# **REGDOC-1.3.1, Licence Application Guide: Uranium Mines and Mills**

# **Comment Table**

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| **No.** | **Section** | **Commenter** | **Text** | **Comment** |
|  | *N/A* | Denison Mines Ltd. | Use of the term “application” | Possible comment about how the use of the term “application” is misleading throughout the document. There could be a definitions table or glossary, other than the referenced REGDOC-3.6, *Glossary of CNSC Terminology.* |
|  | 3.1 | Denison Mines Ltd. | “***Management system*** *Unless otherwise indicated, the information listed for the Management system SCA is required for an application at any lifecycle stage.*  ***3.1 Management system”*** | Apparent formatting error, the section heading number 3.1 should be added to the first instance of “Management system” as written, with the requirement statement following, and then the second 3.1 heading as currently shown removed. |
|  | 3.1 | Denison Mines Ltd. | “*Unless otherwise indicated, the information listed for the Management system SCA is required for an application at any lifecycle stage.”* | While it is appreciated the CNSC has attempted to add the distinction of when information under each SCA applies to applications for projects at different lifecycle stages, it would be beneficial to have more direction for licensees. The wording in the guide seems to suggest that all aspects and details of a potential licensee’s management system be in place – even when seeking a project of smaller scope like approval to prepare site and construct. |
|  | 3.2 | Denison Mines Ltd. | “*The information listed under the Human performance management SCA is required for an application at any lifecycle stage.”* | Same comment as No. 3. |
|  | 3.2.4 | Denison Mines Ltd. | “*The application should describe the minimum number of workers with specific qualifications, who are available to the facility at all times, as required for normal operations and emergency response (minimum staff complement).”* *“For additional guidance refer to … REGDOC-2.2.5, Minimum Staff Complement [11].”* | REGDOC-2.2.5 states that it applies to Class I nuclear facility licensees and applicants for a Class I nuclear facility licence. Which does not necessarily include all uranium mine and mill applicants. |
|  | 3.3 | Denison Mines Ltd. | *“Unless otherwise indicated, the information listed under the Operating performance SCA is required for an application at any lifecycle stage.”* | Same comment as No. 3. |
|  | 3.4 | Denison Mines Ltd. | *“The information listed under the Safety analysis SCA is required for an application at any lifecycle stage.”* | Same comment as No. 3. |
|  | 3.5 | Denison Mines Ltd. | *“Unless otherwise indicated, the information listed under the Physical design SCA is required for an application at any lifecycle stage.”* | Same comment as No. 3. |
|  | 3.6 | Denison Mines Ltd. | *“Unless otherwise indicated, the information listed under the Fitness for service SCA is required for an application at any lifecycle stage.”* | Same comment as No. 3. |
|  | 3.7 | Denison Mines Ltd. | *“The information listed under the Radiation protection SCA is required for an application at any lifecycle stage.”* | Same comment as No. 3. |
|  | 3.8 | Denison Mines Ltd. | *“The information listed under the Conventional health and safety SCA is required for an application at any lifecycle stage. “* | Same comment as No. 3. |
|  | 3.9 | Denison Mines Ltd. | *“Unless otherwise indicated, the information listed under the Environmental protection SCA is required for an application at any lifecycle stage.“* | Same comment as No. 3. |
|  | 3.10 | Denison Mines Ltd. | *“Unless otherwise indicated, the information listed under the Emergency management and fire protection SCA is required for an application at any lifecycle stage.“* | Same comment as No. 3. |
|  | 3.11 | Denison Mines Ltd. | *“Unless otherwise indicated, the information listed under the Waste management SCA is required for an application at any lifecycle stage.”* | Same comment as No. 3. |
|  | 3.12 | Denison Mines Ltd. | *“The information listed under the Security SCA is required for an application at any lifecycle stage.”* | Same comment as No. 3. |
|  | 3.13 | Denison Mines Ltd. | *“The information listed under the Safeguards and non-proliferation SCA is required for an application for a licence at any lifecycle stage of a uranium mine or mill.”* | Same comment as No. 3. |
|  | 3.14 | Denison Mines Ltd. | *“Unless otherwise indicated, the information listed under the Packaging and transport SCA is required for an application at any lifecycle stage.“* | Same comment as No. 3. |
|  | 3.15 | Denison Mines Ltd. | *“An application for lifecycle stage should…”* | Possible typo. Missing word to state “*any lifecycle stage”*? |
|  | *N/A* | Denison Mines Ltd. | *“2. Licensing Basis and Licensing Process”* | Missed opportunity to expand on REGDOC-3.5.1 and describe sufficient information for an initial license application. |
|  | General | Peter Fundarek |  | For clarity and consistency, the document should clearly spell out the allowable activities under the umbrella of "exploration".  It is hinted at in the document but there is no clear and complete understanding of what is allowed before a CNSC licence is issued.   However, it is clear from the information requirements that data gathered before the licence application is submitted is crucial for a successful application.   In order to avoid situations where exploration activities are misunderstood, this document should provide clarity on this important matter. |
|  | General | Peter Fundarek |  | Similarly, there should be a fulsome discussion regarding the dual regulatory role that is unique to uranium mines and mills in Canada, where the province or territory shares jurisdictional areas with the CNSC.   As noted, this is unique to uranium mining and milling and should be more completely explained. |
|  | General | Peter Fundarek |  | The use of words such as "sufficient" or "adequate" must be better controlled and the meaning of the words defined.   It is not appropriate to request that an applicant submit "sufficient" information without describing what that looks like.   If this is to be a guide to submitting a licence application, then these types of words must be used sparingly and with clarity. |
|  | General | Peter Fundarek |  | In the discussion on each SCA, the requirements should be grouped by stage of the life-cycle of the facility.  In some cases, there is a discussion on the information requirements for decommissioning and then it goes back to information to be submitted for operations.  The required information should be grouped in a logical progression based on the stage of the life-cycle of the facility for which the CNSC licence is being sought. |
|  | General | Peter Fundarek |  | There is a substantial amount of information requested as part of the licensing application but it is not clear that all of this information will be reviewed and assessed by the CNSC.   The CNSC should not request information if it does not evaluate that self-same information. |
|  | General | Peter Fundarek |  | The term "waste rock" is mentioned early in the document but it is not until much later in the document where it is clarified that this term may apply to "clean rock", "overburden" or "mineralized rock".  The document should use the definitions of these terms, as set out in CNSC REGDOC-2.11.1, Volume 2 to provide consistency and clarity on the requirements.   Doing so will help to avoid problems in the future where the characterization of the "waste rock" is unknown, as has happened in Elliot Lake, Ontario.  Use of the specific terms will help ensure consistency of approach throughout the industry. |
|  | General | Peter Fundarek |  | There was a disturbing note in the document about the prescribed actions to be taken and the reporting requirements for exceedances of an administrative control.  This goes against the principles in the CNSC REGDOC -2.7.1 on radiation protection and appears to be regulatory creep.   Administrative controls were implemented as a good practice by licensees to avoid the regulatory requirements associated with exceeding an action level.   To ratchet down the requirements and impose prescribed actions for exceeding an administrative action level is not appropriate. |
|  | *General* | Kevin Scissons, Saskatoon |  | Thank you for this opportunity to provide comments.  Full disclosure: As a former Director of the  UMMD (retired 2012) and an Expert Consultant with the IAEA (2012-2024), I trust my feedback carries some value.  First off, I was a little surprised with the quality of the document posted for public review. There are a number of simple typo errors and simple editing that could have improved the quality of document. That is a simple fix and presume next round will correct that.  In one of my latest contributions to an IAEA document about Milestones in the Uranium Production Cycle, we corrected an important misnomer about the term “waste rock”. And I see that struggle continues in the draft REGDOC. A better term is to call it ‘mine rock’, and then clarify its quality after. As not all mine rock needs to be treated as a “waste”. That is an old holdover term when mine production defined waste as anything that is not ore.  Taking just one example excerpt early in the IAEA document, we  talk about identifying mine rock even in the exploration drill program:  "Finally, it provides information on the amount of mine rock that will be generated during the development and mining phases. Adequate segregation and management, including storage and treatment where appropriate, of mine rock material (including radiologically free clean rock and mineralized radioactive  (contaminated) waste rock) from a safety and environmental perspective also need to be considered. Clean mine rock is a valuable construction material, and this asset needs to be identified early in the process."  This is an opportunity the CNSC can improve this description too and move the document forward into a more understandable format for all interested parties to understand.  There is also a harmonized regulatory role that is unique to uranium mines and mills, where the province or territory also has jurisdiction that can line up with the CNSC.  This has been a very formal agreement that has been in place for four decades or more with Sask., in one form or another.  Recognizing and empowering a harmonized and cooperative regulatory process has been promoted at the IAEA for at least of couple of decades too.  How this can improve the efficiencies of regulatory oversight for uranium mining and milling should be explained.  There are a couple of terms that need to be better controlled or explained: "sufficient" or "adequate".   As a guide to submitting a licence application, these types of words must be used in a clear manner.  Another big legal question:  If this is a a “guide”, must it be followed as such, or will it be imposed as a “requirement “ of information on submission?  Is Guide the correct term?  In the discussion on each SCA, please identify where and how these apply to each stage of the life-cycle of the facility.  Thank you, and I look forward to the inputs of others, and the subsequent revisions.  Cheers! |
|  | *General* | Kevin Scissons, Saskatoon |  | Prior to retiring from the CNSC in early 2012, another colleague and I worked on proposed revisions to the U Mines and Mills Regulations. Fred Ashley, myself and a working group in Ottawa, including staff from Legal Services, had initiated improvements and clarification to those Regs. That included: -Inclusion of in situ solution  recovery of the ore ( as Denison is now proposing in NE Sask) - expanding the definition of exploration, to better define “intensive exploration”. An area still under control of the province or territories, as long as the exploration (including a test mine) did NOT include the mining or stockpiling of ore grade materials, especially in any bulk quantities that necessitated the oversight of the CNSC. - also recommended the term Abandonment License be removed, as release from licensing, like Cluff Lake, is the right path forward.  Will items like the above be addressed in this proposed RegDoc, and if so please identify where. |
|  | Section 3.9.8 | Nicole Corrado |  | I grew up on a nuclear waste site for my first 9 years, and for 25 years after that I lived near the Pickering Nuclear Power Plant.  I was so happy to finally get away from that.  But I still do not know what impact it has on my health.  I feel bad for my parents who still live there, and for all the people and animals who have to live near radiation pollution.  I am quite concerned with 3.9.8, which mandates testing “fish tissue and other receptor species tests for exposure uptake”.  As Canada is moving away from animal testing, this seems counterintuitive to include animal testing in a document to modernize practices, especially when there is no mention of phasing out and replacing the practice.  Mining is harmful to all life, and to the planet.  Forcing fish and birds to be exposed to the effluent, and cutting them up to test them for selenium and other pollutants is cruel and outdated.  Canada is phasing out toxicity testing on animals.  Please switch to animal free methods of testing effluent and other substances.  For wild fish and birds, please stop lethal sampling and switch to humane non lethal bio monitoring like is done in humans.  Mines destroy all sorts of animals in laboratory testing of their effluents, and in lethal sampling of birds, fish, frogs, etc.  Please do not use animal testing for pollution monitoring.  There are cruelty free modern alternatives to animal testing, including acute lethality testing.  Cell cultures can determine effect of pollution for instance.  Please reach out to antivivisection organizations regarding these tests, and lobby to change these outdated laws.  Please stop the “acute lethality tests” on rainbow trout, three lined stickleback, and other fish species.  These tests involve pumping effluents into fish tanks about once a month, and if more than half the fish die, the experiments are repeated.  There are animal free ways to test for pollution.  Any guardians of companion fish will test their tank using paper strips and test tubes. They do not deliberately expose the fish to effluents to see what happens.  Please also end the practice of sublethal toxicity testing of effluent on baby fathead minnows and rainbow atrout, and stop cutting up fish to test their livers for mercury.  Please lobby the government to put an end to mandatory toxicity testing under the Fisheries Act and go cruelty free.  Please only use non lethal sampling of wild fish, or take tissue samples from fish who were already caught for human consumption.  Please do not kill or harm any animals for research.  Many mining companies also kill animals as “pests”.  Please only use non lethal methods of wildlife coexistence.  Please only use humane non lethal methods to manage beavers and other wildlife.  Killing beavers only leaves room for more animals to move in.  And the traps kill many other animals.  London Ontario and many other places manage beavers without killing. |
|  |  | Canadian Nuclear Association (CNA) | The CNA recommends that the REGDOC be revised and all terminology and requirements not applicable to UMM be removed.  Several of the referenced documents are designed for reactors and are not applicable to UMM and should be removed. A few examples are:   * Section 3.2.4 - References to minimum staff compliments and REGDOCs 2.5.1 and 2.2.5 are not applicable and should be removed. * Section 3.3.2 - “validation of control room equipment” and references to REGDOC 2.5.1 are in the context of reactor operators and high security sites and are not applicable and should be removed. * Section 3.3.5 - The reference in Section 3.3.5 to procedures covering “normal, abnormal, unplanned and emergency” appear to be terminology from REGDOC’s applicable to reactors.   These are but a few examples in the REGDOC where terminology and references to documents designed to apply to reactor or high security site are used. |  |
|  |  | Canadian Nuclear Association (CNA) | In addition, the reference in Section 3.8.2. to the Canada Occupational Health and Safety Regulations neglect to note that the federal Saskatchewan Uranium Mines and Mills Exclusion Regulations identifies several acts and regulations where Saskatchewan regulations are applied. | CNA suggests that REGDOC 1.3.1 would be improved by a thorough review of the terminology and references to documents to remove inappropriate terminology and reference cases as well as removing references that are inapplicable to uranium mines and mills. |
|  |  | Canadian Nuclear Association (CNA) | CNA members have noticed multiple occasions where there is inconsistent language between the REGDOC and reference material. Terminology in REGDOCs and reference material should be consistent. A few examples are:   * Section 2.9.2 - With respect to proposed licensed release limits and the establishment of action levels these should be established and implement in accordance to CSA N288.8 not REGDOC 2.9.2 * Section 3.13.1 - Includes a “shall” statement which doesn’t align with the use of “should” in REGDOC2.13,1 * Section 3.16 - Wording needs to be revised to align with REGDOC 3.2.1. * Section 3.17 - Wording needs to be revised to align with REGDOC 3.2.2. |  |
