Ms. Long:

Re: Bruce Power L.P. (Bruce Power) Application for Section 95 Exemption from Leave to Construct (LTC) a Proposed Pipeline.

We write as legal counsel to Bruce Power L.P. (Bruce Power). Submitted herewith please find an Application by Bruce Power for exemption, pursuant to section 95 of the *Ontario Energy Board Act, 1998* (*OEB Act*), from the requirement to obtain Leave to Construct (LTC) for a proposed hydrocarbon pipeline (Proposed Pipeline).

The Proposed Pipeline

Bruce Power is planning to connect certain of its ancillary buildings on the Bruce Nuclear Power Development (BNPD) site near Kincardine, Ontario, to the new EPCOR Natural Gas L.P. (ENGLP) South Bruce gas distribution system currently under construction in the area. Connecting the BNPD ancillary facilities to gas service will entail construction of a natural gas pipeline on the BNPD property, connected to the EPCOR gas distribution system at the property entrance and running alongside the central service road through the property. Laterals will run from that main pipeline to connect Bruce Power ancillary buildings on the site. The gas service is to be used for heating ancillary buildings on the site and will have no impact on the operation of, or be physically connected to, the nuclear power generation stations on the site.

Basis for Section 95 Exemption Request

As detailed in Bruce Power's Application, neither the length of the Proposed Pipeline nor the size or operating pressure of the pipes triggers the LTC requirements under sub-section 90(1) of the *OEB Act*. However, there are unique requirements for any construction activity on a Canadian Nuclear Safety Commission (CNSC) regulated nuclear operations site such as the BNPD which, together with Bruce Power's standard best practices for its BNPD operations, result in a projected cost for the Pipeline of just over the $2 million threshold for LTC approval requirement. But for these special circumstances a LTC requirement would not be triggered by the Proposed Pipeline. Further, in light

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of these circumstances and the resulting imperative to bring this Application, Bruce Power has delayed construction of the Proposed Pipeline pending the Board's consideration of this Application, which has increased the projected cost of the Proposed Pipeline to account for winter construction.

As articulated in the Application, Bruce Power seeks an exemption from the *OEB Act* subsection 90(1) LTC requirement as contemplated by section 95 of the *OEB Act* on the basis of the *"special circumstances"* associated with construction on a CNSC regulated nuclear operations site. Bruce Power submits that the special requirements associated with the BNPD nuclear operations are precisely the sort of *"unusual or uncommon"* circumstance contemplated in previous OEB decisions regarding LTC requirements and *OEB Act* section 95 exemption therefrom.

Alternative Relief

Bruce Power has included in its Application information illustrating that;

1. the Proposed Pipeline is to be constructed and operated entirely on the BNPD site, alongside the central services roadway through the site and alongside an existing utility corridor, and except for OPG as owner of the land leased to Bruce Power on which the Proposed Pipeline will be constructed, Hydro One whose easement on the land will be crossed by the Proposed Pipeline and Canadian Nuclear Laboratories as manager of the decommissioning phase of the Douglas Point Nuclear Generating Station which is located on the BNPD, all of which parties have been involved in planning for the Proposed Pipeline, no other landowners will be impacted by the Proposed Pipeline;

2. Bruce Power's environmental screening has indicated no material environmental impact from the Proposed Pipeline;

3. through its ongoing work with indigenous stakeholders with interests related to operation of the BNPD, Bruce Power can confirm that there will be no incremental impact on local indigenous interests from the Proposed Pipeline, Bruce Power has advised, and will continue to update, its indigenous stakeholders of the Proposed Pipeline and no concerns have been raised;

4. Bruce Power's agreement with its contractor on the project, EPCOR Commercial Services Inc. (EPCOR CS), an affiliate of ENGLP, will require that EPCOR CS adhere to all technical design, construction and operating requirements for hydrocarbon pipelines in constructing and operating the Proposed Pipeline, including design, construction and operation of the pipeline in compliance with O. Reg 210/01 *Oil and Gas Pipeline Systems*, under which Bruce Power will be the licenced fuel distributor; and

5. Bruce Power is not rate regulated and construction of the Proposed Pipeline will thus have no ratepayer impact. The Proposed Pipeline will reduce Bruce Power's operating costs as well as contribute to ENGLP's regulated gas distribution revenue, at no cost to ENGLP's existing and planned distribution customers, and as such is in the public interest.

Bruce Power has proceeded on the basis that a section 95 exemption from the requirement to obtain LTC the Proposed Pipeline is available to it and has requested that the Board consider and determine its application therefore.

However, should the Board conclude that exemption from the LTC requirements of subsection 90(1) of the *OEB Act* should not apply in the circumstances of the Proposed Pipeline, then, in the alternative, and on the basis of the information noted above and further articulated in the Application, Bruce Power requests that the Board consider its Application as one for LTC under subsection 90(1) of the *OEB Act* and, in that case, proceed to consider and determine the Application without a hearing, pursuant to subsection 21(4) of the *OEB Act*.

Request for Expedition

Bruce Power also respectfully requests that the Board expedite its consideration of its Application to the extent that it reasonably can. Bruce Power has already delayed the start of construction of the Proposed Pipeline upon identifying that the $2 million LTC threshold has, in the special circumstances of this project, been triggered and in order to seek exemption from the requirement otherwise to obtain LTC. The revised construction schedule anticipates winter construction and has increased the costs of the Proposed Pipeline. Should construction not be able to proceed while EPCOR CS and ENGLP are mobilized in the BNPD area for construction of ENGLP's new gas distribution infrastructure, incremental physical and environmental disruption would result from re-mobilization for construction in the spring and Bruce Power's winter heating costs would be increased.

As of the time of submission of this Application commencement of construction has been tentatively scheduled for December 20th. Appreciating that this does not leave the Board with a lot of time for review of this Application, Bruce Power has attempted to provide a comprehensive record for the Board's consideration. The certification provided by Bruce Power's EVP Corporate Affairs & Operational Services provides the Application with the weight of evidence that the Board can rely on for its review and determination. Should the Board have any questions arising from the material filed or Bruce Power's request for relief Bruce Power will make every effort to answer those quickly and comprehensively.

On behalf of Bruce Power, we appreciate your assistance and the Board's consideration of this matter.

Yours truly,

Ian A. Mondrow

Encl.

c: Len Arnold, Assistant General Counsel, BRUCE POWER

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B, and in particular section 95 thereof;

AND IN THE MATTER OF an Application by Bruce Power L.P. (Bruce Power) for an Order exempting Bruce Power from section 90 of the *Ontario Energy Board Act, 1998* in respect of the requirement to obtain Leave to Construct a hydrocarbon line and ancillary facilities in the Municipality of Kincardine.

APPLICATION FOR EXEMPTION (s. 95)

Introduction and Relief Sought

1. Bruce Power Limited Partnership (Bruce Power) is planning to connect ancillary buildings on the Bruce Nuclear Power Development (BNPD) site near Kincardine, Ontario, to the new EPCOR Natural Gas L.P. (ENGLP) South Bruce gas distribution system currently under construction in the area. Connecting the BNPD facilities to gas service will entail construction of a natural gas pipeline on the BNPD property, connected to the EPCOR gas distribution system at the property entrance and running alongside the central service road through the property, with laterals from that main pipeline connecting to various buildings to provide gas service to those buildings. Initially gas service will be used for heating a central storage facility containing radiological tooling and a site services building. Additional ancillary buildings may be subsequently connected. The new gas service will have no impact on the operation of, or be physically connected to, the nuclear power generation stations on the site.

2. Bruce Power hereby applies to the Ontario Energy Board (OEB or Board), pursuant to section 95 of the *Ontario Energy Board Act, 1998* (*OEB Act*) for an Order exempting Bruce Power from the requirement to obtain leave to construct (LTC) approximately 2.4 km of nominal pipe size (NPS) 6 inch hydrocarbon (natural gas) pipeline with an operating pressure of approximately 60 psig or 414 kilopascals, plus two short (30 meters in one case and 135 meters in the other case) NPS 2 inch lateral connections to two Bruce Power ancillary buildings (collectively the Proposed Pipeline).

3. The Proposed Pipeline is to be located entirely on land leased by Bruce Power from Ontario Power Generation (OPG) in support of Bruce Power's BNPD operations.

4. The initial projected cost of the Proposed Pipeline was approximately $1.4 million. Subsequent modifications to the project driven by site specific requirements arising as a result of constructing the Proposed Pipeline on a Canadian Nuclear Safety Commission (CNSC) licenced and regulated nuclear operations site and in response to requests from other parties also operating on the site (OPG and Canadian Nuclear Laboratories) resulted in a recently updated projected cost for the Proposed Pipeline of approximately $2.120 million. Bruce Power submits that these site specific requirements and third party requests have resulted in project requirements and associated costs which are over and above conventional hydrocarbon pipeline construction requirements and costs and constitute *"special circumstances"* that support the granting of an exemption as contemplated by section 95 of the *OEB Act*.

5. Bruce Power is contracting with EPCOR Commercial Services Inc. (EPCOR CS), an affiliate of ENGLP, for construction, operation and maintenance of the Proposed Pipeline. Work on ENGLP`s new natural gas distribution system in the BNPD area is currently underway. Bruce Power respectfully requests that the determination of this application be expedited, to the extent reasonably possible, to enable construction of the Proposed Pipeline while EPCOR CS and ENGLP are mobilized in the area. This will allow construction of the Proposed Pipeline to continue in sequence with the broader construction program by ENGLP of its new gas distribution system, providing continuity to the work to connect Bruce Power`s site to that system thus de-risking the project, minimizing Bruce Power`s costs and minimizing physical and environmental disturbance and disruption in the area of the BNPD.

6. Bruce Power provides in this Application information illustrating that;

   (a) the Proposed Pipeline is to be constructed and operated entirely on the BNPD site, alongside the central services roadway through the site and alongside an existing utility corridor, and except for OPG as owner of the land leased to Bruce Power on which the Proposed Pipeline will be constructed, Hydro One whose easement on the land will be crossed by the Proposed Pipeline and Canadian Nuclear Laboratories (CNL) as manager of the decommissioning phase of the Douglas Point Nuclear Generating Station which is located on the BNPD, all of which parties have been involved in planning for the Proposed Pipeline, no other landowners will be impacted by the Proposed Pipeline;

(b) Bruce Power's environmental screening has indicated no material environmental impact from the Proposed Pipeline;

(c) through its ongoing work with indigenous stakeholders with interests related to operation of the BNPD, Bruce Power can confirm that there will be no incremental impact on local indigenous interests from the Proposed Pipeline, Bruce Power has advised, and will continue to update, its indigenous stakeholders of the Proposed Pipeline and no concerns have been raised; and

(d) Bruce Power's agreement with EPCOR CS will require that EPCOR CS adhere to all technical design, construction and operating requirements for hydrocarbon pipelines in constructing and operating the Proposed Pipeline, including design, construction and operation of the pipeline in compliance with O. Reg 210/01 *Oil and Gas Pipeline Systems*, under which Bruce Power will be the licenced fuel distributor.

