



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Environmental Assessment and Licence Application to Prepare Site and Construct the Rook I Project

CNSC Staff Presentation

Commission Hearing –Part 1
November 19, 2025
CMD 25-H12.A



Canada





Commission Member Document Submission

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CNSC staff's Commission Member Document (CMD) was posted October 15, 2025.

Contains CNSC staff's assessment, conclusions and recommendations for the licence application and environmental assessment (EA) process, and on consultation and engagement efforts to date.

- CNSC staff will not be presenting on consultation and engagement for this Part I hearing. Staff will be providing our final assessment, conclusions and recommendations on staff's consultation efforts during the Part 2 of the hearing, scheduled for the week of February 9, 2026.

25-H12 - CNSC Staff Submission

NexGen Energy Ltd. Application for a Licence to Prepare Site and Construct the Rook I Uranium Mine and Mill

Classification	Unclassified
CMD Type	Original
CMD Number	25-H12
Reference CMD(s)	N/A
Type of Licensing CMD	A new licence
Hearing	Commission Public Hearing - Part 1
Date of Hearing	November 19, 2025
Word and PDF e-Doc #	7374580 – Word XXXXXXXX – PDF
Summary	<p>This CMD presents information about the following matters of regulatory interest with respect to NexGen Energy Ltd.'s application for a licence to prepare site and construct a Uranium Mine and Mill at their Rook I site:</p> <p>CNSC staff's review, assessment and recommendations regarding the request by NexGen Energy Ltd. For a licence to prepare site and construct a uranium mine and mill.</p> <p>CNSC staff recommend the Commission consider taking the following actions:</p> <ul style="list-style-type: none">○ Determine that the Rook 1 project is not likely to cause significant adverse environmental effects referred to in subsections 5(1) and 5(2) of the <i>Canadian Environmental Assessment Act, 2012</i>,○ Conclude, pursuant to paragraphs 24(4) and (b) of the <i>Nuclear Safety and Control Act</i> that NexGen Ltd.:



- Project Overview
 - Regulatory review process
 - Rook I Project overview
- Environmental Assessment
 - EA process
 - Scope of assessment
 - CNSC staff assessment
- Assessment of Licence Application
 - CNSC staff review process
 - Protection of the environment, and the health and safety of persons
- Past Performance
- CNSC Staff Conclusions and Recommendations





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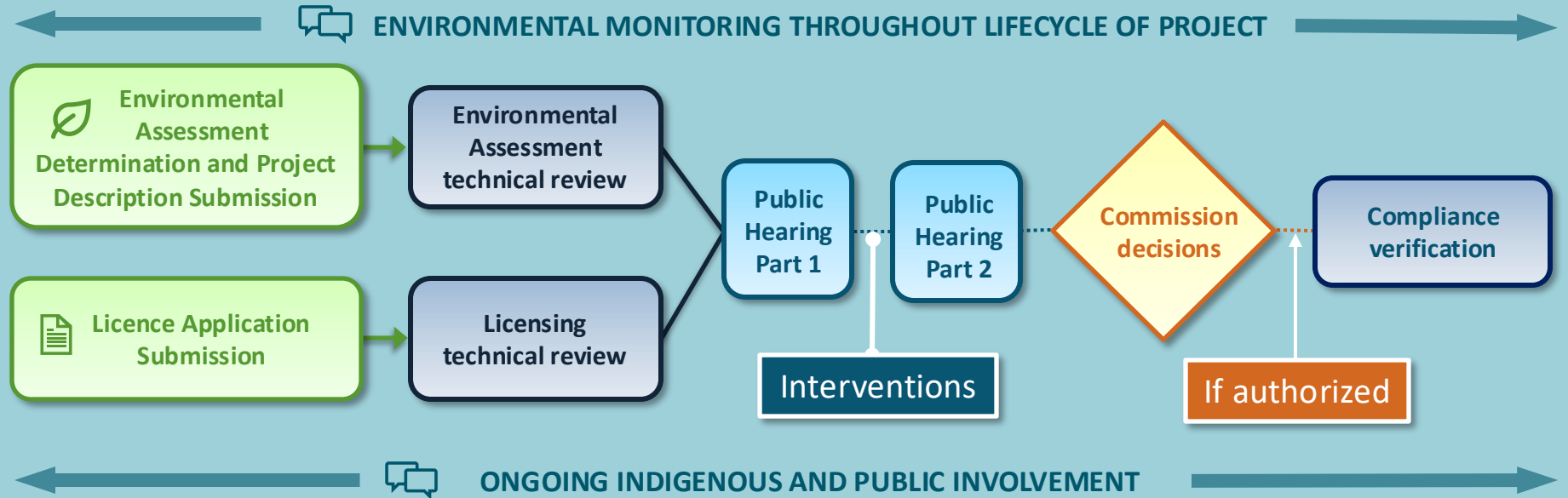
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PROJECT OVERVIEW