|  |  | Canadian Nuclear Association (CNA) | CNA would also like to note that some of our members current experience involves CNSC staff cross referencing requirements in the Regulatory Documents against the proponent’s program documents and asking that each requirement is met up front. When the proponent arranges a meeting to discuss, they are then able to clarify how certain aspects are not applicable for certain stages of the project, to which CNSC staff agree, resulting in a more tailored review process. While the ultimate outcome is positive, it is a time consuming and costly process.  The new REGDOC does not appear to address this issue. In fact, the phrase *“Unless otherwise indicated, the information for …. SCA is required for an application at any lifecycle stage”* is found throughout the document. This wording seems to suggest that all aspects and details of a particular SCA need to be met upfront even when certain aspects of the requirement are not applicable for certain stages of the project. It would be beneficial to have a more tailored approach. | The CNA recommends that the licencing guidance consider risk and scope of the activities and which aspects of the activity are applicable for certain stages of the project. The REGDOC should give guidance on developing a more tailored approach upfront so both proponents/CNSC staff have clarity on what is/isn’t applicable at the various stages. |
|  |  | Canadian Nuclear Association (CNA) | Overall, CNA and its members are often frustrated by attempts to apply REGDOCs designed for reactors or high security sites to other nuclear activities and would encourage the CNSC to apply a risk-based approach when developing REGDOCS for non-high security sites. |  |
|  |  | Cameco | In general, there was inconsistent use of language throughout the REGDOC and references to materials, such as *REGDOC 2.3.2, Accident Management, Version 2,* which addresses risks at reactor facilities that are inapplicable at uranium mines and mills (UMMs). Further, some references introduce requirements that create confusion on whether new compliance verification criteria is being introduced. For example, a requirement for the environmental protection program to document the reporting process for the National Pollutant Release Inventory (NPRI), is not an obligation for current licensees. Cameco would suggest the REGDOC be revised to remove all terminology and requirements that are not applicable to UMMs. Additionally, several sections of the REGDOC would benefit from references to the specific provisions in legislation that the requirement comes from, as the REGDOC does not include all application/renewal requirements. |  |
|  |  | Cameco | Terminology and accuracy amongst REGDOCs, reference material and legislation should remain consistent. Cameco suggests the following revisions:  **Section 3.9.2**  The text notes an application should “propose licensed released limits and establish environmental action levels that are performed as per REGDOC 2.9.2”. Language in this paragraph and throughout the REGDOC should clarify that action levels are established and implemented in accordance with CSA N288.8, rather than REGDOC 2.9.2. As required by REGDOC 2.9.2, licensees establish proposed release limits that become licensed release limits once accepted by the CNSC. |  |
|  | *Section 3.12* | Cameco | The text in the third paragraph (access control) states that the application shall describe the measures to prevent unauthorized access, which “could include control of access to source storage areas, laboratories and designated radiation areas. This extends beyond the language in REGDOC 2.12.3, which refers to controlling “access to sealed sources”.  The text in the fourth paragraph (control of loss and illegal use of nuclear substances)  should be revised to remain consistent with existing legislation and to prevent the introduction of new program requirements that do not align with the security risks at UMMs. Cameco suggests revising the language to be consistent with subsection 3(h) of the General Nuclear Safety and Control Regulations (GNSCR) and removing the last two bullets to read as follows:  The application shall describe the measures that will be taken, to prevent the loss or illegal use, possession or removal of nuclear substances and prescribed equipment to prevent the loss of materials (e.g., ore, yellowcake and tailings) and devices authorized by the licence  nd their use, possession and-use by an authorized individual. This information should be provided in the nuclear security program document (which constitutes protected information)and may include:  Unauthorized removal of nuclear materials- substances and prescribed equipment from site by employees or contractors  \*—Transfer of nuclear substances to facilities which do not have the required CNSC licence •—Release of contaminated equipment and materials from-the site |  |
|  | Section 3.13.1 | Cameco | The REGDOC includes a “shall” statement that does not align with the “should” statement in REGDOC 2.13.1. Cameco suggests revising the third bullet in the list, which states “Note:  Either before or concurrent with applying...the applicant shall should complete and submit. |  |
|  | Section 3.16 | Cameco | This section uses wording that is inconsistent with “target audience” used in REGDOC 3.2.1.  Cameco suggests revising the language in the last sentence of the first paragraph as follows: “The application should include consideration of which communications tools will be most effective for target audiences.” key populations and should specifically describe how communications will be performed with Indigenous Nations-and communities who hold rights related-to-the area in which the-uranium and/or mill is found. Use of relevant Indigenous languages in communications is strongly recommended.  The second paragraph should also be revised for consistency with REGDOC 3.2.1 to read as follows: “An application at any lifecycle stage should demonstrate that ongoing engagement with appropriate parties target audiences has been continued.”  Further, the last paragraph will create an additional burden and inconsistency among applicants.  y introducing the “best practice” of publicly posting full versions of materials submitted to the CNSC. This wording should be revised to align with REGDOC 3.2.1 and maintain consistency as follows: “Information related to the public information program and disclosure protocol of the licensee or applicant should be readily accessible to target audiences.” |  |
|  | Section 3.17 | Cameco | The terminology should be revised to “Indigenous groups and communities” for consistency with REGDOC 3.2.2. |  |
|  |  | Cameco | References to materials that are inapplicable or introduce new requirements  Several of the referenced documents in the REGDOC are not compliance verification criteria for existing UMMs. To reduce confusion, Cameco suggests removing documents that do not apply to UMMs. In the alternative, the REGDOC should clearly indicate which documents do not apply. The following provides several examples but is not an exhaustive list: |  |
|  | Section 3.2.4 | Cameco | References to minimum staff complements and REGDOCs 2.5.1 and 2.2.5 are not applicable and should be removed. The text should be updated to align with practices for UMMs. |  |
|  | Section 3.3.2 | Cameco | The text in paragraph 4 notes “validation of control room equipment” and references REGDOC 2.5.1 (applicable to Class 1 nuclear facilities). REGDOC 3.6 uses “control room” terminology as being related to reactor operators and high security sites. The references should be removed, or clarification provided on what the term is intended to capture as it relates to UMMs. |  |
|  | Section 3.3.5 and 3.4.1 | Cameco | The reference in section 3.3.5 to procedures covering “normal, abnormal, unplanned and emergency” conditions appears to be terminology from Regulatory Documents applicable to reactors. Additionally, section 3.4.1 references “credible accident and emergency conditions,” which does not align with the conditions previously outlined in 3.3.5. Cameco suggests defining and clarifying how these terms relate to UMMs along with aligning the conditions amongst sections, or the references should be removed. |  |
|  | Section 3.9.5 and 3.11.10 | Cameco | Section 3.9.5 states an applicant “shall” develop administrative levels for certain contaminants or physical stressors, introducing a new requirement. Similarly, s. 3.11.10 requires identification of administrative levels. In accordance with REGDOC 2.9.2, the use of administrative levels is at the discretion of licensees and the language should be revised to maintain alignment. |  |
|  | Section 3.13.1 | Cameco | The second bulleted list is inconsistent with REGDOC 2.13.1. Further, the third bullet adds additional responsibilities for samples that are not required by stating “implement measures to prevent damage to, or theft, loss or sabotage of samples collected pursuant to a safeguards agreement or the illegal use, possession, or removal of such samples.” To align with REGDOC 2.13.1, the second bulleted list that follows “The safeguards program should cover the following provisions:” should be revised to read:   * Safeguards Equipment and Seals * IAEA Access * Nuclear Material Accountancy * Provision of Information * Retention of Records |  |
|  | Appendix A | Cameco | The text states that the table outlines each SCA, their specific areas and the reference materials that relate to an application for a uranium mine or mill. However, there are several documents listed in the table which have no application to uranium mines and mills, such as:   * REGDOC 2.4.4, Safety Analysis for Class IB Nuclear Facilities * REGDOC 2.3.2, Accident Management, Version 2 * REGDOC 2.2.4, Fitness For Duty-Managing Worker Fatigue * REGDOC 2.12.1, High Security Facilities, Volume I and II * REGDOC 1.2.1, Guidance on Deep Geological Repository Site Characterization * CSA N288.1, Guidelines for modelling radionuclide environmental transport, fate, and exposure associated with the normal operation of nuclear facilities for operating performance and environmental protection. |  |
|  | References to the applicable legislation and section should be included. | Cameco | To assist applicants with evaluating the completeness of applications, a reference to the  legislation should be included. The information in sections 4.2 to 4.10 appear to be taken from the *Nuclear Safety and Control Act* and its accompanying regulations, the GNSCR and *Uranium Mines and Mills Regulations*. However, the sections are not inclusive of all requirements and the wording used is inconsistent with the language in the corresponding legislation.  For example, it should be noted in section 4.14 that the requirement to notify the CNSC comes from s.15(c) of the GNSCR and includes any change in the information contained in s.15(a) and(b) of the GNSCR.  Additionally, it is unclear where the bullet list of requirements at the end of section 3.6  originated. Clarification on whether this is from a specific guidance document or legislation with a reference included would be useful. |  |
|  | Revisions to language, redundancy, and typo errors | Cameco | There are many sections where the wording in the section is not consistent with the scope  outlined in section 1.2 of the REGDOC. For example, the wording of “application to operate or decommission a facility” is used throughout the entire section 3.14. Cameco suggests revising the wording to capture the entire scope for consistency, such as “prepare a licence application for a licence to prepare a site for and construct, operate, and/or decommission a proposed new uranium mine or mill, or for the renewal of a licence for an existing facility.”  Generally, there are some sections that could be combined/removed to reduce duplication such as:   * Remove section 4.1 as the information is already contained in s. 3.11.11. * Section 4.13 and 4.11 could be combined for succinctness. * Revise section 3.16 and 3.17 to avoid redundancy and potential contradiction. * Section 3.11.3 is redundant as s. 3.11.1 notes the waste management program should include conventional and radioactive wastes. * Sections 3.11.6 and 3.11.9 are redundant as s. 3.5 speaks to physical design and s. 3.11.1 references the corresponding REGDOCs.   Some of the typos that were identified are as follows:   * Section 3.11.5 refers to s. 4.4 and 4.5 which should be 3.4 and 3.5. * Section 3.13.1 contains spelling errors in questionnaire and NSCA. * Section 3.11.6 and 3.11.7 reference s. 4.16.3 which should be s. 3.5.4.   In summary, the REGDOC would benefit from a thorough review to remove terminology, requirements and reference materials that are not applicable to UMMs. Ensuring alignment with existing REGDOCs and referencing the applicable sections in legislation would improve the value of the REGDOC as a licence application guide. |  |
|  | Preface | NexGen Energy Ltd. | *This document is the first version. It supersedes CNSC regulatory guide G-218, Preparing Codes of Practice to Control Radiation Doses at Uranium Mines and Mills.* | Confirm whether this is the correct reference |
|  | 1.2 Scope | NexGen Energy Ltd. | ***Note:*** *In general, this document does not apply to uranium prospecting and surface exploration activities.* | Suggest removing 'In general' as this |
|  | 1.2 Scope | NexGen Energy Ltd. | *If a project advances to a stage that a sufficient uranium reserve is identified and sufficient project design information has been established to support the development and operation of a viable uranium mine or mill project, a licence is required to proceed to site preparation, construction, and operation.* | Suggest removing this as it introduces ambiguity for proponents. The decision to proceed with a project is at the discretion of an applicant. In this particular context, the viability of a uranium reserve is subjective and dependent on a variety of factors that are unique to each project, proponent, and the uranium market more broadly. Rather than link the need for a CNSC licence and the application of this regulatory document to project viability, suggest instead providing a clear definition for 'site preparation'. The definition for 'site preparation' should provide flexibility to allow proponents to perform field investigations that may be required to gain more detailed information regarding project setting and engineering design in parallel to applying for, or in advance of receiving, a licence from the CNSC. |
|  | 1.3 Relevant legislation | NexGen Energy Ltd. | *Nuclear Non-Proliferation Import and Export Control Regulations (NNIECR)*  *Nuclear Security Regulations (NSR)*  *Packaging and Transport of Nuclear Substances Regulations, 2015 (PTNSR 2015)*  *Radiation Protection Regulations (RPR)*  *Uranium Mines and Mills Regulations (UMMR)* | Formatting- missing bullets  Considering the importance of this legislation for uranium mines and mills specifically, suggest moving this earlier in the list and calling out sections that are directly applicable to this regulatory document (i.e., Sections 3, 4, 5, 6, 7, 8) |
|  | 1.3 Relevant legislation | NexGen Energy Ltd. | *The applicant must also comply with all applicable laws and regulations at all jurisdictional levels.* | It is understood that compliance with all applicable legislation is a foundational requirement for all licensees; however, for the purposes of licence applications and this regulatory document in particular, it can be difficult for applicants to document and demonstrate compliance with all applicable laws and regulations in a licence application due to the broad scope and the significant number of associated requirements. To ensure that the expectations for licence applicants are clear, suggest that this statement be updated to "The proponent is responsible to comply with all applicable laws and regulations at all jurisdictional levels. Unless otherwise directed by CNSC staff, the basis for evaluating licence applications for completeness and compliance is limited to CNSC requirements only." |
|  | 1.3 Relevant legislation | NexGen Energy Ltd. | *While each section of the regulatory document addresses select requirements related to the safety and control area (SCA) or other topic of regulatory importance, applicants are responsible for ensuring that all requirements under the NSCA and regulations, for the proposed activities, are addressed in an application.* | Not all safety and control areas (SCA) apply to all phases of licensing. Suggest updating this to state that "...applicants are responsible for ensuring that all requirements under the NSCA and regulations that are applicable for the scope of the licence application are addressed in an application" |
