PEACE RIVER NUCLEAR POWER PROJECT

IAA Reference # 89430

Comments by Northwatch on

Draft Tailored Impact Statement Guidelines

July 23, 2025

NORTHWATCH

Introduction

On June 23, 2025 the Impact Assessment Agency of Canada announced that it is inviting public comments by July 23 2025, on the draft Tailored Impact Statement Guidelines and the draft Public Participation Plan.

In total there are four plans – Draft Indigenous Engagement and Partnership Plan, the Draft Cooperation Plan, the Draft Public Participation Plan and the Draft Permitting Plan – but the invitation for public comment was limited to the draft public participation plan.

The Summary of Issues was posted on June 9th (Updated June 18, 2025) and the proponent's Responses to Summary of Issues was posted on June 23, 2025

On July 9th the Agency posted "Plain Language Draft Integrated Guidelines" on the registry, but did not create a link to that plain language version from the main page of the web site. The Public Engagement Presentation - June 2025 was posted on July 10th.

Unlike with the Bruce C nuclear project, the Agency has not posted a Summary of Potential Federal Incidental Activities but has instead indicated in the draft guidelines that "*IAAC will continue to analyze which activities may be incidental to the project based on the Proponent's Initial Project Description, Response to the Summary of Issues, as well as information provided in the public comment period on these draft Integrated Guidelines. The result of this analysis will be reflected in the final version of these Integrated Guidelines*."

While we appreciate that the IAAC assessment of which activities are incidental to the project may be ongoing, the Agency's current assessment should have been included. While the approach the Agency took to the Bruce C review was problematic in that the Summary of Potential Federal Incidental Activities was posted but not linked from the "front page" of the registry and the connection to the Guidelines was not stated, in this case the Agency's approach is problematic but the Agency's current (albeit ongoing) assessment has not been made public. As a next step in this planning phase the Agency's analysis of what is incidental to the project should be posted for comment prior to finalizing the guidelines; to express the Agency's analysis only by incorporation or application to the final guidelines removes the opportunity for public comment and removed the opportunity to the public to consider the Agency's assessment while commenting on the draft guidelines. It lacks transparency and traceability.

This is the second comment period for Peace River Nuclear Project.

On April 14, 2025 the Impact Assessment Agency (the Agency) posted the first notice on the project registry for the Peace River Nuclear Project, announcing that Energy Alberta is proposing to construct a new nuclear power plant located north of the Town of Peace River, Alberta, and that a comment period was opening on an Initial Project Description. IAAC and the CNSC invited comments on the summary of the Initial Project Description by May 14, 2025

According to the IAA project home page, Energy Alberta is proposing the construction of two twin CANDU MONARK nuclear reactors to be located approximately 30 kilometres north of the Town of Peace River, Alberta. As proposed, the Peace River Nuclear Power Project would cover 1,424 hectares in area and operate for approximately 70 years. The plant will generate up to 4,800 megawatts per year. The project assessment is being conducted in collaboration with the Canadian Nuclear Safety Commission.

Northwatch's Interests

Northwatch's interest in the project is four-fold:

1) Energy Alberta's receipt of federal funding for their nuclear project which is of direct interest to all Canadians including our members and supporters,
2) northern Ontario is experiencing the impacts of climate change with more extreme weather events and extended and more intense forest fire seasons and this project will divert public resources from taking real climate action and will power fossil fuel resource extraction projects which are major contributors to the climate crisis,
3) the project may be precedent setting or may become normative in terms of the decision-making of the Canadian Nuclear Safety Commission and / or the Impact Assessment Agency, and
4) Northwatch is a regional coalition in northeastern Ontario with a long-standing interest in the impacts of the nuclear fuel chain and the management of radioactive wastes, given the presence in our region of the world's largest uranium refinery and millions of tonnes of radioactive uranium mine tailings and our experience as the repeated target of nuclear waste "disposal" projects.

Northwatch is part of We the Nuclear Free North, a northern Ontario alliance formed to share information and support critical analysis and opposition to the Nuclear Waste Management Organization's investigation of multiple sites across northern Ontario as potential burial sites for the burial and abandonment of high-level nuclear waste. In November 2024 the NWMO selected the Revell site between Ignace and Dryden as their preferred site for their project to transport, process, bury and abandon all of Canada's high level nuclear waste in a single location. Energy Alberta has named the NWMO and their selected site in northern Ontario as the end point for the 1.9 million nuclear fuel bundles which will be irradiated during the operation of the proposed four MONARK reactors. This is a 35% increase to the NWMO's current nuclear fuel waste projections and would have corollary effects on the NWMO project's operating period and footprint and downstream and long-term impacts, including radioactive releases.

