Notice of Violation (Corporation)

Date of notice: December 12, 2024 AMP number: 2024-AMP-06

Violation committed by:	Amount of penalty:
NexGen Energy Ltd.	\$ 29,080

Violation

In violation of the *Nuclear Safety and Control Act* paragraph 26(e), NexGen Energy Ltd. (NexGen) has performed site preparation and construction of a uranium mine and mill facility without a CNSC licence. This was done by creating two large circular arrays of cased drill holes, intended for the creation of freeze walls for the development of mine shafts.

Relevant facts

I, Luc Sigouin, Director General of the Directorate of Nuclear Cycle and Facilities Regulation and designated officer authorized by the Canadian Nuclear Safety Commission (CNSC) to issue notices of violations, believe on reasonable grounds that NexGen Ltd. (NexGen) committed the above violation. The facts relevant to the violation and the penalty calculation are as follows:

1. Under the *Nuclear Safety and Control Act* (NSCA), the definition of 'nuclear facility' includes "a uranium or thorium mine or mill", and Section 26(e) of the NSCA states:

Prohibitions

- 26 Subject to the regulations, no person shall, except in accordance with a licence, (e) prepare a site for, construct, operate, modify, decommission or abandon a nuclear facility;
- 2. On February 14, 2019, NexGen submitted their application to the CNSC to prepare the site and construct a uranium mine and mill for the Rook-I Project¹ on Patterson Lake, Saskatchewan. The project proposes the construction, operation, and eventual decommissioning of a uranium mine and mill. To date, no licence has been issued.
- 3. Information provided by NexGen through their licence program documentation (specifically their Mining and Milling Facility Description Manual and its relevant Annexes and Appendices) indicates that, due to unconsolidated ground conditions from the surface down to basement rock,

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¹ Proposed nuclear facility – Rook I



construction of the nuclear facility would require freeze ring infrastructure to freeze the ground and allow safe construction of their production and ventilation mineshafts.

- 4. Under the s2(2) of the *Uranium Mines and Mills Regulations* (UMMRs), uranium exploration activities are exempt from requiring a CNSC licence. In Saskatchewan, the Saskatchewan Ministry of Environment (SMOE) issues permits for mineral exploration activities, including uranium exploration activities. It is typical for exploration activities to be performed to characterize a proposed mine site, in advance of site preparation and construction. CNSC staff understand that SMOE has issued permits related to exploratory activities to NexGen.
 - 5. In November 2023, CNSC staff were informed by counterparts from the Province of Saskatchewan that NexGen had constructed two large pads (100 meters by 100 meters each), at locations consistent with the locations of Rook-I's two mineshafts described in their application (Attachment A #1 and 2).
 - 6. On December 20, 2023, CNSC staff requested via letter (Attachment A #3) further information about these large pads, in order to determine whether they may constitute site preparation activities.
 - 7. On January 5, 2023, NexGen Provided a response to the CNSC's December 20, 2023, letter. In NexGen made the following statement as part of their reply (Attachment A #4):
 - "With respect to "whether and how the pads will be incorporated into NexGen's proposed finished site", as described in the Application and restated above, the purpose of the pads is to create a work platform for the provincially approved design confirmation drilling program. These pads are considered temporary structures and have not been considered for, requested for approval as, nor designed to accommodate, the deep civil foundations that would be required as part of the proposed Rook I Project that is the subject of ongoing Federal approval processes."
 - 8. NexGen explained the purpose of the 'design confirmation drilling' by providing the following statement in their letter of January 5, 2024:
 - "The objectives of the design confirmation drilling are to collect data to validate ground conditions, drilling accuracy, and inform detailed engineering design."
 - 9. On January 16, 2024, CNSC staff undertook a site visit to the Rook-I site and viewed the two large pads in question (See Attachment D photos #1 and 3). During that site visit, CNSC staff observed drilling activities on the pads.
 - 10. On May 13, 2024, CNSC staff were informed by NexGen that "Design confirmation drilling is now complete, and the disturbed areas are being decommissioned and reclaimed in the summer 2024 in accordance with permit conditions..." CNSC staff understood from this statement that the pads, and all design confirmation drill holes on the pads, would be decommissioned. (Attachment A #5) Given this, CNSC concluded that the pads and any work on them was

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- temporary and in support of exploration activities, and thus this work was not considered to be site preparation or construction activities under the NSCA.
- 11. On October 8, 2024, a web interview took place between TD Securities and NexGen's Vice President of Corporate Development. CNSC staff observed that the video was publicly available and linked from NexGen's public website. During the interview, NexGen's Vice President of Corporate Development made the following claims:
 - That two large 'shaft pads' for the production and exhaust shafts for the Rook-I Project were in place.
 - That 'freeze rings' were in place and ready to go pending approvals.

