September 2, 2022

VIA EMAIL

Jennifer Dallaire
Project Manager Prairie and Northern Region
Impact Assessment Agency of Canada – Prairie and Northern Region
Canada Place, Suite 1145, 9700 Jasper Avenue
Edmonton, AB T5J 4C3
<email address removed>

Dear Ms. Dallaire:

Re: Response to Request for Information Regarding Patterson Lake South Project

I write in response to your letter of August 17, 2022, which notified Fission Uranium Corp. ("**Fission**") of a request made by the Métis Nation of Saskatchewan ("**MN-S**") to the Minister of Environment and Climate Change (the "**Minister**") to designate Fission's proposed Patterson Lake South Mine Project (the "**Project**") under section 9(1) of the *Impact Assessment Act* ("***IAA***"). In your letter, you requested specific information so that the Impact Assessment Agency (the "**Agency**") can make an informed recommendation to the Minister regarding the designation request. Fission appreciates the opportunity to provide Project information and context to inform your recommendation. This letter and its attachments comprise Fission's initial response. To the extent more information comes to light, or public comments are made regarding the designation request, we reserve the right to supplement this letter at a later date.

This letter makes regular references to (1) the "Fission Project Description for the Patterson Lake South Project" dated November 22, 2021 (the "**Project Description**"), and (2) the "Terms of Reference: PLS Project" dated July 2022 (the "**Terms of Reference**"). Both documents were submitted to the Saskatchewan Ministry of Environment and have been posted online.[1] For the sake of consistency, we respond to your questions in the order you presented.

1. Information Regarding Potential Adverse Effects

The Project is currently undergoing a comprehensive environmental assessment under *The Environmental Assessment Act*, SS 1979-80, c E-10.1 (the "**EA**"). Baseline studies for the EA are nearly complete. At this early stage, final assessment data does not exist and hence discussion of potential Project effects is preliminary. Licensing processes are also at a preliminary stage. Our initial modelling, however, indicates that the Project is unlikely to have significant adverse impacts on valued components, an initial list of which is found on page 34 of the Terms of Reference.

The Project is also subject to robust federal oversight by the Canadian Nuclear Safety Commission ("**CNSC**") since the Project is a uranium mill and mine as contemplated under the *Nuclear Safety and Control Act*, SC 1997, c 9. Fission has designed the EA to fulfill all of the CNSC's licensing requirements, particularly as they pertain to Indigenous consultation and

[1] Project Description: https://publications.saskatchewan.ca/#/products/115606
Terms of Reference: https://publications.saskatchewan.ca/#/products/118449

environmental protection. Fission has been and will continue to be in communication with the CNSC, along with Saskatchewan's Ministry of Environment and Indigenous groups such as MN-S, to ensure that the EA process is comprehensive and transparent.

A preliminary discussion of the Project's potential effects and mitigations is at Section 4.0 of the Project Description beginning on page 74. Effects and mitigations for each valued component are summarized in table format in Table 4.1 on page 76. Please note when reviewing Table 4.1 that the hybrid mining option is no longer being considered, as the Project will only use the underground mining method described at page 16 of the Project Description. This choice is clarified on page 13 of the Terms of Reference.

a. Fish & Fish Habitat

We expect the Project to have little impact on fish and fish habitat in and around Patterson Lake. The potential effects of the Project on these components are detailed on page 76 of the Project Description. The near-water and water infrastructure will be limited to a freshwater intake pump, one or two docks, and a treated effluent outflow point. Interactions with Patterson Lake that may require management or mitigation include mine dewatering, water supply, site run-off, and treated effluent release. All water that comes in contact with work areas will be redirected to the mill and treated prior to release via treatment ponds that will allow for the monitoring of water prior to batch discharge. The location of the effluent outflow may be adjusted as feasibility study design and assessments are completed. Installing the outflow point may involve some trenching, which will be properly assessed and authorized under applicable laws.

In addition, preliminary modelling of the Tailings Management Facility through its life cycle shows that the pervious surround method of tailings management will be protective of the groundwater and Patterson Lake. Ultimately, based on the information and analysis conducted to date, it appears that with the effective treatment of water and the containment of wastes, there is little impact predicted to Patterson Lake and the Clearwater Drainage. This will be detailed in the final Environmental Impact Statement ("**EIS**").

Strategies and methods to mitigate aquatic impacts are being developed through engagement with Indigenous rightsholders, regulators, and the public. In some cases, the Project design has already been adapted to avoid aquatic impacts. For example, the extraction method for the Project was originally designed as an open pit in Patterson Lake, but following concerns expressed through Indigenous engagement and the public, the Project will instead be using a shore-based underground mining option. The Project Description includes both options for the sake of completeness and to demonstrate the alternatives examined. The underground-only mining option is expected to virtually eliminate disturbance to Patterson Lake by containing mining activity below it. Indeed, most of the infrastructure associated with the underground mining option will be located more than 30 m from the shore of Patterson Lake. Further, of the 14 different fish species identified during aquatic baseline studies, none are species of conservation concern, including under the *Species at Risk Act*. Regardless, the Project has been designed to avoid fish spawning zones identified during baseline studies and so minimize impacts to fish.