7. Bruce Power is not rate regulated and construction of the Proposed Pipeline will thus have no ratepayer impact. The Proposed Pipeline will reduce Bruce Power's operating costs as well as contribute to ENGLP's regulated gas distribution revenue, at no cost to ENGLP's existing and planned distribution customers, and as such is in the public interest.

8. Bruce Power thus requests that an order be issued under *OEB Act* section 95, without a hearing, exempting the Proposed Pipeline from the requirement to obtain Leave to Construct under section 90 of the *OEB Act*.

Proposed Pipeline and Projected Cost

9. The Proposed Pipeline is to be located underground and entirely within the boundaries of the property leased by Bruce Power from Ontario Power Generation (OPG) in the BNPD. The BNPD is located on the shores of Lake Huron between the towns of Kincardine and Saugeen Shores. Bruce Power's operations on the BNPD site are comprised of the Bruce A Generating Station, the Bruce B Generating Station, and ancillary operations including a number of administrative and support buildings.[1] The Proposed Pipeline is not associated with the BNPD generating stations, but rather will connect Bruce Power

[1] The BNPD generation facilities are licenced by the Board under licence EG-2018-0272. Bruce Power affiliates hold an electricity generation licence (EG-2001-0786, held by Huron Wind Inc.) and OEB licences for electricity retailing (ER-2020-0197, held by Bruce Power Inc.) and electricity wholesaling (EW-2017-0134, held by Bruce Power).

ancillary buildings to the new ENGLP South Bruce gas distribution system. The natural gas so distributed will be used to heat the Bruce Power ancillary buildings connected.

10. The Proposed Pipeline will connect to ENGLP's new gas distribution system at an ENGLP owned measurement and regulating station located at the north west corner of the intersection of the central services road running through the BNPD site and the municipal Tie Road running past the site.

11. Approximately 2.4 kilometers of NPS 6" steel pipeline will connect to the station and run within Bruce Power road easements on the site, alongside other utilities (electricity, water, sewer and telecommunications).

12. Two NPS 2" service laterals from the main pipeline will connect two existing Bruce Power ancillary buildings on the BNPD site; a central storage facility containing radiological tooling and a site services building. Three curb valve tee connections will be included for future NPS 2" laterals to serve 3 additional Bruce Power ancillary buildings on the site.

13. Attachment 1 to this Application is a copy of the Aecon Utility Engineering (AECON) Design Basis Memorandum for the project, Revision 2 (current to November 10, 2020). This document provides further detail on the specification and design of the Proposed Pipeline.

14. The Proposed Pipeline will be constructed in compliance with all *Technical Standards and Safety Act* (*TSS Act*) hydrocarbon pipeline requirements, in accord with Ontario Regulation 210/01, *Oil and Gas Pipeline Systems*. EPCOR CS is being contracted to construct and operate/maintain the Proposed Pipeline. EPCOR CS will in turn contract AECON in support of the project. (AECON is also contracted on ENGLP's South Bruce gas distribution system build out.) Bruce Power will be the *TSS Act* licencee for the Proposed Pipeline.

15. Attachment 2 to this Application is a route map for the Proposed Pipeline. The Proposed Pipeline will run alongside existing utilities in turn running alongside the main service road for the BNPD site. At two places the Proposed Pipeline will cross under the Main Service Road and an existing Hydro One transmission easement.

16. EPCOR CS's initial projected contract cost for the Proposed Pipeline was provided in April, 2020 and was $1.4 million, based on an above ground pipeline. Further work with EPCOR

CS on the site resulted in; i) conversion of the proposal to an underground pipeline in response to safety parameters raised by the other parties with operations on the site[2]; ii) changes to the proposed route to accommodate extensive existing facilities on the BNPD; and iii) addition of particular requirements applicable for works by Bruce Power on the BNPD site as a result of CNSC safety and security licencing requirements and Bruce Power's own best practices as a nuclear operator. An updated projected contract cost of $1.99 million was provided by EPCOR CS in October, 2020. When the cost of additional work by Bruce Power on the Proposed Pipeline is added (including extensive locates work given the highly developed nature of the BNPD site and completion of probabilistic safety assessments to address CNSC licencing requirements for Bruce Power, OPG and CNL operations on the BNPD site) the updated Projected Cost of the project now exceeds the $2 million threshold triggering a LTC requirement under the *OEB Act*.

17. The updated projected cost of the Proposed Pipeline can be broken down as follows:

EPCOR CS Base Services	$1,744,360
Incremental EPCOR CS BNPD Specific Required Practices • On-site locates; $61,000 • Safety, security, training and quality oversight requirements; $200,000	$ 261,000
Incremental Bruce Power BNPD Specific Requirements • Bruce Power & CNL probabilistic safety assessment; $25,000 • OPG probabilistic safety assessment; $89,208	$ 114,208
TOTAL:	**$2,119,568**

18. The updated current projected cost for the Proposed Pipeline assumed;

[2] Ontario Power Generation (OPG) operates waste handling and storage facilities on the site. Hydro One operates electricity transmission lines which both serve the site and receive electrical output from Bruce Power's generating stations. Canadian Nuclear Laboratories (CNL) manages the decommissioning phase of the Douglas Point Nuclear Generating Station which is located on the BNPD. As explained later in this Application these parties have all been engaged in support of development of the project.

(a) construction of the Proposed Pipeline while ENGLP's local distribution system in the area was under construction, and construction resources were mobilized; and

(b) a mid-November construction start date (with an approximately 8 week construction schedule).

19. However, when it was determined that the projected cost exceeded the LTC requirement threshold, construction was deferred pending resolution of this Application. Bruce Power has received an updated projected cost for the Proposed Pipeline, assuming a December 20, 2020 start date. While winter construction will increase the cost of the Proposed Project, ENGLP`s resources will still be mobilized in the area thus maintaining project continuity and cost efficiency and minimizing physical and environmental disruption in the area. The deferral into a winter construction period has added approximately $761,400 to the projected cost (for a total current projected cost of approximately $2.9 million).

Approval Requirements

20. *OEB Act* section 90(1) requires an order of the Board granting leave to construct any hydrocarbon line if;

(a) the proposed hydrocarbon line is more than 20 kilometers in length;

(b) the proposed hydrocarbon line is projected to cost more than $2 million[3]; or

(c) any part of the proposed hydrocarbon line uses pipe with a NPS of 12" or more and has an operating pressure of 2,000 kilopascals or more.

21. The Bruce Power Proposed Pipeline does not exceed the length, pipe size or pressure thresholds beyond which LTC is required.

22. But for the special requirements for any undertaking on the BNPD arising from regulation of the site by the CNSC and best practices in respect of nuclear power operations, the Bruce Power Proposed Pipeline would not have exceeded the projected cost threshold either. The initial projected cost without the special requirements pertaining to a nuclear operations site was well below the $2 million LTC threshold. Adjustment of the project to incorporate the special requirements pertaining to the BNPD as an extensively developed nuclear operations site resulted in the projected cost exceeding (by about 5%) the $2

[3] Ontario Regulation 328/03, section 3.

million LTC threshold. Deferring construction of the Proposed Pipeline pending determination of this application has further increased the projected cost to account for winter construction.

23. Section 95 of the *OEB Act* provides that the Board may, if in its opinion *"special circumstances of a particular case so require"*, exempt without a hearing any person from the requirement to obtain LTC for a hydrocarbon pipeline.

24. The Board has found that *"special circumstances"* means circumstances that are *"unusual or uncommon"*.[4] The fact that the technical characteristics of a project only slightly surpass the LTC triggering threshold metrics have been found not to constitute a *"special circumstance"* justifying a section 95 LTC exemption.[5]

25. The Board has granted section 95 exemptions where a proposed hydrocarbon line triggered LTC requirement thresholds as a result of the applicant adjusting the project to meet the "special circumstances" of 3rd party requests (i.e. avoiding passing under a roadway which required obtaining additional land rights[6], or engaging a directional drilling program in place of a "lift and lay" program at the request of a local conservation authority and which required the acquisition of temporary land rights[7]).

26. Bruce Power brings this application for a section 95 exemption from the requirement to obtain LTC for the Proposed Pipeline on the basis that the requirements unique to constructing on a nuclear site licenced by the CNSC qualify as *"unusual or uncommon"* circumstances which have driven incremental costs triggering a LTC requirement. But for the *"unusual and uncommon"* circumstances under which Bruce Power must execute the Proposed Pipeline project, LTC would not have been required.

27. The Bruce Power CNSC safety assessment listed in the cost summary table above is a direct result of Bruce Power needing to ensure that adding gas service to the BNPD does

[4] EB-2015-0366, Union Gas Limited application for exemption in connection with Panhandle NPS20 pipeline relocation. *Letter of Direction* dated February 5, 2016; EB-2015-0033, Enbridge Gas Distribution Inc. Wilkesport Designated Storage Area exemption application, *Decision and Order* dated April 30, 2015.
[5] EB-2015-0033, Enbridge Gas Distribution Inc. Wilkesport Designated Storage Area exemption application, *Decision and Order* dated April 30, 2015, page 4, 2nd last paragraph.
[6] EB-2013-0407, Union Gas Limited Chatham Kent Replacement Project, *Decision and Order* dated February 6, 2014; EB-2018-0204.
[7] Union Gas Limited integrity replacement project on Brantford, Ontario, *Decision and Order* dated July 19, 2018

not raise any safety concerns not already subsumed within its CNSC required site specific safety case. Bruce Power included CNL's site within this safety assessment to address CNL's CNSC required site specific safety case. Bruce Power retained Kinetrics to undertake an External Hazard Screening for the Proposed Pipeline. Kinectrics' conclusion was that the contingencies associated with natural gas related hazards do not indicate risks exceeding Bruce Power's or CNL's existing site specific safety cases and thus the Proposed Pipeline does not trigger any concerns under Bruce Power's or CNL's CNSC licences. Bruce Power has advised CNSC of the Proposed Pipeline and that Kinectrics' External Hazard Screening analysis did not identify any additional hazards introduced as a result of the construction and operation of the Proposed Pipeline.

28. OPG has advised Bruce Power of its intention to conduct a similar safety assessment with respect to its waste management operations on its portion of the BNPD. OPG's BNPD operations are subject to similar CNSC related licencing requirements and best practices in respect of site safety analysis as those applicable to Bruce Power. OPG has required that the cost of the safety assessment with respect to its BNPD operations be covered by Bruce Power as a precondition to the consent to the Proposed Pipeline required from OPG under Bruce Power's leasing arrangements.

29. In respect of the incremental EPCOR CS BNPD specific project requirements referenced in the projected cost table set out above, incremental regulated nuclear generation site specific special requirements for any significant BNPD on site work include:

- Construction islanding – establishing the segmented section of the site (requirements associated with opening and closing the segmented section of the site, Bruce Power oversight and walk-downs).
- Design reviews by Bruce Power design authority and updates to ensure compliance with site requirements.
- Environmental screening, including a soil management plan to manage waste in accordance with site requirements.
- Additional security and site access requirements (security cleared resources, training, qualifications).
- Additional plans required for review and approval by Bruce Power to ensure compliance with site requirements to reinforce site and worker safety, including;
    - traffic management;

- security;
- site specific safety;
- quality assurance;
- emergency response;
- fire safety plan;
- welding & hotwork specific requirements;
- foreign material exclusion; and
- rigging & lifting precautions.