|  | 1.4 National and international standards | NexGen Energy Ltd. | *Key principles and elements used in developing this document are consistent with national and international standards.* | It is not clear which standards this section is referring to or how this is relevant to licence applicants. Confirm whether this statement is required. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | Licensing Basis and Licensing Process | Not clear which information is 'Licensing Basis' and which is 'Licensing Process'. Suggest separating these topics into to distinct sections. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The licensing process is initiated when the applicant indicates in writing their intent to submit a licence application* | To provide clarity for applicants, it would be helpful to discuss what the initiation of the licensing process means in the context of the overall licensing process and timelines described in Figure 4 in REGDOC 3.5.1.  This section is missing a clear description of the process for licence applications specifically. Similar to the simplified process flow diagrams provided in Figure 5 of REGDOC 2.9.1 and Figure 1 of REGDOC 3.5.1, suggest including a graphic that depicts how information is provided, assessed, updated, and finalized from the time licensing process is initiated to the time the final application is accepted as complete. Also suggest updating this section to expand on each step or component within the process flow. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *Standard licence application information is found in section 4 of this document.* | See comment in section 4. Suggest moving 'standard licence application information' earlier in the document. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The applicant is responsible for ensuring that the licence application contains sufficient information to meet regulatory requirements. The applicant should provide cross-references to detailed information in other sections as appropriate.* | As per previous comment, suggest updating this to clarify that the licence application needs to contain sufficient information to meet the "regulatory requirements of the CNSC" |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The applicant should consult CNSC staff to confirm which editions of codes and standards applicable to the mine or mill are to be cited or addressed in the application.* | Note that policies, programs, processes, and procedures may be developed for topics that extend beyond 'safety' and that for existing licensees, this information may already be developed. Suggest updating this statement to "For new applicants, this should be done prior to developing policies, programs, processes, procedures and other safety and control measures required to demonstrate compliance with applicable CNSC regulatory requirements'. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *This supplemental guidance may also indicate documents other than those listed in appendix A that the applicant should consider and address in the application.* | See previous comment regarding establishing a standard 'licence application framework', similar to the scope of factors established for environmental assessments. Having this documented would help provide clarity to applicants on what is mandatory and what can be used for guidance. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The information provided in this document does not prevent applicants from proposing alternatives. However, any proposed alternative should appropriately reflect the complexities and hazards of the proposed activities and should be supported by suitable information.* | Suggest moving this to section 1.1 as it would be applicable to all aspects of the regulatory document. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The application should indicate the relevant sections of each supporting document.* | This implies that there is a single 'application' that can be used to document these references. As currently described, there is no clear differentiation between the 'application' and a 'supporting document'. Suggest including clear descriptions of each. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The application shall include program documents that provide information about how the regulatory requirements for the licensed activity will be met.* | Noting that there is duplication here with the preceding paragraph. Suggest combining similar topics throughout the document, where possible. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The application shall include program documents that provide information about how the regulatory requirements for the licensed activity will be met. These program documents may cite CNSC regulatory documents and other codes and standards.* | To match the guidance provided for 'Program-level' documents, suggest that discussion regarding engineering information should be provided in terms of a Facility Description Manual instead of disparate engineering packages. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The application shall include program documents that provide information about how the regulatory requirements for the licensed activity will be met. These program documents may cite CNSC regulatory documents and other codes and standards.* | The regulatory requirements for uranium mines and mills are extensive and it can be difficult to demonstrate compliance with all requirements within a licensed Program. Suggest modifying this statement to acknowledge that documents below the Program-level may also be requested by CNSC staff as part of the licence application to demonstrate that requirements are fully addressed. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *They should be organized into categories that represent the CNSC’s fourteen SCAs.* | As noted, not all fourteen safety and control areas apply to all licensing phases.. Suggest updating to state "They should be organized into categories that represent the CNSC's fourteen SCAs that are applicable to the licensing phase). |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *Each program document should provide references to associated procedures and work instructions.* | Depending on the stage of a project, work instructions may not be developed at the time of the licence application. Suggest updating wording to keep the document type generic "Each program document should provide reference to associated lower level documents (e.g., procedures), as required." |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The application should include engineering packages that contain specific design and construction details for the facilities.* | The terms 'specific' and 'details' are subjective and difficult for applicants to interpret. To enable consistent understanding, it would be very useful for the CNSC to adopt industry standard conventions for describing the level of engineering detail expected in an initial application (e.g., feasibility study).  Especially for new applicants or Projects, engineering design continues up to and during Construction. By establishing a minimum standard, the CNSC can rely on provisions within the licensing requirements to allow for the provision of more detailed engineering design information outside of the licence application (as required). |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. |  | To match the guidance provided for 'Program-level' documents, suggest that discussion regarding engineering information should be provided in terms of a Facility Description Manual instead of disparate engineering packages. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The application should include engineering packages that contain specific design and construction details for the facilities…* | It is helpful for applicants that this allows for the progressive submission of information, but it is not clear what level of engineering design is expected for the CNSC to consider the initial application complete. As per previous comments, having this type of information documented as part of a 'licence application framework' established between the CNSC and applicants early in the licence application process would help avoid any ambiguity. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *They may include information such as the design basis, risk assessments, process control logic, equipment specifications and for-construction drawings. The engineering design packages may be submitted as the detailed facility design progresses. The overall project may be allowed to proceed, based on primary control methods and approved design and construction processes, with the provision of detailed design for subsequent technical approval, carried out as hold points within the framework of the overall approved* | Recognize that this statement provides examples only, but noting that it would be unreasonable to expect new applicants to have 'issued for construction' drawings available as part of an initial licence application. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *They may include information such as the design basis, risk assessments, process control logic, equipment specifications and for-construction drawings. The engineering design packages may be submitted as the detailed facility design progresses. The overall project may be allowed to proceed, based on primary control methods and approved design and construction processes, with the provision of detailed design for subsequent technical approval, carried out as hold points within the framework of the overall approved* | Again, this flexibility is welcome, but it would be helpful to use standard engineering design classifications when describing the level of detail expected. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *The applicant shall provide the name, maximum quantity (at any given time) and form of any nuclear substance to be encompassed by the licence. The applicant should provide the scientific name of each nuclear substance. This information may be provided in summary format; for example, by providing a table of the nuclear substances and the information required for each substance.* | This seems out of place in this section. Suggest moving it to the relevant subsection in section 3.0. |
|  | 2. Licensing Basis and Licensing Process | NexGen Energy Ltd. | *In addition, if the application is for a new facility, the applicant should provide a list of any similar facilities owned or operated by the applicant that have been assessed and licensed by either the CNSC or any foreign regulatory body. The list should include the following information:*  *• facility name*  *• location*  *• date when the most recent licence was granted*  *• description of the facility* | It is unclear how this information is used for the licence application. It is important to avoid linking approvals for one facility to those of another. Suggest expanding on why this information may be useful for the CNSC when reviewing a licence application. Consider whether this would be better suited to including in the 'Standard Information' section. |
|  | 3. Regulatory Requirements and Guidance | NexGen Energy Ltd. | *----* | General comment applicable to all of section 3.  To avoid confusion and potential conflict between the information described within this regulatory document and other CNSC legislation, regulatory documents, and applicable standards that are specific to the respective safety and control areas, suggest that each subsection: 1) Clearly lists which CNSC legislation, regulatory documents, or applicable standards are mandatory and which are guidance.  2) Avoids duplicating text or introducing new requirements that are different than those documented in CNSC regulation, regulatory documents, or applicable standards. |
|  | 3. Regulatory Requirements and Guidance | NexGen Energy Ltd. | *The application should include sufficiently detailed information about the safety policies, programs, procedures and other documents that describe safety and control measures. All policies and programs should allow for continuous development, on an on-going basis for all lifecycle stages of the facility.* | It would be helpful for this regulatory document to clearly describe the level of detail is expected for management system documentation and, where required, the process for providing lower-level documents that are subject to more frequent revision than policies or programs. |
|  | 3. Regulatory Requirements and Guidance | NexGen Energy Ltd. | *The application should include sufficiently detailed information about the safety policies, programs, procedures and other documents that describe safety and control measures. All policies and programs should allow for continuous development, on an on-going basis for all lifecycle stages of the facility.* | Suggest updating this to state "continual improvement". |
|  | 3. Regulatory Requirements and Guidance | NexGen Energy Ltd. | *The level of detail may vary depending on the activities requested in the application. A graded approach applies.* | Same comment - move to previous. Having some criteria established for applicants would be helpful. |
|  | 3. Regulatory Requirements and Guidance | NexGen Energy Ltd. | *Management system* | This heading appears to be duplicative with section 3.1 |
|  | 3. Regulatory Requirements and Guidance | NexGen Energy Ltd. | *Unless otherwise indicated, the information listed for the Management system SCA is required for an application at any lifecycle stage* | This text contradicts the introductory sentence in section 3.1.1.  Management systems are one of the primary safety and control areas and are understood to be required throughout the lifecycle of uranium mines and mills. |
|  | 3.1.1 General considerations | NexGen Energy Ltd | *The application shall describe the proposed management system programs, processes and procedures that have been or will be put in place to protect the health and, safety of persons, and the environment, as well as a description of the organizational management structure* | Same comment as previous. Suggest using consistent language regarding the management system document types that are expected to be included in the licence application. |
|  | 3.1.1 General considerations | NexGen Energy Ltd | *The application should also describe the safety policies, the roles of external safety assessment organizations and the advisory committees that will advise the management of the organization that will carry out the licensed activities.* | It is not clear what "safety assessment organizations" or "advisory committees" are or how this is relevant to the licence application. Suggest reconsidering this requirement or expanding to provide further context on the intent. |
|  | 3.1.1 General considerations | NexGen Energy Ltd | *Where applicable, the application should refer to CSA N286, Management system requirements for nuclear facilities [5] as the requirements for the management system SCA* | The flexibility provided by clauses like this is generally welcome as it allows applicants to structure the licence application in a manner that suits the specific needs of the propnent and project. However, in this instance, it appears to contradict the intent of CSA N286 which was understood to be a mandatory requirement for all uranium mines and mills. Suggest reviewing the use of 'should/may', 'shall/must' and other clauses such as 'where applicable' throughout this regulatory document to ensure the differentiation between a mandatory requirement and guideline is clear and remains consistent with requirements described in associated CNSC legislation, regulatory documents, and standards. |
|  | 3.1.1 General considerations | NexGen Energy Ltd | *If an application does not use CSA N286, the applicant should provide the alternate standard used, with justification.* | Same comment. As a recent applicant, it was understood that compliance with CSA N286 was not voluntary. The flexibility provided for applicants is welcome, but confirm that the guidance provided in this regulatory document doesn't contradict mandatory requirements listed in associated CNSC legislation, regulatory documents, and standards. |
|  | 3.2.3 Personnel training | NexGen Energy Ltd | *The application shall include the applicant’s overall training policy and all governance documents (or a description) related to the training system.* | Depending on the structure of a management system, not all applicants or licensees will have (or require) policy-level documents specific for a topic. Note that REGDOC 2.2.2 does not specifically require 'training policy'. Suggest removing reference to 'training policy' in this instance. See previous comment regarding the need to ensure requirements in this regulatory document are consistent with, and do not introduce new, requiements of governing CNSC legislation, regulatory documents, and applicable standards. |
|  | 3.3.1 General considerations | NexGen Energy Ltd | *The application shall describe the proposed measures, policies, and procedures for carrying on the licensed activities.* | See previous comment regarding the consistent use of terminology to describe the type of documents required. In this instance, 'programs' are missing. |
|  | 3.3.1 General considerations | NexGen Energy Ltd | *The application shall describe the proposed methods and the schedule for carrying on the planned activity.* | This is one example where the regulatory document would benefit from further expanding on what is meant by 'methods' and 'schedule'. As written, this requirement could be broadly interpreted. |
|  | 3.3.5 Procedures | NexGen Energy Ltd | *The application should:* | Not clear which licensing phase this is applicable to. The introductory statement is section 3.3 suggests that this would be applicable to all licensing phases, but reference to 'operation' and 'operator actions' suggests that it is specific to the operating licence. Suggest clarifying. |
|  | 3.4.1 General Consideration | NexGen Energy Ltd | *An application shall include the results of pilot studies, the derivation of design criteria, modeling exercises and baseline environmental data.* | This list of information considered mandatory in this context is vague. Not all applicants will have results of 'pilot studies' and the need to show the 'derivation of design criteria' is unclear. Suggest that this statement be modified to expand on the type of information that the CNSC is looking for and then list pilot studies, design criteria, and baseline environmental data as examples. This is another example of the type of information that would benefit from being documented in an initial 'licence application framework' developed between CNSC staff and the applicant to ensure relevant information is provided at the right time. |
|  | 3.4.1 General Consideration | NexGen Energy Ltd | *An application shall include the results of pilot studies, the derivation of design criteria, modeling exercises and baseline environmental data.* | This flexibility is welcome, but as written, it contradicts the introductory sentence in this paragraph which suggests the information is mandatory in order for a licence application to be accepted as complete.  As previously noted, not all applicants will have access to detailed design information as part of the initial licence application, nor should this level of detail be required for CNSC staff to accept an application as complete. |
|  | 3.4.1 General Consideration | NexGen Energy Ltd | *It may be provided as part of the detailed engineering packages.* | The use of the word 'should' is inconsistent with the introductory statement in section 3.4. As previously noted, suggest reviewing the use of 'shall/must' and 'should/may' throughout the document to help applicants clearly differentiate between mandatory and voluntary requirements. |