Although we do not expect formal authorization under the *Fisheries Act* will be required, we are mindful of its general prohibitions against harmful alteration, disruption, or destruction of fish

habitat; depositing deleterious substances; and causing the death of fish. Of course, these important prohibitions apply regardless of the environmental assessment process that is undertaken. We expect to work with the Department of Fisheries & Oceans to identify appropriate mitigations and offset measures for the Project. This will likely include submitting project plans to the Fish and Fish Habitat Protection Program to ensure compliance with the *Fisheries Act* and *Metal and Diamond Mining Effluent Regulations* ("**MDMER**") so that any impacts are managed in the best way possible. Note that the CNSC incorporates the effluent limit requirements of the MDMER into uranium mine and mill licences.[2]

b. Migratory birds & species at risk

Mammals and birds have been studied via terrestrial baseline studies. Identified species of conservation concern are listed in Table 3.6 (page 63). The potential impacts of the Project on wildlife are included as part of the terrestrial component of Table 4.1 on page 80 of the Project Description. Full engagement and mitigation measures will minimize any changes to the environment as much as practicable and so limit impacts to all wildlife. In addition, the Project will be planned, constructed, operated, and decommissioned in compliance with provincial and federal laws that protect sensitive species including the *Species at Risk Act*, the *Migratory Birds Convention Act*, and *The Wildlife Act*. The Project is not located in nor near a migratory bird sanctuary for the purposes of the *Migratory Bird Sanctuary Regulations*.

Fission respects the significance of the Boreal Shield Woodland Caribou to Indigenous rightsholders as a resource and cultural symbol and understands its threatened status under the *Species at Risk Act*. Fission has been an active participant in Saskatchewan's work on an overall caribou management strategy and as part of the EIS will develop a Caribou Management Plan for the project that reflects the province's strategy. We also appreciate that a healthy caribou population reflects a healthy regional ecosystem. A broader Species at Risk Management Plan will also be included in the EIS.

Fission already conducts Avian Risk Assessments in advance of any site activity to identify potential risks to migratory bird species and bird species of conservation concern. Where a risk to avian species is identified, mitigation measures are applied to eliminate or reduce the risk. Avian Risk Assessments will continue in advance of any new disturbances at the site. Although these assessments are not provincially or federally required, Fission developed the approach following feedback received from potentially impacted communities earlier in the Project design process.

c. Potential environmental effects on federal lands and lands outside Saskatchewan or Canada

The Project has been specifically designed to contain any environmental impacts within Saskatchewan. The Project is not located on federal lands, and we expect no downstream impact.

[2] Regulatory Oversight Report for Uranium Mines and Mills in Canada: 2019: https://nuclearsafety.gc.ca/eng/resources/publications/reports/regulatory-oversight-reports/umm-report-2019.cfm

d. Greenhouse gas ("GHG") emissions and loss of carbon sequestration

Full GHG and carbon sequestration calculations are yet to be completed but will be included as part of the EIS, which we expect to file by the end of 2023. Indeed, Saskatchewan's *Guidelines for Terms of Reference and Environmental Impact Statements* indicates complete characterization of air emissions, including GHGs and CO_2e is a required part of the EIS. The CNSC also guides applicants in developing emissions control and monitoring measures in REGDOC-2.9.1.

Although calculations remain to be completed, Fission has committed to using liquefied natural gas over diesel fuel oil to generate power for the Project. To further limit emissions the Project will use the best available technology to maximize the efficiency of the mine, mill and supporting infrastructure. Fission will be evaluating the use of electric vehicles where possible and conduct monitoring to ensure air quality standards are met.

e. Potential adverse impacts resulting from any change to the environment, on Indigenous peoples, or changes to their health, social or economic conditions

To focus our responses regarding Indigenous issues, our discussion of Indigenous engagement in this letter proceeds in three parts: (1) the Project's potential impacts on Indigenous peoples, both adverse and beneficial, is the focus for this section, 1.e; (2) section 4.d focuses on Fission's Indigenous engagement plan and process, and (3) Fission's engagement record is discussed in section 7.

Understanding the impact of the Project on Indigenous peoples is a key part of the EA. The Project is located within Treaty 8 Territory and the documented traditional territories of Clearwater River Dene Nation ("**CRDN**"), Buffalo River Dene Nation ("**BRDN**"), Birch Narrows Dene Nation, Black Lake Denesuline First Nation, Fond du Lac Denesuline First Nation, and Athabasca Chipewyan First Nation. The Project is also located in the homeland of the Métis Nation and within the boundaries of the 2019 North West Métis Land Claim area. Potential Project impacts on First Nations and Métis are discussed in Table 4.1 of the Project Description, beginning on page 80. Impacts primarily involve access to, and the integrity of, lands for traditional activities such as fishing, hunting, and gathering.

Fission's priority is maintaining and enhancing cooperative relationships with Indigenous partners to ensure that potential adverse Project impacts on Indigenous peoples are identified and minimized to the extent practicable and beneficial impacts such as employment, contracting, and other opportunities are maximized. As mentioned, changes to the Project design such as eliminating the Highway 955 diversion and the open pit mining method have largely resulted from this engagement. The change from the open pit method avoided partial loss of Patterson Lake and so minimized loss of access to traditional hunting, fishing, and gathering grounds.