Summary Comments on the Draft Guidelines

In reviewing and commenting on the Initial Project Description[1] Northwatch identified a number of major deficiencies that we expect to be addressed through direction included in the Tailored Impact Statement Guidelines; generally speaking, those were grouped into the following areas:

- Discussion of the need or purpose of the project was unduly limited and poorly supported
- alternatives to the project were similarly not well presented
- the selected technology (reactor type) was minimally presented, with no actual description of the technology or any related safety analysis
- there were only very summary references to the various project stages (site preparation, construction, operation, decommissioning and abandonment)
- we found no descriptions of accident scenarios, including worst case scenarios, or of malfunctions or malevolent (terrorist) acts
- there were either inadequate or no descriptions of health, environmental and social impacts and potential impacts at each project stage
- there were minimal references and no substantive descriptions or discussion of the radioactive wastes that will be generated (low, intermediate, high) and how they will be managed in the short, medium, and long-term, with the exception of a questionable statement about a proposed management option for high-level radioactive waste and conflicting statements about whether the wastes would be managed on-site (permanently) or transported off-site
- there were no radioactive waste volume estimates included in the initial project description (a posterboard produced by Energy Alberta for their open house indicated that 1.95 million fuel bundles would be irradiated)
- there was no discussion of the fuel type, source, and risk factors for the MONARK technology
- there was inadequate description of the proponent and no discussion of the long term ownership and accountability for a potentially privately operated nuclear reactor station, and no discussion of the assignment of liabilities and cost exposure or of the capacity of a private sector operator (such as Energy Alberta presents itself) to respond to cost exposures including large and unanticipated financial demands and / or cost overruns
- there was no discussion of liability, or of who would assume liability including in the case of bankruptcy or forfeiture on the part of a private operator
- the potential for / responses to accidents, malfunctions and malevolent acts (e.g. terrorist attacks) was wholly absent

[1] Peace River Nuclear Power Project Initial Project Description, https://iaac-aeic.gc.ca/050/evaluations/document/161347

- proliferation and security risks related to fuel sourcing and production, operations, and waste generation and management were absent
- the costs and financing for each operating stage, including decommissioning and long-term waste management were absent
- a posterboard produced by Energy Alberta for their open house indicated that Energy Alberta has "assembled a team with extensive nuclear experience and initiated the planning required to advance a nuclear generation project in Canada" which appeared – based on the display of logos – to include Atkins Realis, WPS, Tory LLP and the Royal Bank of Canada; no information about the financial means of the would-be proponent was included in the Initial Project Description or of the roles, responsibilities or liabilities of the "team" which Energy Alberta describes as having been assembled for this project

While the above summary points were a comment on the initial project description we noted that "the eventual draft Tailored Impact Statement Guidelines should also require detailed address of these areas, as well as others identified by Indigenous and other public participants in this review process".

More specifically, in our comments on the Initial Project Description we identified the following information areas or items that should be required via the Guidelines:

- The guidelines should require that exact role of Alberta Energy in the earlier and failed attempt to establish a nuclear generating station in the Peace River region and the exact relationship between entities involved and efforts made in the approximately 2005 to 2010 period and the current proposal by Energy Alberta (AE) should be described in detail, if such references are to be made.
- The guidelines should require detailed descriptions of the several project stages particularly with respect to the site preparation, construction, operation, decommissioning and abandonment stages (per CNSC licensing stages).
- The guidelines should require detailed descriptions for the MONARK design and design specifications and auxiliary infrastructure.
- The guidelines should require AE to provide much more detailed information about the means used to "secure" land, including the legal nature of the arrangement (purchase, option to purchase, etc.) and the mechanism through which the land will be released to other users / land uses when the project is discontinued (i.e. before site preparation and/or construction)
- The guidelines must give very specific direction to the proponent to apply a full-cost accounting approach with respect to carbon emissions and the proponent's claim that the project would help Canada achieve net-zero targets. The impact assessment documents must be evidence-based and data-supported.
- The guidelines must set out clearly that the proponent must produce a set of impact assessment documents which are evidence-based and data-supported; general references

and rhetoric are not appropriate; this comment was made specific to the presentation around net-zero, but applies more generally