Note: A partial transcript of that call is included as (Attachment F)

- 12. On October 15, 2024, CNSC staff were informed by Provincial counterparts that an array of holes in the form of a ring at each pad at the Rook-I site was present in May of 2024, and that signage present at the Rook-I site on one of the pads and adjacent to one of the rings of holes indicated that the area was the 'Production Shaft'. (Attachment A #6)
- 13. On October 15, 2024, CNSC staff requested clarification from NexGen representative (Luke Moger, VP Environment, Permitting & Licensing). NexGen responded on October 18, 2024, stating that the holes drilled were for geotechnical characterization and design confirmation purposes and not related to the construction of NexGen's proposed nuclear facility. (Attachment A #7)
- 14. On November 19, 2024, a CNSC inspector conducted a site inspection. CNSC staff confirmed the presence of the rings of cased and capped drill holes filled with brine solution on each of the large pads. The inspection also identified signage present at both of the pads indicating that the areas were the future sites for both the production and exhaust shafts (inspection report Attachment A #8).
- 15. The location of both drill pads and the ring of drill holes (See Attachment D Photos 2 and 4) viewed during the November 19, 2024, inspection align with the drawings and description (see Attachment C) provided in the licence application document "Ground Freezing FEED Stage Design for the NexGen Rook 1 Shaft Sinking (Attachment A #2) of the proposed Rook I facility. For example, the number of holes on each pad corresponds exactly with the number of holes in NexGen's design for freeze infrastructure for that pad. There has been no updated version of these licensing documents provided since their latest version from July 2023.
- 16. On November 21, 2024, CNSC staff communicated with NexGen via email and phone to pose questions about the observations made by the CNSC inspector on November 19, 2024 (Attachment A #9). When verbally asked about the nature of the rings of holes on the pads, NexGen (Luke Moger) stated that freeze design is not yet complete and therefore the rings of cased drill holes cannot be freeze rings. On December 3, 2024 NexGen responded to CNSC's email from November 21, 2024 and reiterated that the drill holes were design confirmation drilling and that the holes would not be decommissioned.

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17. On the basis of the on-site observations made at the NexGen Rook-I site on November 19, 2024 and compared to documents submitted to the CNSC as part of NexGen's licence application, CNSC staff concluded that: (1) the ring-shaped arrays of holes are freeze rings which, according to NexGen's plans, are necessary for the construction of a nuclear facility; and (2) NexGen has therefore violated NSCA 26(e) (e.g., by preparing construction of a site without a licence).

Based on my review of this matter, I am of the opinion that an administrative monetary penalty will deter recurrence of the above violation and promote future compliance with CNSC regulatory requirements. In consideration of the seven factors in section 5 of the *Administrative Monetary Penalties Regulations* (Canadian Nuclear Safety Commission), the amount of the penalty was determined based on the following relevant facts:

1. Compliance history: Assessed score = +2

NexGen must comply with applicable portions of the NSCA and associated regulations. CNSC staff submitted information requests (Attachment A #s 2-) to NexGen as early as December 2023 which communicated CNSC staff's concerns that activities on site may have crossed over the threshold to be considered as site preparation and/or construction. NexGen has repeatedly provided CNSC staff assurances, verbally and in writing, that site preparation and construction activities are not occurring at the Rook-I site. CNSC staff's subsequent inspection of November 19, 2024 disproves these statements. NexGen has had ample opportunities to communicate with CNSC and time to ensure that activities on their site are in compliance with the NSCA.

2. Intention or negligence: Assessed score = +5

As noted in compliance history, CNSC staff have previously communicated concerns to NexGen regarding whether the actions they are taking at the Rook-I site require a CNSC licence to prepare site and construct. NexGen responded that they believe the actions they are taking do not cross that threshold, and that both pads will be decommissioned prior to requesting a licence from the Commission. In discussions with NexGen representatives (Luke Moger) on October 10, 2024, CNSC staff requested clarification on the interview with TD Securities which took place on October 8, 2024, where it was stated by a vice president of NexGen that freeze infrastructure was in place already. NexGen representatives responded on October 18, 2024, noting the "perceived ambiguity by the CNSC" but stating that they did not believe it to be "to the extent of misinformation". During the site visit on November 19, 2024, evidence was obtained to suggest that NexGen mis-represented their actions, that is, that NexGen used the title of 'design confirmation drilling holes' when interacting with regulators, to describe what in fact are 'freeze rings' required to construct their mine shafts.