Aside from minimizing adverse impacts, the Project is poised to provide substantial socioeconomic benefits to Indigenous and northern communities. Indeed, it already has. For example, total Project expenditure on northern vendors in 2021 was $4.04 million and so far in 2022 has been $1.57 million. Since 2013, Fission has contributed over $180,000 in sponsorships

and donations to local community organizations to support education, recreation, wellness, and crisis response initiatives. Engagement discussions have also included ways to eliminate barriers to Indigenous employment and economic participation in the Project during all phases. In these ways, the Project will support the health and integrity of Indigenous communities in northern Saskatchewan.

f. Potential adverse effects (changes to the environment or to health, social or economic conditions) that are directly linked or necessarily incidental to a federal authority's exercise of a power, performance of a duty or function, or provision of financial assistance, that would enable the carrying out of the Project, in whole or in part

At this early stage, it is difficult to predict how the exercise of federal jurisdiction will link to specific adverse effects. However, considering the federal heads of power, the responses above present potential effects that might arise from exercising jurisdiction over fisheries, threatened species, migratory birds, and Indigenous lands and rights, respectively. All of these issues will be addressed as part of the ongoing EA process. In addition, the Project will require a license from the CNSC, and the exercise of its licensing authority would have the effect of allowing the mining and milling operation to proceed overall (presuming receipt of other necessary authorizations).

2. <u>Information about key project activities, maps and layouts of the location of project components, land tenure, zoning, and estimated timelines for planning, construction, operation, decommissioning and abandonment</u>

a. Project location, layout, and land tenure

The Project is a stand-alone uranium mine to be located at Fission's Patterson Lake South ("**PLS**") Property in northern Saskatchewan approximately 160 km north of La Loche, SK along Highway 955. Roughly 1,000 tons per day of high-grade uranium rock would be mined and processed over a 7-year lifespan. PLS is comprised of 17 contiguous mineral claims covering 31,039 ha, staked between February 2007 and December 2011, and shown at Figure 2.1 of the Project Description (page 30). An overview of the Project begins at page 6 of the Terms of Reference. The Project boundaries are discussed at page 28 of the Terms of Reference.

b. Project infrastructure and activities

The Project infrastructure will include the mining operation, milling operation, tailings management facility, ore and waste stockpiles, camp, and ancillary facilities to support a uranium extraction project. A detailed list of the proposed infrastructure is found on page 23 of the Project Description and a discussion of the activities begins on page 8 of the Terms of Reference. At this point, the surface infrastructure locations, such as buildings and settling ponds, are becoming finalized, but may be modified as a result of the ongoing feasibility study. A recent survey map of the proposed layout of the site is attached. Maps and images from earlier in the planning process begin at page 30 of the Project Description.

Overall, the Project will not use any untested mining or construction methods. The underground mining method, for example, will use the longhole open stoping and mechanized cut and fill mining

techniques to extract ore from underground. This minimizes the Project footprint and largely eliminates disturbance to the lake. A detailed description of the underground mining method begins at page 16 of the Project Description, and Figure 2.12 shows an isometric map of the proposed underground mine at page 41.

Some Project components and locations may evolve during the design and engagement phase and will be subject to licensing by the CNSC. An airstrip that was initially proposed has been removed from the Project design. With other projects proposed nearby, there will be the opportunity to develop shared facilities between owners to minimize impacts and avoid duplicating services.

c. Estimated timelines for planning, construction, operation, decommission, and closure

The current timelines for the Project are as follows:

- **Planning:** Planning for the Project has been ongoing for over a decade. Baseline studies have been undertaken since 2013 and will be completed by December 2022. Fission expects to file the EIS by the end of 2023. Fission will continue engaging with Indigenous peoples and the public throughout this phase to listen and understand the interests and concerns that will guide the final project design.

- **Construction**: Construction is expected to begin in 2026 and will take three years. In Years 1 and 2 two underground shafts will be constructed. In Years 2 and 3 pre-production underground drifts will be developed. The construction sequence for the underground mine is found on page 44 of the Project Description. A list of site preparation and construction activities is on page 9 of the Terms of Reference.

- **Operation:** Operations are expected to commence in 2029 and will continue for 7 years, with a production estimate of 1000t/day and up to 15 million pounds of uranium per year. Ore will be processed by means of acid leaching, solvent extraction, and precipitation. A detailed list of operational activities is on page 9 of the Terms of Reference. Yellowcake will be transported from the Project by truck in sealed drums. Transportation services will be provided by carriers licensed to carry uranium under applicable provincial and federal laws.

- **Decommissioning & Abandonment:** Fission will develop a Preliminary Decommissioning Plan as part of the EA, which will also require approval from CNSC as part of the licensing process. Fission will be required to provide a 100% bond or surety to ensure the decommissioning plan is ultimately fulfilled in the unlikely event Fission is unable to complete it. Fission will use progressive decommissioning during the operational life of the mine to lower close-out liabilities and reduce disturbed-land lease fees. Abandonment is expected to proceed under *The Reclaimed Industrial Sites Act*, SS 2006, c R-4.21, whereby a reclaimed property can be transferred back to the province for monitoring and maintenance. This transfer would be accompanied by the required payments into the provincial Monitoring and Maintenance Fund and the Unforeseen Events Fund to ensure appropriate monitoring and maintenance. Page 10 of the Terms of

Reference and page 91 of the Project Description detail the plans for decommissioning and reclamation. CNSC's policies for decommissioning and financial guarantees apply to the Project and are found in REGDOC-2.11.2 and REGDOC-3.3.1.

3. List of all regulatory approvals (federal, provincial, municipal, other) and any federal financial assistance that would be required for the Project and the associated project components or activities

No federal assistance will be used for the Project. Regulatory requirements are discussed in detail in the Terms of Reference beginning on page 14. Tables 1 and 2 from the Terms of Reference list all the provincial and federal acts and regulations that may apply to the Project. Regulatory context is also discussed at section 1.1 of the Project Description beginning on page 2.