- The guidelines should provide detailed direction on the information to be provided and the manner of its presentation (for example, references should be specific rather than general; footnotes should be used rather than general references).
- The guidelines should require a discussion of "value added" or economic benefits from the project should be included, as well as an analysis of the economic benefits and value added from alternatives to the project or alternative means of meeting the need or purpose of the project should also be provided; for example, the guidelines should require that the proponent provide a comparison of energy units produced and jobs created on a per investment dollar basis for nuclear power versus solar or wind energy projects were they to be delivered in the same region. Similarly, there should be a comparison of the benefits and disbenefits of the selected site in comparison to a site closer to the demand centre.
- The guidelines should require that the proponent clearly set out the demand projections and describe the demand centres (source or location of the electricity or energy demand) relate it to the site and describe how the site was selected in comparison to sites closer to those demand centres.
- The guidelines must give very specific direction to the proponent to apply a full-cost accounting approach being applied to the proponent's proposal with respect to carbon emissions and the claim that the project would help Canada achieve net-zero targets. The impact assessment documents must be evidence-based and data-supported.
- The guidelines should require a detailed plan for the management of all categories of radioactive waste at all project stages.
- The guidelines should require that a detailed decommissioning plan be in place at the impact assessment stage and prior to the site preparation licence and be detailed in the impact assessment documents.
- The guidelines should require that the description of the decommissioning approach includes how base-line conditions will be established / documented and how end-state objectives will be set, and how any gap between pre-operation conditions (site conditions, including soil, groundwater, surface water, vegetation, etc.), post-operating conditions, and post-decommissioning conditions will be addressed.
- The guidelines should require a detailed description of the radioactive wastes that will be generated and their dispositioning during before and during decommissioning, including for low and intermediate-level radioactive wastes, or for liquid wastes.
- The guidelines must require – and the Agency must ensure that the requirement is adhered to – that the impact assessment documents describe an actual reactor design in detail, including its auxiliary facilities and structures, its fuel, its waste products, and the specifics of the waste management plans and strategies based on the actual reactor design and fuel characteristics and dimensions. The assessment must be based on an actual

reactor and its design, components and specifications, rather than on a concept or generic description of a reactor.

- The guidelines should require that the impact statement include full design for all of the waste facilities.
- The guidelines should require detailed and mature reactor design details, components and specifications; the guidelines must be clear that a conceptual presentation of the reactor design is insufficient.
- The guidelines must set out clear requirements for the examination of accidents and malfunctions; detailed directions must be provided in the guidelines to ensure a thorough examination of the potential and corollary responses to the full range of accidents, malfunctions and malevolent acts which could occur.
- The guidelines must set out direction that the impact assessment statement include a comparison of the relative strengths and weaknesses of various reactor designs (including but not limited to the MONARK, the Enhanced CANDU 6, and "small modular reactors" including the BWRX-300 and the eVinci as models currently under consideration or development in Canada); the evaluation must include comparisons of cost per energy unit, waste per energy unit, job create per dollar investment, waste characterization including dimensions, criticality considerations, proliferation risk, and accidents, malfunctions and malevolent acts.
- The guidelines must direct that the assessment include a detailed description of the full chain-of-custody for the supply and services for a MONARK design.
- The guidelines must require a comprehensive presentation on the generation, characteristic and management of the radioactive wastes that the proposed reactors would generate, including low, intermediate and high-level wastes generated through various parts of the operation (including fuel waste, filters, debris)
- The guidelines must direct that the project assessment include a full cost accounting comparison, including accounting for the full nuclear fuel chain, including mining, milling, refining, conversion and fuel manufacturing, plus operations, waste management, decommissioning and abandonment. The full cost accounting methodology must integrate non-monetized values, such as clean air, water, human health, and genetic resources.
- The guidelines must require a presentation detailing the full costing of the project; costs must include all phases of operation, including long-term waste management, and decommissioning; the costing exercise must also include accidents, malfunctions and malevolent acts and clean-up, compensation and reparation costs.

Comments on the Draft Integrated Tailored Impact Statement Guidelines

The draft Integrated Tailored Impact Statement Guidelines document was posted on the public registry for the Peace River Nuclear Project on June 23, 2025 for a 30 day comment period closing July 23, 2025.

The public notice described the role of the draft Integrated Guidelines as being to "outline the specific factors to be considered in the assessment of the project and provide direction to the proponent, Energy Alberta, on the studies and information required in its Impact Statement, as well in the licence application for a licence to prepare site" and indicated that comments should be submitted via the project web site (reference number 89430). It also announced a number of local information sessions; there were no online information sessions.

Northwatch's comments on the draft guidelines follow, but we wish to preface them with some general comments on the review process for the draft guidelines:

- The comment period of 30 days is too short
  - the 176 page document is in some areas quite technical, and it has been prepared for the review of a very large project of potentially great consequences, and on both these counts it warrants – and demands – careful attention and response; 30 days is insufficient to this task
  - The 30 day comment period was concurrent with the review of four "plans" for the conduct of the impact assessment review of the Peace River nuclear project; this further exacerbated the challenge of such a limited comment period
  - There was no dispositioning of public comments on the initial project description which would have provided the traceability of our earlier comments, this would have been of assistance in preparing comments on the draft guidelines and would potentially have created efficiencies for both the Agency and the review participants
- The document included a listing of abbreviations and short forms, but did not include a glossary or even a link to the CNSC glossary[2]

