Canadian Northern Economic Development Agency

Agence canadienne de développement économique du Nord

5019 – 52nd Street
Yellowknife, NT X1A 1T5

December 24, 2013

VIA EMAIL

Chief Edward Sangris
Chief Ernest Betsina
Yellowknives Dene First Nation
P.O. Box 2514
Yellowknife, NT X1A 2P8

Re: Giant Mine Remediation Project (EA0809-001) – Invitation to provide comments on proposed modification to certain measures described in the *Report of Environmental Assessment and Reasons for Decision*

Dear Chiefs,

The federal Minister and other responsible ministers (the "Ministers"), pursuant to sub-paragraph 130(1)(b)(ii) of the *Mackenzie Valley Resource Management Act*, are considering modifications to certain measures described in the *Report of Environmental Assessment and Reasons for Decision* for the Giant Mine Remediation Project. The letter to the Mackenzie Valley Environmental Impact Review Board initiating the consult-to-modify process as well as the proposed modifications and supporting rationale are attached to this letter.

The modifications are being proposed by the Ministers with consideration to the issues raised throughout the environmental assessment process as well as with consideration to your letters of August 2, August 15, and November 29, 2013. They are intended to provide added clarity with respect to the implementation of the measures.

The Ministers wish to provide an opportunity for the Yellowknives Dene First Nation ("YKDFN") to comment on whether the proposed modifications could adversely impact YKDFN asserted and/or established Aboriginal or treaty rights. Please provide details of any such impacts, with attention to the cause or means by which they arise as well as to how YKDFN asserted and/or established Aboriginal or treaty rights would be affected. The Ministers will review any comments for full and fair consideration during the finalization of any modifications and may request additional information or input from the YKDFN through further engagement and/or consultation.

Should you wish to provide comments, please do so by January 24, 2014, to the attention of David Alexander, Project Manager, Northern Projects Management Office, by fax (867-766-8401) or email (david.alexander@cannor.gc.ca).

Sincerely,

Matthew Spence
Director General
Northern Projects Management Office

Attachment

c.c. Jack Bird, Assistant Deputy Minister - Operations, Department of Environment and Natural Resources, Government of the Northwest Territories

Mimi Fortier, Director General, Northern Petroleum and Mineral Resources Branch, Aboriginal Affairs & Northern Development Canada

Marc D'Iorio, Director General, Environmental Protection Operations, Environment Canada

Amanda Jane Preece, Director General, Safe Environments Directorate, Health Canada

Stuart Niven, Senior Fisheries Protection Biologist, Central and Arctic Region, Fisheries and Oceans Canada

Vern Christensen, Executive Director, Mackenzie Valley Environmental Impact Review Board

Joanna Ankersmit, Executive Director, Contaminated Sites Program, Aboriginal Affairs and Northern Development Canada

Ministre des Affaires autochtones
et du développement du Nord

Minister of Aboriginal Affairs and
Northern Development

Ottawa, Canada K1A 0H4

DEC 2 3 2013

Mr. Richard Edjericon
Chairperson
Mackenzie Valley Environmental Impact Review Board
PO Box 938
YELLOWKNIFE NT X1A 2N7

Via Facsimile: 867-766-7074

Dear Mr. Edjericon:

As the federal Minister, and on behalf of the Responsible Ministers (Environment, Fisheries and Oceans, and the Government of the Northwest Territories), with jurisdiction related to the proposed Giant Mine Remediation Project, I am writing to convey that we have completed our review of the Report of Environmental Assessment and Reasons for Decision for the Project dated June 20, 2013, and of subsequent submissions from various parties that have been posted on your registry.

As described in the Report, the Mackenzie Valley Environmental Impact Review Board has recommended pursuant to sub-paragraph 128 (1)(b)(ii) of the *Mackenzie Valley Resource Management Act* that the Project be approved subject to the imposition of 26 measures necessary to mitigate significant adverse impacts on the environment, including cumulative impacts, and to address significant public concern.