Provincially, multiple Saskatchewan agencies will be involved in authorizing Project components and activities. A list of these agencies is found on page 4 of the Project Description. Federally, licenses from the CNSC will be required since the Project is a uranium mining and milling operation. Fission has designed the EA to meet the CNSC's licensing requirements as specified in section 3 of the *General Nuclear Safety and Control Regulations* and *Uranium Mines and Mills Regulations*. The Project will also be subject to other federal oversight including the *Navigable Waters Act*, *Fisheries Act*, *Species at Risk Act*, and *Migratory Birds Convention Act*.

4. For Each Regulatory Approval

a. Name of the license, permit, authorization or approval, the associated legislative framework, and the responsible jurisdiction

Details on permitting and licensing requirements will be included as a part of the completed EIS. With that said, permits, licenses, authorizations, or approvals that could be required for the Project are listed in the charts at Appendix A.

b. The status of attaining any regulatory approvals

As the receipt of most of the regulatory approvals listed in Appendix A is contingent upon the outcome of the EA, the licensing process has not begun in earnest. The information gathered through the EA will be helpful in the subsequent licensing processes. As mentioned, Fission's timeframe for filing the EIS is the end of 2023. We have prepared a diagram titled "Federal and Provincial Licensing and Assessment Process," attached, showing the estimated timeline for regulatory approval for the Project. It is subject to change as the Project evolves.

c. Whether it would involve an assessment of any of the effects outlined in the paragraphs above, and if so, a general description of the assessment that you intend to undertake and if applicable, any benchmarks or standards you

intend to meet. Would conditions be set and if yes, what effects would those conditions address?

The primary assessment for the Project will be the EA (Saskatchewan Environmental Assessment Application Number 10054893). Fission has designed the Terms of Reference for the EA to be comprehensive and to inform any subsequent regulatory licensing processes. Indeed, the Terms of Reference are meant to fulfill the CNSC's federal licensing requirements (discussed at page 17 of the Terms of Reference). The CNSC was involved in reviewing both the Project Description and Terms of Reference, providing comments through the Environmental Assessment and Stewardship Branch of the Ministry of Environment.

Fission self-declared the Project as a "development" for the purposes of s. 2(d) of *The Environmental Assessment Act*, appreciating the importance of a comprehensive assessment to demonstrating the Project will be protective of the environment and respectful of the rights and interests involved. The Terms of Reference for the EA are based upon Fission's Prefeasibility Study, Phase 1 of the Feasibility Study, the Project Description, and guided by Saskatchewan's Draft Guidelines for the Preparation of the Terms of Reference, and the CNSC's REGDOC-2.9.1: *Environmental Protection: Environmental Principles, Assessments and Protection Measures*. This will involve the assessment of all of the effects outlined in the paragraphs above.

Fission's EA process is described in detail at section 8.0 of the Terms of Reference beginning on page 35. In general, the EA will proceed as follows: undertaking baseline environmental studies; completing a full impact assessment; establishing impact mitigations and a monitoring program; and managing residual impacts including cumulative effects assessment. An EIS will then be submitted to the Saskatchewan Ministry of Environment. Engagement with Indigenous rightsholders and the public will occur throughout the process as is described elsewhere in this letter. Further, the EIS will include a full Engagement Report documenting this activity which will be validated by leadership from each Indigenous nation. A decision by the Ministry of Environment will follow, which may include conditions to supplement Fission's proposed mitigations that would serve to minimize impacts to valued components.

As mentioned, the CNSC's licensing criteria are embedded in Fission's EA. It further includes the CNSC's requirements and guidance to applicants for developing environmental protection measures, including an environmental risk assessment where required, for new facilities or activities. For provincial environmental assessments, the CNSC's policy is to act as a technical advisor and as an active participant at all stages of the EA process.[3] In accordance with its mandate, the CNSC will not issue a license unless it believes Fission is qualified to carry on uranium mining and processing and will make adequate provision for the protection of the environment, as well as the health and safety of all persons.[4]

d. Whether public and/or Indigenous consultation would be required and if yes, provide information on the approach you intend to take (if any steps have

[3] REGDOC-2.9.1, *Environmental Protection: Environmental Principles, Assessments and Protection Measures*, Version 1.2, online: https://nuclearsafety.gc.ca/eng/acts-and-regulations/regulatory-documents/published/html/regdoc2-9-1-vol1-2/index.cfm.

[4] *Nuclear Safety and Control Act*, SC 1997, c 9, at s. 24(4).

been taken, please provide a summary, including issues raised as well as your responses). If the Project is anticipated to result in permanent changes or cumulative effects, how you intend to manage those impacts.

i. Public Consultation

The EA has involved extensive public engagement, which will continue throughout the lifespan of the Project. Public engagement is discussed in detail at response 6, below.

ii. Fission's Indigenous Engagement Plan

Indigenous engagement is a central component of the EA. For the Agency's convenience, Fission has prepared a document entitled "Engagement Plan Snapshot – Patterson Lake South Project 2022-2024", attached hereto. In it, you will find the principles underlying Fission's engagement plan, as well as a summary of the plan, and engagement steps taken so far. The Engagement process is also discussed in Section 4.0 of the Terms of Reference. Engagement activities will also be guided by Engagement & Capacity Agreements with Indigenous nations, which so far include CRDN, BRDN, and Ya'thi Néné Lands and Resources. Similar agreements have been offered to MN-S and others, and we are hopeful that they will be completed soon.