30. All of the foregoing *"unusual"* and *"uncommon"*, BNPD site specific requirements for the construction and operation of the Proposed Pipeline, because the Proposed Pipeline is located on a CNSC regulated site housing nuclear operations, add costs to the Proposed Pipeline project. These specific and unique requirements also add to the robustness of the planning and oversight of the project from public and environmental safety perspectives.

31. Bruce Power submits that the special circumstances outlined above and applicable to the particular case of Bruce Power's Proposed Pipeline support the conclusion that a section 95 exemption from a LTC requirement which is triggered only by the incremental costs associated with these unique circumstances is appropriate, and aligned with the public interest.

Land Interests Impact

32. As noted above, the Proposed Pipeline is entirely located on land within the BNPD which Bruce Power leases under a long-term arrangement with OPG.

33. There are 3 other non-indigenous parties with land interests on the BNPD site; OPG, Hydro One and CNL. Bruce Power, OPG, Hydro One and CNL share the BNPD site and constantly communicate and co-operate in respect of site operations and their respective initiatives. All three of these third parties have been informed of the Proposed Pipeline and have been co-operating with Bruce Power to ensure that their respective operations on the site are not affected.

34. OPG is Bruce Power's landlord for Bruce Power's BNPD site. OPG also operates its own irradiated waste management facilities on land proximal to the land leased to Bruce Power. OPG has participated with Bruce Power in planning activities for the Proposed Pipeline and, as noted above, is undertaking its own probabalistic safety assessment to confirm (pursuant to its own nuclear site required practices) no incremental risk to its waste management from the Proposed Pipeline. OPG has expressed no concerns regarding the Proposed Pipeline, subject to completion of the safety assessment and validation thereby of no incremental risk beyond OPG`s current safety case.

35. Hydro One holds an easement from OPG across portions of the BNPD site and owns and operates transmission facilities which supply the BNPD site and connect Bruce Power's generation facilities to the provincial electricity grid. Hydro One's easement runs generally alongside the main service road at the site, and the route for the Proposed Pipeline generally runs alongside the Hydro One easement. The planned route for the Proposed Pipeline crosses the Hydro One easement in two places. Bruce Power has been working with Hydro One to formalize the rights supporting those crossings and to ensure that the portions of the Proposed Pipeline crossing Hydro One's easement and passing under Hydro One's on site facilities are appropriately located and cathodically protected so as not to interfere with Hydro One's operations and so as to ensure that Hydro One's operations do not interfere with the operation of the Proposed Pipeline. Hydro One has expressed no concerns regarding the Proposed Pipeline.

36. CNL manages the decommissioning phase of the Douglas Point Nuclear Generating Station which is located on the BNPD. CNL has participated with Bruce Power in planning activities for the Proposed Pipeline and, as noted above, Bruce Power has included CNL`s required probabalistic safety assessment with Bruce Power`s own safety assessment to confirm no incremental risk to CNL's operations posed by the Proposed Pipeline. Kinectrics' External Hazard Screening analysis did not identify any additional hazards to CNL's BNPD operations introduced as a result of the construction and operation of the Proposed Pipeline. CNL has expressed no concerns regarding the proposed Pipeline.

37. Together, Bruce Power, OPG, Hydro One and CNL have been operating on the BNPD for many years, and neighbouring landowners are well aware of, well informed of, and regularly updated on, operations on the sites.[8]

Indigenous Consultation

38. The three indigenous communities with whom Bruce Power is in constant contact and co-ordination with are the Saugeen Ojibway Nation (SON), the Historic Saugeen Métis (HSM) and the Métis Nation of Ontario (MNO). The three communities have been advised of the Proposed Pipeline, and have received a presentation detailing the project. A copy of that presentation is included as Attachment 3 to this Application. All three communities have indicated that they had also been made aware of the Proposed Pipeline through their ongoing discussions with ENGLP as part of ENGLP's indigenous engagement program for its South Bruce gas distribution project. None of the communities has raised any concerns regarding the Proposed Pipeline.

39. Nuclear power operations and various ancillary activities have been carried on at the BNPD and contiguous sites for decades, with the full knowledge and consultative participation of SON, HSM and MNO. In this context, the Proposed Pipeline does not materially alter the status quo[9].

40. Bruce Power will continue to inform its indigenous stakeholders of the progress of the Proposed Pipeline as part of the regular, ongoing discussions between the parties.

[8] The Board has in the past noted in respect of LTC related matters the awareness by neighbours and interested parties of long-standing utility operations in the general area of a proposed project. See EB-2015-0033 (Enbridge Gas Distribution Wilkesport Designated Storage Area), *Decision and Order* dated April 30, 2015, page 6, 1st full paragraph.

[9] The Board has in the past noted in respect of LTC related matters the awareness by neighbours and interested parties of long-standing utility operations in the general area of a proposed project. See EB-2015-0033 (Enbridge Gas Distribution Wilkesport Designated Storage Area), *Decision and Order* dated April 30, 2015, page 6, 1st full paragraph.

No Environmental Impact

41. All project work at the BNPD site requires consideration and completion of an Environmental Impact Worksheet (EIW). The EIW is used to identify the project's specific environmental considerations and provide guidance to Bruce Power environmental personnel and Bruce Power contractors on site regarding environmental control and mitigation practices required for the project. The EIW for the Proposed Pipeline Project is included as Attachment 4 to this Application.

42. Bruce Power's EIW due diligence process has confirmed that there are no-species at risk and no trees to be removed as a result of the Proposed Pipeline (which, as already noted, runs parallel to the main service road and existing utilities on the BNPD site and thus in an area previously constructed in).

43. In respect of the Proposed Pipeline, the environmental program also includes a dedicated Environmental Plan developed for the Proposed Pipeline by AECON (included as Attachment 5 to this Application) and a dedicated Hydrovac & Soil Management Plan also developed for the Proposed Pipeline by AECON (included as Attachment 6 to this Application).

44. Bruce Power also has the benefit of comprehensive Environmental Impact Studies performed as part of complete Environmental Assessments conducted in the early 2000s in preparation for the Bruce A Units 3 & 4 Restart program and again in 2009 as part of the Bruce Nuclear Power Plant (New Build) Project. In the result the environmental aspects and features of the BNPD site have been well documented and are well understood by Bruce Power. This documentation and understanding informs Bruce Power's ongoing environmental due diligence process in respect of all BNPD activities, including the Proposed Pipeline and the EIW developed therefore (Application Attachment 4).

45. This environmental assessment history also informs Bruce Power's knowledge of BNPD archeological features. In particular, a Stage 2 Archeological Assessment was completed in 2009 and identified three culturally sensitive areas for indigenous interests, and one non-Indigenous culturally sensitive area. Pages 10 and 11 of the presentation provided to SON, HSM and MNO detailing the Proposed Pipeline project (Application Attachment 3) include information regarding these archeological findings.

46. While the 2009 study found that all of these areas had been disturbed prior to the Bruce Power lease commencing in 2001, it was recommended that no further disturbance of these areas occur. As already noted, the Proposed Pipeline route lies along an existing utility corridor already disturbed, and the Proposed Pipeline will not impinge on any of the previously identified culturally sensitive areas.

Conclusion and Relief Sought

47. The Proposed Pipeline is a relatively minor undertaking on property that has hosted extensive nuclear power development and operation for decades. The property is also a heavily CNSC regulated nuclear operations site, and the nuclear operators thereon adhere to best practices in respect of their respective operations on the site.

48. Extensive environmental assessments have been conducted in connection with significant past projects on the BNPD site, and environmentally and culturally sensitive features have long been identified and managed by Bruce Power and the other operators at the BNPD.

49. Bruce Power also has a long history of productive engagement with its indigenous stakeholders (SON, HSM and MNO), and has kept, and will keep, these stakeholders informed of the Proposed Pipeline.

50. The only other parties with interests in or adjacent to the BNPD site are sophisticated and licenced (by the OEB and/or the CNSC) utility and nuclear operators, and these parties (OPG, Hydro One and CNL) have also been engaged in the planning of the Proposed Pipeline and are co-operating with Bruce Power and supporting the pipeline development.

51. In this context, and further considering that;

    (a) the Proposed Pipeline's length and operating pressure are both well below the threshold for LTC under section 90 of the *OEB Act*;

    (b) the Proposed Pipeline's initial cost projection was well below the $2 million threshold for LTC requirement under section 90 of the *OEB Act*, and the current cost projection is above that threshold only as a result of conversion of the proposal to an underground pipeline in response to safety parameters raised by the other parties with operations on the site; ii) changes to the proposed route to accommodate extensive existing facilities on the BNPD; and iii) addition of particular requirements applicable for works by Bruce Power on the BNPD site as

a result of CNSC safety and security licencing requirements and Bruce Power`s own best practices as a nuclear operator;

(c) no part of the pipeline directly affects or is connected with the generation operations at BNPD;

(d) the Proposed Pipeline will be largely located alongside existing utilities running across the property;

(e) the site is already fully developed and significant electrical production and conveyance facilities have been operating on the site for decades; and

(f) the environmental report prepared in contemplation of the Proposed Pipeline and informed by previous, comprehensive environmental assessment studies indicates no material environmental impacts arising from construction or operation of the Proposed Project, though there are nonetheless dedicated environmental and soil management plans in place that have been developed for the project;

Bruce Power submits that the circumstances of this particular project indicate that an exemption pursuant to section 95 of the *OEB Act* from the section 90 requirement to obtain LTC is warranted.

52. Bruce Power requests that the Board so determine without a hearing, pursuant to *OEB Act* section 95.

53. Bruce Power further respectfully requests that the Board proceed to consider and determine this Application on an expedited basis, so that construction of the Proposed Pipeline can be undertaken as cost effectively and with as little physical and environmental disruption as possible while ENGLP and its contractors remain mobilized in the area of the BNPD for construction and commissioning of ENGLP's new South Bruce gas distribution system.

54. Bruce Power requests that copies of all correspondence and of all documents filed with the Board or issued by the Board in connection with this Application be served on it and on its counsel, as follows:

Len Arnold, Assistant General Counsel
BRUCE POWER LIMITED PARTNERSHIP
P.O. Box 1540, B10
Tiverton, Ontario
N0G 2T0
Phone: (519) 386 0650
Email: Len.Arnold@brucepower.com

Ian Mondrow, Partner
GOWLING WLG (Canada) LLP
Suite 1600, 1 First Canadian Place
100 King Street West
Toronto Ontario
M5X 1G5
Phone: 416 369 4670
Email: ian.mondrow@gowlingwlg.com

55. **CERTIFICATION OF APPLICATION:**

I, James Scongack, have reviewed Bruce Power L.P.'s Application for an order exempting Bruce Power from section 90 of the *Ontario Energy Board Act, 1998* in respect of the requirement to obtain Leave to Construct a hydrocarbon line and ancillary facilities on the Bruce Nuclear Power Development site in the Municipality of Kincardine, and have made inquiries as appropriate to satisfy myself of the accuracy and completeness of the information provided therein. I am authorized by Bruce Power L.P. to, and do, certify that the information provided in this Application is accurate and complete to best of my knowledge.