|  | 3.4.1 General Consideration | NexGen Energy Ltd | *The application should demonstrate that, when operator action is taken into account, operators will have reliable information, sufficient time to perform the required actions, documented procedures to follow, and will have been trained.* | Not clear which application phase this is for. |
|  | 3.5.1 General considerations | NexGen Energy Ltd | *The application should include an appropriate level of detail about the description of the overall physical design of the facility, the design practices and the safety concepts commensurate with the activities being proposed in the licence.* | See previous comment regarding establishing standard criteria for the level of engineering detail generally expected for applications. |
|  | 3.5.1 General considerations | NexGen Energy Ltd | *For a new facility, the application should include a comparison of the facility’s design, construction, commissioning and operation with prevailing modern standards and international practices.* | Recognizing that this is guidance; however, in practice, this would be very difficult for an applicant to demonstrate as part of the application considering the vast number of structures, systems, and components associated with a uranium mine and mill. |
|  | 3.5.5 Facility and systems design | NexGen Energy Ltd | *The application shall identify a policy with respect to the provision of emergency power systems.* | See previous comments regarding consistent use of terminology to describe processes. In this instance, the description of emergency power systems would be included in a Facility Description Manual (or equivalent), not within a governing management system policy. |
|  | 3.13 Safeguards and non-proliferation | NexGen Energy Ltd | *The information listed under the Safeguards and non-proliferation SCA is required for an application for a licence at any lifecycle stage of a uranium mine or mill.* | Site preparation and construction excludes the extraction or processing of uranium ore. Suggest that licence applications for site preparation and construction be excluded from these requirements. |
|  | 4. Standard application information | NexGen Energy Ltd | Standard application information | Suggest moving this earlier in the regulatory document (alongside Licensing Process and Licensing Basis) |
|  | 4.1 Statement of purpose | NexGen Energy Ltd | *This information may be provided in summary format; for example, by listing facilities, equipment or information.* | Similar to the Applicant Authority Form for Nuclear Substances and Radiation Devices, it would be helpful to have a standard format to capture this information to simplify tracking. |
|  | 4.10 Other information | NexGen Energy Ltd | *If applicable, the applicant should describe the relationship of this application to any previous licences issued by the CNSC for activities at this facility, including any changes to the licensing basis that were included in previous licences.* | Note that this is duplicative with information included in section 2. |
|  | 4.10 Other information | NexGen Energy Ltd | *Where applicable, the applicant may provide supporting information, including:*  *• the results of experimental programs, tests or analyses (for example, results of manufacturers’ material tests and qualification data)*  *• those that have been submitted to, received from, or published by a foreign national regulatory body* | The intent of this information and applicability to uranium mines and mills is not clear. If 'experimental programs' are intended to include things like laboratory testing, then suggest this information be moved to the applicable subsection in section 3 instead. |
|  | 4.15 Structuring the application | NexGen Energy Ltd | Structuring the application | Appreciate the flexibility afforded to applicants, but suggest that this regulatory document include an example licence application structure for reference. |
|  | 4.16 Submitting the application | NexGen Energy Ltd | *The applicant must ensure that the application is complete, dated and signed…* | This requirement does not account for situations where information required to support an application is submitted over time. Also noting that this information may be best combined with the text in section 2 that relates to the transmission of information. |
|  | Appendix A: Regulatory Documents and Standards | NexGen Energy Ltd | *Appendix A: Regulatory Documents and Standards* | Suggest either moving the references for each safety and control area to the respective subsections in section 3.0 and removing Appendix A or including clearer references to Appendix A in section 3.0 subsections. |
|  | Appendix A: Regulatory Documents and Standards | NexGen Energy Ltd | *Appendix A: Regulatory Documents and Standards* | It would be helpful to clearly differentiate which reference documents are mandatory requirements and which are useful references provided for guidance. |
|  | Info Page | Peter Fundarek | *Twitter: @CNSC\_CCSN* | Should be 'X' with perhaps a reference that it used to be Twitter |
|  | Preface | Peter Fundarek | *This document will be used by applicants to prepare an application for proposed new uranium mines and mills, and for licence renewals for existing uranium mines and mills..* | Eliminate double period |
|  | 1.1 Purpose | Peter Fundarek | *This regulatory document provides clarity on the requirements and guidance for preparing an application for a licence to carry out activities related to mining and milling of uranium ore in Canada.* | Since U mining and milling is also regulated by the provinces and territories, it should be explicit here (and elsewhere) of the dual regulatory approach for uranium and mining activity. Since the province or territory can also issue approval for this activity, any reference to a licence in this document should specify that it is a CNSC licence to avoid confusion. |
|  | 1.2 Scope | Peter Fundarek | ***Note:*** *In general, this document does not apply to uranium prospecting and surface exploration activities. Uranium included in the form of drill core or bulk samples of ore are considered as naturally occurring radioactive material1 (NORM) and the activities associated with drill core or bulk samples are regulated under provincial or territorial mining and environmental protection regulations.* | There should be a better clarification of what activities are considered exploration. Proponents need clarification on what the CNSC considers to be acceptable work under the umbrella of exploration. This will serve to clarify the boundary between non-licensed activities and those requiring a licence from the CNSC. Currently, there is no prescribed definition of the term "exploration" and this should be rectified. |
|  | 1.2 Scope | Peter Fundarek | *If a project advances to a stage that a sufficient uranium reserve is identified and sufficient project design information has been established to support the development and operation of a viable uranium mine or mill project, a licence is required to proceed to site preparation, construction, and operation* | This statement is not clear. Who determines whether the uranium reserve is sufficient? What is meant by that term? Who determines if there has been sufficient project design information? Again, what is meant by the term "sufficient"? Furthermore, since this is an AND statement, if the proponent has identified a uranium ore body but has not collected "sufficient" project design information, then they can conduct any activities on site without requiring a CNSC licence? This whole area of the borderline between exploration activities and those requiring a CNSC licence is very gray and this document should serve to provide clarification. |
|  | 1.3 Relevant legislation | Peter Fundarek | *• Part 2* | This text is highlighted as if it were a hyperlink but it is not |
|  | 1.2 Scope | Peter Fundarek | *1 The term naturally occurring nuclear substances can be used interchangeably with naturally occurring radioactive material* | The term "radioactive material" is not defined in the NSCA nor the Regulations. For the sake of clarity, this document should refrain from introducing non-regulatory terms when the prescribed interpretation is available. The term "nuclear substances" is defined in the NSCA and should be used throughout. |
|  | 1.3 Relevant legislation | Peter Fundarek | *The applicant must also comply with all applicable laws and regulations at all jurisdictional levels.* | This would be a good point at which to have a discussion on the unique regulatory situation for uranium mines and mills, vis-a-vis the dual regulatory approach where both the province (or territory) also have a significant regulatory role and the coordination of that regulatory effort. |
|  | 1.4 | Peter Fundarek | *This regulatory document includes select requirements that are based on the NSCA* | Why is this disclaimer here? If this is a guide to licensing, should it not include all the requirements in order to be considered to obtain a licence? Why only a select few? |
|  | 1.4 | Peter Fundarek | *Key principles and elements used in developing this document are consistent with national and international standards* | What does this statement mean? Does it mean that the document was developed in accordance with some unspecified standards or that there are other national and international standards that may apply to uranium mining and milling? This should be clarified. If it is the former, then such a statement should be in the introduction. If it is the latter, then further guidance should be provided on where those national and international standards may be located. |
|  | 1.5 | Peter Fundarek | *A single point of contact from the CNSC is assigned to work with every licensee or applicant.* | It should be clarified that this single point of contact is for licensing matters only as there may be a point of contact assigned for environmental assessment matters or other areas under the control of the CNSC. The proponent should know that single point of contact does not mean only one person from the CNSC will contact them on matters pertaining to their application. |
|  | 1.5 | Peter Fundarek | *This point of contact can provide the licensee or applicant with additional information or*  *explanation of the information contained within this document.* | According to the preface of this document “Can” is used to express possibility or capability. Therefore, is it "possible" that the point of contact can provide this additional information or is the point of contact "capable" of providing this additional information and explanation. If the latter is meant, then state it explicitly. |
|  | 2 | Peter Fundarek | *When the term facility is used in this regulatory document, it is meant to cover both uranium mines and mills.* | Again, the term "nuclear facility" has a prescribed meaning in the NSCA and the Regulations. Why is this document introducing uncertainty by re-using a word that is already defined? Or clarify that both uranium mines and uranium mills are considered as nuclear facilities under the NSCA and Regulations. Then, simply use the term "nuclear facility" henceforth. This approach will provide better clarity and be consistent with the federal legislation. |
|  | 2 | Peter Fundarek | *REGDOC-3.5.1, Licensing Process for Class I Nuclear Facilities and Uranium Mines and*  *Mills [2], clarifies the licensing process in the context of the NSCA. Information on the licensing basis is found in REGDOC-3.5.3, Regulatory Fundamentals [1].* | References should be identified in the order in which they appear in the document. In this case, REGDOC-3.5.1 should be Reference 1, not #2 as noted. |
|  | 2 | Peter Fundarek | *REGDOC-2.9.1, Environmental Protection: Environmental Principles, Assessments and*  *Protection Measures [3]* | The correct title of this document is REGDOC-2.9.1, Environmental Principles, Assessments and Protection Measures. The referenced title should be as per the document published on the CNSC website. |
|  | 2 | Peter Fundarek | *The applicant is responsible for ensuring that the licence application contains sufficient*  *information to meet regulatory requirements. The applicant should provide cross-references to detailed information in other sections as appropriate* | While this statement is correct, it should be noted that the function of this document is to ensure that the applicant is aware of the requirements to ensure that the applicant does include "sufficient" information.. Otherwise, how will the applicant know how much information is required for the CNSC to consider that it is "sufficient". |
|  | 2 | Peter Fundarek | *The applicant should provide cross-references to detailed information in other sections as appropriate* | This statement is not clear. To what "other sections" is this statement referring? There is no prescribed format for a licence application. |
|  | 2 | Peter Fundarek | *Early engagement with CNSC staff is encouraged.* | With CNSC staff or the CNSC single point of contact that was previously stated to be assigned to each applicant or licensee? Which is it? There needs to be a consistent approach to the use of the term "CNSC staff" versus CNSC SPOC throughout the document. |
|  | 2 | Peter Fundarek | *The applicant should consult CNSC staff to confirm which editions of codes and standards applicable to the mine or mill are to be cited or addressed in the application.* | This is the first use of the word "code" in the context of other standards. It should have been included in section 1.4 above to introduce the term. |
|  | 2 | Peter Fundarek | *The application should cite the regulatory documents, codes and standards that were used to demonstrate the applicant’s ability to meet the regulatory requirements set under the NSCA.* | Why isn't this term "shall" or "must"? Why is it permissive or guidance? Is there an option for the applicant to not cite regulatory documents, codes and standards to demonstrate their ab8ity to meet the regulatory requirements? Furthermore, this appears to repeat more compulsory text that is included below. Why is this repetition necessary? It should be removed from this location |
|  | 2 | Peter Fundarek | *However, any proposed alternative should appropriately reflect the complexities and*  *hazards of the proposed activities and should be supported by suitable information.* | Again, if the applicant is proposing an alternative, isn't it mandatory that such an alternative appropriately reflect the complexities, etc.? There is a lot of permissive language here and consideration must be given to reviewing whether it is appropriate. |
|  | 2 | Peter Fundarek | *The applicant may provide references to any documents included in another licence application for the same facility.* | Why does it have to be for the same facility? Why can a company like Cameco not have an overarching document on radiation protection that is applicable to more than one site? What is the basis for this requirement to be so strict? |
|  | 2 | Peter Fundarek | *The application shall include program documents that provide information about how the*  *regulatory requirements for the licensed activity will be met. These program documents may cite CNSC regulatory documents and other codes and standards.* | This appears to duplicate information already noted four paragraphs above. However, in this instance it is compulsory, as suggested for the earlier text. This is the better location for this text and it should be removed from the earlier reference. |
|  | 2 | Peter Fundarek | *The applicant shall provide the name, maximum quantity (at any given time) and form of any nuclear substance to be encompassed by the licence. The applicant should provide the scientific name of each nuclear substance. This information may be provided in summary format; for example, by providing a table of the nuclear substances and the information required for each substance.* | Clarification should be provided that this requirement does not apply to the uranium ore potentially to be mined at the location as it contains numerous decay products that would have to be characterized in order to provide this information. it should be clear that the information sought is for those nuclear substances and radiation devices that will be used as part of the licensed activities. |
|  | 2 | Peter Fundarek | *Prescribed information, such as details of the security program, shall be submitted in accordance with sections 21 and 23 of the General Nuclear Safety and Control Regulations.* | The hyperlink reference here does not go to the correct location in the GNSCR. |
|  | 2 | Peter Fundarek | *Subsequent applications should provide a list of the supporting documents and clearly identify which information was previously submitted.* | What is a :"subsequent application"? Why not use clarity and just simply say, that "an application for a licence renewal should provide a list...." |
|  | 3. Regulatory Requirements and Guidance | Peter Fundarek | *The application should include sufficiently detailed information about the safety policies,*  *programs, procedures and other documents that describe safety and control measures* | Where are the criteria to be used by the regulator to determine if this requirement has been met? What does "sufficiently" mean? |
|  | 3. Regulatory Requirements and Guidance | Peter Fundarek | *A graded approach applies* | Where is this approach defined or specified? What does it entail? |
|  | 3.1.1 General considerations | Peter Fundarek | *The application shall describe the proposed management system programs, processes and procedures that have been or will be put in place to protect the health and, safety of persons, and the environment, as well as a description of the organizational management structure* | unnecessary comma after "and" |