In general, the Responsible Ministers and I are pleased and supportive of the work undertaken by the Review Board for this Environmental Assessment and acknowledge the support expressed by numerous stakeholders since the Report was released. In responding to this Report, the federal and territorial governments have been guided by these overarching objectives: successful remediation of this contaminated site, transparency of government actions for all those affected by the contamination, and balancing the sense of urgency with an equal sense of due diligence. This has led us to consider some refinements to the Report's recommendations. Therefore, prior to rendering a final decision, the Responsible Ministers and I would like to consult with the Review Board, pursuant to sub-paragraph 130 (1)(b)(ii) of the *Mackenzie Valley Resource Management Act*, to address five technical issues that involve proposed modifications to nine measures, as described in the attached document.

..../2

In order to make a timely, final decision, we would like to initiate discussions between our officials and your Review Board staff about the proposed modifications in about six weeks from the date on which you receive this letter, acknowledging that about two of these weeks are likely to be lost time over the holidays and that you will need time to review and consider these proposals.

The Responsible Ministers and I are currently seeking comments from potentially impacted Aboriginal groups on the proposed modifications. A separate letter describing the proposed modifications has been sent to these groups, with a request that written responses be provided within five weeks of the letter's receipt. This timing will allow the Review Board and our officials an opportunity to address these considerations in their discussions. Assuming good progress in these discussions, the Responsible Ministers and I will hope to hear back from the Review Board on the proposed modifications as early as possible in February.

In order to make arrangements to meet with the Responsible Ministers' officials to discuss the proposed modifications, please contact Ms. Catherine Conrad, Director Environment and Renewable Resources, Aboriginal Affairs and Northern Development Canada, at 819-997-2728 or via email at Catherine.Conrad@aandc-aadnc.gc.ca.

Sincerely,

Bernard Valcourt, PC, QC, MP

Encl.

c.c.: The Honourable Leona Aglukkaq, PC, MP
The Honourable Gail Shea, PC, MP
The Honourable J. Michael Miltenberger, MLA

PROPOSED MODIFICATIONS TO MEASURES FOR THE GIANT MINE REMEDIATION PROJECT

Measures #3 and #4: Funding Ongoing Research

The Responsible Ministers support ongoing and targeted research related to improving project technology and reducing project impacts, as well as the need for coordination of the research. This can however be accomplished most efficiently by making best use of existing research institutions and programs rather than creating a new agency.

It is proposed that, to achieve this goal, the Oversight Body will have a role in ensuring the public accountability and adequacy of this research. The details of each party's role in regard to the research activity will be negotiated within the environmental agreement process, as per Measure #7.

For consistency, it is proposed that Measure #4 reflect the role of funded research (not necessarily a new research agency) and of the Oversight Body to align with changes proposed in Measure #3.

It is proposed that all research undertaken as part of these measures, since it will be funded by the federal government, must be fully accessible to the public in accordance with Canada's Open Government and Open Information commitments and policies.

Measure #3 Current Wording	***Suggested Modification***
To facilitate active research in emerging technologies towards finding a permanent solution for dealing with arsenic at the Giant mine site, the Developer will create a multi-stakeholder research agency with potentially affected Parties. The ongoing funding for this research agency will be negotiated and included as part of the environmental agreement specified in Measure 7. This body will, on a periodic basis: 1. produce reports on relevant emerging technologies; 2. identify research priorities 3. administer research funding 4. ensure the results of research are made public, and 5. apply results of each cycle to the next cycle of these steps.	To facilitate active research in emerging technologies towards finding a permanent solution for dealing with arsenic at the Giant Mine site, the Developer will **fund** research **activity as advised by stakeholders and potentially affected Parties through the Oversight Body**. The ongoing funding for this research **activity, and a process for its coordination,** will be negotiated and included as part of the environmental agreement specified in Measure 7 **and will make best use of existing research institutions and programs. The Oversight Body will ensure through the research activity that**, on a periodic basis: 1. reports on relevant emerging technologies **are produced**; 2. research priorities **are identified**; 3. research funding **is administered**; 4. results of research are made public; and 5. results of each cycle **are applied** to the next cycle of these steps.