November 24, 2020

James Scongack
EVP, Corporate Affairs & Operational Services

ACTIVE_CA\ 42220611\1

EPCOR - BRUCE POWER NATURAL GAS PROJECT

Design Basis Memorandum

Aecon Utility Engineering

Revision Log

DESIGN BASIS MEMORANDUM			Revision No.: 2
Document	EPCOR – BRUCE POWER NATURAL GAS PROJECT – Design Basis Memorandum		
Revision	**Section**	**Change Summary**	**Date** (MM/DD/YYYY)
0	All	Issued for Internal Review	10/30/2020
1	All	Issued for Review – Epcor	11/10/2020
2	10.0	Revised low pressure test duration	11/10/2020

1.0 Purpose

The purpose of this Design Basis Memorandum is to provide design details and technical requirements for the engineering design of Epcor's NPS 6 natural gas pipeline serving Bruce Power, in Tiverton, ON.

2.0 Introduction

The Epcor – Bruce Power project will consist of:

- A measurement and regulating station at the entrance to Bruce Power on the north west corner of Central Services Road and Tie Road.
- Approximately 2.4 km of NPS 6 steel pipeline extending from the station at the entrance of Bruce Power to B29. The NPS 6 pipeline will be located within Bruce Power road easements containing other utilities such as hydro, water, sewer and telecommunications.
- Two NPS 2 services - servicing buildings B44 and B29.
- Three curb valve tee connections for future NPS 2 services for building B31, B12, B10.

3.0 Design Standards and Specifications

The design of the pipeline system will be in accordance with the following codes and regulations:

- CSA Z662-15 – Oil and Gas Pipeline Systems
- TSSA Oil and Gas Pipeline Systems Code Adoption Document Amendment (FS-238-18)
- 210/01 – Ontario Regulation Oil and Gas Pipeline Systems

The pipeline system will operate under 30% specified minimum yield strength and will be considered a gas distribution system as defined by CSA Z662-15 and the TSSA Code Adoption Document. Section 12 of CSA Z662 -15, Gas Distribution Systems, is applicable to this design.

An application for approval will be required from the TSSA for the high-pressure system.

4.0 Station

The station shall have a design pressure of 3450 kPa. All valves and flanges within the stations shall be PN 50.

An emergency shut off valve (slam-shut device) will be installed within the station to stop the flow of gas when the outlet pressure in the downstream system drops below the setpoint.

The station parameters for current parameters will be as follows:

Peak Day Flow	24,530 m3/d
Outlet Pressure	275 kPa

5.0 Pipeline Design Criteria

Epcor's delivery pressure at the inlet of the station will be 2070 kPa. To accommodate a potential future increase in delivery pressure, Epcor's design pressure for the steel system will be 3450 kPa.

Summary of the design criteria:

Design Parameters	Natural Gas
Design Code	CSA Z662-15
Pipeline Manufacturing Code	CSA Z245.1
Fittings	CSA Z245.11
Valves	CSA Z245.15
MDPE Pipe and Fittings	CSA B137.4
Class Location	Class 2
Design Factor	0.8
Location Factor	0.9
Temperature Factor	1
Maximum Operating Pressure (MOP)	3450 kPa
Pipe Outside Diameter (OD)	168.3 (NPS 6)

6.0 Pipe Specifications

The specification for the pipe to be used for this project will be NPS 6 - 168.3 mm O.D., 4.8 mm Wall, Grade 359 MPa, Cat II M18C.

Based on the design pressure relative to the pipe specifications listed above, the pipeline shall have a hoop stress of 16.8% of specified minimum yield strength.

7.0 Pipe Coatings

The coating system for the open cut installation sections will be fusion bond epoxy (FBE) and will meet the requirements of CSA Z245.21.

The coating system for the drilled sections will be double fusion bond epoxy (i.e. fusion bond epoxy with an abrasion resistant overcoat (FBE/ARO) and will meet the requirements of CSA Z245.20.

8.0 Depth of Cover

The minimum depth of cover for general installation will be as follows:

Application	**Minimum Depth of Cover**
NPS 6 open cut – no rock	0.9 m
NPS 6 open cut – rock trench	0.6 m
NPS 6 Crossing Hydro Easement	1.0 m
NPS 6 Road and Driveway Crossings	1.0 m
NPS 2 Service lines	0.5 m

9.0 Service Connections

For B44 and B29, a curb valve tee will be installed on the top of the NPS 6 pipe with a NPS 2 steel pipe extending past the utility tunnel. A transition fitting will be installed and a NPS 2 medium-density polyethylene (MDPE) DR11 pipe will extend to the tie-in location.

Services shall include an excess flow valve.

Curb valve tees will be installed on the top of the NPS 6 pipe with a NPS 2 steel capped stub for future service connections for B12, B31 and B10. The curb valve tees for the future services will not be tapped.

The Medium-density polyethylene (MDPE) DR11 pipe shall have a maximum operating pressure of 700 kPa.

10.0 Testing Requirements

The high-pressure system (steel piping) will be hydrostatically pressure tested in accordance with CSA Z662-15, Section 8 for a test duration of 8 hours, using the following test pressures:

Strength Test	4830 kPa minimum
Leak Test	3795 kPa minimum

The low-pressure services will be tested in accordance with CSA Z662-15. Section 8 to a minimum test pressure of 700 kPa, for a test duration of 24 hours using a gaseous medium (air or nitrogen).

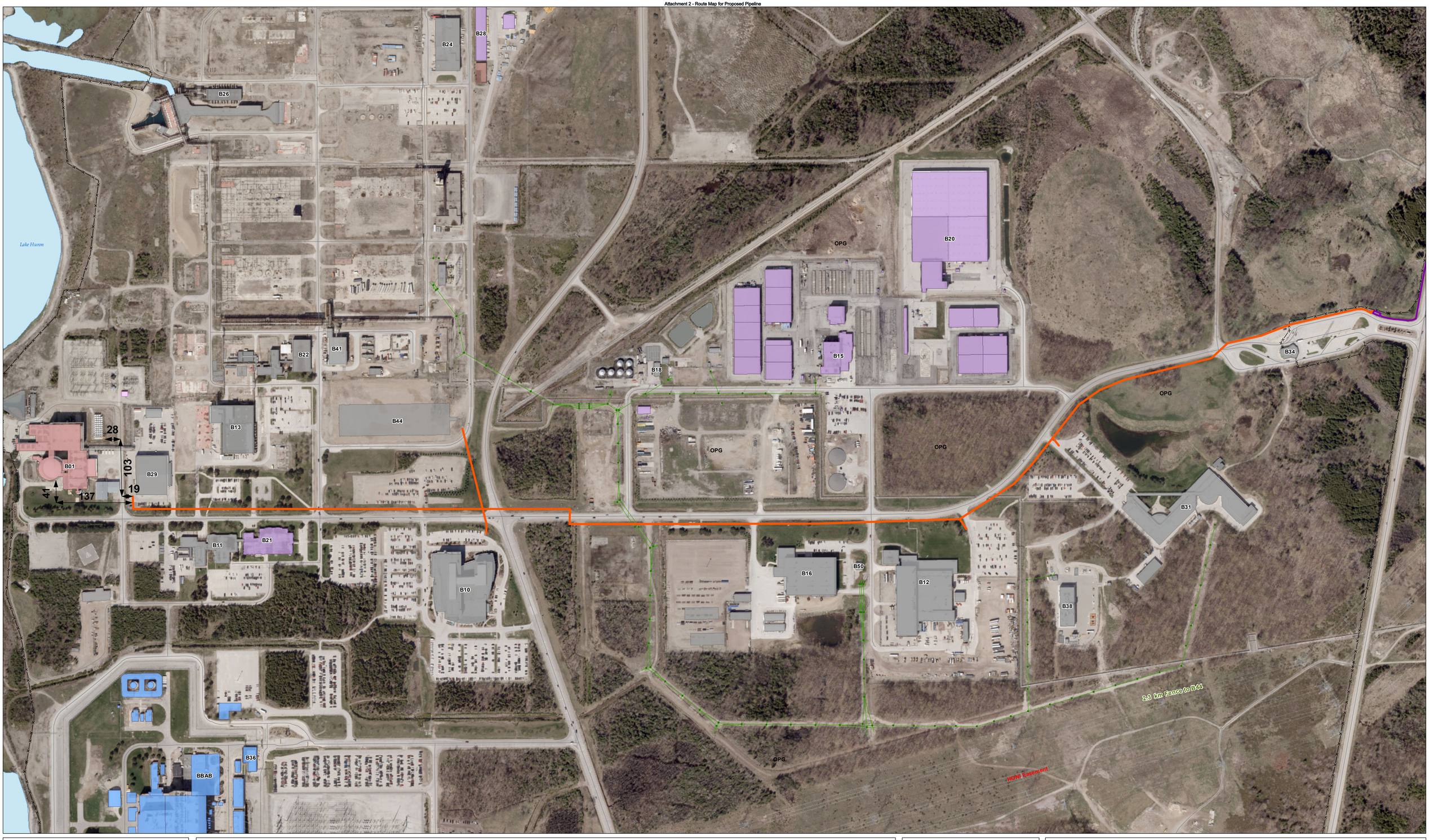
11.0 Cathodic Protection / AC Mitigation

Corrpro will be retained to complete a cathodic protection design and AC mitigation study for the pipeline system. Details will be provided under a separate report.

12.0 Future Pressure Increase - Design Requirement

Prior to increasing the system operating pressure for “dark ship”, additional service modifications will be required. A pressure cut will need to be installed upstream of the transition fitting on each service.

Attachment 2 - Route Map for Proposed Pipeline



Natural Gas Route

Legend

Natural Gas Route
- Regulated
- Unregulated - On Site

Roads

Boundary Fence

ELEC_13_8kV_POLES

ELEC_13_8kV_DISTRIBUTION

Structures
- Bruce A & B
- CoS
- OPG
- Hydro One
- AECL

Scale 1:2,859

0 40 80 160 m

Map Projection: UTM Zone 17
NAD 83 CSRS

Map Notes:

This map is a general representation for planning and is not intended for engineering purposes. Any buried assets shown are not to be used for locates.

DATA ON THIS MAP HAS NOT BEEN VERIFIED FOR CONTENT OR LOCATION ACCURACY.

THIS IS NOT A CONTROLLED DOCUMENT OR AN OFFICIAL DRAWING.

