

White Paper

Environmental Impact Assessment (EIA)

Greenland Anorthosite Mining ApS (License no. 2019-162)

Version 01 (22/2-2022)

Introduction

In connection with the hearing process for the company's Term of Reference (ToR) for EIA and SIA reporting, Greenland Anorthosite Mining has received 10 hearing responses, five of which have no comments on the project.

The White Paper for the EIA includes three hearing responses from resp. the Ministry of Fisheries and Hunting, private person Flemming Hybholt and the Greenland Police.

In the corresponding White Paper for the SIA, nine consultation responses from Qeqertalik Municipality, the Ministry of Foreign Affairs, Trade, Business and Climate, the Ministry of Housing, Infrastructure and Gender Equality, the Greenland Police, the Ministry of Finance and Home Affairs, Greenland Business, GE (Sulisitsisut), Air Greenland, the Settlement Council and the Ministry of Fisheries and hunting have been included.

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Forwarded written hearing replies regarding the draft for the EIA report

1. Reply from the Ministry of Fisheries and Hunting

No.	Questions/comments	GAM's reply/com-ments	Reply/comments from the Environ-mental Agency for Mineral Resource Ac-tivities (EAMRA)	Reply/comments from DCE and GINR	Amendment – section or page in ToR
1.1	<p>The Ministry of Fisheries and Hunting (APN) has received the submitted consultation material from the Mineral License and Safety Authority regarding pre-hearing of the terms of reference for the SIA and EIA report for the Greenland Anorthosite Mining project at Qeqertarsuatsiaat.</p> <p>APN has the following comments:</p> <p>APN is generally satisfied with the previous baseline studies and the resulting assessments in the EIA report of the poten-</p>	An account of mitigation measures will be part of the EIA report. The potential impact of noise, dust and ship traffic on terrestrial and marine wildlife will be included in these assessments.	The Environmental Agency for Mineral Resource Activities ask the licensee to be aware of the following comments from DCE and GINR.	The existing wildlife in the project area must be described in the EIA report. Potential impacts of terrestrial, limnic and marine wildlife in the project area as well as impacts in connection with sailing to and from the project area must be included in the EIA report.	No change.

	<p>tial impact on the surrounding wildlife, including terrestrial and marine mammals as well as seabirds. However, it is recommended that mitigation measures be taken as far as possible in connection with the activities on land and the increased maritime traffic in the bay and fjord system, so that disturbance and other effects on the surrounding wildlife can be averted or reduced.</p>				
1.2	<p>The project area is located in a reindeer region (region 5), which is a hunting area for reindeer. In this connection, with the intended activities, the necessary precautions and considerations must be taken so that potential nuisances to reindeer and thus the hunt for them are avoided. Reindeer hunting in the region usually takes place in the period 1 August - 31 December. APN therefore expects the field rules to be strictly observed.</p>	<p>GAM is aware of the area's use for reindeer hunting by the local population, and that the applicable field rules are complied with.</p> <p>The company will therefore, as far as possible, take the necessary considerations into account in exploration, establishment and construction phase.</p>	<p>The Environmental Agency for Mineral Resource Activities ask the licensee to be aware of the following comments from DCE and GINR.</p>	<p>Local use of the project area and mitigating measures in order not to disturb reindeer hunting must be included in the EIA report.</p>	<p>No change.</p>
1.3	<p>Attention is drawn to the fact that when staying in Greenland, one must be aware of current guidelines and precautions in areas where the risk of encountering polar bears is present. The guidelines for</p>	<p>GAM is aware of the risk of encountering polar bears in Greenland, and will ensure that employees comply with the</p>	<p>The Environmental Agency for Mineral Resource Activities ask the licensee to be aware of the following</p>	<p>The company should pay attention to the applicable-guidelines for encountering polar bears as well as whales.</p>	<p>No change.</p>

	<p>meeting polar bears are therefore included for information. Guidelines for observing injured or dead and stranded whales are also included.</p>	<p>company's safety rules in this regard. The necessary equipment for scaring bears away, etc. will be present both in the mining town and at process and port facilities.</p> <p>With regards to whales , GAM will follow the guidelines if dead or stranded whales are encountered.</p>	<p>comments from DCE and GINR.</p>		
1.4	<p>In addition, APN kindly points out that fishing and hunting are not permitted without hunting licenses, fishing licenses and licenses, which is why all fishing and fishing activities without these will be considered illegal and what follows.</p> <p>In addition, APN has no further comments on the hearing.</p>	<p>GAM is aware that all the general Greenlandic rules in relation to hunting and fishing also apply to the project area.</p> <p>Anyone with employment or other relationship to the project will be informed of the rules upon arrival at the project area.</p>	<p>The Environmental Agency for Mineral Resource Activities ask the licensee to be aware of the following comments from DCE and GINR.</p>	<p>The company must pay attention to the applicable rules for hunting and fishing.</p>	<p>No change.</p>