|  | 3.1.1 General considerations | Peter Fundarek | *The application shall describe the proposed management system programs, processes and procedures that have been or will be put in place to protect the health and, safety of persons, and the environment, as well as a description of the organizational management structure* | Unnecessary comma after "persons" |
|  | 3.1.1 General considerations | Peter Fundarek | *The application should also describe the safety policies, the roles of external safety assessment organizations and the advisory committees that will advise the management of the organization that will carry out the licensed activities.* | The wording in this sentence is awkward. There seems to be a mixing of the proponent safety policies and the roles of other third-parties. |
|  | 3.1.1 General considerations | Peter Fundarek | *Where applicable, the application should refer to CSA N286, Management system requirements for nuclear facilities [5] as the requirements for the management system SCA* | This part of the sentence is not clear in context with the rest of the sentence. Greater clarity is required here for this important point. |
|  | 3.1.2 Management system | Peter Fundarek | *The application should describe how the applicant’s management system is compliant with relevant requirements and how the management system will be implemented.* | Why is there no reference to REGDOC 2.1.1 on Management Systems? It's not anywhere in this document. |
|  | 3.1.4 Performance assessment, improvement and management review | Peter Fundarek | *The application should describe the adequate provisions made for an objective internal self-evaluation program supported by periodic* | How is this word defined? What criteria will be used to demonstrate that "adequate" has been achieved? |
|  | 3.1.4 | Peter Fundarek | *The application should describe how organizational effectiveness and safety performance are measured, including the use of performance indicators to detect any shortcomings and deteriorations in safety.* | Instead of alluding to the use of control levels, this document should provide guidance on how the regulator sees them being used. There is an opportunity here for the regulator to shape how control levels are used. |
|  | 3.1.4 | Peter Fundarek | *The application should demonstrate that the analysis of the causes of significant events will consider technical, organizational and human factors aspects, and that the necessary arrangements have been made to report and analyze near-miss events* | Why is there no reference to REGDOC 3.1.2 for reporting requirements? |
|  | 3.1.4 | Peter Fundarek | *The application should clearly state how the applicant intends to present, promote and assess the key characteristics of good safety culture and safety performance by all workers at the facility, including contractors and subcontractors. The application should provide a proposed timeline and milestones for completion of specific detailed safety performance documentation that will be developed later* | This seems to be part of s.3.1.7 immediately below. It seems out of place in this location of the document. |
|  | 3.1.8 Configuration management | Peter Fundarek | *The application should describe the provisions to establish and maintain configuration from concept until end of operation life* | The meaning of this part of the sentence is not clear. To which "configuration" is being referred? |
|  | 3.1.9 Records management | Peter Fundarek | *The application should describe the adequate provisions for records management. Licensees are required to keep records relating to the licence submitted to the Commission.* | Not all records are required to be submitted to the Commission. |
|  | 3.1.9 Records management | Peter Fundarek | *Section 28 of the General Nuclear Safety and Control Regulations include requirements on the retention of certain records* | There are record retention requirements in other regulations as well (e.g. ss.24(2) of the RP regulations). All references to record retention should be included. |
|  | 3.2.2 Human performance program | Peter Fundarek | *For guidance on the human performance program, refer to REDOC-2.2.1, Human Factors [8].* | The title of this REGDOC should be updated. |
|  | 3.3.1 General considerations | Peter Fundarek | *The application shall include information on how the applicant will ensure that normal facility operations are carried out safely to keep radiation doses to workers and members of the public, and s any planned discharges or releases of radioactive material or hazardous substances from the facility within authorized limits* | text errors in this section that must be corrected. |
|  | 3.3.1 General considerations | Peter Fundarek | *The operations shall adhere to any applicable legislation at all jurisdictional levels or other applicable codes and standards* | Again, it would be useful for new applicants to know the cooperative approach to UMM regulation by the CNSC and the provinces or territories. |
|  | 3.3.1 General considerations | Peter Fundarek | *The application should also describe how the applicant will exercise overall responsibility for safety in conducting licensed activities, including ongoing upgrades and modifications to the facility, and carry out effective oversight of these activities* | This phrase would seem to be included in the overall term "exercise overall responsibility" that was used at the start of the sentence. If so, then this is redundant. |
|  | 3.3.1 General considerations | Peter Fundarek | *For a new facility, the application should describe the processes used to ensure that the*  *performance of the SSCs has been assured from site preparation to decommissioning and if major modifications are to be made to the facility in the future.* | This section is not really needed as it is covered elsewhere in this part. However, if it is retained, then it should not just apply to new facilities but should encompass all licensing requests. |
|  | 3.3.2 Conduct of licensed activities | Peter Fundarek | *Conduct of licensed activities* | It would be helpful if this section and other similar ones were further sub-divided into sub-sections that identified the information requirements by lifecycle stage. That would make the document easier to read and understand. |
|  | 3.3.2 Conduct of licensed activities | Peter Fundarek | *An application to prepare a site and construct a uranium mine shall describe the construction processes and mining methods that will be used to manage the development of mine workings and construction of the supporting infrastructure as well as their proposed schedule* | Much of the information required for this part will be derived from ground-characterization activities that are conducted under the auspices of exploration. Since this document is requiring such work to be carried out during the period of exploration, this document should explicitly state the nature and scope of activities that are considered part of the exploration program. This approach will provide clarity for all parties, including the regulator. |
|  | 3.3.2 Conduct of licensed activities | Peter Fundarek | *An application to prepare a site or construct a uranium mine or mill shall contain the proposed method, program and schedule for the removal and disposal of ore and waste rock, tailings, and any other wastes produced as a result of operations, as applicable.* | All uses of this particular term in the document should be revised to be compatible with REGDOC-2.11.1 and instead use the terms "overburden", "mineralized waste rock" and "clean waste rock" as appropriate. This will assist the reader to better understand the requirements for each type of material. Alternatively, this document should explain that the term "waste rock" encompasses clean waste rock, acid generating waste rock and mineralized waste rock, with a more complete discussion to follow in sub-section 3.11 on waste management. |
|  | 3.3.2 Conduct of licensed activities | Peter Fundarek | *the process to be used to complete and report on the commissioning activities during initial operation of the mine or mill facilities* | Since existing operating uranium mines have to follow this document to submit an application for renewal, why is this requirement included? If a mine or mill has been operating under a CNSC licence for a decade, why does the application need to include initial commissioning information again? |
|  | 3.3.2 Conduct of licensed activities | Peter Fundarek | *This information should identify any changes to the original design and equipment specifications that resulted from the construction and commissioning of the facilities. Commissioning includes both construction verification and installed equipment operating verification activities. Validation of control room equipment should also be performed.* | Again, it should be clarified whether this information is really required for the renewal of an existing operating licence. |
|  | 3.3.2 Conduct of licensed activities | Peter Fundarek | *An application to prepare a site, construct or operate a uranium mine should provide the proposed mining methods and programs* | There should be a complete review of this section to ensure that the requirements flow in a logical order. This particular item should be first and foremost, as it will decide operations, not left as an afterthought at the end of the section. The section should follow the logical progression of site and construct to operate to decommission, with all of the relevant requirements listed in each part. Requirements common to all life-cycle stages should be included at the beginning. |
|  | 3.3.2 Conduct of licensed activities | Peter Fundarek | *An application to operate or decommission a facility should provide the following information:* | Many of the information requirements below do not apply to a facility intending to be decommissioned. This part of the document needs to be reviewed and re-written. |
|  | 3.3.2 Conduct of licensed activities | Peter Fundarek | *• the operating methods and programs in the mine or mill operations program* | Why would a facility applying for a licence to decommission have a mine or mill operations program? This makes no sense and should be revised for clarity. |
|  | 3.3.2 Conduct of licensed activities | Peter Fundarek | *• whether the mining or milling will be continuous or intermittent operations* | Again, why is this requirement included for an application to decommission a uranium mine or mill? |
|  | 3.3.3 Mining operations program | Peter Fundarek | *An application to operate or decommission a uranium mine shall include a mining operations program.* | Again, why does an application to decommission a nuclear facility require information on the proposed mining methods. This section of the document is also not clear and should be revised. |
|  | 3.3.3 Mining operations program | Peter Fundarek | *• processes for mine planning and current life of mine schedules* | This is not applicable to an application for decommissioning. |
|  | 3.3.3 Mining operations program | Peter Fundarek | *• proposed mining methods,* | This is not applicable to an application for decommissioning. |
|  | 3.3.3 Mining operations program | Peter Fundarek | *• procedures to be used for mining, and for the handling of and ore and waste and any other nuclear substances involved in mine operations* | This is not applicable to an application for decommissioning. |
|  | 3.3.3 Mining operations program | Peter Fundarek | *the pre-operational history of the site prior to any activity on the site geology and ground*  *structure, fault systems, and hydrogeological conditions* | *This requirement is poorly worded and should be reviewed and revised. What is meant by the statement "the pre-operational history of the site prior to any activity on the site geology..."?* |
|  | 3.3.3 Mining operations program | Peter Fundarek | *• associated information on the overall mine design, water control, radiation protection, ground stability conditions, risk assessment and control processes* | *This information will be included in section 3.7. What is the value of duplicating it here as well?* |
|  | 3.3.3 Mining operations program | Peter Fundarek | *• procedures that are used for the mine planning process* | *This is not applicable to an application for decommissioning.* |
|  | 3.3.3 Mining operations program | Peter Fundarek | *• processes to be used for mine development activities including mine engineering, geology,* *rock mechanics, ventilation, water management design and risk assessment* | *This is not applicable to an application for decommissioning.* |
|  | 3.3.3 Mining operations program | Peter Fundarek | *• any alternate mining and material handling processes that could be used* | *This is not applicable to an application for decommissioning.* |
|  | 3.3.4 Milling operations program | Peter Fundarek | *The milling operations program shall include:* | The two following bullet points are very similar. The document should clarify the difference, if any, between the proposed ore processing and milling methods and the procedures to be used for processing of ore and/or other feed materials, and ore milliing. |
|  | 3.3.4 Milling operations program | Peter Fundarek | *• the proposed ore processing and milling methods* | This is not applicable to an application for decommissioning. |
|  | 3.3.4 Milling operations program | Peter Fundarek | *• the procedures to be used for processing of ore and/or other feed materials, and ore milling* | This is not applicable to an application for decommissioning. |
|  | 3.3.4 Milling operations program | Peter Fundarek | *In addition, the milling operations program should identify:* | This is not applicable to an application for decommissioning. |
|  | 3.3.4 Milling operations program | Peter Fundarek | *• the operation of the associated mill infrastructure such as ventilation systems, radiation protection design features, water handling systems, electrical and communication distribution systems, as appropriate* | This will be included in section 3.7 and should not be duplicated here. |
|  | 3.4.1 General considerations | Peter Fundarek | *REGDOC-2.4.4, Safety Analysis for Class IB Nuclear Facilities may serve as guidance regarding the safety analysis for nuclear facilities that process uranium.* | This document should be included in the list of references at the end of this document, consistent with how other REGDOCs are listed. |
|  | 3.4.1 General considerations | Peter Fundarek | *An application shall include the results of pilot studies, the derivation of design criteria, modeling exercises and baseline environmental data. The technical basis for this should be provided in the application documentation. It may be provided as part of the detailed engineering packages.* | Clarification should be provided as to the extent of this information which is required for an application for a licence to decommission. |
|  | 3.4.1 General considerations | Peter Fundarek | *The application should demonstrate that, when operator action is taken into account, operators will have reliable information, sufficient time to perform the required actions, documented procedures to follow, and will have been trained.* | The document should clarify that the training should be to the procedures, not just general level training. |
|  | 3.4.2 Hazard Analysis | Peter Fundarek | *The applicant should apply recognized hazard analysis and risk assessment processes to the proposed design, to identify hazards and risks and to identify the necessary engineering design and administrative control mitigation measures* | The document should clarify the nature of the recognition required to complete the hazard analysis and other information. Recognized by whom? |
|  | 3.4.2 Hazard Analysis | Peter Fundarek | *This safety analysis should be provided for the facilities, including waste management design facilities* | The use of the word "facilities" here should be reviewed to determine if the singular "facility" is more appropriate. |
|  | 3.4.2 Hazard Analysis | Peter Fundarek | *Any proposed changes should be assessed to determine if they will impact the initial design analysis, to ensure that all potential hazards are identified and that appropriate engineering and administrative controls to mitigate any potential risks have been incorporated.* | This is very similar to the information requirements of the last sentence of the paragraph immediately above. |
|  | 3.4.2 Hazard Analysis | Peter Fundarek | *• the methods to be used to control releases of nuclear substances and hazardous substances into the environment from these facilities* | This information requirement seems similar to that identified in the second bullet of this section. |
|  | 3.5.1 General considerations | Peter Fundarek | *For a new facility, the application should include a comparison of the facility’s design, construction, commissioning and operation with prevailing modern standards and international practices.* | If the applicant must meet the design requirements of all jurisdictional levels, as noted at the top of this section, what other prevailing modern standards are being referenced here? This part of the statement seems repetitive or should be expanded to explain its intent. |
|  | 3.5.1 General considerations | Peter Fundarek | *The application should provide a description of any activity that may have an impact on the development of the mine or mill, including any mining-related activity that was carried on at the site before the date of submission of the application to the Commission* | This is an overly-broad generalization that may be difficult to meet. It would be better if this was limited to previous mining or milling operations or other industrialized uses. |
|  | 3.5.1 General considerations | Peter Fundarek | *• Indigenous knowledge* | This may be better worded as "Indigenous knowledge practices" because it is not clear how Indigenous knowledge in of itself could be affected by the development of the mine or mill. Indigenous knowledge should be used to inform the extent of the effect on traditional land use activities but it is not clear how Indigenous knowledge itself could be affected. The document should clarify this point. |