Printed: October 27, 2020
Map by: Property Management, Site Services

November, 2020

Natural Gas Pipeline for Bruce Power site

Information Session

Bruce Power™
Innovation at work

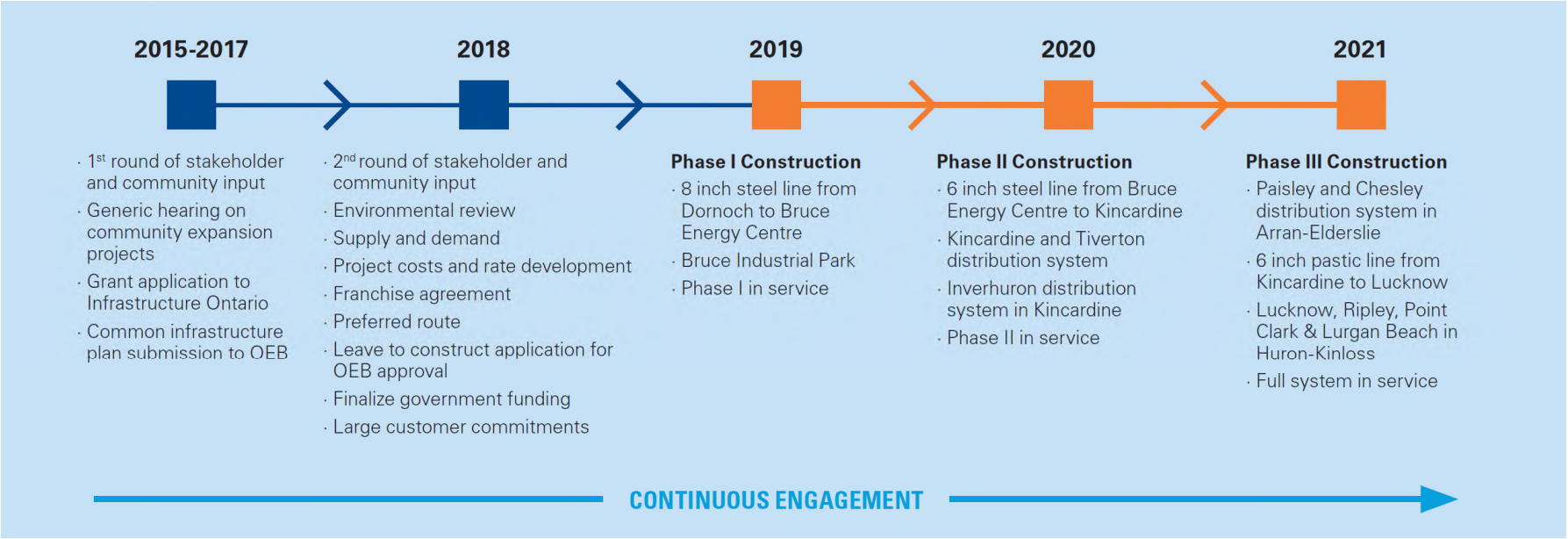
DIVISION NAME
(or other logo)

Southern Bruce Natural Gas Project

- EPCOR has recently advanced a new natural gas line called the Southern Bruce Natural Gas Project

Southern Bruce Natural Gas Project

- The following timeline outlines the Project Schedule and community engagement
- Phase II is currently under construction



Bruce Power Natural Gas

- With the Southern Bruce Project occurring in the area, Bruce Power evaluated the opportunity of natural gas on the Bruce Power site to be used for building heating purposes.
- Heating buildings by natural gas provides more efficient and versatility benefit over other heating methods currently being used.
- Like many other industrial facilities in the area, Bruce Power will become a natural gas customer.

Bruce Power Natural Gas

- Construction is planned to begin in late 2020 and will take approximately 8 weeks to complete
- Construction and installation practices the same as what occurred in the Municipality – steel piping buried approximately 1 meter deep.
- Initially, 2 central buildings will be transitioned to Natural Gas heat with potential for others in future.

Bruce Power Natural Gas

- Safety is our Number One Priority
  - No impact to nuclear operations
  - No impact to environmental requirements
  - No impact to archeological areas
  - No impact to public safety
  - Installation and operation will be conducted following all occupational health and safety and regulatory requirements.

Site Environmental Reviews

- Construction activities and scope of work reviewed for potential site environmental impacts.
  - Life Cycle considerations- opportunity to construct before EPCOR/Aecon demob. from Kincardine to minimize transportation of material and associated environmental impacts.
  - NG pipeline installed underground in proximity to roadway and neighbouring ditches
  - Work does not involve generation of any hazardous waste nor radiological waste
  - Work does not involve any interactions with lake (intake or discharges)

Site Environmental Reviews

- No significant Site Alteration
  - Environment has walk down the proposed site/ route and determined no Species at Risk (SAR) are present and no trees need to be removed
- Work does not involve substantial release of any atmospheric emissions beyond use of fuel operated equipment
  - Monitoring GHG and NOx emissions via equipment specifications, hours-of-use data, and volume of diesel consumed
  - Ensuring Spill mitigation measures employed for diesel containing equipment e.g drip trays for refueling, secondary containment deployed, and ensuring storm drains are covered if near any fueling activities

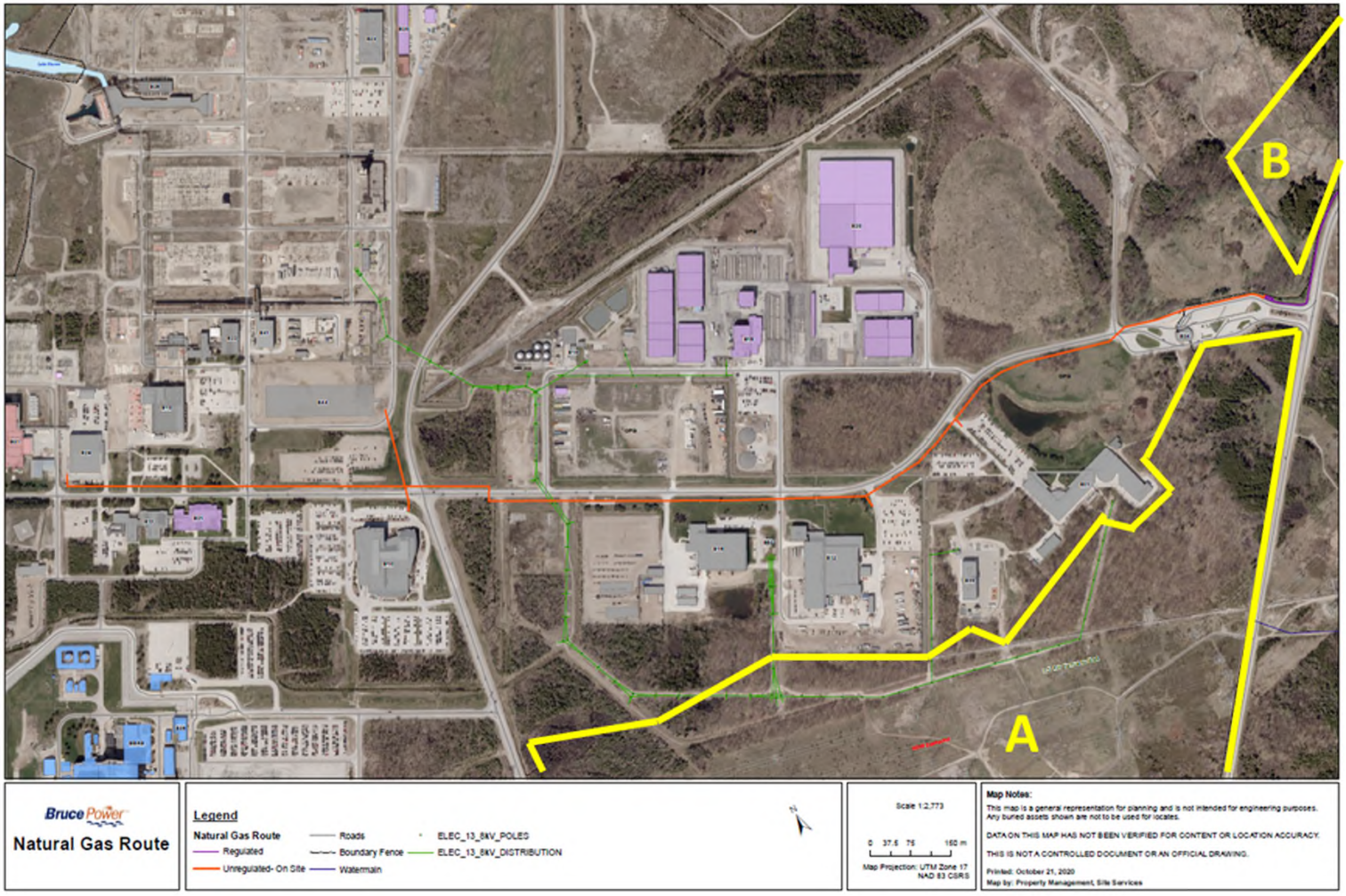
Site Environmental Reviews

- Work involves excavation of soil, and in some cases hydrovac'ing and removal and appropriate management of soil slurry
- Soil Management plan has been prepared and reviewed
  - Soil will primarily remain at the construction site and be used as backfill
  - For soil that cannot remain at the excavation site, such as hydrovacc'd location, then it will me managed at the on-site Soil Management Laydown Area (de-watering) or to an approved off-site receiving facility

Site Archeological Assessment

- **Stage 2 archeological assessment** (2009) identified three culturally sensitives area for Indigenous Interests A,B,C all areas have been disturbed to varying extents prior to Bruce Power Lease in 2001
- Area D is a non-Indigenous culturally sensitive area.
- **A** is a section of the Nipissing Great Lakes shoreline complex and the Main Lake Algonquin lakebed. This area contains two burial grounds
- **B** identified in 1851 by Brough as an Indian Portage
- **C** contains well defined wooded sandy beach ridges attributable to the Nipissing Great Lakes and Lake Algoma Shoreline.
- Recommended that no further disturbance occur in area A, B or C

Cultural Sensitive Areas A,B,C



- Study area was up to the inside of the Bruce Power fence.
- Gas Pipeline is running on the other side of the fence.

Bruce Power Natural Gas

- Questions?

FORM-11422 R017*

Environmental Impact Worksheet

INTERNAL USE

1. The Originator shall complete Section A and review Section D of FORM-11422 and e-mail electronic word copies to BNPD-EIW. Add which facility the work affects in the subject of the email. If the work affects more than one facility, add them all in the subject line (BA, BB, CoS).
2. Environmental STEO completes Section B. Forward for additional review as necessary.
3. Additional Reviewers to provide comments in Section C and return to STEO.
4. Originator accepts the comments and AR actions, as initiated by the Environment Group.
5. Final Acceptance: Environment Manager/Delegate approves and signed copy is provided to the originator.
6. If the originator has self-identified, there is no environmental impact by signing Section D and if the STEO agrees with the assessment, the STEO can sign off, provide the signed copy to the originator and file without manager approval.

Note: Environment will respond to EIW originator within **10 working days** with completed EIW or timeline for completion.