2. Reply from Flemming Hybholt

No.	Question/comments	GAM's reply/com-ments	Reply/comments from the Environ-mental Agency for Mineral Resource Ac-tivities (EAMRA)	Reply/comment from DCE and GINR	Amendment – section or page in ToR
2.1	<p>At first glance, there seems to be a basis for establishing a hydropower plant at Qaqqat Akuleriit which is located about 8 km from the mine, especially in connection with scenario B. This will be a small part of the total potential, but there is a basis for establishing a simplified plant. , which is adapted to the current needs.</p> <p>It must be assumed that there will be direct economy in this solution, at least in scenario B, where diesel oil consumption can be reduced by 4 - 5 million liters on an annual basis and thus DKK 20 - 25 million on an annual basis. It is therefore recommended that detailed calculations and assessments be made of the necessary additional investments in a hydro-power solution. With such a solution, CO2 emissions from the project will be halved. If, contrary to expectations, it is not economically attractive to establish</p>	<p>GAM is exploring the possibilities for local alternative forms of energy (solar, wind, water) and their practical applicability and profitability in connection with the project.</p> <p>Renewable energy sources, if they are locally available and economically realistic, can partially cover energy needs, thus reducing the consumption of primary fuel and reducing the CO2 footprint of mining.</p> <p>The company does not believe that a hydroelectric power plant at Qaqqat Akuleriit is a realistic option at present.</p>	<p>The Environmental Agency for Mineral Resource Activities ask the licensee to be aware of the following comments from DCE and GINR.</p>	<p>The company must explain the possibility of using green energy in the project in the EIA report.</p>	<p>No change.</p>

	<p>hydropower, it will be possible to use ammonia as fuel instead of diesel oil as stated below regarding scenario A.</p>	<p>In addition to requiring very large construction investments (power plants, roads, port facilities, etc.), the site has only been examined peripherally, which is why the power potential is actually unclear. The size of the reservoir requires e.g. a lowering of the reservoir of 25 m. It is not clear whether this can be done at all.</p>			
2.2	<p>With regard to scenario A, it may be more appropriate to achieve CO2 reduction by replacing diesel with hydropower-based ammonia. It must be expected that ammonia production will be established in Greenland over the coming years, which will be available and at a competitive price.</p> <p>It must be recommended that ammonia-based electricity production is included as an alternative, and it must be recommended as a minimum that used diesel engines can use ammonia as fuel (dual fuel).</p>	<p>There is currently not established ammonia production in Greenland, and GAM is not aware of current projects that will be able to do this in the near future.</p> <p>GAM is currently assessing battery solutions and the use of surplus heat from the processing plant to heat offices and residential areas, which will reduce</p>	See comment under 2.1.	See comment 2.1.	No change.

		diesel consumption and lower total CO2 emissions.			
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3. Reply from the Greenland Police

No.	Questions/comments	GAM's reply/comments	Reply/comments from the Environmental Agency for Mineral Resource Activities (EAMRA)	Reply/comment from DCE and GINR	Amendment – section or page in ToR
3.1	<p>The Greenland Police have reviewed the consultation material, and in this connection have the following remark:</p> <p>If the establishment of infrastructure, including the establishment of an explosives depot, fuel and other flammable and/or explosive substances in relation to the mining town and the mine, takes place in accordance with the rules laid down by the Naalakkersuisut, cf. Greenland Parliament Act No. 14 of 26 May 2010 Chapter 6 on preventive measures, the Greenland Police have no comments on this.</p>	GAM will comply with the current rules for the establishment and storage of explosives and flammable materials in the project establishment.	Noted.	The company must pay attention – as to the present environmental guidelines for explosives depot, fuel and other flammable and / or explosive substances.	<p>Section 2.5.5 (page 17) has been added the following:</p> <p><i>“GAM will also comply with the current rules for the establishment and storage of explosives and flammable materials in the project establishment.”</i></p>