|  | 3.5.2 Design principles and requirements | Peter Fundarek | *• a list of equipment and processes tha will be used to control the operations* | Spelling error to be corrected. |
|  | 3.5.2 Design principles and requirements | Peter Fundarek | *• a Human Factors Engineering Program Plan (HFEPP) to show how they have/will*  *consider human factors in the design of the mill control room, and relevant areas in the*  *mine* | A reference for the elements of a HFEPP would be useful but isn't included until three pages later, at the bottom of page 21. It should be here to help the reader better understand what is being requested. |
|  | 3.5.2 Design principles and requirements | Peter Fundarek | *• a Human Factors Engineering Program Plan (HFEPP) to show how they have/will*  *consider human factors in the design of the mill control room, and relevant areas in the*  *mine* | It would be helpful to new applicants if this part was more thoroughly explained so as to provide the guidance that this document seeks to provide. |
|  | 3.5.2 Design principles and requirements | Peter Fundarek | *• a geological assessment of the area and ground stability*  *• hydrogeological assessment, structural faulting and radiological conditions.*  *• risk assessments for the development activities and the engineering controls and*  *administrative controls that would be used to mitigate potential risks.* | Much of this information will arise from work conducted during exploration activities, again highlighting the need for this document to clearly spell out what that stage of development includes. |
|  | 3.5.2 Design principles and requirements | Peter Fundarek | *• the results of any third-party analysis and the proposed processes for the use of third- party consultants to monitor and evaluate the development activities and controls should* | This bullet point is not complete and thus does not make any sense. |
|  | 3.5.2 Design principles and requirements | Peter Fundarek | *If the design authority has been transferred from another organization, the application should provide the formal relationships (including roles and responsibilities) and the prerequisites that had to be met prior to the transfer.* | It is not clear what this requirement is seeking to achieve and the relevence to the licence application process. What role will the CNSC play in evaluating "prerequisites that had to be met prior to transfer"? |
|  | 3.5.2 Design principles and requirements | Peter Fundarek | *Design tools and analytical computer programs used should be appropriate for the application and the calculations, analyses, and studies should be controlled in such a manner that they are available for future users of the design.* | This sentence should be reviewed to ensure that it is properly structured and the intent is clear. As it stands, the second part of the sentence does not correlate well with the first part. |
|  | 3.5.2 Design principles and requirements | Peter Fundarek | *This information should be provided in the construction program and commissioning program documents, specific requirements for commissioning should also be indicated in engineering design packages or construction packages* | This sentence may be better revised to be two sentences, with the second one starting with the word "specific". Alternately, if a semi-colon were used instead of the first comma, that would help readability. |
|  | 3.5.3 Design governance | Peter Fundarek | *The application should describe how the facility design takes into account human factors. It should describe the systematic process that has been followed, for all systems, to incorporate considerations of human factors into the specification, definition and analysis of requirements; design activities; and verification and validation activities.* | Some guidance should be provided here on the level of detail required for an application for a uranium mine vs a mill for processing of uranium ore. It seems that this section is more concerned with the latter scenario but does not distinguish the limited application to the uranium mine. This may pose unrealistic requirements on a request for a uranium mine licence. |
|  | 3.5.3 Design governance | Peter Fundarek | *Refer to REGDOC-2.5.1, Human Factors [10] for more information.* | This is not the correct title of this REGDOC. All references should use the correct title and refer to the current version of the document available on the CNSC website. |
|  | 3.5.3 Design governance | Peter Fundarek | *• human-machine interfaces for all facility states*  *• instrumentation, displays and alarms provided to monitor system operations*  *• physical location, accessibility and usability of equipment that is operated, tested, maintained*  *or monitored*  *• physical interlocks, and indication of bypassed or inoperable status* | Again, much of this information seems more suited to an application for a mill than a mine. Clarification should be provided to guide the applicant. |
|  | 3.5.3 Design governance | Peter Fundarek | *The applicant should demonstrate that human factors engineering and human-machine interface considerations have been applied to all operational states and accident conditions, and for all facility locations where such interactions are anticipated.* | This information should have been included under the section heading for Human Factors and may be repetitive here. |
|  | 3.5.3 Design governance | Peter Fundarek | *The application should provide a Human Factors Engineering Program Plan. Guidance on this plan can be found in REGDOC-2.5.1, General Design Considerations: Human Factors [10].* | This information should be included earlier, where the first mention of the HFEPP was made at the top of page 18. |
|  | 3.5.4 Site characterization | Peter Fundarek | *• the orebody (or orebodies) to be mined*  *• all sources of ore or other feed for a custom milling operation*  *• suitable locations for the management of mine and/or mill wastes* | Formatting issue - remove the extra line space between the second and third bullets. |
|  | 3.5.4 Site characterization | Peter Fundarek | *General information should be provided, containing detailed information provided in engineering packages and/or construction work packages.* | This document should clarify how general information can contain detailed information. The two requirements seem at odds with each other. As a minimum, the sentence structure should be reviewed and revised to improve readability and to ensure the proper requirements are clear to the reader. |
|  | 3.5.4 Site characterization | Peter Fundarek | *The application should include a detailed description of the site geology, including:*  *• geological and hydrogeological setting*  *• structural geology including fault and fracture characteristics*  *• petrology, mineralogy and geochemistry*  *• stratigraphy*  *• ore body characteristics including mineralization*  *• geomechanical properties*  *The application should provide a description of the surface environment, including:*  *• climate data (e.g. ground frost and snow cover, air quality, extreme and average temperature*  *and precipitation information) and the potential impact of climate change*  *• aquatic and terrestrial environment*  *• surface water hydrology*  *• geomorphology*  *• geotechnical properties of surficial material* | This information should be included earlier in the sub-section. There should be a logical progression from site characterization information, as mentioned in this text, through more specific requirements and then ending with the waste management requirements. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *• the identification of contingency measures for failure of back-up systems , including*  *measures to be taken if back-up generation systems are approaching fuel exhaustion.* | There is an extra space in front of the comma that should be removed. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *The application should include a description of the supporting site infrastructure and the controls that are applied to design, construction and management of the facilities. The additional facilities to be described include, as applicable:* | Many of these, such as camp facilities and core storage, to name just two, have already been identified in this section of the document. It seems repetitive to include them here again. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *• a plan that shows the layout of any existing facilities (e.g., camp, core storage, core logging, power generation, sewage and potable water) as well as planned facilities (e.g., mine, mill and waste management facilities).* | This is a repetition of a requirement that was already included one page prior. Management of ore and waste rock ("excavated material") was already identified immediately above this item. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *An application should include procedures for geological assessment, material sampling, segregation and handling of excavated material.* | The document should clarify how this requirement pertains to physical design of the site. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *An application to prepare site and construct a uranium mine shall include the proposed design of the mine.* | The phrasing here needs to be reviewed to ensure it is correct. Likely, it should be "...prepare a site for....." |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *• radiation protection design features such as shielding, layout and isolation of sources* | This requirement is a repeat of the same item above. It should be deleted. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *• geochemistry of the ore zone and the geologic zones immediately surrounding the mineralized zone* | This item is already included in the geochemistry of the site, required by the first bullet point in this list. therefore, it is repetitive and should be removed or revised. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *• in-pit dewatering sump systems or underground dewatering system*  *• dewatering wells* | These two items are repeats of a request for the same information in the bulleted list. This repetition should be removed. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *• the proposed capacity of the mill*  *• the expected recovery rate*  *• the composition of mill feed, concentrates (products),and tailings, and any other waste*  *streams* | The extra line space between the second and third bullets should be removed. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *An application for a mill should provide a description of the following items, as applicable:* | Is the application in reference to siting, construction, operation or all three? The approach should be similar to that used for the application information requriements for a mine, as noted above. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *• reagents used, quantities and material safety data sheets information on hazards and controls* | The document is not clear as to whether the information requested is the MSDS itself or just the MSDS information on hazards and controls. The text should be reviewed to ensure clarity and readability. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *• air emission control systems design and technical specifications* | This item should be combined with the similar one earlier in this bulleted list to avoid appearing to be repetitive. |
|  | 3.5.5 Facility and systems design | Peter Fundarek | *Maintenance programs are not required for a an application for a licence to*  *prepare a site and construct or an application to decommission a mine or mill;* | The superfluous "a" should be removed from this sentence. |
|  | 3.6.1 General considerations | Peter Fundarek | *The application should include a clearly defined maintenance program containing the proposed measures, policies, methods and procedures that provide direction for maintaining SSCs. Maintenance programs should ensure that SSCs remain capable of maintaining their functions as described in design documents and safety analyses that are included in the facility licensing basis.*  *The maintenance program should include processes for planning, monitoring, scheduling and executing work activities that ensure SSCs continue to meet design specifications, prevent future degradation, or correction of current failure and impairments* | The two paragraphs are similar in wording and apparent intent. They should be consolidated into one paragraph. |
|  | 3.7 Radiation protection | Peter Fundarek | *The information listed under the Radiation protection SCA is required for an application at any lifecycle stage..* | Delete unnecessary second period. |
|  | 3.7.1 General Considerations | Peter Fundarek | *The application shall include a code of practice. The code of practice shall include a set of action levels, a description of any actions that the applicant will take when an action level is reached, and the reporting procedures the licensee will follow when an action level is reached.*  *The application should describe the proposed action levels, along with the supporting technical justification. The action levels should be developed in accordance with REGDOC-2.7.1, Radiation Protection [14].* | These two paragraphs have similar wording and should be consolidated. |
|  | 3.7.1 General Considerations | Peter Fundarek | *The code of practice should also include a set of administrative levels designed to prevent loss of control situations and maintain radiation levels ALARA. These additional control levels may indicate minor deviations from the radiation protection program and identify increasing radiation levels in the mine or mill environment and monitor the inhalation or ingestion of radioactive materials. Administrative levels should be based on short-term indicators to allow prompt initiation of investigations and remedial actions. Administrative levels should be expressed in terms of relevant parameters, such as:*  *• gamma radiation dose rate*  *• radon progeny concentration*  *• radon gas concentration*  *• long-lived radioactive dust concentration*  *• concentration of uranium in urine*  *Each administrative level should have an associated set of administrative actions. Typically, the greater the actual or potential radiation hazards present when an administrative level is reached, the more immediate and rigorous the corresponding response should be. Responses for when an administrative level is reached include:*  *• investigation to identify the reason for elevated measurements*  *• implementation of increased protective measures for workers*  *• suspending all or some operations* | This document should conform to the information in section 6 of REGDOC-2.7.1. The way the text in this document presented makes an administrative level equal to an action level when that is not the case. |
|  | 3.7.1 General Considerations | Peter Fundarek | *When an administrative level in a code of practice is reached, the associated reporting procedures should include appropriate protocols for:*  *• notifying the employees responsible for conducting investigations*  *• implementing findings*  *• notifying the CNSC* | This is incorrect. As per section 6 of REGDOC-2.7.1, "Licensees are encouraged to develop administrative levels in conjunction with their action levels. Administrative levels are internal tools for dose monitoring and control, and exceedances of these levels do not typically require reporting to the CNSC. Administrative levels are usually set based on the expected high end of normal operations or based on the statistics from past performance for similar work activities. The exceedance of an administrative level should trigger an internal investigation  and disposition according to the licensee’s corrective action program". Therefore the requirements listed in this document for actions to be taken when an administrative level are reached or exceeded are not correct. |
|  | 3.7.1 General Considerations | Peter Fundarek | *These protocols should specify who is to be notified and how they are to be notified (i.e. verbal or written). The urgency and level of internal reporting required in the code of practice should be commensurate with the anticipated consequences of reaching the associated control level.* | As noted in section 6 of REGDOC-2.7.1, exceedances of an administrative level "...do not typically require reporting.". The document should be revised to be consistent with the requirements of REGDOC-2.7.1 |
|  | 3.8.1 General Considerations | Peter Fundarek | *The application shall describe the program and implementation of policies to minimize risk to the health and safety of workers posed by conventional (non-radiological) hazards in the workplace, including the elimination and/or management of workplace safety hazards and to protect workers.* | The phrasing of this sentence needs to be reviewed to determine if the word "and" is still required for readability. |
|  | 3.8.1 General Considerations | Peter Fundarek | *The application shall describe how the program will measure the performance of the program, and how the applicant will report to the CNSC in the case of events.* | This document should contain guidance that reporting to other jurisdictional levels may be required for events that occur in this SCA. |
|  | 3.8.2 Performance, practices and awareness | Peter Fundarek | *The applicant should also list all hazardous substances used, produced, handled and stored for use in the workplace and list their respective recommended threshold limit values as adopted by the Canada Occupational health and safety Regulations.* | This information request is very similar to that required two paragraphs earlier where it states "The applicant shall provide the name, form, characteristics and quantity of any hazardous substances that may be on the site while the activity to be licensed is carried on. The applicant should provide the scientific name of each hazardous substance ". This should be reviewed to information request can be consolidated into one request. |