SECTION A: ORIGINATOR

Name: Devki Tokekar	**Telephone:** 24048	**Date:** 29JUL2020

Department: CoS F&I Projects

Source of New/Revised Environment Activity:

☐ ECC Process ☐ Work Plan ☒ Contract ☐ Other, specify:

DCP	DCN	Contract Req.	Work Order	Project Number	Unit	USI / SCI	Other
				39957			

Location: ☐ Bruce A ☐ Bruce B ☒ COS ☐ Other:

Is there an existing EIW for the design or contract requisition stage for this work?
If YES, reference the EIW number, Engineering Change and/or contract requisition number and contact Environment Officer **before** completing this FORM-11422.

Title and Description of Activity:
(Provide attachments and references including Hazardous Chemicals, Flows, and Concentrations, OPEX etc.)

Title: Natural Gas Supply to B44 CSF and B29 Site Services

Additional Details:

The project will involve installation of 2.6 to 2.7 km of underground NG pipeline from the main fence to buildings B44 and B29 (including feeds to both buildings)

Once complete ensure Record is turned over in compliance with approved RRA.

*Associated with DPT-ENV-00016.

INTERNAL USE

FORM-11422 R017

Environmental Impact Worksheet

Is the work related to Major Component Replacement (MCR) Project?		☐ YES	☒ NO
Estimated Work Schedule: Start Date: 01SEP2020 End Date: 31DEC2020	Previous EIW # (approved) for similar work/project:		
Is there OPEX related to the work being performed? If YES include details.		☐ YES	☒ NO
Was licensing screening form completed? If yes, please forward to Environment with EIW.		☒ N/A ☐ YES	☐ NO
Environmental Impact Identification Checklist - Use Appendix C of DPT-ENV-00016 for additional guidance.			
Were Life Cycle considerations used in the planning of this work (e.g., considerations of waste reduction, environmentally friendly products, minimization of transportation, etc.)? Comments: EPCOR/Aecon contructing after demob from Kincardine to minimize transport of material		☐ N/A ☒ YES	☐ NO
Were Best Available Technology Economically Achievable (BATEA) considerations used in planning this work? (e.g., technology to reduce emissions or spill risks) Comments: EPCOR is using best technology currently in industry		☐ N/A ☒ YES	☐ NO
Will contractors and/or subcontractors be hired to complete this work? If yes, 1. Identify in the description section which activities will be contracted and/or subcontracted. 2. Ensure attachment 7 "Environmental Stewardship and Waste Minimization" is included in the RFP.		☒ YES	☐ NO
Does contracted work include effluent, environmental monitoring or waste management activities? • If yes, proof of associated qualifications (e.g., training certificates) is required from the contractor for review and approval. • Send proof of these qualifications to environment for review for compliance to CSA N288 series standards (sampling, analysis, interpretation, QA/QC).		☐ YES	☒ NO
Will fuel operated equipment be used for the work? • If yes, indicate fuel and equipment type(s) and #: gas and diesel powered excavation equipment		☒ YES	☐ NO
Will the work include the use of chemical products? • If yes, are they approved for use on site? • If no, follow BP-PROC-00306 to obtain approval.		☒ YES ☐ YES	☐ NO ☒ NO
Will the work affect non-radiological (conventional) airborne or waterborne emissions (i.e., increased emissions, new emissions, water runoff, exhaust fumes, chemical odours)? If yes, provide details including location(s), type of emissions, mitigation measures, etc.: Construction equipment run on gas or diesel fuel will emit typical exhaust to the atmosphere.		☒ YES	☐ NO
Will the work affect radiological airborne or waterborne emissions? If yes, provide details including location(s), type of emissions etc.:		☐ YES	☒ NO
Will the work take place near ditches, streams, or surface water? If yes, provide location(s) and mitigation measures details: The NG pipline will be installed underground alongside the Central Services Road and the ditches. The location will be in proximity to the existing swales.		☒ YES	☐ NO

INTERNAL USE

FORM-11422 R017

Environmental Impact Worksheet

Will the work take place near inactive drains? If yes, provide location(s) and mitigation measures details:	☐ YES ☒ NO
Halocarbon Containing Equipment: Will the work or equipment to be used include any halocarbon containing equipment such as: air conditioner, chiller, heat pump, cooler, dehumidifier, refrigeration, compressed air dryer, etc.? Does a Cat ID exist? If yes, please provide: Order equipment **without** halocarbons, refer to BP-PROC-00928 for additional guidance.	☐ YES ☒ NO
Will a trailer be required for this work? • If yes, how will power be provided (e.g., generator or connection) uncertain right now • If yes, does the trailer have an air conditioning unit with a cooling capacity >10 kW and >5 kg of refrigerant? • If yes, a MEL Record is required.	☒ YES ☐ NO ☐ YES ☐ NO
Does the work involve alteration of the site landscape (vegetation removal, slope changes, storm water runoff modifications, creation of habitat, etc.)? If yes, provide detail locations(s):	☐ YES ☒ NO
Does the work involve excavation or hydro excavation? If yes, 1. The contractor must engage the services of a qualified professional (Geoscientist or engineer) in accordance with O. Reg 153 "Records of Site Condition" to develop a management plan for the material prior to excavation.	☒ YES ☐ NO
Does the modification(s) impact the environmental safety barrier (secondary containment, etc.)? • If yes, please attach a risk assessment and/or contingency plan to prevent an environmental event for the duration that the environmental safety barrier will be impaired. If yes, complete the table below.	☐ YES ☒ NO

	Identify the Material(s) and Source(s)	Approximate Volume (L)	Spill Mitigation Method
1.			
2.			
3.			

Will the modification alter amounts of water taken or discharged to the lake? If yes, how much water (in litres) will be taken or discharged?	☐ YES ☒ NO
Does the modification involve changes to an industrial sewage works or waste disposal? If yes, provide details:	☐ YES ☒ NO
Will the work direct new effluent to the Sewage Processing Plant (SPP) or require the use of portable toilets or holding tanks? If yes, describe the type and amount of effluent being directed to the SPP or number/capacity of portable toilets or holding tank:	☐ YES ☒ NO
Will the work cause a disruption to the SPP or Drinking Water Systems? If yes, provide details of the disruption including duration and contingency plan:	☐ YES ☒ NO

INTERNAL USE

FORM-11422 R017

Environmental Impact Worksheet

Will the work add loading to Bruce A or Bruce B ALW? If yes provide detail: What is the substance, drain rate, volume and concentration?	☐ YES ☒ NO
Does the work affect any regulatory monitoring equipment (e.g., MISA/ECA/Radiological monitoring equipment)? • If yes, specify:	☐ YES ☒ NO
Will a laydown area be required to store equipment and material? • If yes, what facility (Bruce A, Bruce B, Centre of Site)? Facility: CoS - two to three material areas across the site (to be decided)	☒ YES ☐ NO
Will the work generate conventional or hazardous waste? • If yes, complete FORM-10355 for hazardous waste as per BP-PROC-00773 and/or FORM-12663 for conventional waste as per BP-PROC-00196 at the time of waste generation. **Note:** Waste minimization guidance can be found in BP-PROC-00888.	☐ YES ☒ NO
Will the work generate radiological waste? • If yes, complete FORM-11803 and confirm an email has been sent to BNPD Waste Management Department indicating the scope of work. Attach completed FORM-11803 and the EIW (this does not have to be an approved copy of the EIW).	☐ YES ☒ NO
Will the work involve the de-energizing or removal of electrical cables? • If yes, list the equipment codes or cable identifiers in Section A "Title and Description of Activity". • If yes, engage Environment Waste Lead to determine requirements for PCB analysis.	☐ YES ☒ NO
Will the work involve the construction or demolition of a building with a total floor area of at least 2000 square meters? If yes, create AR to ensure the project or contractor completes a Waste Audit in accordance with O. Reg 102. AR#:	☐ YES ☒ NO

Originator: (print name)	**Department:**	**Date:**
Devki Tokekar	CoS F&I Projects	29JUL2020

Note: If the scope of work (e.g., process design, etc.) changes at any time during work, the originator to contact responsible Environmental Authority to review the new scope. A revised/new EIW may be required.

INTERNAL USE

FORM-11422 R017

Environmental Impact Worksheet

SECTION B: ENVIRONMENTAL STEO REVIEW	EIW NUMBER: CS-2020-018

Provide reference to existing Environmental Aspects (EA) to consider during installation and operation:

Review current "live" EA database stored on the H:\drive and document:

EA Number and Name - AC Number and Activity Classification Activity Subject:

SIGNIFICANT ENVIRONMENTAL ASPECT (SEA) - BURIED PIPING
B-EA-10000 Human/Non-Human Biota Interaction; B-AC-600 Land Development
B-EA-3000 Effluent - Conventional - Water; B-AC-15200 Yard Drainage
B-EA-5400 - Waste-Generation-Conventional; B-AC-15200-n - Site Improvements - Yard Drainage
B-EA-1000 Emission - Conventional - Air; B-AC-76550 Shop Equipment - Welding
B-EA-8000 - Release to Land; B-AC-77000-s - Operation - Fuel Oil Systems
B-EA-5400 Waste Generation - Conventional; B-AC-1000 Site & Improvements - Excavated Material

Does this work/project provide any overall environmental opportunities (e.g., reduced emissions, reduced spill risk, etc.)?	☐ N/A ☐ YES ☒ NO
Comments:	

Will activity modify any of the following?

- If yes, please **explain and provide detail of Change**.

Environmental Aspects (EA):	☒ YES ☐ NO
Significant Environmental Aspects (SEA):	☐ YES ☒ NO
Is this activity significant enough to warrant a change to the ERA?	☐ YES ☒ NO
Environmental Management System (EMS) Scope:	☐ YES ☒ NO
Environmental Legal Registry:	☐ YES ☒ NO
Environment Documents:	☐ YES ☒ NO
Regulatory Requirements (e.g., Environmental Compliance Approval [ECA]):	☐ YES ☒ NO
Other, specify (i.e., EMP required):	☐ YES ☒ NO

If any of the above are checked "Yes", an AR owed to DPTENV is required to review and/or revise the affected process or procedure. AR#: 17995

Consider environmental impacts including normal, abnormal and fire conditions.
Consult Environment Programs for additional information, if required.

As part of the environmental impact reviews consider the following:

- Are there groundwater wells in the area? no
- Is there a site of contamination in the area? no
- Is there a habitat area? Is there one nearby? yes
- Are there species at risk to consider? no

Environmental Risk Ranking (Refer to Appendix B of DPT-ENV-00016)	☐ 1 Very High	☐ 2 High	☐ 3 Medium	☒ 4 Low	☐ 5 Very Low	☐ N/A

Comments on risk ranking, acceptance and follow-up (must initiate AR for regulatory commitment):

AR#:
CONTRACTORS
Contractors are required to have documentation for mandatory safety certification inspections for all equipment brought on site and are required to provide this information if requested.

INTERNAL USE

FORM-11422 R017

Environmental Impact Worksheet

Contractors are required to have appropriate equipment to prevent impacts to the environment (e.g. adequate spill kits, booms, etc.) for the work that they are performing.