3. Actual or potential harm: Assessed score = +2

By performing work that requires a CNSC licence prior to its issuance and prior to Environmental Assessment under the *Canadian Environmental Assessment Act, 2012* was granted, NexGen disturbed the environment, rendering the baseline altered. With the altered environment, it is difficult to determine the potential degree of harm to the environment NexGen's actions have caused, and the potential impact





ranges from a minor to a medium degree of harm. Potential harm to the environment also includes potential disruption regarding migratory birds and species at risk.

4. Competitive or economic benefit: Assessed score = +5

By commencing some aspects of site preparation work prior to a licence being issued, NexGen may stand to realize both commercial and competitive benefits. In the October 8, 2024, interview with TD Bank, a call intended to provide information to potential investors, NexGen made comments linking the work already completed (e.g. shaft pads and freeze rings) as well as inferring that obtaining a CNSC licence is certain, as reasons that investors can gain confidence about NexGen's progress on the Rook I Project. By progressing their construction schedule in advance of full regulatory approvals, NexGen may have gained an advantage relative to competitors who are also seeking to operate and/or develop uranium mines and mills in Canada, which may influence investors to preference NexGen over other uranium companies.

5. Efforts to mitigate or reverse effects: Assessed score = +3

Despite NexGen qualifying its activities as exploration in correspondence with CNSC staff, CNSC staff have determined that NexGen's description of work at provided to the CNSC is not representative the true nature of the work at site based on NexGen's public statements as well as CNSC staff's inspection findings and analysis of licensing document provided by NexGen.

6. Assistance to Commission: Assessed score = +2

NexGen has met and exchanged correspondence with CNSC staff on the topic of site preparation and construction activities at the Rook-I site. Based on NexGen's public statements, CNSC staff's inspection findings and analysis of licensing documentation provided by NexGen, CNSC staff have determined that NexGen's descriptions of work at site provided to the CNSC are not representative of the true nature of the work at site.

7. Attention of Commission: Assessed score = +2

NexGen made efforts to inform CNSC staff in advance of works at their site, however they did so using the language of 'design confirmation drilling' that was authorized by the Province.





Penalty calculation:

(See Administrative Monetary Penalties Regulations (Canadian Nuclear Safety Commission) SOR/2013-139)

Category	C	
Maximum – minimum		
\$11,000		
\$39,000		
\$99,000		
Scale	of regulatory significance	Assessed score
0 🗆 +1 🗆	+2 🖂 +3 🗌 +4 🗍 +5 🗍	+2
0 🗌 +1 🗌	+2 🗌 +3 🗌 +4 🗍 +5 🖂	+5
0 🗆 +1 🗆	+2 🖂 +3 🗌 +4 🗌 +5 🗍	+2
0 🗌 +1 🗌	+2	+5
-2 🗌 -1 🗀	0	+3
-2 🗌 -1 🗀	0	+2
-2 🗌 -1 🗀	0	+2
	Total	21
÷ź	29 ⁽¹⁾ [rounded to 2 decimal points] =	0.72
	x 39000	
	[total] =	\$28080
+	\$ 1000 [minimum for the category] =	\$29080
	Maximum — minimum \$11,000 \$39,000 \$99,000 \$99,000 \$0 \$1 \$0 \$0 \$1 \$0 \$0 \$1 \$0 \$0 \$1 \$0 \$0 \$1 \$0 \$0 \$1 \$0 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$0 \$1 \$1 \$1 \$0 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1	\$11,000 \$39,000 \$99,000 Scale of regulatory significance 0

⁽¹⁾²⁹ being the maximum value of regulatory significance

To request a review

As a person subject to an administrative monetary penalty, you have the right to request a review of the amount of the penalty or the facts of the violation, or both. Your request must be made in writing indicating the reasons why you are requesting a review and providing supporting information.

If you choose to request a review, you must do so in writing by **January 10, 2025** to:

Canadian Nuclear Safety Commission c/o Candace Salmon **Commission Registrar** P.O. Box 1046, Station B Ottawa, ON K1P 5S9

Fax: (613) 995-5086

Telephone: (613) 995-6506

Email: registry-greffe@cnsc-ccsn.gc.ca

Payment

You may pay this administrative monetary penalty by sending a cheque to:

Receiver General for Canada c/o Canadian Nuclear Safety Commission **Finance Division** P.O. Box 1046, Station B Ottawa, ON K1P 5S9

For other payment methods and further instructions, please refer to the attached notice of payment due.