Measure #4 Current Wording	*Suggested Modification*
The research agency will provide the results of the research to the periodic reviews of the Project described in Measure 2. If better technological options are identified in-between these periodic 20-year reviews, the research agency will report these publicly to the Parties, the public and the Developer. The Developer will consider these technologies and make decisions regarding their feasibility. The Developer will make any such decisions public.	The **Oversight Body** will provide the results of the research **funded by the Developer** to the periodic reviews of the Project described in Measure 2. If better technological options are identified **through the funded research** in-between these periodic 20-year reviews, **these will be reported publicly by the Oversight Body** to the Parties, the Developer **and the Canadian public**. The Developer will consider **these** technologies and make decisions regarding their feasibility. The Developer will make any such decisions public.

Measure #5 and #10: Quantitative Human Health and Overall Risk Assessment

The Responsible Ministers support the quantitative risk assessment and the human health risk assessment to be completed by the proponent, but are concerned with the time and sequencing elements associated with these measures. These measures, as written, need to be completed before receiving project approvals, and they therefore have the potential to unnecessarily delay the regulatory process and commencement of the project.

It is proposed that the proponent will have to demonstrate commitment to these measures, address initial information needs of the regulatory process, and seek to minimize delays to sequential measures such as Measure #9, by completing the first part of these assessments prior to completion of the regulatory process, and then issuing a final report within two years of regulatory approvals.

It is therefore proposed that the comprehensive and human health risk assessments be undertaken in a phased approach to include: 1) a preliminary report to be completed prior to receiving regulatory approvals; and 2) a final report to be completed within two years of receiving these approvals. This will allow the proponent to design the studies with the independent assessors (contractors), to conduct consultations with the potentially affected communities on the proposed risk assessment approaches, and to potentially achieve early assessment results.

Measure #5 Current Wording	***Suggested Modification***
In order to mitigate significant adverse impacts that are otherwise likely, the Developer will commission an independent quantitative risk assessment to be completed before the Project receives regulatory approvals. This will include:	In order to mitigate significant adverse impacts that are otherwise likely, the Developer will commission an independent quantitative risk assessment. **A preliminary report, including the study design, will be completed prior to receiving regulatory approvals. The final report will be completed and submitted to regulators and the Oversight Body within two years after** the Project receives regulatory approvals. This will include:
1. explicit acceptability thresholds, determined in consultation with potentially affected communities 2. an examination of risks from a holistic perspective, integrating the combined environmental, social, health and financial consequences 3. possible events of a worst-case/ low frequency high consequence nature 4. additional considerations specified in Appendix D of the Report of EA	1. explicit acceptability thresholds, determined in consultation with potentially affected communities 2. an examination of risks from a holistic perspective, integrating the combined environmental, social, health and financial consequences 3. possible events of a worst-case/ low frequency high consequence nature 4. additional considerations specified in Appendix D of the Report of EA
From this, the Developer will identify any appropriate Project improvements and identify management responses to avoid or reduce the severity of predicted unacceptable risks.	From this, the Developer will identify any appropriate Project improvements and identify management responses to avoid or reduce the severity of predicted unacceptable risks.