Ensure attachment 7 “Environment Stewardship and Waste Minimization” is included in the Request for Proposal (RFP).

CHEMICAL PRODUCTS
Prepare a list of chemical products to be used and conduct a search on the Chemistry Intranet page to determine if the chemicals have been assessed and approved for use on site. If a new approval is required, submit a ‘New Hazardous Material Request’.

Follow BP-PROC-00306, Chemical Risk Management Procedure and the help guides provided on the Chemistry Intranet page.

For hazardous chemical storage (e.g. gasoline, compressed gas, chemicals), follow BP-SM-00010, Chemical Storage Cabinets.

CONSTRUCTION TRAILER
Construction trailers may have air conditioning units and/or require a diesel generator for power. Air conditioning units must be verified for cooling capacity and amount of refrigerant. Many BARD units are < 10 kW of cooling capacity and < 5 kg of refrigerant. In this case, they meet the exemption in BP-PROC-00980, Engineering Management of Halocarbon Containing Equipment and therefore do NOT require a MEL record as units of this size and quantity are not required to be on the Site wide Halocarbon Containing Equipment List (SHCEL). If the construction trailer has an air conditioning unit, check ‘YES’ to Question 28 and follow the directions.

Make all reasonable effort to connect trailer to permanent power supply. If a generator is required to power the trailer, check ‘YES’ to Question 25 and follow the directions

FUEL OPERATED EQUIPMENT
Please provide details you have at this time on the type of equipment to be used and spill mitigation measures.

Equipment specification sheet;
-Start and end date of use; and
-Hours of operation (e.g. 24/7, daytime hours only)

Auto-Email: Send an email to BNPD-ENV Conventional Air
Title: EIW # and Title
Body: EIW # and activity/project description

Fuel (e.g. for stationary/portable equipment & heavy machinery), fuel storage, and maintenance areas, shall be located on level ground with an impervious floor surface that will contain gas, oil or other fluids in use. The Originator shall ensure that appropriate secondary containment is in place around any fuel storage containers and during any refuelling (e.g. Drip trays). Fuel/chemical containers must be kept away from yard drains and surface waters to avoid spill risk into yard drainage and other water ways.

Any bulk fuel oil tanks or diesel generators must have secondary containment with 110% capacity of the fuel oil being stored. Conduct circle checks for all fuel containing equipment prior to using that equipment that day. Also protect connections on hoses and piping before work begins.

If a spill occurs, follow BP-PROC-00093 Spills to the Environment to ensure required reporting is completed.

A report on the volume of fuel consumed for stationary/portable equipment must be provided to ‘BNPD-ENV Conventional Air’ prior to March 30 of the following calendar year. This information is required for annual Greenhouse Gas and National Pollutant Release Inventory reporting.

INTERNAL USE

FORM-11422 R017

Environmental Impact Worksheet

WELDING
Please provide details you have at this time on the type of activity/project, location, emission controls, and frequency of operations.
-Type of activity;
-Location of the activities;
-Whether emissions are controlled by an air pollutant control device;
-The quantity and frequency of operations; and
-The type of welding (e.g stainless steel, manganese in welding rod) or Safety Data Sheet.

Auto-Email: Send an email to BNPD-ENV Conventional Air
Title: EIW # and Title
Body: EIW # and activity/project description
Answered yes to Q26 "Will this activity/project include welding, cutting or grinding activities?" Include the information the Originator input in the free-form box above.

A report on the type of weld rod, number of weld rods used and Safety Data Sheet must be provided to 'BNPD-ENV Conventional Air' prior to March 30 of the following calendar year. This information is required for annual National Pollutant Release Inventory reporting.

SITE ALTERATION/ HBITAT & WILD LIFE
Environment has walk down the proposed site/ route and determined no Species at Risk (SAR) are present and no trees need to be removed. If site plan changes please notify Environment so SAR interactions can be revaluated.

Be aware of yard drainage and catch basins. For high risk work that could result in contaminants being released, drains should be temporarily blocked to minimize risk of releases to the environment.

HYDRO EXCAVATION
Water for these purposes of construction must be collected from the industrial water pumphouse fill station. The fill station is equipped to track the water taking for reporting purposes. No other onsite fill locations are approved.

PORTABLE WASHROOMS
Provide details of the planned washroom.

Auto-Email: Send an email to BNPD-ENV Conventional Water
Title: EIW # and Title
Body: EIW # and activity/project description
Answered yes to Q38 "Is the disruption emergent and uses mobile washrooms which will be emptied by a licensed sewage hauler (i.e. blue water sanitation)?" Include the information the Originator input in the free-form box above.

SOIL MANAGEMENT

Please see revised guidance for soil management shown on last page of this EIW [13Oct2020 - D. Snider].

INTERNAL USE

FORM-11422 R017

Environmental Impact Worksheet

Is there demonstration of Life Cycle considerations (e.g., transportation, waste reduction, environmentally friendly products, etc.)?	☒ N/A	☐ YES	☐ NO
Is there demonstration of Best Available Technology Economically Achievable (BATEA) considerations (e.g., reduced emissions, reduced spill risk)?	☒ N/A	☐ YES	☐ NO
Is additional review required? (e.g., spill risk assessment [refer to DPT-ENV-00016]) Specify:		☐ YES	☒ NO
New EIW required for other Design Change Notices (DCNs) with this Design Change Package (DCP)? Please provide justification:		☒ YES	☐ NO
Is any of the activity being performed by a contractor? If yes, 1. Identify regulatory and environmental considerations for each contracted activity (e.g., spills management, waste management, emissions). 2. Input AR to request applicable qualification and/or certification document. 3. Arrange for oversight and walkdowns, as appropriate.		☒ YES	☐ NO

STEO (print name):	**Signature:**	**Date:**
Erin Holden Simmons		03SEP2020

INTERNAL USE

FORM-11422 R017

Environmental Impact Worksheet

SECTION C: ADDITIONAL REVIEW		
Additional Review Completed by:		
Comments on risk ranking, acceptance and follow-up (must initiate AR for regulatory commitment): AR #:		
Reviewer Name (print name): Dave Snider	**Signature:** Dave Snider 2020.10.13 12:44:24 -04'00'	**Date:** 13Oct2020
Additional Review Completed by:		
Comments on risk ranking, acceptance and follow-up (must initiate AR for regulatory commitment): AR #:		
Reviewer Name (print name):	**Signature:**	**Date:**

SECTION D: ACCEPTANCE OF RECOMMENDATIONS		
I have read and understood the environmental evaluation and if applicable accept the actions. Provision of Self Approval: If all environmental risk questions are accurately answered as "No" in Section A, sign off, start the activity and send the signed copy through e-mail to BNPD-EIW for review, oversight and recording. Environmental STEO is to review, agree or disagree with EIW assessment and log in the EIW tracking sheet. If there is disagreement with the assessment, initiate an Station Condition Record (SCR) referring to the EIW number.		
Originator or Authorized Manager (print name): Serge Goulet	**Signature:** Digitally signed by Serge Goulet Date: 2020.09.04 07:42:05 -04'00'	**Date:** 04SEP2020

SECTION E: FINAL ACCEPTANCE		
Review and ensure that follow-up AR is created, if required.		
Environment Manager or Delegate (print name): Lyndsay Reid	**Signature:**	**Date:** 04SEP2020
Recommended for Field Oversight (Walkdown):	☐ YES	X NO
Note: This form will not have a separate RRA. Use the approved EIW form as the environmental approval and attach with the applicable source references (e.g., DCP, DCN, Contract Requisition etc.).		

CS-2020-018 NG Supply to B44 and B29 – revised guidance on management of soil, slurry, concrete & asphalt.

Concrete and Asphalt:
Asphalt and clean concrete (free of rebar or embedded organic materials) can be recycled (crushed and used as inert fill). If the concrete is not clean (e.g., embedded with rebar), then it must be disposed of off-site at an approved landfill. On-site disposal of concrete is not an approved activity.

Dry soil:
Dry soil has low moisture content and would pass a 'slump test'. If dry soil can remain at the construction site and be used as backfill please exercise this option as it reduces the likelihood of moving contaminated soil from one location to another.

If the soil cannot remain at the excavation site, please reach out to Dave Snider, Environment Programs, to find a suitable strategy/location to manage the dry soil. A new area for dry soil is in the midst of being established.

If, during construction, impacted soil is discovered (e.g., excessive sheen and/or smells of hydrocarbon contamination), then it must be segregated and cannot be re-used. This soil must be treated as waste and sent to an off-site facility licensed to receive impacted soil. Contact Environment Waste SPOC through BNPD-ENV Conventional/Hazardous Waste for guidance.

Soil Slurry:
Soil slurry would fail a 'slump test' and is usually generated through hydro-excavation or directional drilling. In most circumstances it is impractical to keep slurry at the construction site and use it for backfill (however that is permitted and preferred).

Slurry may be managed at the On-Site Slurry Management Area. One or more bermed areas will be established within the Slurry Management Area for exclusive use by the Project. The Project will be permitted to deposit their slurry into these 'cells', and when the Project is complete they are to notify Environment programs who will have the soils tested to confirm the absence of contamination. Once that confirmation is made, the Project is will no longer be responsible for the soil within the cells and the signage can be removed.

If the excavated soil is deemed to contain contamination that merits off-site disposal, Environment Programs will work with the Project to develop a strategy for remediation. This will likely involve additional sampling to further delineate the contaminated soil, followed by off-site disposal with a hazardous waste vendor capable of receiving impacted soil. Environment holds waste contracts that may be used for this purpose; however the Project will need to cover the cost of disposal.

The Project is responsible to complete the following tasks ahead of excavation:

1. Estimate the number and size of cells required in the Slurry Management Area. Notify Environment Programs who will work with Site Services to build the bermed areas.
2. Create signage using the on-site sign shop with the following information:
   "This area is for exclusive use by Project _____. Contact info _____"

Environmental Plan

Bruce Power Natural Gas Project

Aecon Utilities

Revision Log

ENVIRONMENTAL PLAN			Revision No.: 0
Document	Bruce Power Natural Gas Pipeline Project – Environmental Plan		
Revision	**Section**	**Change Summary**	**Date (MM/DD/YY)**
0	All	Environmental Plan	10/05/20

Index

Introduction

The purpose of this section is to:

- Identify the necessary environmental measures to mitigate environmental impact
- Provide instructions to Aecon personnel on how to implement these environmental protective measures
- Provide a reference document for Aecon personnel when planning or conducting specific project activities
- Identify the documentation that must be maintained to demonstrate compliance to the Client, Aecon, and legislated environmental requirements
- Identify the environmental monitoring activities required to maintain compliance to the Client, Aecon, and legislated environmental requirements

All **Employees/Workers** at the work site shall share responsibility for performing their work in compliance with the requirements stated in this document.

Environmental Control Plans

The Client's Environmental Control Plans address for project work activities the critical aspects of environmental compliance in the areas of:

1. Waste Management
2. Water Management
3. Spill Prevention and Containment
4. Materials Management
5. Noise Control

The following sections contain Environmental Control Plans for the Project. Each plan contains the elements necessary to ensure environmental compliance.