Should you neither pay the penalty nor exercise your right to a review, you will be considered as having committed the violation and will be liable to the penalty set out herein.

Issued by

	December 12, 2024
Luc Sigouin	Date
Designated Officer	

Telephone: (613) 894-3437

Email: <u>luc.sigouin@cnsc-ccsn.gc.ca</u>

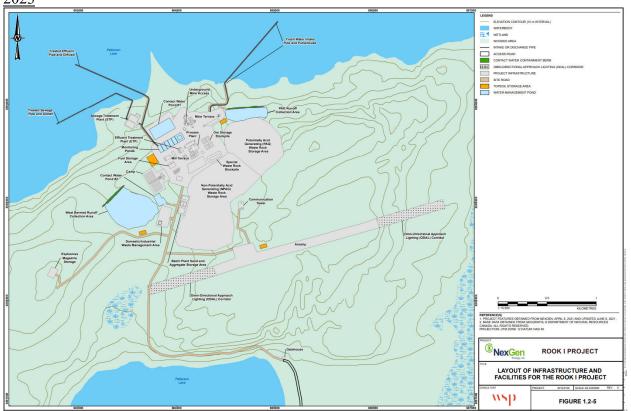
Attachment A -Licensing Documentation/ Correspondence

- 1. E-doc: 7080240 NexGen Rook 1 Project-ROOK-ENG-MAN-0001 Mining and Milling Facility Description Manual Rev 0 (July 5, 2023)
- 2. E-doc: 7080531 Annex B -Ground Freezing FEED Stage Design for the NexGen Rook 1 Shaft Sinking Report -E366614-NEWM-240-066-0001 (July 5, 2023)
- 3. E-doc: 7404760 and 7186260 CNSC staff request for information on work done at the Rook I site (December 20, 2023)
- 4. E-doc: 7404763 NexGen Energy Ltd. Response to CNSC staff request for information (January 5, 2024)
- 5. E-doc: 7412934 (NexGen Response) and 7211665 (CNSC Letter) RE: CNSC staff response to NexGen Response Letter Date February 12, 2024 (May 13, 2024)
- 6. E-doc: 7425285 RE: NexGen -Freeze Holes email from T. Moulding Saskatchewan MoE to P. Burton CNSC (October 15, 2024)
- 7. E-doc: 7402000 NexGen RE: Updates (October 18, 2024)
- 8. E-doc: 7415337 NexGen Rook-1 Site Unannounced Inspection November 19, 2024, (November 28, 2024)
- 9. E-doc: 7414158 RE: Time for a call today? NexGen November 2024 request for info (November 25, 2024)
- 10. E-doc: 7205424 CNSC Response to Premier Scott Moe, RE NexGen Temporary Airstrip (February 12, 2024)

Attachment B - Maps

Comparison of large pads on NexGen's site to NexGen's design (eDocs 7183500)

Figure 1 - NexGen site map from <u>NXE_EIS_Sections_Compiled.pdf (q4cdn.com)</u> retrieved December 8, 2023



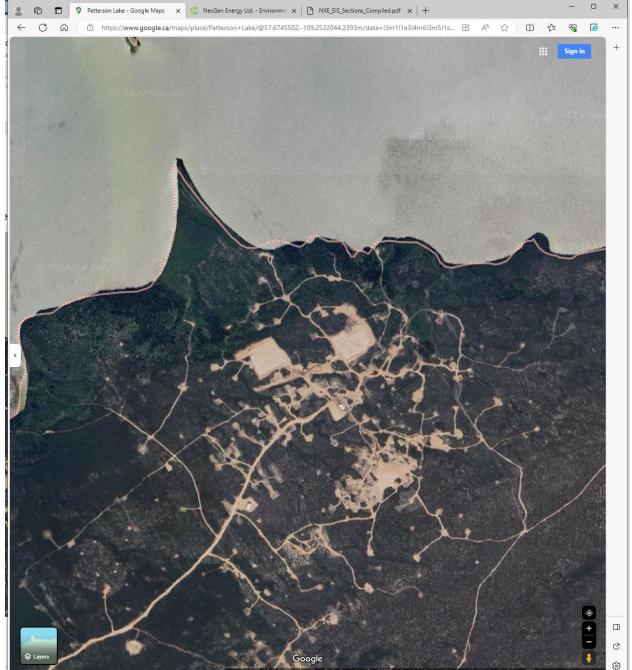


Figure 2 - Google Maps satellite photo of NexGen's Rook-I site, retrieved Dec 8 2023