[2] REGDOC-3.6, Glossary of CNSC Terminology

Section-by-Section Comment on the Draft Guidelines

1.	The Integrated Guidelines provide the proponent with directions and requirements for the preparation of an integrated Impact Statement. This includes all the information necessary to make a decision in accordance with the IAA and to make a decision on whether to issue a Licence to Prepare Site (LTPS) in accordance with the NSCA	The draft erroneously describes the "integrated impact statement" as including "all the information necessary to make a decision"; while we agree with the presumed intent – that the guidelines direct the proponent to provide all the information the proponent can provide on their project (i.e. a full and comprehensive description and supporting documents) there is other information which is necessary to make the decision, including that provided by Indigenous peoples, and through evidence and assessments contributed by all review participants, including the Indigenous peoples, the various publics that will be potentially impacted by the project over the full temporal and spatial range of the project, and by federal and provincial review teams.
1.	As the production of nuclear energy is declared to be to the general advantage of Canada in the Nuclear Energy Act of 2000, this project is considered to be a federal work or undertaking as defined under the Canadian Environmental Protection Act 1999. Therefore, adverse federal effects within federal jurisdiction, as defined under the IAA also include changes to the environment or to health, social and economic conditions and the positive and negative consequences of those changes that are likely to be caused by the carrying out of the project.	We make the following comments with respect to this reference and assertion: - There is no *Nuclear Energy Act of 2000* listed on the Justice Laws web site[3] - There is a "Nuclear Energy Act (R.S.C., 1985) listed and noted to be current to 2025-06-25 and last amended on 2017-09-21[4] - Many – perhaps the majority – of the sections Nuclear Energy Act cited above have been repealed - Without the benefit of legal advice, we opine that references in remaining sections of the Act may be being in made in reference to a crown corporation; see, for example, Section 15 which states that "All expenses under this Act shall be paid out of moneys appropriated by Parliament for the purpose or received by a company through the

[3] https://laws-lois.justice.gc.ca/eng/

[4] https://laws-lois.justice.gc.ca/eng/acts/A-16/

		conduct of its operations or by bequest, donation or otherwise" - If the intention of this reference was to establish that the federal government has jurisdiction over nuclear matters, it is our view that there are more compelling arguments to be made; even within the Nuclear Energy Act of 1985 Section 10 is more persuasive than Section 18 We have no argument with the assertion that the federal government has jurisdiction over nuclear matters, that this project is considered to be a federal work or undertaking, or that adverse effects are within federal jurisdiction and are therefore fully within the scope of this review. Our criticisms of the statement are that it is without an endnote or hyperlink to the purported Nuclear Energy Act of 2000 and that an explanation of the division of powers or other legal references would have better served the purpose at hand.
1.1.2	The proponent should refer to the requirements of Section 4 of REGDOC-1.1.1, *Site Evaluation and Site Preparation for New Reactor Facilities, Version 1.2.* as well as other applicable documents and guidance to address the information criteria needed for an LTPS under the NSCA.	-The requirements of REGDOC- 1.1.1, Site Evaluation and Site Preparation for New Reactor Facilities, Version 1.2. should be listed rather than simply referenced, and should be identified as requirements, rather that as a suggestion that the proponent "review" the REGDOC The "other applicable documents and guidance to address the information criteria needed for an LTPS under the NSCA" should be listed rather than very generally referenced
1.3	To support GBA Plus, the information provided in the Impact Statement must: be sufficiently disaggregated to support the analysis of disproportionate effects as per GBA Plus' intersectional approach.	To support a gender based analysis the disproportionate effects of radiation exposure on women and children - and particularly on fetuses – must be fully identified and described in detail.

1.4	The proponent should, in consultation with IAAC and the CNSC, consider submitting documents for review (e.g., proposed study plans, draft sections of the Impact Statement) prior to submitting the formal Impact Statement	There should be an open and transparent process; these drafts should be posted to the public registry, along with comments from the agency, to allow Indigenous people and the public to observe the evolution to the impact statement and its components; the IAA process must be transparent and decisions traceable.
1.4	IAAC and the CNSC will conduct an initial verification review of the submitted Impact Statement to confirm that the document contains sufficient information to proceed to a technical review, as well as a public comment period on the Summary of the Impact Statement.	There should be an open and transparent process; these drafts should be posted to the public registry, along with comments from the agency, to allow Indigenous people and the public to observe the evolution to the impact statement and its components and to comment on the sufficiency of the draft impact statement; the IAA process must be transparent and decisions traceable.
1.4	At the proponent's request, IAAC may, considering the proponent's progress, work plan and other relevant factors, extend the time limit by any period that is necessary for the proponent to provide IAAC with the information or studies.	There is an internal contradiction between the statement that there is a three-year limit and the statement that there can be time extensions at the proponent's request; the guidelines should clearly state that the three-year time limit is inclusive of any time extensions granted the proponent; if the requirements are not met within the three-year time limit the assessment is terminated. Without prejudice to that position: if there are to be potential extensions, the criteria should be clearly stated and there must be limit to potential extensions.
1.5	The impact statement must include…	The guidelines must require that the impact statement include a glossary and a list of acronyms and that the impact statement and supporting reports and studies are well-referenced, including using hyper-links to the greatest extent possible.
1.5	The impact statement must include… a summary for the documents that served as key references and are not otherwise publicly accessible, and, where possible, appending them to the Impact Statement;	These documents must be accessible in manner that is convenient to the public, i.e. on the project registry, or in a readily found page on the proponent's web site that will remain stable and in place (some proponents in the past have made changes to their web site that corrupted all links to documents, while at the same time changing their search functions, making documents difficult to