Regulatory Review Process Overview

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Rook I Project Overview

NexGen's proposal:

Prepare site and construct the Rook I Project, a uranium mine and mill.

- Rook I would be the first Canadian uranium mine to manage tailings underground
- Site is located 640km northwest of Saskatoon, 155 km from the village of La Loche, and 80km south of the former Cluff Lake mine site
- In order to conduct activities, the Rook I project must have positive decisions for both an **EA** and for licensing matters
 - The Province of Saskatchewan has also undertaken an **EA**
- NexGen is requesting a licence for **10 years**
 - The licence would cover site preparation, construction and commissioning of facilities



NexGen cannot commence operation unless and until the Commission issues a licence to operate the facility



Proposed Rook I Project Facility

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Proposed facility would contain:

- Underground Mine
- Mill
- Two shafts (production and ventilation)
- Waste management facilities (Underground Waste Management Tailings Management Facility (UGTMF) & Waste rock storage)
- Paste plant

Monitoring infrastructure would include:

- Surface and groundwater
- Surface runoff and stormwater
- Air quality

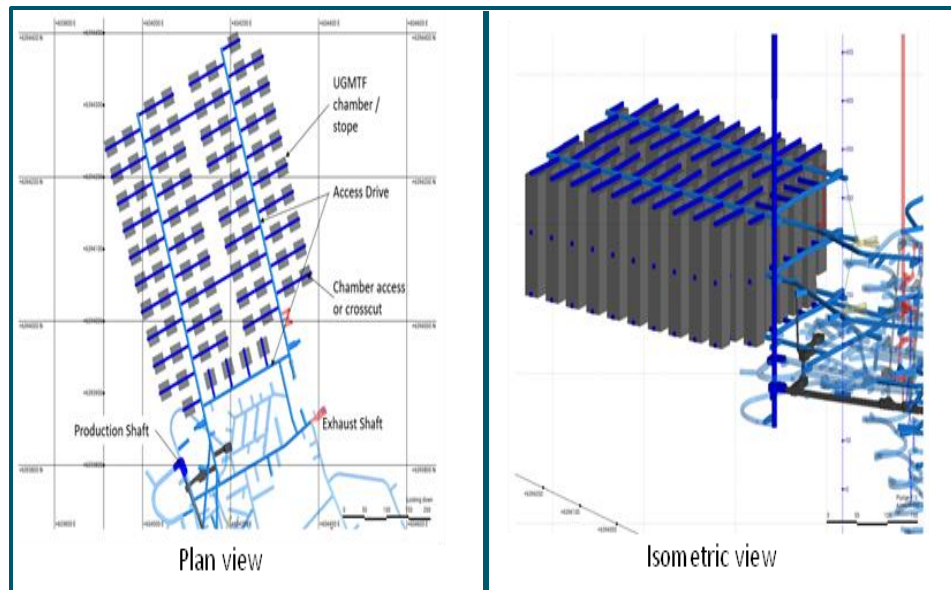


Digital concept image of the proposed Rook 1 uranium project courtesy of NexGen Energy.