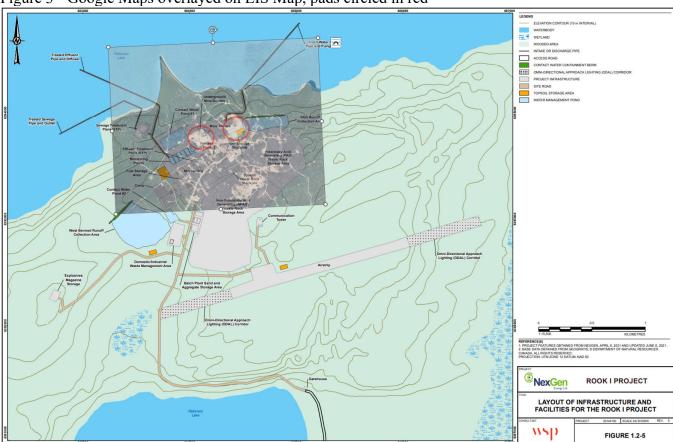
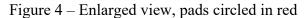
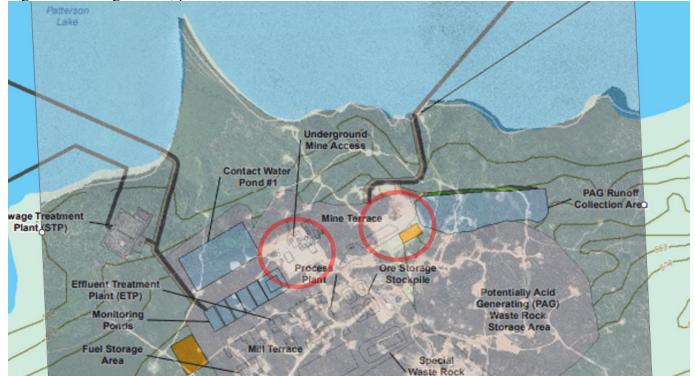


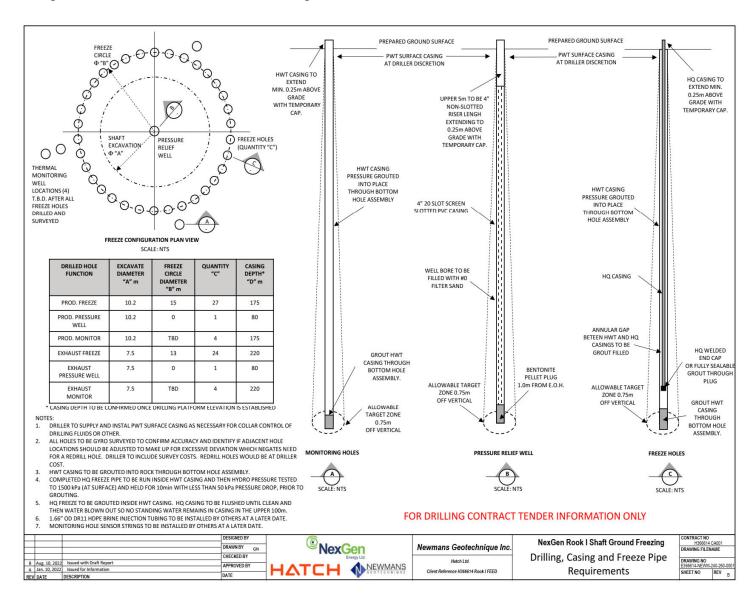
Figure 3 - Google Maps overlayed on EIS Map, pads circled in red





Attachment C - Freeze Ring Design

Freeze Ring Design taken from NexGen licence application document: Ground Freezing FEED Stage Design for the NexGen Rook 1 Shaft Sinking



Below is a larger table of the diagram above, the highlighted numbers represent the actual numbers for both the Production shaft (32) and Exhaust shaft (29) which form part of the design and match exactly what is currently on each of the drill pads.