		access or locate, or even determine if they are still available)
2.1	The proponent: the Impact Statement must include (various information items)	The impact statement must include substantive information about the proponent, rather than simply tomb stone items. The description of the proponent must include details of the long-term ownership plan and accountability mechanisms for a potentially privately operated nuclear reactor station. The information must clearly set out the assignment of liabilities and cost exposure or of the capacity of a private sector operator (such as Energy Alberta presents itself) to respond to cost exposures including large and unanticipated financial demands and / or cost overruns. There must be clear statements of how liability will be assigned, including who would assume liability in the case of bankruptcy or forfeiture on the part of a private operator brought about by financial conditions, operational failures, or by catastrophic events including accidents or malevolent acts.
3.2	Project location: The Impact Statement must describe the project's location, the geographical setting and the socio-ecological context in which the project is to take place.	In the initial project description two locations were identified and Energy Alberta stated that the final decision regarding the site location would be made after evaluating the technical and safety requirements, along with the key environmental, Indigenous and social criteria used to determine overall site suitability. The impact statement must describe these technical and safety requirements and the several key criteria that were used to evaluate the two locations, document how those requirements and criteria were applied to evaluate each of the two sites, and detail the findings and the reasons for the final site selection, relative to the technical and safety requirements and several key criteria.
3.4	…describe nuclear facilities-related activities and components (e.g., reactor design, cooling water system, water intake and discharge structures, waste management strategies for low, intermediate, and	The impact statement must describe in detail not just the waste management strategies for radioactive waste, but the facilities and systems that will be employed, their design features and operational functions, how they were selected in comparison to other

	high-level radioactive waste (e.g., spent fuel) for the facility's lifecycle, etc.);	options, the potential for malfunction and the associated impacts and potential mitigation strategies; this section must be substantive, concrete and technically verifiable. It should be well-referenced and rely on operational experience and clearly delineate between observations and conclusions that are based on actual experience and operations versus hypothesis and concepts.
3.4	…describe nuclear facilities-related activities and components (e.g., reactor design, cooling water system, water intake and discharge structures, waste management strategies for low, intermediate, and high-level radioactive waste (e.g., spent fuel) for the facility's lifecycle, etc.);	The impact statement must clearly state if the proponent intends to practice volume reduction of radioactive wastes, including for low-level wastes. Specifically the proponent should state if they intend to use incineration for volume reduction of low-level waste (as is practiced as Ontario Power Generation's Western Waste Management Facility for low-level wastes generated at Darlington, Pickering and Bruce nuclear generating stations) and/or if they intend to employ incineration of any other waste reduction strategies (such as the practice of OPG and Bruce Power of sending wastes to the U.S. for volume reduction) and if so who would be the service provider and where would not waste reduction activities be undertaken.
3.4	The Impact Statement must: provide a summary of any change made to the project as proposed in the Initial Project Description, and the reasons for these changes, including rationale for final project site decision, if applicable	Given that the Initial Project Description contained internal contractions, this section must address changes from the various scenarios included in the IPD and be specific about the changes or variance from each scenario.
3.4	waste management systems including facilities for the management and storage of conventional waste and hazardous materials	This section of the Impact Statement – and so the corresponding sections of the guidelines – must be absolutely clear that the description of waste management systems includes radioactive wastes, and must detail each of the different categories of radioactive waste (e.g. low, intermediate, high-level) at various points in time over the operational and post-operational life of the generating station; the section must include – or reference to the supporting document

		which is made available in full – a complete inventory of the wastes which includes its characteristics (radionuclides, half-life, decay products) and containment requirements (e.g. shielding) over various time frames.
3.4	Project Components: permanent and temporary facilities for the management and storage of low, intermediate and high-level radioactive waste; and	This section of the impact statement must be detailed and specific and address various time frames; the primary focus should be on on-site in the short, medium and very long term, but should clearly describe any consideration the proponent may be giving to off-site management for each of the waste categories (low, intermediate, high-level) and what approach is under consideration (for example: volume reduction, storage, long-term disposition). It should be well-referenced and rely on operational experience, and clearly delineate between observations and conclusions that are based on actual experience and operations versus hypothesis and concepts. If off-site management is an option, the impact statement should be specific about location, services, vendor, transportation plans, and climate considerations. If on-site management is the only option, the impact statement should be specific about design and operations.
3.4	Operations phase: management and storage of operational conventional, hazardous and radioactive waste, including on-site facilities for used fuel waste and packaging for <u>off-site long-term disposal</u>; and	Despite the initial project description having identified by on-site and off-site storage as options for the long-term disposition of high-level nuclear waste (albeit in a somewhat contradictory fashion) the author of the draft guidelines has demonstrated their clear bias assuming off-site long-term "disposal". As a side-comment, use of the word "disposal" assumes that containment will be effective over the long-term, and this ability has very much not been established, nationally or internationally. In a description of "off-site long-term disposal" the impact statement should be specific about location, services, vendor, transportation plans, and climate