Overall, the Engagement Plan is mindful of the best practices and expectations described in the United Nations Declaration on the Rights of Indigenous Peoples, the Truth and Reconciliation Commission Call to Action #92, and the National Inquiry into Missing and Murdered Indigenous Women and Girls' Calls for Justice. It is also guided by relevant regulatory documents, including the Government of Saskatchewan's Proponents Guide: *Consultation with First Nations and Métis in Saskatchewan Environmental Impact Assessment*. As indicated in the attached Engagement Plan Snapshot, Fission has developed and shared its engagement practices in collaboration with affected Indigenous nations, including MN-S, and has incorporated their feedback on a rolling basis.

Fission will take particular care in collecting and incorporating Traditional Land Use and Indigenous Knowledge information at all stages of the EA. While this information can be valuable for the EA process, Fission understands it represents sensitive information that has been passed down through generations. Fissions believes in gaining consent from both leadership and any individuals directly involved in sharing of such information for inclusion in the EIS.

iii. Crown Duty to Consult and Accommodate

Aside from Fission's own Indigenous engagement activities, provincial and federal agencies involved in authorizing the Project will be required to fulfill their duty to consult and accommodate Indigenous peoples. The federal Crown will have a notable role in this regardless of the environmental assessment undertaken. For example, the federal duty to consult and accommodate will arise through CNSC's uranium mine and mill licensing process. This will be completed in accordance with CNSC's detailed guide, REGDOC-3.2.2, *Indigenous Engagement, Version 1.2*, which also includes the CNSC's *Policy Statement: CNSC's Commitment to Indigenous Consultation and Engagement*. Those materials make clear that CNSC is committed to ensuring its uranium mine licensing process fully upholds the honour of the Crown through

good-faith consultation and meaningful accommodation. Federal consultation obligations may also arise by virtue of Department of Fisheries & Oceans involvement, or other federal agencies.

iv. Assessment of cumulative effects

A cumulative effects assessment will be included as part of the EIS. This is discussed at page 89 of the Project Description and page 42 of the Terms of Reference. Although identification of cumulative effects is preliminary, Fission is aware of uranium development proposed by NexGen Energy near the Project and will be mindful of this as it analyzes cumulative impacts. Crucially, the cumulative effects assessment will include an examination of any potential impacts to Indigenous use of lands and resources, or on communities in a cumulative sense, as mentioned at page 90 of the Project Description.

5. For all federal licences, permits, authorizations, approvals, and/or financial assistance that may be provided for the Project, describe any anticipated adverse direct or incidental effects (including changes to health, social and economic conditions) that may occur as a result

The adverse effects resulting from federal licenses, permits, authorizations, or approvals was considered in the context of Response 1.f., above. As mentioned, the Project will not rely on any federal financial assistance.

6. What steps have you taken to consult with the public? What steps do you plan to undertake during all phases of the Project? Are you aware of any public concerns in relation to this project? If yes, provide an overview of the key issues and the way in which (in general terms) you intend to address these matters?

a. Fission's steps to consult with the public

Public consultation has been an important and influential part of the Project development thus far. In 2016, a stakeholder engagement assessment and plan was created as a living document to guide public engagement activities through the exploration and assessment phases. As part of its early engagement process, Fission identified potentially interested groups or individuals during this process based on criteria including proximity to the site and project components, and potential to experience increased opportunities or adverse impacts. A list of the stakeholders engaged and a summary of stakeholder engagement activities from 2011 to 2020 is included in Table 7.1 beginning on page 94 of the Project Description. The activities included Project site tours and frequent community meetings.

b. Public consultation throughout the Project

Public consultation is intended to be an ongoing process of communication. Fission has, and will continue to, share key information such as Project developments, plans, and opportunities, and create opportunities for the community to share concerns and feedback on an ongoing basis. Methods of communication will include website updates, online and print news releases, social media, information packages, newsletters, open houses, and presentations.

Public feedback during the EA will be gathered in three phases: (1) Refining Valued Components, (2) Identifying and Evaluating Effects, and (3) Developing Mitigation Measures. Public feedback and meeting minutes will be saved as Records of Contact and validated by participants. Each Record of Contact will become part of a Concerns Tracking Log for organizational purposes and to ensure timely response. At the end of each phase, a "What We Heard" report will summarize the feedback and will be available on the Fission website. This will be used to modify the Project or processes as necessary. A full engagement report will be included as part of the EIS.

As part of the EA and CNSC licencing processes, Fission will develop a Public Engagement Plan to guide engagement and communication with members of the public through construction and operation of the Project. At a minimum, the Public Engagement Plan will detail Fission's public information program and disclosure protocol (based on the CNSC's REGDOC-3.2.1), opportunities to engage on policy development and ESG reporting, and a proposed grievance mechanism.

Section 7.0 of the Project Description (page 93) discusses stakeholder engagement in greater detail. Section 3.0 of the Terms of Reference (page 19) summarizes Fission's interest-based Engagement Strategy and includes a list of the potentially interested groups identified thus far.

c. Public concerns, key issues, and Fission's response

Fission has worked with interested groups and parties on two major issues so far: the uranium extraction method and road location. As mentioned, the initial Project design contemplated either the underground mining method or a hybrid option that would include an open pit in Patterson Lake. Further, the initial Project design also proposed to divert highway 955 around the Tailing Management Facility. Public and Indigenous input was the primary reason for making these Project design changes. Fission intends to continue this productive relationship with public stakeholders throughout all phases of the Project to identify impacts and suitable mitigations.