1. Project Waste Management

The Client has made a commitment to "greening" the Construction site.

The main objective is to implement more sustainable construction practices especially in the area of expanding waste minimization, segregation, diversion and recycling.

By incorporating Green Construction Principles into the Project, the Client and Aecon can capture opportunities to go beyond compliance and thus reduce the project's footprint during its construction phase. By doing so, the Project will demonstrate the Client, as well as Aecon's commitment to sustainable development and environmental excellence.

A Client / Project specific Waste Management Plan will be developed as part of the work leading up to the field mobilization of the Waste Management contractor.

Once this plan is developed and approved, it will be circulated to the Client's Construction Management Team members and Aecon Management and Aecon Front Line Supervision for implementation.

In the interim, until the Project Specific Waste Management Plan is issued, the following Waste Management requirements will be incorporated into the Project.

1.1 Waste Handling

All waste shall be handled using the following processes:

- Identify measures to reduce and control waste generation
- Proper handling and storage methods
- Performance tracking and reporting for subcontractors
- Re-use and recycle as appropriate
- Assessing existing wasteful practices and, where possible, eliminating waste generating activities
- Selecting materials that are less harmful to the environment or personnel
- Providing workers with the training and motivation to implement safe and environmentally sound waste management practices

1.2 Waste Classification

Waste shall be categorized as follows based on its ultimate disposal:

- Off-site disposal for wastes such as high total dissolved solids wastewater from water treatment systems and surface runoff meeting acceptable discharge criteria
- Off-site recycling for wastes such as used batteries and scrap metal
- Off-site recycling for wastes such as wood.

This classification will be superseded by a project specific waste classification if developed by the Client.

2. Project Water Management

2.1 Hydro Test Fluids

Hydro test work shall be conducted in accordance with all federal, provincial, municipal and any other governing applicable legislation.

Once finished, all hydro test water shall be drained outside the Bruce Power fence.

2.2 Equipment Wash Water

There shall be no equipment or vehicle washing on site.
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2.3 Surface Water Protection

The extent of impact on surface water quality will depend on the earth disturbances carried out during the construction activities and the weather conditions. The movement of heavy construction equipment and vehicles will also contribute to sediments in the run-off. Overall, careful planning, good construction practices and precautions during the construction activities at the site shall minimize potential impacts on the surface water quality.

Any anomalies such as oil sheen, odor, color, trash or other indications that there is potential contamination shall be investigated immediately and the necessary corrective action taken.

3. Project Air Quality

The potential sources for air quality degradation during construction will be primarily dust generated due to construction activities and exhaust from construction equipment and vehicles. Actions will be identified in the Aecon Vehicle Policy to minimize vehicle idling. No incinerators or burning of vegetation and trash shall be allowed at the construction site unless methods have been approved by the Client.

3.1 Dust Control

Dust can be a nuisance to workers on site and the surrounding community. The following will aid in minimizing the generation of dust:

- Equipment and vehicles shall only operate on cleared right-of-ways, areas designated for construction activities and approved roads and roadways
- Excessive dust shall be managed by watering the affected areas of the site during dry and windy periods
- Routine activity and inspection will provide adequate opportunity for the visual identification of dust generating activities. If dusty conditions are identified resulting from construction activities, mitigating action shall be taken; in particular, increased deployment of watering trucks

4. Project Spill Prevention and Containment

All reasonable means shall be used to prevent spills or leaks. However, accidental spills may still occur during the transfer of fuel from tank trucks to construction vehicles..

4.1 Spill Prevention

All reasonable means shall be taken to prevent spills or leaks. In the event a hydrocarbon or chemical leak is observed, it shall be repaired as soon as possible. Storm water or snowmelt water runoff shall be prevented from becoming contaminated as a result of leaking or spilled drums of oil or chemicals. Under no condition shall oil or contaminants be discharged into drainage ditches.

Oily equipment or materials shall not be stored in or near drainage areas where runoff leaving site could become contaminated. Vehicle and equipment maintenance shall be confined to designated areas where fluids shall not be discharged and spilled to land or drainage ditches.

4.2 Spill Control

In the event a spill does occur, immediate action shall be taken to stop, reduce and contain the spill. The exact actions taken shall be influenced by the severity of the spill, the quantity of material released, the circumstances of the release, the type of material and the spill location. While Aecon is responsible for dealing with spills, the Client's EH&S Department will direct the cleanup operation. An incident investigation report shall be produced for all spills.

Any liquid spills with a containment area will be collected using vacuum trucks and recycled or disposed of as appropriate and with input from the Client's EH&S Department.

5. Project Materials Management

Materials, and in particular hazardous materials, shall be used as needed onsite and removed from site on daily basis. No storing. While on site the material should be handled as shown below:

- The manufacturers' recommended practices
- Pertinent federal and provincial regulations and
- Local or municipal codes

5.1 Storage Facilities

There will be no fuels, chemicals or potentially hazardous material stored on site.

5.2 Containers

Where possible, fuels, chemicals and hazardous materials shall be kept in their original containers unless they cannot be resealed, and original labels shall be retained unless they have been damaged. Temporary or alternate containers used for transporting small amounts (e.g. 1 to 20 liters or 1 to 4 US gallons) of fuel, solvent, or oil shall be designed and manufactured specifically for such use, with the contents clearly noted (e.g. gasoline, diesel fuel, kerosene, motor oil, etc.) and workplace WHMIS labels provided.

5.3 Handling

Only persons trained and qualified shall handle fuels, chemicals, and hazardous materials. Handling procedures, personnel protective equipment, and training shall be provided to personnel working with hazardous materials. All workers shall be instructed on the handling of specific hazardous materials to be used in the course of their work.

6. Project Noise Management

Noise can be a nuisance and/or a health and safety concern on site. Appropriate PPE should also be identified to ensure compliance with the governing applicable legislation.

Hydrovac & Soil management Plan

Bruce Power Natural Gas Project

Aecon Utilities

Revision Log

HYDROVAC AND SOIL MANAGEMENT PLAN			Revision No.: 0
Document	Bruce Power Natural Gas Pipeline Project – Hydrovac & Soil Management Plan		
Revision	**Section**	**Change Summary**	**Date (MM/DD/YY)**
0	All	Issued for Review	10/16/20

Purpose:

This plan is to identify Contractor's scope and procedures for Hydro excavation and soil management.

1. Hydro Excavation:

Purpose:

To verify depths and accurate locations of underground utilities and services lines before drilling or excavation start.

Hydrovac Truck Safe driving:

Standard

Hydro-Vac trucks often must be moved short distances on the jobsite. To reduce wear on the boom and other components, the boom and hoses may be left extended while the truck is moved a short distance within the jobsite. When this is required, the following practice must be followed.

Practice

• Positioning of the boom should be determined by the job scope and obstacles and hazards in the travel path.

• The windows of the truck must be down in order for the operator to maintain voice contact with the signaler.

• Prior to moving the truck on the jobsite, remove "Dig Tubes" from boom hose and lower the boom to cradle height.

• Move the dig and extension tubes to a safe location away from the travel path

• Do not hold any attached tube or other components of the truck, while the truck is in motion.

• The water hose must be fully retracted or secured to the truck prior to moving it.

• No part of a hose or other implements should be left hanging from the truck while it is in motion. They must be secured to eliminate a swinging hazard.

• Rotating the boom in to the cradle is required when the truck is to me moved longer distances or to another jobsite.

• Windows and mirrors must be kept clean and good housekeeping practices must be followed inside the vehicle.

• Any additional distractions (phones, radio, GPS) must be eliminated.

• Safe limits of approach requirements must always be adhered to for overhead utilities.

• All existing safe work practices for operating equipment on a jobsite must be followed.

• Ensure the grounding mat if required has been disconnected prior to moving.

• A signaler in front of the hydro vac will be necessary in close proximity to stationary objects or persons

• Always perform a complete circle check prior to moving the hydro vac truck

• Be aware of the ground conditions such as soft shoulders.

• Stay within the traffic plan at all times

• Only qualified and competent operators will drive a hydro vac truck.

Hydro Vac Truck / Daylighting

Standard

To safely daylight any underground utility without damage to the existing service.

Practice

• Daylighting is a non-destructive process using pressurized water and a vacuum system to remove soil cover, thereby allowing a visual observation of buried underground plant services.

• Inspect the equipment daily for defects and report to your supervisor.

• PPE including eye protection, hearing protection and gloves shall be worn during Hydro Vac operations.

• Due to the excessive noise generated from the equipment, keep unauthorized persons a safe distance back and wear hearing protection in the area.

• Always shut down the vacuum unit prior to inspecting a plugged hose.

• Never point the water wand at anyone or use it to remove mud from your hands or boots. Doing so, may cause the pressurized water to cut through skin.

• When the equipment in not in use, release the water pressure and shut down the vac unit.

• When working near underground cables, the pressure should not be greater than 1500psi in order to avoid possible damage.

• An oscillating head should be used on the water wand to reduce any potential damage.

• Keeps the wand moving from side to side

• Use the water pressure to remove the soil. Do not jab or poke the ground with the wand.

• If you come across a damaged cable, stop the work and report the damage to your supervisor. Contact the local utility.

• A complete walk around of the Hydro Vac truck is required prior to moving it on site.

• Have a signal person available to direct the truck by walking ahead in the direction of travel. Pay close attention to overhead power lines.

• Ensure the rigs boom is down and secure prior to moving the equipment.

• Ensure Danger Due To Overhead Wire signs are posted in the work area.

• The Hydro Vac truck must also be equipped with the Overhead Electrical Awareness sticker.

• A grounding mat will be necessary while daylighting electrical utilities.

• Open Hydro Vac excavations are dangerous and sometimes very hard to see.

• It is important to ensure the hole is not left unattended until it is covered or guarded to prevent access to the opening. Post a “Danger Due To” sign indicating the hazard.

• Use extra caution whenever mounting or dismounting the holding tank. Stay within the confines of the catwalk system to avoid slipping.

• Follow manufacturer’s written instructions.

• Hydro Vac operations exposing electrical utility lines require grounding to protect the operator.

2. Soil Management:

Purpose

This to clarify management of soil during construction for soil and slurry resulting from excavation and Hydro-vac.

Procedure:

Dumping of Slurry

• All materials (Slurry) collected from the Hydro Vac and directional drilling operations must be checked for odor or sheen. If no odor or sheen is noticed, then slurry will be dumped at an approved disposal location assigned by Bruce Power inside the Bruce Power facility fence. If odor or sheen is present, then this slurry will be dumped at different location that is assigned and approved by Bruce Power for contaminated slurry dumping inside Bruce Power fence.

Soil from excavation:

• All soil resulting from excavation will be used as backfill soil and will be used to backfill around the Gas pipe if the soil was suitable for backfilling. If constructor encounters rock while excavating, then large rocks that we can't hammer and use for backfilling to be dumped in an approved dumping location by Bruce Power inside the Bruce Power facility fence.