		considerations and the social and environmental considerations and impacts and should provide a comparison of transportation considerations based on distance, including fossil fuel use and related climate impacts and accident risk, establishing a co-relation between distance and likelihood of occurrence.
3.4	Decommissioning Phase: - decommissioning activities, including clean out of radioactive inventory, demolition, dismantling and decontamination of reactors, structures, components, and shutdown of support systems; - used fuel handling and transfer to dry storage on-site in preparation for shipment to off-site disposal; - transportation and safe storage of all radioactive and non-radioactive waste to temporary and permanent off-site facilities;	The initial project description failed to include a description of the decommissioning plan and strategy and stated that the proponent's intention is to not develop even a preliminary decommissioning plan until the "early site licencing" which it then equated to "prior to LTC application". While the reviews of the License to Prepare the Site and the Impact Statement review are expected to run generally parallel, the License to Construct (LTC) will be some years later. The decommissioning plan must be in place at the impact assessment stage and prior to the site preparation licence and must be detailed in the impact assessment documents. The draft guidelines appear to indicate that this is to be the case, that the ecommissioning plan must be in presented and reviewed at the impact assessment stage, but given the proponent's earlier statement Northwatch is particularly concerned that this requirement be clearly set out in the guidelines. The decommissioning plan should be well-referenced and rely on operational experience; it should not be simply conceptual or hypothetical. The decommissioning plan must rely on and reference detailed waste inventories with clear pathways for the long-term management and disposition of each waste group. The guidelines should require that the description of the decommissioning approach includes how base-line conditions will be established / documented and how end-state objectives will be set, and how any gap between pre-operation conditions (site conditions, including soil, groundwater, surface water, vegetation, etc.), post-

		operating conditions, and post-decommissioning conditions will be addressed.
3.4	Abandonment Phase: - restoring and reclaiming the site to desired outcomes, approach, and follow-up or adaptive management to achieve desired outcomes;	The draft guidelines appear to rely on an assumption that the site will achieve a status where institutional control is no longer required; the impact statement should address this clearly and state if the proponent has an expectation that the site will achieve this post-decommissioning and the basis for that expectation. The impact statement should discuss the relationship between "desired outcomes" in Section 3.4 and the end-state objectives established for the decommissioning plan. The guidelines should require that clear thresholds be established for site abandonment, such as any deviation from base-line conditions the proponent proposed be accepted at the point of abandonment and discuss in detail any gap between pre-operation conditions (site conditions, including soil, groundwater, surface water, vegetation, etc.) and conditions the proponent would proposed be acceptable at the point of abandonment, and the rationale for how they arrived at that proposal in terms of human health and the environment.
3.4.1	IAAC will continue to analyze which activities may be incidental to the project based	While we appreciate that the IAAC assessment of which activities are incidental to the project may be ongoing, the Agency's current assessment should have been included. While the approach the Agency took to the Bruce C review was problematic in that the Summary of Potential Federal Incidental Activities was posted but not linked from the "front page" of the registry and the connection to the Guidelines was not stated, in this case the Agency's approach is problematic but the Agency's current (albeit ongoing) assessment has not been made public. As a next step in this planning phase the Agency's analysis of what is incidental to the project should be posted for comment prior to finalizing the guidelines; to express the Agency's analysis only by incorporation

		or application to the final guidelines removes the opportunity for public comment and removed the opportunity to the public to consider the Agency's assessment while commenting on the draft guidelines. It lacks transparency and traceability.
4.2	Need for the project The Impact Statement must outline what is to be achieved by carrying out the project. The Impact Statement should broadly classify the project (e.g., new nuclear energy) and indicate the target market (e.g., international, domestic, local), where applicable. The "purpose of" statement should include any objectives the proponent has in carrying out the project, and the proponent is encouraged to consider the perspectives of participants (i.e., Indigenous Nations and communities, public, governments) in establishing its objectives	The Impact Assessment Act sets out the "Factors to be considered" in an impact assessment as follows: *22 (1) The impact assessment of a designated project, whether it is conducted by the Agency or a review panel, must take into account the following factors:* *(d) the purpose of and need for the designated project;* Fundamentally, the purpose of the project is to meet the need for electricity. The guidelines should direct the proponent to discuss the purpose of the project at that fundamental level, as per Impact Assessment Act.
4.3	Alternatives to the project	Further to discussion of need for the project, the proponent's discussion of "alternatives the project" should speak t the fundamental purpose of the project, which is to meet the need for electricity. Alternatives should be examined in terms of how to meet that need.
4.4	Alternative means of carrying out the project	The "alternative means" presentation should not be limited to major components, but should encompass all activities incidental to the project.
4.4	The Impact Statement must: address key project elements in the alternative means analysis, including, but not limited to, the following: - waste management strategies, including; - non-radioactive waste - low, intermediate, and high-level radioactive waste. - description of the life-cycle of generated waste;	The discussion of *alternative means* for waste management must include cost-benefit and risk analysis of the range of "alternative means" available, including on-site off-site management systems. On-site options must include alternative designs for irradiated fuel bays, alternative designs for dry storage containers; the impact statement must include detailed description of each of the alternatives considered, the criteria by which the alternatives were evaluated, and the