|  | 3.9.1 General considerations | Peter Fundarek | *The application should include a comprehensive set of environmental protection measures that meet the requirements of REGDOC-2.9.1, Environmental Protection: Environmental Principles, Assessments and Protection Measures [3] .* | The correct title of this document is REGDOC-2.9.1, Environmental Principles, Assessments and Protection Measures. The referenced title should be as per the document published on the CNSC website. |
|  | 3.9.1 General considerations | Peter Fundarek | *• a list of SSCs that are important for preventive and control measures; for example, equipment related to the liquid, solid and gaseous treatment systems the maintenance program established to ensure the sustained operational performance of preventive and control measures* | This part of the sentence should be reviewed for readability. Perhaps it should read " ...  for example, equipment related to the liquid, solid and gaseous treatment systems and the maintenance program established to ensure the sustained operational performance of preventive and control measures "? |
|  | 3.9.1 General considerations | Peter Fundarek | *Information about the planned releases should be provided in an application to prepare site and construct a uranium mine or mill, and then further developed for an application to operate a uranium mine or mill.* | This may be better represented by "to prepare a site and construct a ...". The wording should be reviewed for readability. |
|  | 3.9.2 Effluent and emissions control | Peter Fundarek | *This information shall include the proposed maximum quantities and concentrations, anticipated volumes and flow rates, as well as the characteristics of the substances.* | It may be advisable to specify that the physical, chemical and biological characteristics are required. |
|  | 3.9.2 Effluent and emissions control | Peter Fundarek | *The application should propose licensed release limits and establish environmental action levels that are performed as per REGDOC-2.9.2, Controlling Releases to the Environment (in development) [17].* | A regulatory document cannot require information that is not currently available. This document should not reference another REGDOC that is in development. The paragraph should be re-worded to describe the exact nature of the expected information, in the absence of the published REGDOC. |
|  | 3.9.2 Effluent and emissions control | Peter Fundarek | *The application should include a Best Available Technology Economically Achievable (BATEA) assessment performed as per REGDOC-2.9.2, Controlling Releases to the Environment (in development) [17].* | A regulatory document cannot require information that is not currently available. This document should not reference another REGDOC that is in development. The paragraph should be re-worded to describe the exact nature of the expected information, in the absence of the published REGDOC. |
|  | 3.9.8 Environmental management system | Peter Fundarek | *In addition to the guidance in REGDOC-2.9.1, Environmental Protection: Environmental*  *Principles, Assessments and Protection Measures [3], the following should also be documented in the environmental protection program:* | The correct title of this document is REGDOC-2.9.1, Environmental Principles, Assessments and Protection Measures. The referenced title should be as per the document published on the CNSC website. |
|  | 3.9.8 Environmental management system | Peter Fundarek | *• reporting processes for Environment and Climate Change Canada environmental effects monitoring reporting, National Pollutant Release Inventory reporting, and CNSC environmental monitoring program results, in addition to reporting to appropriate Provincial authorities* | This document would provide more effective guidance if additional information were provided regarding where further information on these requirements could be located. |
|  | 3.9.8 Environmental management system | Peter Fundarek | *• processes for recording, analyzing, reporting and maintaining monitoring information* | Fix unecessary space after the bullet and before the text. |
|  | 3.9.8 Environmental management system | Peter Fundarek | *• processes for recording, analyzing, reporting and maintaining monitoring information* | This point is redundant as reporting requirements are covered by the first bullet in this list. |
|  | 3.10.4 Fire Emergency Preparedness and Response | Peter Fundarek | *Additional requirements and guidance for fire emergency preparedness may be found in the applicable provincial requirements as well as in CSA N393, Fire protection for facilities that process, handle, or store nuclear substances [26]* | The correct reference is CSA N393:22. This is consistent with the reference information provided at the end of this document. |
|  | 3.11.1 General considerations | Peter Fundarek | *For information on the required waste management program elements refer REGDOC-2.11.1, Waste Management Volume I: Management of Radioactive Waste [28].* | This should be corrected to [27] to match the reference list at the end of this document. |
|  | 3.11.1 General considerations | Peter Fundarek | *• REGDOC-2.11, Framework for Radioactive Waste Management and Decommissioning in Canada [26]* | This should be corrected to [28] to match the reference list at the end of this document. |
|  | 3.11.1 General considerations | Peter Fundarek | *• REGDOC-2.11.1, Waste Management, Volume I: Management of Radioactive Waste [27]* | This document is already listed above and should not be repeated here. |
|  | 3.11.1 General considerations | Peter Fundarek | *• REGDOC-2.11.1, Waste Management, Volume II: Management of Uranium Mine Waste*  *Rock and Mill Tailings [13]* | This should be corrected to [12] to match the reference list at the end of this document. |
|  | 3.11.1 General considerations | Peter Fundarek | *• REGDOC-2.11.1, Waste Management, Volume III: Safety Case for Long-Term Radioactive Waste Management [29]* | The title of this REGDOC is inconsistent with the document available on the CNSC website. It should be "Waste Management, Volume III: Safety Case for the Disposal of Radioactive Waste". However, this reference is hyper-linked to a document on the CNSC website with the same title but its status is unclear. This licence application guide should only refer to other REGDOCs as currently listed and available on the CNSC website. |
|  | 3.11.1 General considerations | Peter Fundarek | *Further guidance is also found in CSA N292.0, General principles for the management of radioactive waste and irradiated fuel [32].* | The correct reference is CSA N292.0:19. This is consistent with the reference information provided at the end of this document. |
|  | 3.11.2 Waste characterization | Peter Fundarek | *The application shall identify, classify and characterize all solid, liquid and gaseous wastes expected to be produced in the waste management program.* | Expected to be produced by the waste management program OR expected to be handled by the waste management program? Solid, liquid and gaseous wastes will likely arise from normal operations and will be input into the waste management program. Not the result of the waste management program. |
|  | 3.11.2 Waste characterization | Peter Fundarek | *The process for segregation of different types of solid wastes such as radiological contaminated waste, industrial waste and domestic waste and the use of separate storage and handling systems for prevention of contamination of material that may be reused of recycles should be described* | This word should be "recycled" to match the tense of the word "reused". This will help with readability. |
|  | 3.11.3 Wastes produced | Peter Fundarek | *The application should include an inventory of both the radioactive and hazardous wastes that may result from the operation of the mining facility. These wastes include:* | There are wastes listed in the bulleted list that are neither radioactive nor hazardous, such as domestic waste and sewage. Therefore, the wording in the header should be reviewed and revised to make it more readable and clear. |
|  | 3.11.3 Wastes produced | Peter Fundarek | *The application should include an inventory of both the radioactive and hazardous wastes that may result from the operation of the mining facility. These wastes include:* | This should apply to both a mining and a milling facility as both types can generate the listed wastes. |
|  | 3.11.5 Waste management practices | Peter Fundarek | *Further information and expectations for the safety analysis and physical design of waste management facilities are found in sections 4.4 and 4.5, respectively, in this document.* | These references are incorrect.  Section 4.4 of this document requests information on the Applicant’s name and business address while section 4.5 requests information on the Mailing Address. Neither of these two links are correct and this should be addressed. |
|  | 3.11.6 Tailings management facilities | Peter Fundarek | *• site characterization (e.g., geotechnical, hydrogeological, climatic) as described in section 4.16.3 of this document* | No such section exists in this document. This reference should be corrected. |
|  | 3.11.6 Tailings management facilities | Peter Fundarek | *• process control and process monitoring, tailings density and percent solids*  *• tailings monitoring and control processes* | These two bullet points seem very similar and should be reviewed to determine if they can be consolidated. Otherwise, further information is required to delineate the difference in the information requirements. |
|  | 3.11.7 Waste rock management facilities | Peter Fundarek | *• site characteristics, (e.g., geotechnical, hydrogeological, climatic) as described in section 4.16.3 of this document* | No such section exists in this document. This reference should be corrected. |
|  | 3.11.8 Water treatment plant and facilities | Peter Fundarek | *• effluent sampling and monitoring systems, identification of final point of control and controls to stop discharge during periods of ineffective treatment*  *• final effluent handling systems, monitoring pond systems (if applicable), continuous*  *discharge systems and off- specification water recycle systems* | These two bullet points may be similar and it may be possible to combine in one bullet point. Otherwise, additional information should be provided to clarify the difference in the information requirements of the two points. |
|  | 3.11.9 Other wastes | Peter Fundarek | *Other wastes* | Gaseous wastes should also be mentioned here. |
|  | 3.11.10 Waste management program | Peter Fundarek | *Waste management program* | There is no clear discussion on the requirements for gaseous effluents. The document should be clear on how gaseous effluents should be managed, monitored and controlled, as applicable. |
|  | 3.11.10 Waste management program | Peter Fundarek | *This is needed for an application to operate a uranium mine or mill. Transportation of nuclear substances off-site should be described in the packaging and transport program and follow the applicable requirements of the Packaging and Transport Regulations* | It should be clarified that this refers to the transport of wastes contaminated by nuclear substances to understand why it is included in this section. |
|  | 3.11.10 Waste management program | Peter Fundarek | *This is needed for an application to operate a uranium mine or mill. Transportation of nuclear substances off-site should be described in the packaging and transport program and follow the applicable requirements of the Packaging and Transport Regulations* | The correct title of the regulation is Packaging and Transport of Nuclear Substances Regulations, 2015 . The document should refer to the proper name of any regulation cited within. |
|  | 3.11.11 Decommissioning plans | Peter Fundarek | *Information on the Detailed Decommissioning Plan is found in REGDOC-2.11.2 Decomissioning.* | Since this is a title, it should be italicized. |
|  | 3.12 Security | Peter Fundarek | *The application shall describe the measures that will be taken, to prevent the loss of materials (e.g., ore, yellowcake and tailings) and devices authorized by the licence and their use, possession and use by an authorized individual* | This structure of this sentence should be reviewed to ensure readability. The sentence would be better if the word "authorized" was changed to "unauthorized" to match the use of the word "prevent" earlier on. |
|  | 3.12 Security | Peter Fundarek | *The application shall describe the measures that will be taken, to prevent the loss of materials (e.g., ore, yellowcake and tailings) and devices authorized by the licence and their use, possession and use by an authorized individual* | The word "use" is listed twice in this section. The text should be reviewed to determine the correct wording. |
|  | 3.12.1 Security program | Peter Fundarek | *The application, should include processes to ensure that release of nuclear material and/or prescribed information is controlled in the security program document* | This comma is not necessary and should be removed to improve readability. |
|  | 3.13.1 Safeguards program | Peter Fundarek | *• Note: Either before or concurrent with applying for a licence relating to a uranium mine or mill, the applicant shall complete and submit to the CNSC a completed the IAEA safeguards Design Information Qquestionnaire (available upon request from the CNSC International Safeguards Division).* | The document should clarify whether this is for any stage of the life-cycle of the facility or a specific one. |
|  | 3.13.1 Safeguards program | Peter Fundarek | *• Note: Either before or concurrent with applying for a licence relating to a uranium mine or mill, the applicant shall complete and submit to the CNSC a completed the IAEA safeguards Design Information Qquestionnaire (available upon request from the CNSC International Safeguards Division).* | The word "the" should be removed to improve the readability of the sentence. |
|  | 3.13.1 Safeguards program | Peter Fundarek | *For more information, see REGDOC 2.13.1, Safeguards and Nuclear Material Accountancy [40].* | This reference number should be changed to [35], consistent with that shown below for the same document. |
|  | 3.15 Reporting | Peter Fundarek | *An application for lifecycle stage should describe how the reporting and trending programs, processes and procedures meet the requirements of REGDOC-3.1.2, Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills [36].* | The wording of this sentence should be reviewed and corrected to ensure readability. |
|  | 3.16 Public information and disclosure program | Peter Fundarek | *An application at any lifecycle stage shall describe the program for informing persons living in the vicinity of the mine or mill about the licensed activities.* | Given the geographical location of current and proposed uranium mines and mills and their isolated nature, some consideration should be given to having this document include further guidance as to the size and extent of the zone surrounding the facility to ensure the program for informing persons in the vicinity is appropriate. In other words, how far from a proposed uranium mine or mill is still considered "in the vicinity"? By providing this guidance, the document would assist both proponents and members of the public. |
|  | 3.16 Public information and disclosure program | Peter Fundarek | *The application must also describe how their proposed public information and disclosure program (required by all licensees) meets the requirements in REGDOC-3.2.1, Public Information and Disclosure [37].* | It will also be required of applicants for a new facility and therefore the phrasing here should be reviewed to be more comprehensive. |
|  | 3.17 Indigenous engagement | Peter Fundarek | *To meet the CNSC’s obligations for consultation, the CNSC may use the information collected and measures proposed by licensees regarding avoiding, mitigating or offsetting adverse effects.* | The wording of this sentence should be reviewed to ensure it is readable and that the intent is clear. As it stands, the intent of this sentence is not clear. |
|  | 3.17 Indigenous engagement | Peter Fundarek | *To meet the CNSC’s obligations for consultation, the CNSC may use the information collected and measures proposed by licensees regarding avoiding, mitigating or offsetting adverse effects.* | This may also apply to new applicants and therefore that should be identified here as well. |
|  | 3.17 Indigenous engagement | Peter Fundarek | *While the CNSC cannot delegate its obligation, it can delegate procedural aspects of the consultation process to licensees, where appropriate.* | This should also include proponents for new facilities as well. |
|  | 4.1 Statement of purpose | Peter Fundarek | *• renewing, amending, replacing or revoking an existing CNSC licence* | Renewing, amending, replacing or revoking a CNSC licence are actions that only the Commission can take. Therefore the wording should be revised to "requesting to renew, amend, replace or revoke an existing CNSC licence". This makes the second bullet point consistent with the wording of the first bullet point. |
|  | 4.10 Other information | Peter Fundarek | *Where applicable, the applicant may provide supporting information, including:*  *• the results of experimental programs, tests or analyses (for example, results of manufacturers’*  *material tests and qualification data)*  *• those that have been submitted to, received from, or published by a foreign national*  *regulatory body* | The intent of this section is not clear. The document should provide further guidance on the type of information being sought and how the CNSC will use this information to assess a licence application. |