The Project will also provide significant benefits to communities in northern Saskatchewan. These are mentioned at page 3 of the Terms of Reference. For the 2021 drilling program, for example, Fission employed 80 local people and funded over $7 million in contracts with local businesses, service providers and preferred community partner organizations. Further, construction of the Project is expected to create 130 employment positions over the course of 3 years, excluding contractor personnel requirements. 322 positions are expected to be created during the operations phase. These are substantial employment and contracting benefits that will accrue primarily to people in the Project region, most of whom are Indigenous.

7. <u>What steps have you taken to consult with Indigenous communities? What steps do you plan to undertake during all phases of the Project? Are you aware of any Indigenous community concerns in relation to this project? If yes, provide an overview of the key issues and the way in which (in general terms) you plan to address these matters?</u>

Fission has been engaging with each of the identified Indigenous groups for a considerable time, in some cases since 2011. This has allowed us to develop respectful relationships and negotiate Engagement & Capacity Agreements with CRDN, BRDN, and Ya'thi Néné Lands and Resources, ultimately creating structured pathways for consultation and accommodation. A workplan and

budget has also been co-designed with BNDN. With respect to MN-S, in June 2022 Fission agreed to an engagement workplan and budget proposed by MN-S and hopes that any outstanding terms can be finalized in the near future. Fission welcomed multiple potentially impacted Indigenous groups, including MN-S, to participate in the baseline studies for the EA. We have been pleased to so far work with BNDN and BRDN on that EA aspect.

The attached Engagement Plan Snapshot discusses engagement steps taken so far. In addition, a record of Indigenous engagement activities from 2013-2020 is found in Table 8.1 beginning at page 105 of the Project Description. Indigenous Engagement is also discussed throughout Section 8.0 of the Project Description (page 104) as well as in Section 4.0 of the Terms of Reference beginning on page 22.

Themes identified through the early engagement phases are discussed on page 115 of the Project Description. Concerns have primarily involved the ability of Métis and First Nations to exercise Aboriginal and/or Treaty rights and engage in traditional land uses in or near the project area. Through engagement, specific concerns regarding the open pit mining option and dewatering of Patterson Lake have already been addressed, as previously mentioned. The Highway 955 diversion was also removed from the Project design as a result of Indigenous engagement. This process of engagement is meant to continually refine the Project so that the final design and mitigations are agreeable for all Indigenous rightsholders. Fission's Engagement Plan and the agreements it has reached with Indigenous partners so far, will provide a strong foundation to undertake this process.

Moving forward, Fission has identified rightsholders for continued engagement, discussed in Section 8.5 of the Project Description on page 116. MN-S has indicated that it will be responsible for Métis consultation for the Project and that Métis Northern Region II and potentially impacted Métis Locals have or will be delegating authority for consultation to MN-S. Fission will continue to engage with MN-S as requested, along with keeping keep regional and local Métis communities informed of Project activities, as appropriate. We look forward to continuing to engage with MN-S to understand concerns and identify suitable mitigations.

8. <u>Do you have any other comments in relation to environmental effects or impacts to the public or Indigenous peoples and how you intend to address and manage those?</u>

Fission has been proactive in developing respectful and cooperative relationships with the public and First Nations and Métis groups involved in the Project. We value these relationships and rely on them to inform the prudent design of the Project. Open communication also fosters conversations regarding how Fission can best share the benefits created by the Project and so support thriving communities in northern Saskatchewan. The EA process will comprehensively analyze the potential impacts of the Project using scientific study, modelling, and surveys, but ultimately the EA is vastly enhanced by engaging with local knowledge-keepers who are in the best position to advise on conditions and assist with tailored mitigations. Fission understands this and intends to continue to learn from its relationships as the Project evolves. Collaborative engagement facilitates a more successful Project in the long run.

With MN-S, Fission has sought to engage openly to advance collaboration and Fission believes this is a promising relationship. Together, we have had roughly 70 interactions since 2018, including emails, written correspondence, conference calls, in-person meetings, and site tours. Fission has appreciated MN-S' input on the Project components so far. To the extent MN-S may have continuing concerns, we intend to listen and work to address these issues to the best of our ability.

9. Explain your views on whether the Project should be designated under the IAA

In our view, designating the Project under s. 9(1) of the *IAA* would be inappropriate in light of the statutory requirements for such designation, and unnecessary in light of the comprehensive assessment and regulatory processes already applicable to the Project. Fission worked diligently and cooperatively with impacted parties, including First Nation and Métis partners, to develop robust terms of reference for the EA. The parameters for the EA are further supported by the licensing requirements of the CNSC and are meant to meet Indigenous, provincial and federal needs. Not only will this approach assist Fission in any subsequent regulatory processes, but it will also demonstrate that the Project is protective of the environment and accommodating of the rights and interests involved.

a. The Project's mining capacity is below the threshold for uranium mining in the Physical Activities Regulations, SOR/2019-285

Section 20 of the *Physical Activities Regulation* provides that only a new uranium mine with an ore production capacity of 2500t/day or more is designated for federal impact assessment. The average ore production capacity of the Project is 1000t/day. The degree to which the Project falls short of the regulatory threshold underlines how incompatible the Project is with the federal *IAA* scheme. While Fission respects the Minister's residual authority to designate a project for federal assessment and the purpose it serves, the Project would require 150% more mining capacity to simply meet, not exceed, the 2500 t/day designation threshold. Accordingly, the *IAA* was not intended to capture proposals like the Project, where other federal and provincial processes adequately assess and regulate impacts to valued ecosystem components and rights.