		assessment results which led to the selection of the preferred means and the reasons for not selecting the alternative means. The supporting information must be referenced and the references must be made available. Should the proponent include off-site management options for low, intermediate and/or high-level radioactive wastes, the assessment should include those areas outlined above for the evaluation of on-site options but should include evaluation of factors specific to moving wastes to an off-site location. At minimum, a comparison should be carried out between the alternative of a centralized off-site facility for/in western Canada and the NWMO's conceptual off-site facility currently being proposed for northwestern Ontario, which has been referenced by Alberta Energy.
7.9.1	The proponent must … take into account proximity and transport considerations to recycling, waste storage and disposal infrastructure; and	The guidelines should add detail to this requirement to ensure that in "taking into account proximity and transport considerations" the impact statement include evaluation of factors specific to moving wastes to an off-site location. At minimum, a comparison should be carried out between the alternative of a centralized off-site facility for/in western Canada and the NWMO's conceptual off-site facility currently being proposed for northwestern Ontario, which has been referenced by Alberta Energy, and a site in the U.S. if the proponent is intending shipments to the U.S. for process (e.g. volume reduction, as is practiced by OPG and Bruce Power).
7.9.1	Evaluation of the suitability of a site for the construction and operation of a nuclear facility must address the following considerations … storage and transport of input and output materials – such as fresh and spent fuel, and radioactive waste;	As part of evaluating the suitability of the site for the storage and transport of radioactive wastes of each of the various categories, the impact statement must describe in detail the radioactive waste facilities and systems that will be employed, their design features and operational functions, how they were selected in comparison to other options, the potential for malfunction and the associated impacts and potential mitigation strategies; this

		section must be substantive, concrete and technically verifiable, be consistent with other sections that describe the waste management strategies, systems and facilities, and should discuss the required operations (facilities and activities) in the context of the selected site.
7.9.1	predictions about the reactor facility's effects on the population, including those that could lead to emergency conditions, with due consideration of relevant factors (e.g., population distribution, use of land and water, radiological effect of any other releases of radioactive material in the region);	The discussion of emergency conditions must include: - unexpected radiological releases from the irradiated fuel bay, including fuel bay accidents, such as a loss of cooling power, fuel drop, a pool fire, a malevolent act or an extreme weather event which affected the fuel bay's operation - unexpected radiological releases during the processing of the irradiated fuel (during transfer from the irradiated fuel bay to dry storage) a fuel drop, a facility fire, a malevolent act or an extreme weather event - unexpected radiological releases during the dry storage period, including a facility fire, a malevolent act or an extreme weather event
7.9.1	The proponent should describe how the characteristics of natural and human induced hazards, as well as the demographic, meteorological and hydrological conditions of relevance to the nuclear installation, will be monitored over the nuclear facility's lifecycle.	The guidelines should clearly state that "human induced hazards" includes accidents due to human effort and malevolent acts. The requirement appears as 'guidance" rather than as a requirement. This should best stated in the guidelines as a requirement.
7.9.7	Where appropriate, the proponent must consider the potential effects of longer service life, power uprate activities, and modifications to accommodate additional or modified uses, including: … additional conventional and nuclear waste generated, as well as estimated resulting effects on handling, transport, and storage of waste;	The qualifier "where appropriate" should be removed. This section must revisit any conclusions made based on the proposed output and service life and re-examine them in the context of potential extensions of expanions, paying particular attention to capacity (including site capacity) and cumulative effects (including of transportation, fuel production, and long-term waste management).

