



Comments on the draft law “prohibiting prospecting, exploration and exploitation of uranium”.

Greenland Minerals Limited (the Company, or we) is the holder of Greenland exploration licence 2010/02 in the area of Narsaq in southern Greenland.

The Company has applied for an exploitation licence in accordance with Greenland laws to develop a rare earths mine and processing plant at Kvanefjeld. The Company is currently in a public consultation phase about the application. All documents pertaining to this application are publicly available on the Naalakkersuisut official website. We encourage interested parties to study these documents to understand the true details of the project proposal. The documents have been prepared in accordance with Greenland laws and guidelines and are open for objective scientific challenge.

The Company has no comment on the uranium policy position to be adopted by the Naalakkersuisut after the election except to say that the factual attributes of the international nuclear energy industry, and the factual attributes of the widespread natural uranium mining industry are easily accessible by any individual, including lawmakers, and are not the “facts” presented and promoted by anti-uranium activists.

It is a “fact” that there is a renewed recognition of the importance of nuclear generated electricity in climate change energy policy around the world. It is also a “fact” that contemporary uranium mines do not present unreasonable environmental or social risks when properly built and competently managed.

In relation to the proposed legislation

The proposal to adopt a specified exclusionary limit determined by the grade of uranium in a resource is a blunt instrument which, unless significantly qualified, will have widespread unintended consequences for the extractive industry in Greenland and foreign investment into Greenland more generally.

In particular, the limit approach is:

- **Impractical** because it does not accommodate the reality of the exploration – resource delineation – development proposal - mining process.
- **Arbitrary** because the selection of the limit (100ppm Uranium) has no reference to either potential environmental or human impacts.
- **Ambiguous** because it does not address the fundamental question of managing mineral deposit types which have naturally elevated levels of uranium (and thorium) but are potentially economically attractive for the non-uranium minerals.

Impracticality

Exploration is the starting point for all mineral developments. It is expensive and risky. It is only after an exploration program that the samples of the deposit are assayed and classified that a grade determination can be made. This means that an investor may commit to large sums of money to drill a deposit targeting gold or copper, for example, and then find that the investment is valueless



because sections of the orebody exceed the 100ppm limit on uranium. This potential outcome will halt new exploration programs.

Arbitrary

The selection of 100ppm Uranium has no objective relationship to actual environmental or human impact which arises once mining (i.e. land disturbance) occurs. The principal radiation impacts arise from the release of radon and thoron gases which can be managed very effectively in a modern mining and processing facility. A grade of 100ppm Uranium in rock equates to a radioactivity level of 1.2 becquerels per gram. In comparison, the safe transport limit is 10 becquerels per gram (solids basis). Therefore, quite objectively, an environmental or health risk limit could be set at a much higher value. Alternatively, higher uranium (and thorium) grades should be permitted at the mining and processing stages of a project. This is an important consideration for non-uranium projects which happen to contain radioactive minerals.

The state of New South Wales, Australia, enacted the “Uranium Mining and Nuclear Facilities (Prohibition) Act 1986” to explicitly prohibit uranium mining. The limit for prohibition is set at 0.02 percent uranium in the total amount of material that has been removed from the land being mined”.

The Toongi Project, in Dubbo, New South Wales, has received all state (and federal approvals) to proceed with a rare earths plus zirconium, niobium and hafnium mine and processing plant despite reporting naturally occurring uranium and thorium concentrations of between 80 – 160 ppm U and 250 – 500 ppm Thorium. Uranium and thorium will be disposed of in waste streams together with other radionuclides.

In the Northern Territory, Australia – which does not have a uranium prohibition – a large rare earths project (Nolans) has been approved which contains uranium at 180 ppm and thorium at 2,700 ppm. The project will not produce uranium which will be managed as a waste.

There are many more examples around the world of projects which contain uranium and thorium concentrations well in excess of 100ppm but are licensed to produce other minerals and to dispose of uranium and thorium as mine waste.

Ambiguous

The primary objection to the draft legislation is that it is ambiguous.

There should be a distinction made between a “uranium mining project”, of which there are no proposals in Greenland, and a mining project in which uranium occurs in low concentrations together with the primary economic minerals. Policy should not prohibit a rare earth mine simply because the orebody contains uranium and thorium. Most producing or advanced rare earth projects inevitably contain elevated levels of uranium and thorium. Monazite commonly contains >5% thorium in addition to uranium but is widely produced and shipped and processed in many places around the world.

Many gold, copper, molybdenum, tin, niobium, and mineral sands deposits contain elevated uranium and thorium.

Another source of ambiguity is whether the limit would be intended to apply to unprocessed mineral concentrates?



Conclusions

The adoption of a limit on maximum uranium grade at pre-exploration, exploration or exploitation is an impractical proposal which will have unintended consequences for the wider extractive minerals industry beyond the narrow target of commercial uranium production.

The proposed limit (100ppm Uranium) is not justifiable by objective known environmental and social impacts. It also does not take account of many deposits of different minerals which also contain uranium and thorium, but which will never be mined for their uranium content.

Capricious or impractical changes to established laws and regulations raise the broader issue of sovereign risk. Sovereign risk substantially discourages future foreign investment, not only in the extractive industries, which over time will restrain economic development and growth in Greenland.

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