b. Cumulative effects and Project subcomponents are a key component of the EA

The EA is meant to capture all Project components and factor them into cumulative impacts from other past, present, or future projects with a reasonable chance of overlap. A cumulative effects assessment is a requirement for both the federal and provincial environmental assessment processes and is discussed at page 89 of the Project Description. Fission will be undertaking the cumulative effects assessment being especially mindful of NexGen's nearby development of the Arrow deposit. Further, as mentioned above, Fission will explore options to share project infrastructure with the proponents of nearby projects to minimize environmental impact and avoid duplication. It is important to confirm that the airstrip originally contemplated is no longer part of the Project design.

c. Federal jurisdiction is protected through federal legislation, reviews, and licensing processes

Federal oversight is integral to the Project and federal laws apply regardless of the environmental assessment undertaken or the jurisdiction leading it. As the Agency will appreciate, the CNSC operates a globally influential regulatory scheme to authorize, monitor, and manage the nuclear industry in Canada. This incudes oversight of uranium mines and mills. In accordance with its statutory mandate, the CNSC will not issue a license for the Project unless in its opinion Fission is qualified to carry on the activity and that it will make adequate provision for the protection of the environment, and the health and safety of all persons.[5] Accordingly, the CNSC requires the environmental effects of all licensed activities to be thoroughly evaluated before any licensing decision is made. CNSC oversight continues throughout the operation and decommissioning of licensed facilities.

Other matters of federal jurisdiction are suitably addressed by federal legislation and regulatory regimes apart from the *IAA*. The prohibitions in the *Fisheries Act* and the authorizations available under paragraphs 34.4(2)(b) and 35(2)(b), if necessary, ensure that fish and fish habitat is adequately protected and harm to the aquatic environment is minimized. Review by the Fish and Fish Habitat Protection Program helps to identify robust mitigations, in lieu of a formal authorization. The *Species at Risk Act*, the *Migratory Birds Convention Act*, *Canadian Environmental Protection Act* and other federal statutes all govern the Project regardless of the jurisdiction leading the environmental assessment.

d. Indigenous engagement will proceed at both the provincial and federal levels

Crucially, the duty to consult and accommodate Indigenous peoples arises from all contemplated Crown agency decision-making, whether provincial or federal. The CNSC's policies make clear that its licensing process is focused on upholding this Crown imperative, in addition to consultation undertaken by the Saskatchewan Ministry of the Environment.

As described in this letter, Fission is undertaking its own Indigenous engagement activities to ensure that the Project is respectful of Aboriginal and Treaty rights and other traditional land use activities. Fission values its relationships with Indigenous communities and understands that it has a particular obligation to listen and understand the potential impacts the Project may have on Indigenous peoples (positive and otherwise) and to address those issues to the most practicable extent, and in collaboration with those same Indigenous peoples. Fission looks forward to continuing its engagement with MN-S and other communities in this spirit.

e. The precautionary principle is an essential part the CNSC licensing process

The precautionary principle is a required part of the CNSC licensing processes. As mentioned in the CNSC's REGDOC-2.9.1, *Environmental Protection: Environmental Principles, Assessments and Protection Measures*, Version 1.2, all applicants for a licence must demonstrate to the CNSC that their environmental protection measures respect the precautionary principle. The CNSC's guidance also relies on the Government of Canada's *A framework for the application of precaution*

[5] *Nuclear Safety and Control Act*, SC 1997, c 9, at s. 24(4).

in science-based decision making about risk, which outlines guiding principles for the application of precaution to science-based decision making in areas of federal decision-making. As such, the Minister's intervention is not necessary to ensure that precautionary decision-making is part of the Project's assessment.

f. Waste rock and tailings will be effectively managed through current processes

The Project's waste rock and mill tailings will be strictly managed. The tailings management facility ("**TMF**") is discussed at page 20 of the Project Description. Significantly, the TMF is designed with an impermeable liner, effectively eliminating any movement of contaminants from the TMF until the tailings mass is ready for passive decommissioning. Stockpiles, including for waste rock and overburden, are discussed on pages 22-23. Any stockpile containing waste rock with minor levels of mineralization or special handling requirements will be stored within dual-lined high-density polyethylene including a leak detection system. No runoff will be released to the environment. It will be collected in the lined area and then treated in the effluent treatment plant. It is expected that all mineralized waste will be returned underground as backfill and none left on the surface at decommissioning. It is also important to emphasize that contrary to some assertions, Fission's higher-grade uranium deposit equates with lower overall waste and tailings production relative to lower grade deposits due to the enhanced efficiency of the extraction process. This minimizes the environmental impact of the Project.

In addition to provincial oversight, the CNSC has rigorous federal requirements for waste management. This is detailed in the CNSC's REGDOC-2.11.1, *Waste Management, Volume II: Management of Uranium Mine Waste Rock and Mill Tailings*. It sets out CNSC's requirements for properly managing uranium mine waste rock and mill tailings during all project phases to ensure the protection of the environment and the health and safety of the people. CNSC staff use the document when making regulatory decisions regarding the management of mine waste, including during licensing decisions. CNSC inspectors also perform regular compliance activities, including inspections during operation and decommissioning. Results are shared with the facility, the Northern Saskatchewan Environmental Quality Committee, and other regulators. Separately, CNSC operates an Independent Environmental Monitoring Program to verify that the public and the environment around licensed nuclear facilities are safe. Natural Resources Canada also has a prominent role in overseeing uranium mine waste and mill tailings, overseeing implementation of Canada's Radioactive Waste Policy Framework. Fission will comply with all of these requirements.