FREEZE CONFIGURATION PLAN VIEW

SCALE: NTS

DRILLED HOLE FUNCTION	EXCAVATE DIAMETER "A" m	FREEZE CIRCLE DIAMETER "B" m	QUANTITY "C"	CASING DEPTH* "D" m
PROD. FREEZE	10.2	15	27	175
PROD. PRESSURE WELL	10.2	0	1	80
PROD. MONITOR	10.2	TBD	4	175
EXHAUST FREEZE	7.5	13	24	220
EXHAUST PRESSURE WELL	7.5	0	1	80
EXHAUST MONITOR	7.5	TBD	4	220

Attachment D - Photos and Site Visits Summaries

Photos East and West Pads NexGen Rook-1 Site

Photo 1



West drill pad NexGen Rook 1 Site January 16, 2024

Photo 2



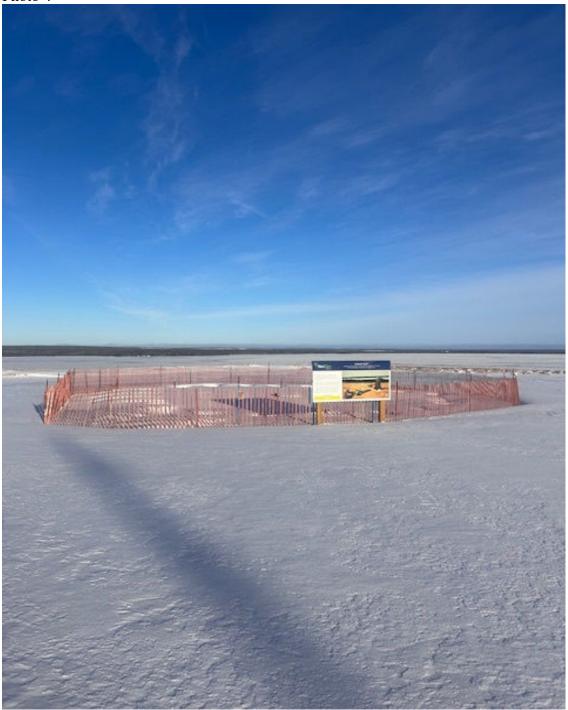
West Drill Pad NexGen Site November 19, 2024

Photo 3



East Drill Pad NexGen Rook 1 Jan 16, 2024

Photo 4



East drill pad -Exhaust shaft November 19, 2024

Attachment E - CNSC Glossary

From CNSC glossary, REGDOC-3.6

site preparation (préparation de l'emplacement)

The act of establishing basic infrastructure to support the future construction and operation of a nuclear facility regulated under the *Nuclear Safety and Control Act*.

construction (construction)

The process of procuring, manufacturing and assembling the components, carrying out civil work, installing and maintaining components and systems, and performing associated tests.

decommissioning (déclassement)

Administrative and technical actions taken to allow the removal of some or all of the regulatory controls from a facility, location or site where nuclear substances are managed, used, possessed or stored. Note: Decommissioning actions are the procedures, processes and work activities (such as storage with surveillance, decontamination, dismantling or cleanup) that are taken to retire a facility, location or site from service with due regard for the health and safety of people and the environment. For disposal facilities, with the exception of ancillary facilities, the term "closure" instead of "decommissioning" is used. See also cleanup activities; decontamination; dismantle; storage with surveillance.

Attachment F -Partial Transcript of NexGen (Monica Kras, VP, Corporate Development) call with TD Securities (Craig Hutchison), October 8, 2024

Only portions relevant to works at site, and relevant to NexGen's understanding of the CNSC's processes, are included. (Transcript is saved under e-Doc number 7410920 while video is under e-Doc 7410853)

Time Text Potential significance

4:58 NexGen, re: pre-construction works currently underway

"Uh, so we've done a lot of work to date to get the site construction ready, and the site is construction ready.....in terms of what has been done so far, so the roads have been upgraded, there's a bridge that's been upgraded, we've cleared the shaft pads for both the production and the exhaust shaft, so that's all cleared, the freeze rings are in so ready for freezing when we do have to put the temporary freezing in for the first initial 100 meters."

Statement making clear linkage between two large pads constructed in 2023 and their use in the mine; description of the ring structures on those pads as 'freeze rings'.

7:20 NexGen on next steps

"As soon as the permits come through, we'll mobilize the freeze plants to site, the freeze plant right now is sitting in Saskatoon. Once the permits come through, we'll bring that up and we'll start freezing..."
"We have to freeze the first 150 to 200 meters, it's unconsolidated ground conditions...."

Statement implying that freeze infrastructure is in place and that freeze plants must simply hook on to start ground freezing – speaks to nature of rings observed at site.