Overview of NexGen's Proposed Tailings Management

- Underground Tailings Management Facility (UGTMF) – Purpose-built underground facility for disposal of tailings & other waste streams
- First for uranium mines in Canada but used at other mines in Canada and Internationally
- Excavated chambers that are backfilled with a paste/waste mixture
- Reduces surface footprint



Conceptual UGTMF design for the Project (Source: NexGen, 2023)

The CNSC's Regulatory Framework is fit for purpose



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ENVIRONMENTAL ASSESSMENT



Environmental Assessment Process

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**CNSC staff
conducted a
robust and
rigorous
environmental
assessment**

Staff sought expert advice from the federal departments and agencies and Indigenous nations and communities listed here:

Federal:

Environment and Climate Change Canada, Natural Resources Canada, Health Canada, Fisheries and Oceans Canada, Transport Canada

Indigenous Nations and communities:

Clearwater River Dene Nation,
Métis Nation Saskatchewan

- Provincial EA was also conducted by the province of Saskatchewan
- Many Indigenous Nations and communities also collaborated with CNSC staff in developing sections of the EA report
- Comments and topics raised by Indigenous Nations and communities **and** members of the public were considered



Scope of Environmental Assessment (see [2020 decision](#))

- Potential environmental effects for the entire lifecycle of the project (construction, operation, decommissioning, closure, post- closure) on areas of federal jurisdiction

NexGen's Environmental Impact Statement (EIS) was assessed against:

- Requirements outlined in [CEAA 2012](#)
- The CNSC's [Generic Guidelines for the Preparation of an Environmental Impact Statement](#) and other relevant documentation
- [REGDOC-2.9.1: Environmental Protection: Environmental Principles, Assessments and Protection Measures](#)
- [REGDOC-3.2.2, Indigenous Engagement](#)

Project-specific EA documentation and records are posted online



Public Engagement

CNSC provided the following opportunities for participation by members of the public and Indigenous Nations and communities:

- [Public comment period on the Project Description](#) (May - June 2019) to help inform the [EA scoping decision by the Commission](#) (February 2020)
- [Public comment period on the draft Environmental Impact Statement](#) (July - October 2022)
- Public review of the EA report (Oct 15, 2025 – present) and interventions to the Commission
- Participant funding opportunities to support the comment review periods and engagement with CNSC
- CNSC staff organized opportunities for participation such as **a webinar, community visits, and engagement sessions** with communities that had an interest in the project



CNSC Staff Assessment (1/2)

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CNSC staff assessed predicted changes to the following environmental components:

- Atmospheric environment
- Aquatic environment
- Terrestrial environment
- Geological and hydrogeological environment

Based on the changes to these environmental components, CNSC staff evaluated predicted effects on the following **valued components**:

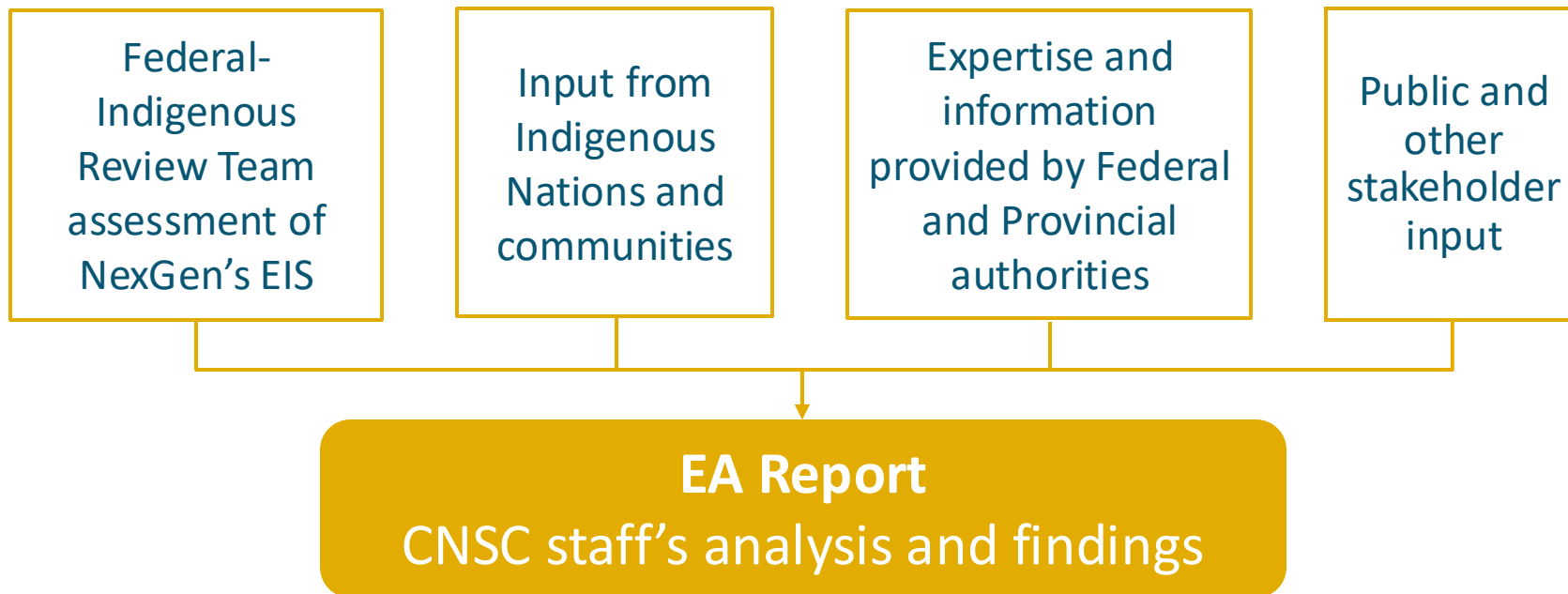
- Human health
- Potential effects of the environment on the project
- Fish and fish habitat
- Terrestrial biota including migratory birds
- Indigenous uses: current use of lands and resources for traditional purposes

CNSC staff assessed and evaluated all predicted changes and effects



CNSC Staff Assessment (2/2)

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EA Report reflects CNSC staff analysis and consideration of each input received



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ASSESSMENT OF LICENCE APPLICATION



NexGen submitted an application for a licence to prepare site and construct the Rook I Project in February 2019, with the application deemed sufficient in September 2023.

CNSC staff assessed:

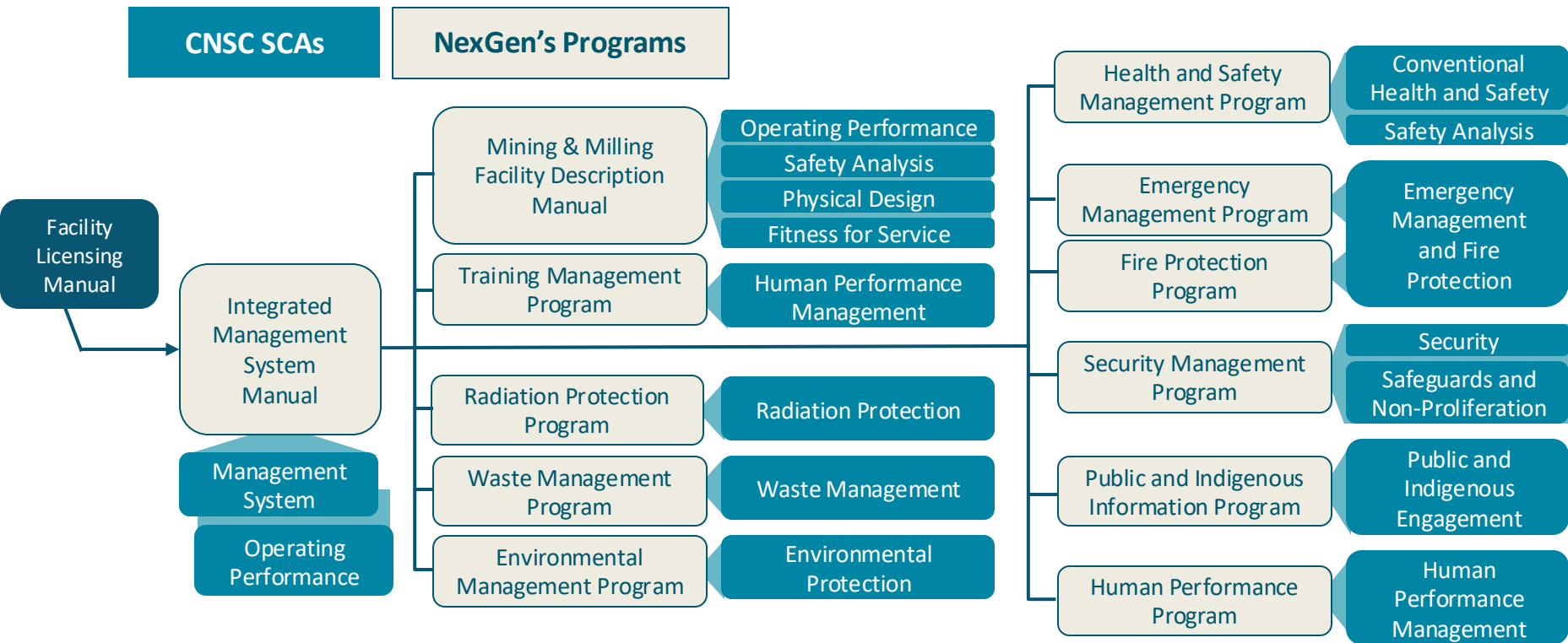
- Regulatory requirements, including the *Nuclear Safety and Control Act* (NSCA), associated regulations (*General Nuclear Safety and Control Regulations*, *Uranium Mines and Mills Regulations*, etc.), and relevant regulatory documents, guides and standards for **13 safety and control areas (SCAs)**
 - Packaging and transport SCA was not assessed as there will be no transportation of nuclear substances or devices for this stage of licensing

**The
application
submitted
by NexGen
is complete
and
adequate**



Proposed Management System for Licensed Activities

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NexGen's Management System meets regulatory requirements



Protection of the Environment

- CNSC staff reviewed the programs relevant to the protection of the environment
- Review of the proposed programs shows that NexGen will take all reasonable precautions to protect the environment
- CNSC staff do not expect significant releases to the environment during the prepare site and construct phase of the project
- Area is regulated by Saskatchewan Ministry of the Environment and will continue to be if licence is issued by Commission

Design Considerations:

- Preliminary BATEA assessment
- Surface water management
- Industrial wastewater treatment plant
- Waste pads and monitoring ponds
- Temporary effluent plant
- Shaft Design

The proposed activities will be protective of the environment



Protection of People

- CNSC staff reviewed the programs relevant to the protection of persons
- Review of the proposed programs shows that NexGen will take all reasonable precautions to protect workers and people outside of the facility area
- CNSC staff do not expect workers nor land users to receive significant doses of radiation during the proposed prepare site and construct activities
- Area is regulated by Saskatchewan Ministry of Labour Relations and Workplace Safety and will continue to be if licence is issued by Commission

Design Considerations:

- Features for ALARA
- Ventilation
- Reduction of radon gas, radon progeny, and long-lived radioactive dust
- Human factors considerations
- Construction activities
- Linkages to protection of the environment