* * *

We appreciate the opportunity to equip the Agency with information to make a recommendation to the Minister regarding *IAA* designation of the Project. We look forward to receiving the Minister's determination in due course. If you require any further information or clarification in the meantime, please contact me.

Yours truly,

<Original signed by>

Gary Haywood
VP – Project Development

Encls:
Draft Project Site Map
Federal and Provincial Licensing and Assessment Process Diagram
Engagement Plan Snapshot

Appendix A

Potential Saskatchewan Authorizations

Responsible Agency	Legislative Framework	Permissive Instrument(s)
Ministry of the Environment; Water Security Agency	*The Environmental Management and Protection Act, 2010*, *The Waterworks and Sewage Works Regulations*, *The Water Security Agency Act*	Permit for Operation of Waterworks and Sewage Works; Permit for Construction or Alteration of Waterworks and Sewage Works; surface and groundwater use permits; alterations to fish habitat and the bed, bank and boundary
Ministry of the Environment; Water Security Agency	*The Environmental Management and Protection Act, 2010*	Aquatic Habitat Protection Permit
Ministry of the Environment	*The Mineral Industry Environmental Protection Regulations, 1996*	Minister Approval to Construct or Alter a Pollutant Control Facility; Minister Approval to Operate Pollutant Control Facility; Minister Approval of Reclamation Plan
Ministry of the Environment	*The Environmental Management and Protection (General) Regulations*	Shoreline Alteration Permit; Discharges of Substances at or Near Water Permit; Permit to Construct, Alter, Operate, Temporarily Close, Close or Decommission Certain Facilities; Permit to Engage in Industrial Activity
Ministry of the Environment	*The Hazardous Substances and Waste Dangerous Goods Regulations*	Approval to Store Hazardous Substances or Dangerous Goods; Approval to Construct a Storage Facility for the Storage of Hazardous Substances or Dangerous Goods
Ministry of the Environment	*The Forest Resources Management Act & The Forest Resources Management Regulations*	Forest Product Permit; Term Supply Licence to Harvest Specified Forest Products

Responsible Agency	Legislative Framework	Permissive Instrument(s)
Ministry of Labour Relations and Workplace Safety, Mines Unit, Chief Mines Inspector	*The Mines Regulations, 2018*	Permit for Storage of Explosives; Approval of Chief Mines Inspector for Disposal of a Significant Amount of Explosives
Ministry of Parks, Culture and Sport, Heritage Conservation Branch	*The Heritage Property Act*	Permits for resource and heritage studies
Ministry of Highways	*The Highways and Transportation Act, 1997*	Permit to Erect a Sign Within 400 Meters of a Provincial Highway; Permit to Build or Alter Structures Within Prescribed Distance of a Provincial Highway; Permit to Plant Hedge or Insert Fence Within Prescribed Distance of a Provincial Highway; Permit to Operate Overweight Vehicle on a Public Highway; Permit to Operate a Vehicle or Move a Building Outside the Prescribed Dimensions on a Public Highway
Ministry of the Environment	*The Management and Reduction of Greenhouse Gases Act & The Management and Reduction of Greenhouse Gases (General and Electricity Producer)*	Minister Approval of a Regulated Emitter's Baseline Emission Level
Minister of Government Relations	*The Planning and Development Act, 2007*	Development Permit
Administrative Authority (Medical Health Officer or Public Health Inspector)	*The Shoreland Pollution Control Regulations, 1976*	Sewage disposal authorizations
Local Authority	*Health Hazard Regulations*	Permit (Environmental Management and Protection Act, 2002) or Approval by Local Authority to Deliver Potable Water by Bulk Tank;
Water Security Agency Water Resources Commission	*The Water Security Agency Act*	Water Rights Licence; Approval to Construct and Operate Works;

Responsible Agency	Legislative Framework	Permissive Instrument(s)
Water Security Agency	*The Water Security Agency Regulations*	Approval for Drainage Works and Shoreline Alteration
Ministry of the Environment	*The Wildlife Habitat Protection Act & The Wildlife Habitat Lands Disposition and Alteration Regulations*	Minister Authorization to Alter Wildlife Habitat and Ecological Lands

Potential Federal Authorizations

Responsible Agency	Legislative Framework	Permissive Instruments
Canadian Nuclear Safety Commission	*Nuclear Safety and Control Act, Uranium Mines and Mills Regulations, Radiation Protection Regulations, & Packaging and Transport of Nuclear Substances Regulations*	Licence to Construct a Uranium Mine or Mill; Licence to Operate a Uranium Mine or Mill; Licence to Decommission a Uranium Mine or Mill; Licence to Abandon a Uranium Mine or Mill; Licence to Transport a Nuclear Substance
Department of Fisheries and Oceans	*Fisheries Act*	Ministerial Authorizations (paragraphs 34.4(2)(b) and 35(2)(b)); Ministerial Approval of Compensation Plan
Environment and Climate Change Canada	*Species at Risk Act* *Migratory Birds Convention Act*	Permit to Engage in Activity Affecting Wildlife Species Relocation Permits for Migratory Birds, Eggs and Nests
Natural Resources Canada	*Explosives Act & Explosives Regulations, 2013*	Permit for Importation/Exportation or Transportation of Explosives; Licence for Factories; Licence for Magazines; Permit for Transportation of Non-Explosives; Licence for Storage of High-Hazard Special Purpose Explosives