12.1	The Impact Statement must: include consideration of: - natural events such as flooding, earthquake (natural and induced), forest fires, high winds, tornadoes, landslides, blizzards, drought, ice storms, hail and lightning; - malevolent acts, including the potential for vandalism or sabotage; - vehicle accidents and collisions;	This section must detail that consideration of natural events in application to the irradiate fuel bay, fuel waste processing building and dry storage containers. This section must detail that consideration of malevolent acts in application to the irradiate fuel bay, fuel waste processing building and dry storage containers. This section must detail that consideration of vehicles and collisions in application to on-site and off-site transfers of radioactive wastes.
12.2	The impact statement must: describe security measures to reduce the potential for malevolent acts that could lead to accidents or malfunctions, including….	The guidelines should be edited to remove the false statement that malevolent acts "could lead to accidents"; if an occurrence is the result of a malevolent act it is an outcome – and potentially a catastrophic outcome – but it is not an "accident". Security measures should be described in detail and in particular in relationship to the potential for malevolent acts to result in potentially catastrophic releases from the irradiated fuel bay, from fuel waste in transit on site to the processing building or from the processing building to the dry storage facilities, and from fuel waste being transported off-site as a result of a malevolent act. The description of security measures should include measures to harden the waste storage facilities in order to reduce the risk and potential adverse outcomes of a malevolent attack targeting those parts of the site infrastructure.
12.3	The Impact Statement must describe an emergency response plan and as part of this plan must: describe any waste management plan as it pertains to waste generated during an emergency response.	radioactive waste
13.3	The impact statement must … describe effects related to …	The impact statement must include detailed design information about the irradiated fuel

	effects on the integrity of the reactor facility's below-grade structures, such as wet storage bays;	bay, including wall construction, linings, sumps and other structural components. The impact statement should include a detailed description of operational experience at other reactor stations in Canada and internationally, lessons learned from those operations, and how those lessons have been applied to the design of the irradiated fuel bay to prevent impacts on groundwater that have been observed at operating reactor stations.

Public Registry

Northwatch repeats here comments made on the Bruce C draft guidelines, as they apply in their entirety to the operation of the public registry for the Peace River Nuclear Project, and given the importance of the public registry to the review process – including the current planning stage.

The Impact Assessment Act[5] provides specific guidance and direction with respect to the public registry and its function and operation, as follows:

> *Establishment of Registry*
>
> ***Canadian Impact Assessment Registry***
>
> ***104 (1)*** *There is to be a registry called the Canadian Impact Assessment Registry, consisting of an Internet site and project files.*
>
> ***Right of access***
>
> ***(2)*** *The Registry must be operated in a manner that ensures convenient public access to it. That right of access to the Registry is in addition to any right of access provided under any other Act of Parliament.*
>
> ***(3)*** *For the purpose of facilitating public access to records included in the Registry, the Agency must ensure that a copy of any of those records is provided in a timely manner on request.*

For purpose of these comments we point to the direction in the Act that "The Registry must be operated in a manner that ensures convenient public access to it" (emphasis added) and set out below the several ways in which the registry fails to meet that direction to "ensure convenient public access".

Those include:

- There is no means by which a table can be generated by registry users of postings to the registry; previous versions of the registry allowed this, which enabled registry users to generate a table to use for note taking and tracking of registry postings
- There is no means to preview a document before opening it as a pdf file
- All documents are three layers deep, i.e. a user must open the registry page, then select the group of documents to review (e.g. "view comments" or "all records"), then select the record to view, then open the pdf version of the record; the first two steps are reasonable, but the last two steps do not constitute "convenient access"
- The registry section on "Information sessions" incudes information only about those sessions which are upcoming and does not identify which sessions have already taken place and does not include posts of presentation slides from past sessions (which users would reasonably expect to find there)

[5] Impact Assessment Act, as found at https://www.canlii.org/en/ca/laws/stat/sc-2019-c-28-s-1/latest/sc-2019-c-28-s-1.html?searchUrlHash=AAAAAQAIcmVnaXN0cnkAAAAAAQ&offset=7800&highlightEdited=true#sec28subsec2_smooth

- In recent weeks, on some or most occasions, users moving through the registry and reviewing multiple documents are moved back to the starting point after each document has been opened; this is not the case today, but has been on past occasions

Going forward, Northwatch requests that the Agency address the issues identified above in terms of the Registry function.

In particular, it is very important that the barriers to being able to create a table of registry postings be addressed prior to the review of the draft impact statement and prior to the submission of comments on the impact statement and the commencement of the hearing. To create efficiencies in the review process and to effectively draw on the expertise and submissions being made by all parties, review participants must be able to effectively and efficiently track and notate registry postings. In its current state, particularly with the inability to generate a table of registry items, the Registry is not amenable to these necessary tasks.

Conclusions

In our comments on the Initial Project Description for the Peace River Nuclear Project, Northwatch commented that the purposes of this Impact Assessment Act include fostering sustainability, protecting the environment, having fair and predictable impact assessment processes, insuring assessments take all effects into account, ensuring meaningful participation opportunities, relying on scientific information, and the assessment of cumulative effects.

We further commented that in the instance of the assessment of the Peace River Nuclear Project, these purposes can only be achieved if as starting steps the issues list includes those issues raised in this and other submissions, the planning stage of this review allows adequate time for an iterative process and by establishing that the assessment will be based on comprehensive and factual information about the Project and its potential effects.

We repeat those comments as our conclusions to this comment period on the draft tailored impact statement guidelines, as they are fully applicable and have not yet been realized.

We again request that the Agency provide a detailed dispositioning of Northwatch's and other participants' comments as part of carrying out an assessment process that is transparent and one in which decisions are traceable and accountable.