Measure #10 Current Wording	***Suggested Modification***
The Developer will commission a comprehensive quantitative human health risk assessment by an independent, qualified human health risk assessor selected in collaboration with Health Canada, the Yellowknives Dene, the City of Yellowknife, and the Developer. This human health risk assessment will be completed before the Project receives regulatory approvals. It will:	The Developer will commission a comprehensive quantitative human health risk assessment by an independent, qualified human health risk assessor selected in collaboration with Health Canada, the Yellowknives Dene, the City of Yellowknife, and the Developer. **A preliminary report, including the study design, will be completed prior to receiving regulatory approvals. The final report will be completed and submitted to regulators and the Oversight Body within two years after** the Project receives regulatory approvals. It will:
1. Include a critical review of the 2006 Tier II human health risk assessment and the previous screening reports; 2. Consider additional exposures and thresholds (as specified in Appendix F of the Report of EA); 3. Decide whether a Tier III risk assessment is appropriate; 4. Provide a plain language explanation of the results in terms that are understandable to the general public, and communicate this to potentially affected communities in a culturally appropriate manner; 5. Provide interpretation of results and related guidance; and 6. Inform the broad health effects monitoring program (described in Measure 9 above).	1. Include a critical review of the 2006 Tier II human health risk assessment and the previous screening reports; 2. Consider additional exposures and thresholds (as specified in Appendix F of the Report of EA); 3. Decide whether a Tier III risk assessment is appropriate; 4. Provide a plain language explanation of the results in terms that are understandable to the general public, and communicate this to potentially affected communities in a culturally appropriate manner; 5. Provide interpretation of results and related guidance; and 6. Inform the broad health effects monitoring program (described in Measure 9 above).
Based on the results of this human health risk assessment, and on the results of the health effects monitoring program (described in Measure 9 above), the Developer will, if necessary in response to this information, identify, design and implement appropriate design improvements and identify appropriate management responses to avoid or reduce the severity of any predicted unacceptable health risks.	Based on the results of this human health risk assessment, and on the results of the health effects monitoring program (described in Measure 9 above), the Developer will, if necessary in response to this information, identify, design and implement appropriate design improvements and identify appropriate management responses to avoid or reduce the severity of any predicted unacceptable health risks.

Measure #7: Oversight Body Role and Negotiation of Agreement

The Responsible Ministers are supportive of the creation of an Oversight Body and of an environmental agreement for this project, particularly in this type of situation where the developers are also regulators. For purposes of clarity, the need for environmental agreements in any future development projects will be assessed in each case based on the complexity, scope and context of the project.

Responsible Ministers recognize that the Oversight Body would be advisory in nature. Operational decisions and responsibilities including control over project resources would remain with the Developer, and the decision-making authority of regulatory bodies would be fully respected and maintained. However both roles can and should be made more transparent and open to public input and engagement. The dispute resolution process referenced in the measure is required for effective operation of the Oversight Body, but it would not address disputes associated with decisions under the purview of regulatory authorities or the Developer.

Representatives of Aboriginal Affairs and Northern Development Canada, the Government of the Northwest Territories, the City of Yellowknife, Alternatives North, and the Yellowknives Dene First Nation have established a Giant Mine Oversight Working Group that has begun work on a framework agreement. This agreement would set out the terms and conditions, roles and responsibilities, mandate and funding (from the Developer) of the Oversight Body. The current Giant Mine Oversight Working Group has drafted many iterations of the environmental agreement; the Responsible Ministers recognize the need to proceed with negotiations in a timely manner and thereby ask the parties to consider these drafts in negotiating the agreement.

The proposed modification below allows for time to negotiate a framework environmental agreement and to establish the Oversight Body without delaying the commencement of the project by making use of the existing Oversight Working Group and members until completion of the agreement. The unique and urgent remediation nature of this project means the Responsible Ministers need to ensure that the project is not unduly delayed due to negotiation of this agreement, while still recognizing the importance of oversight throughout the project life.

Measure #7 Current Wording	***Suggested Modification***
The Developer will negotiate a legally-binding environmental agreement with, at a minimum, the members of the Oversight Working Group, and other appropriate representative organizations, to create an independent oversight body for the Giant Mine Remediation Project. These negotiations will build on the existing discussion paper and draft environmental agreement of the Giant Oversight Working Group. This oversight body will be in place before major Project activities begin on site, and will exist for the life of the Project. The environmental agreement will include a dispute resolution mechanism to ensure compliance with the agreement and a stable funding mechanism for the oversight body.	The Developer will negotiate a legally-binding environmental agreement with, at a minimum, the members of the Oversight Working Group, and other appropriate representative organizations, to create an independent oversight body for the Giant Mine Remediation Project. These negotiations will build on the existing discussion paper and draft of the environmental agreement of the Giant Oversight Working Group. **Every effort will be made to have the Oversight Body in place as early as possible. However, the existing Oversight Working Group and its members could fulfill all Oversight Body duties in the interim.** The environmental agreement will include a dispute resolution mechanism to ensure compliance with the agreement and a stable funding mechanism for the oversight body.