|  | 4.12 Financial guarantees | Peter Fundarek | *The applicant should also provide a cross-reference to the supporting document regarding the value and form of the financial guarantee.* | It should be noted in this document that an actual financial guarantee is not required until after a licence has been issued by the CNSC and that the Commission agrees with the amount of the financial guarantee and the form of the financial guarantee. Providing this additional information would be very useful to new applicants. |
|  | 4.13 Billing contact person | Peter Fundarek | *The applicant must provide the following information for the person responsible for the licence*  *fee payments:*  *• name*  *• position*  *• contact information (email, telephone, facsimile)*  *• mailing address, if different from the business address* | This information should be included immediately adjacent to or as part of sub-section 4.11 above since it pertains directly to that matter. |
|  | 4.14 Notification | Peter Fundarek | *The applicant must notify the CNSC within 15 days of any changes to the contact names*  *identified in the application.* | This information should be moved closer to sub-section 4.7 regarding the Applicant Authority.. Section 15 of the GNSCR only applies to persons who have authority to act for the applicant or those persons responsible for the management and control of the licensed activity. It would not apply to the name of the person who is the contact for billing purposes as such a person does not meet the definition of s.15 of the GNSCR. |
|  | Appendix A: Regulatory Documents and Standards  Human  performance  management | Peter Fundarek | *NUREG-7000 Human-System Interface Design Review Guidelines [48]* | The reference number is incorrect. The correct reference number is [A7]. |
|  | Appendix A: Regulatory Documents and Standards  Human  performance  management | Peter Fundarek | *NUREG-0711 Rev 3 Human Factors Engineering Program Review*  *Model [49]* | The reference number is incorrect. The correct reference number is [A8]. |
|  | Appendix A: Regulatory Documents and Standards  Human  performance  management | Peter Fundarek | *NUREG-0700, Human-System Interface Design Review Guidelines [48]* | The reference number is incorrect. The correct reference number is [A7]. |
|  | Appendix A: Regulatory Documents and Standards  Human  performance  management | Peter Fundarek | *NUREG-0711 Rev 3, Human Factors Engineering Program Review*  *Model [49]* | The reference number is incorrect. The correct reference number is [A8]. |
|  | Appendix A: Regulatory Documents and Standards  Operating  performance | Peter Fundarek | *REGDOC-2.4.4, Safety Analysis for Class IB Nuclear Facilities [51]* | This reference is not included in the list of references for this document. The document should be reviewed to include all references. |
|  | Appendix A: Regulatory Documents and Standards  Operating  performance | Peter Fundarek | *REGDOC-2.9.1, Environmental Protection: Environmental Principles,*  *Assessments and Protection Measures [3]* | The correct title of this document is REGDOC-2.9.1, Environmental Principles, Assessments and Protection Measures. The referenced title should be as per the document published on the CNSC website. |
|  | Appendix A: Regulatory Documents and Standards  Operating  performance | Peter Fundarek | *NUREG-0700, Human-System Interface Design Review Guidelines [48]* | The reference number is incorrect. The correct reference number is [A7]. |
|  | Appendix A: Regulatory Documents and Standards  Operating  performance | Peter Fundarek | *NUREG-0711 Rev 3, Human Factors Engineering Program Review*  *Model [49]* | The reference number is incorrect. The correct reference number is [A8]. |
|  | Appendix A: Regulatory Documents and Standards  Operating  Performance | Peter Fundarek | *NUREG-0711 Rev 3, Human Factors Engineering Program Review*  *Model [49]* | This document should include its title as published. |
|  | Appendix A  Safety analysis | Peter Fundarek | CSA N393:22 [26] | This document should include its title as published. |
|  | Appendix A  Safety analysis | Peter Fundarek | *INSAG-4, Safety Series No. 75 [A17]* | The reference number is incorrect. The correct reference number is [A8]. |
|  | Appendix A  Safety analysis | Peter Fundarek | *REGDOC-2.4.4?* | This document should include its title as published. Additionally, the "?" should be removed. |
|  | Appendix A  Hazard analysis | Peter Fundarek | *NUREG-0711 Rev 3, Human Factors Engineering Program Review*  *Model [49]* | The reference number is incorrect. The correct reference number is [A8]. |
|  | Appendix A  Hazard analysis | Peter Fundarek | *REGDOC- 2.4.4, Safety Analysis for Class IB Nuclear Facilities [51]* | This reference is not included in the list of references for this document. The document should be reviewed to include all references. |
|  | Appendix A  Hazard analysis | Peter Fundarek | *REGDOC-1.2.1 [3]* | The reference number for this document is not correct. However, the document should be reviewed to confirm the applicability of including a reference document which outlines the site characterization for a deep gelogical repository. This is not the proposed licensed activity covered by the document under review. |
|  | Appendix A  Hazard analysis | Peter Fundarek | *CSA N393:22 [26]* | This document should include its title as published. |
|  | Appendix A  Hazard analysis | Peter Fundarek | *REGDOC-2.7.1 [14]* | This document should include its title as published. |
|  | Appendix A  Physical design | Peter Fundarek | *REGDOC-2.9.1, Environmental Protection: Environmental Principles,*  *Assessments and Protection Measures* | The correct title of this document is REGDOC-2.9.1, Environmental Principles, Assessments and Protection Measures. The referenced title should RFD be as per the document published on the CNSC website. |
|  | Appendix A  Physical design | Peter Fundarek | *IAEA, SSG-18 [A22]]* | This document should include its title as published. |
|  | Appendix A  Physical design | Peter Fundarek | *REGDOC-2.5.4 [13]* | This document should include its title as published. |
|  | Appendix A  Physical design | Peter Fundarek | *REGDOC-2.11.1, Waste Management, Volume III [29]* | This document should include its title as published. |
|  | Appendix A  Physical design | Peter Fundarek | *CSA N393:22 [26]* | This document should include its title as published. |
|  | Appendix A  Physical design | Peter Fundarek | *ASME B31.3, [A11]* | This document should include its title as published. |
|  | Appendix A  Physical design | Peter Fundarek | *NUREG-0700 Human-System Interface Design Review Guidelines[47]* | The reference number is incorrect. The correct reference number is [A7]. |
|  | Appendix A  Physical design | Peter Fundarek | *NUREG-0711 Rev 3, Human Factors Engineering Program Review*  *Model [48]* | The reference number is incorrect. The correct reference number is [A8]. |
|  | Appendix A  Physical design | Peter Fundarek | *REGDOC-2.5.4 [13]* | This document should include its title as published. |
|  | Appendix A  Physical design | Peter Fundarek | *CSA B51 [A23]* | This document should include its title as published. |
|  | Appendix A  Physical design | Peter Fundarek | *CSA N393 :22 [26]* | This document should include its title as published. |
|  | Appendix A  Fitness for Service | Peter Fundarek | *CSA N393 :22 [26]* | This document should include its title as published. |
|  | Appendix A  Fitness for Service | Peter Fundarek | *CSA B51 [A23]* | This document should include its title as published. |
|  | Appendix A  Radiation Protection | Peter Fundarek | *REGDOC-2.7.1 [14]* | This document should include its title as published. |
|  | Appendix A  Radiation Protection | Peter Fundarek | *REGDOC-2.7.1 [14]* | This document should include its title as published. |
|  | Appendix A  Radiation Protection | Peter Fundarek | *REGDOC 2.7.2, Dosimetry, Volume I [16]* | The correct reference number is [15]. Additionally, this document should include its title as published. |
|  | Appendix A  Radiation Protection | Peter Fundarek | *REGDOC-2.7.1 [14]* | This document should include its title as published. |
|  | Appendix A  Radiation Protection | Peter Fundarek | *REGDOC-2.7.1 [14]* | This document should include its title as published. |
|  | Appendix A  Radiation Protection | Peter Fundarek | *CSA N292.5-11 [A26]* | This document should include its title as published. |
|  | Appendix A  Environmental  Protection  Effluent and  emissions control  (releases) | Peter Fundarek | *REGDOC-2.8.1 [16]* | This document should include its title as published. |
|  | Appendix A  Environmental  Protection  Effluent and  emissions control  (releases) | Peter Fundarek | *REGDOC-2.9.1, Environmental Protection: Environmental Principles,*  *Assessments and Protection Measures* | The correct title of this document is REGDOC-2.9.1, Environmental Principles, Assessments and Protection Measures. The referenced title should be as per the document published on the CNSC website. |
|  | Appendix A  Environmental  Protection  Effluent and  emissions control  (releases) | Peter Fundarek | *REGDOC-2.9.2 [17]* | This document should include its title as published. |
|  | Appendix A  Environmental  Protection  Effluent and  emissions control  (releases) | Peter Fundarek | *CSA N288.0 [A28]* | This document should include its title as published. |
|  | Appendix A  Environmental  Protection  Environmental  management  system (EMS) | Peter Fundarek | *CSA N288.8 [19]* | This document should include its title as published. |
|  | Appendix A  Environmental  Protection  Environmental  management  system (EMS) | Peter Fundarek | *REGDOC-2.9.1, Environmental Protection: Environmental Principles,*  *Assessments and Protection Measures* | The correct title of this document is REGDOC-2.9.1, Environmental Principles, Assessments and Protection Measures. The referenced title should be as per the document published on the CNSC website. |
|  | Appendix A  Environmental  Protection  Assessment and  monitoring | Peter Fundarek | *CSA N288.0 [A28]* | This document should include its title as published. |
|  | Appendix A  Environmental  Protection  Assessment and  monitoring | Peter Fundarek | *REGDOC-2.9.1, Environmental Protection: Environmental Principles,*  *Assessments and Protection Measures [3]* | The correct title of this document is REGDOC-2.9.1, Environmental Principles, Assessments and Protection Measures. The referenced title should be as per the document published on the CNSC website. |
|  | Appendix A  Environmental  Protection  Assessment and  monitoring | Peter Fundarek | *CSA N288.0 [A28]* | This document should include its title as published. |
|  | Appendix A  Environmental  Protection  Environmental  risk assessment | Peter Fundarek | *CSA N288.7 [22]* | This document should include its title as published. |
|  | Appendix A  Environmental  Protection  Environmental  risk assessment | Peter Fundarek | *REGDOC-2.9.1, Environmental Protection: Environmental Principles,*  *Assessments and Protection Measures [3]* |  |
|  | Appendix A  Environmental  Protection  Environmental  risk assessment | Peter Fundarek | *REGDOC-2.9.2 [17]* | This document should include its title as published. |
|  | Appendix A  Environmental  Protection  Protection of  people | Peter Fundarek | *CSA N288.0 [A28]* | This document should include its title as published. |
|  | Appendix A  Environmental  Protection  Protection of  people | Peter Fundarek | *REGDOC-2.7.1 [14]* | This document should include its title as published. |
|  | Appendix A  Emergency  management and  fire protection  Conventional  emergency  preparedness and  response | Peter Fundarek | *CSA N288.0 [A28]* | This document should include its title as published. |
|  | Appendix A  Emergency  management and  fire protection  Conventional  emergency  preparedness and  response | Peter Fundarek | *REGDOC-2.10.1 [24]* | This document should include its title as published. |
|  | Appendix A  Emergency  management and  fire protection  Conventional  emergency  preparedness and  response | Peter Fundarek | *REGDOC-2.10.2 [25]* | This document should include its title as published. However, since REGDOC-2-10.2 is currently under development and not available, its inclusion in this list of reference documents should be evaluated. it is not appropriate to include reference documents that are not available to the applicant. |
|  | Appendix A  Emergency  management and  fire protection  Conventional  emergency  preparedness and  response | Peter Fundarek | *CSA N393:22 [26]* | This document should include its title as published. |
|  | Appendix A  Emergency  management and  fire protection  Nuclear  emergency  preparedness and  response | Peter Fundarek | *REGDOC-3.2.1 [37]* | This document should include its title as published. |
|  | Appendix A  Emergency  management and  fire protection  Nuclear  emergency  preparedness and  response | Peter Fundarek | *REGDOC-2.10.1 [24]* | This document should include its title as published. |
|  | Appendix A  Emergency  management and  fire protection  Fire emergency  preparedness and  response | Peter Fundarek | *CSA N1600 [A30]* | This document should include its title as published. |
|  | Appendix A  Emergency  management and  fire protection  Fire emergency  preparedness and  response | Peter Fundarek | *REGDOC-2.10.1 [24]* | This document should include its title as published. |
|  | Appendix A  Emergency  management and  fire protection  Fire emergency  preparedness and  response | Peter Fundarek | *REGDOC-2.10.2 [25]* | This document should include its title as published. However, since REGDOC-2-10.2 is currently under development and not available, its inclusion in this list of reference documents should be evaluated. it is not appropriate to include reference documents that are not available to the applicant. |
|  | Appendix A  Emergency  management and  fire protection  Fire emergency  preparedness and  response | Peter Fundarek | *CSA N393:22 [26]* | This document should include its title as published. |
|  | Appendix A  Waste management  Waste  characterization | Peter Fundarek | *CSA N292.0:19 [32]* | This document should include its title as published. |
|  | Appendix A  Waste management  Waste  characterization | Peter Fundarek | *CSA N292.8:21 [A31]* | This document should include its title as published. |
|  | Appendix A  Waste management  Waste  characterization | Peter Fundarek | *REGDOC-2.11.1, Waste Management, Volume I [27]* | This document should include its title as published. |
|  | Appendix A  Waste management  Waste  characterization | Peter Fundarek | *REGDOC-2.11.1, Waste Management, Volume II [31]* | This document should include its title as published.. Additionally, the reference number for this document is incorrect as another document is labeled with [31]. This reference document is not listed in the list of references. |
|  | Appendix A  Waste management  Waste  minimization | Peter Fundarek | *REGDOC-2.11.1, Waste Management, Volume I [27]* | This document should include its title as published. |
|  | Appendix A  Waste management  Waste  minimization | Peter Fundarek | *CSA N292.0:19 [32]* | This document should include its title as published. |
|  | Appendix A  Waste management  Waste  minimization | Peter Fundarek | *CSA N292.5-11[A26]* | This document should include its title as published. |
|  | Appendix A  Waste management  Waste  management practices | Peter Fundarek | *REGDOC 2.11 [30]* | This document should include its title as published. Additionally, the reference number provided is incorrect. It should be reference [28]. |
|  | Appendix A  Waste management  Waste  management practices | Peter Fundarek | *REGDOC-2.11.1, Waste Management, Volume I [27]* | This document should include its title as published. |
|  | Appendix A  Waste management  Waste  management practices | Peter Fundarek | *REGDOC-2.11.1, Waste Management, Volume II [18]* | This document should include its title as published.. Additionally, the reference number for this document is incorrect as another document is labeled with [18]. This reference document is not listed in the list of references. |
|  | Appendix A  Waste management  Waste  management practices | Peter Fundarek | *REGDOC-2.11.1, Waste Management, Volume III [29]* | This document should include its title as published.. |
|  | Appendix A  Waste management  Waste  management practices | Peter Fundarek | *CSA N292.0:19 [32]* | This document should include its title as published.. |
|  | Appendix A  Waste management  Waste  management practices | Peter Fundarek | *CSA N292.8:21 [A31]* | This document should include its title as published.. |
|  | Appendix A  Waste management  Waste  management practices | Peter Fundarek | *CSA N292.5-11 [A26]* | This document should include its title as published.. |
|  | Appendix A  Waste management  Decommissioning  plans | Peter Fundarek | *REGDOC-2.11.2 [30]* | This document should include its title as published.. |
|  | References | Peter Fundarek | *3. CNSC, REGDOC-2.9.1, Environmental Protection: Environmental Principles, Assessments and*  *Protection Measures, Ottawa, Canada, 2020* | The correct title of this document is REGDOC-2.9.1, Environmental Principles, Assessments and Protection Measures. All references should use the correct title. |
|  | References | Peter Fundarek | *8. CNSC, REDOC-2.2.1, Human Factors, Ottawa, Canada, 2019* | The correct title of this document is: REGDOC-2.2.1, Human Performance, Version 2 and it was published in January 2024. All references should be up to date. |
|  | References | Peter Fundarek | *17. CNSC, REGDOC-2.9.2, Controlling Releases to the Environment, Ottawa, Canada (in*  *development)* | A document that is in development should not be included as a reference. An applicant cannot comply with requirements in an unpublished document. |
|  | References | Peter Fundarek | *25. CNSC, REGDOC-2.10.2, Fire Protection, Ottawa, Canada (in development)* | A document that is in development should not be included as a reference. An applicant cannot comply with requirements in an unpublished document. |