The proposed activities will be protective of persons



EA Conditions and Regulatory Commitments

- Conditions and commitments are derived from:
 - Review of the environmental assessment (EA conditions)
 - Review of licensing documents (regulatory commitments)
- EA conditions are proposed as mitigation measures to ensure that licensed activities will not cause significant adverse effects to the environment
- Regulatory commitments are proposed to ensure that key updates are submitted and assessed by CNSC staff prior to specified activities
- If a licence is issued, both EA conditions and regulatory commitments will form part of the licensing basis and will be verified by CNSC staff compliance activities

CNSC staff will update the Commission on NexGen's progress



Proposed Compliance Verification Activities

- CNSC staff have prepared a compliance plan to verify compliance at the Rook I Project
 - Incorporating in-field Inspections and office-based technical assessments
 - Based on NexGen's construction plan, and on experience from compliance programs for other licensed sites
- All relevant safety and control areas would be verified commensurate with their risk
- The compliance plan targets construction milestone activities, along with regular baseline inspections

CNSC staff are prepared to verify compliance at Rook I



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PAST PERFORMANCE



Notice of violation

On December 12, 2024, a Designated Officer issued a notice of violation against NexGen for performing site preparation work without a licence, in violation of NSCA paragraph 26(e).

- On January 9, 2025, pursuant to section 65.1 of the NSCA, NexGen requested a review of both the facts of the violation and the amount of the AMP
- On April 8, 2025, a hearing by a panel of the Commission was held to review the AMP, by decision dated May 16, 2025 the Commission upheld the decision but corrected the penalty amount
- An application for judicial review of the Commission decision filed in the Federal Court of Canada remains ongoing

CNSC staff continues to determine that NexGen is qualified to safely carry on site preparation and construction activities



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CNSC STAFF CONCLUSIONS AND RECOMMENDATIONS



From the EA review, CNSC staff have **determined that:**

The proposed Rook I Project **is not likely to cause significant adverse environmental effects**, taking into account the implementation of all identified mitigation measures, including EA conditions.

An EA Follow-Up Monitoring Program will be implemented for:

- Confirmation of EA predictions
- Evaluation of proposed mitigation measures

CNSC staff recommend
the Commission
determine that the
Rook I Project is not
likely to cause
significant adverse
environmental effects
referred to in section
5 of CEAA 2012.



From the licensing review, CNSC staff have determined that:

The Rook I Project application **meets all applicable regulatory requirements** for a licence to prepare site and construct the Project.

The Rook I Project will be protective of the environment and the health and safety of persons.

CNSC staff recommend the Commission determine that NexGen is qualified to carry on the activities that the licence will authorize and will make adequate provision for the protection of the environment and the health and safety of persons.



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Annex A -Errata

- Page 267 of the EA Report, Table 12.2, Row 6, Terrestrial Biota (section 7.2), should read as follows:
 - IF the detailed design shows a direct/indirect disturbance to wetland ecosystems, THEN NexGen will prepare and provide CNSC a wetland mitigation and offset plan, as a reference document in the EPP or EPP supporting documents, that includes a discussion on these impacts, what mitigations are to be used, how they would be implemented to reduce Project effects on species at risk and migratory birds, and how these effects would be monitored.
- Pages 127 to 130 in the CMD and pages 52 to 55 in LCH -Appendix D1: EA Conditions Prescribed by the Commission
 - EA conditions 1 to 3 Correction in EA in 'Closure criteria requirements' should be: "Prior to issuance of a licence to operate."
- Page 132 in the CMD and page 56 in the LCH –Appendix D2: Licensing Regulatory Commitments
 - Regulatory commitment EP-02 was omitted, following text should have been included in Appendix D of the CMD, and of the draft LCH:
EP-02 Description of Requirement: The licensee shall provide an updated Environmental Risk Assessment (ERA).
Closure Criteria Requirements: Review and acceptance by a person authorized by the Commission of an updated ERA that is compliant with REGDOC 2.9.1 and CSA N288.6.
Timeline Required By: Prior to commencement of construction activities