Measures #11, #12 and #13: Baker Creek

Although Responsible Ministers concur that there is risk associated with Baker Creek remaining on the Giant Mine site, the Responsible Ministers are equally concerned that environmental impacts associated with any diversion to a route that avoids the mine site have not been fully assessed.

The proposed modification requires that a complete assessment and clear record of that assessment be provided to all parties by the Developer before any decision on diversion. By mandating that the Developer produce a report of this assessment within one year of the project receiving its water license, the appropriate regulatory authorities, the Oversight Body, and the public will be fully informed of the costs, benefits and impacts of options related to Baker-Creek prior to associated decisions by the Developer, without delaying the initiation of the Project.

For clarity, the Developer may choose to pursue licensing and implementation of the north diversion or another route that avoids the mine site, if this diversion is deemed appropriate and feasible in comparison with the current proposal after considering the comments received from interested parties. If the Developer decides to implement an off-site diversion, this would have to be completed within the Board's recommended five-year period after its initial water license.

For consistency with Measure #11, the suggested modifications for Measures #12 and #13 are intended to clarify that the noted water quality objectives must be met whether or not Baker Creek is diverted. If no diversion is to occur, the existing or re-aligned Baker Creek will have to meet the intent of these measures. If diversion is eventually implemented, the former Baker Creek channel will have to meet these water quality objectives.

Measure #11 Current Wording	***Suggested Modification***
Within five years of receiving its water license, the Developer will divert Baker Creek to a north diversion route previously considered by the Developer, or another route that avoids the mine site and is determined appropriate by the Developer.	**The Developer will thoroughly assess options for, and the environmental impacts of, diversion of** Baker Creek to a north diversion route previously considered by the Developer, or another route that avoids the mine site and is determined appropriate by the Developer. **Within one year of the project receiving its water license, a report outlining a comparison of options, including the current on-site re-alignment, will be provided to the appropriate regulatory authorities, the Oversight Body and the public.** **Once informed by the advice of the Oversight Body and regulatory authorities, the Developer will determine the final alignment for Baker Creek. If off-site diversion is selected, the Developer will seek required regulatory approvals to implement the diversion within 5 years of receiving its initial water license.**

Measure #12 Current Wording	***Suggested Modification***
To prevent significant adverse impacts on Great Slave Lake from contaminated surface waters in the former channel of Baker Creek, the Developer will ensure that water quality at the outlet of Baker creek channel will meet site-specific water quality objectives based on the CCME *Guidance on the Site-Specific Application of Water Quality Guidelines in Canada.*	To prevent significant adverse impacts on Great Slave Lake from contaminated surface waters in the **existing or** former channel of Baker Creek, **should it be re-routed to avoid the mine site,** the Developer will ensure that water quality at the outlet of Baker creek channel will meet site-specific water quality objectives based on the CCME *Guidance on the Site-Specific Application of Water Quality Guidelines in Canada.*

Measure #13 ***Current Wording***	***Suggested Modification***
The Developer will design and, with the applicable regulators, manage the Project to ensure that, with respect to arsenic and any other contaminants of potential concern, the following water quality objectives are achieved in the vicinity of the outlet of the former Baker Creek channel, excluding Reach 0: a) Water quality changes due to discharge from the former channel of Baker Creek will not reduce benthic invertebrate and plankton abundance or diversity; b) Water quality changes due to discharge from the former channel of Baker Creek will not harm fish health, abundance or diversity; c) Water quality changes due to discharge from the former channel of Baker Creek will not adversely affect areas used as drinking water sources, d) Water quality changes due to discharge from the former channel of Baker Creek will not adversely affect any traditional or recreational users; and, e) There is no increase in arsenic levels in Great Slave Lake due to discharge from the former channel of Baker Creek beyond the parameters described in Measure 12.	The Developer will design and, with the applicable regulators, manage the Project to ensure that, with respect to arsenic and any other contaminants of potential concern, the following water quality objectives are achieved in the vicinity of the outlet of the **existing or** former Baker Creek channel**, should it be re-routed to avoid the mine site,** excluding Reach 0: a) Water quality changes due to discharge from Baker Creek will not reduce benthic invertebrate and plankton abundance or diversity; b) Water quality changes due to discharge from Baker Creek will not harm fish health, abundance or diversity; c) Water quality changes due to discharge from Baker Creek will not adversely affect areas used as drinking water sources, d) Water quality changes due to discharge from Baker Creek will not adversely affect any traditional or recreational users; and, e) There is no increase in arsenic levels in Great Slave Lake due to discharge from Baker Creek beyond the parameters described in Measure 12.

Measure #15: Water Quality Objectives at the Water Treatment Plant Outfall

The Responsible Ministers agree with the Review Board regarding the importance of protecting water quality and drinking water for residents of Yellowknife and close communities. The Review Board recommended that monitoring and project design for the water treatment plant outfall consider arsenic and any other contaminant impacts in the water or sediments "beyond 200 metres of the outfall". This characterization is unclear to the Responsible Ministers as it assumes that the developer is responsible for monitoring at any and all locations beyond the 200 metre mark into the Great Slave Lake. Therefore the proposed modification references 'at' and not 'beyond' a particular distance.

The location of the outfall has not been determined at this stage. However, the Developer has carried out previous studies on arsenic concentrations in underwater sediments in the Back Bay area. These studies have shown that this area has already experienced significant impact to benthic organisms within 500 metres of the shoreline, and that arsenic concentrations in sediments significantly decrease at the 500 metre mark from the shoreline.

The Responsible Ministers therefore recommend changing the distance for measuring impacts from the water treatment plant outfall area from 200 metres to 500 meters to more appropriately consider the current impacts and the objective of avoiding further impacts, to the fish, benthic invertebrate and plankton abundance or diversity, beyond those already present. This change is intended to provide a more realistic and measurable assurance to Yellowknife residents with due consideration for current degradation.

Measure #15 Current Wording	***Suggested Modification***
The Developer and regulators will design and manage the Project so that, with respect to arsenic and any other contaminants of potential concern: 1. Water quality at the outfall will meet the Health Canada Guidelines for Canadian Drinking Water Quality; and, 2. The following water quality objectives in the receiving environment are met: e) Water quality changes due to effluent discharge will not reduce benthic invertebrate and plankton abundance or diversity beyond 200 metres of the outfall; f) Water quality changes due to effluent discharge will not harm fish health, abundance or diversity; g) Water quality changes due to effluent discharge will not adversely affect areas used as drinking water sources; and, h) There is no increase in arsenic levels in Yellowknife Bay water or sediments beyond 200 metres of the outfall.	The Developer and regulators will design and manage the Project so that, with respect to arsenic and any other contaminants of potential concern: 1. Water quality at the outfall will meet the Health Canada Guidelines for Canadian Drinking Water Quality; and, 2. The following water quality objectives in the receiving environment are met: a) Water quality changes due to effluent discharge will not reduce benthic invertebrate and plankton abundance or diversity **at 500 metres from the outfall;** b) Water quality changes due to effluent discharge will not harm fish health, abundance or diversity; c) Water quality changes due to effluent discharge will not adversely affect areas used as drinking water sources; and, d) There is no increase in arsenic levels in Yellowknife Bay water or sediments at **500 metres from the outfall.**