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(MDY 3, 2001)

Facsimile

Mackenzie Valley Environmental Impact Review Board

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From: Luciano Azzolini, EAO
Pages: 21 including this cover
Date: Monday, April 30, 2001
File: EA01-002
Subject: Canadian Zinc Corporation Draft Terms of Reference and draft work plan

Attached is a draft EA work plan and draft Terms of Reference (draft document) for the Canadian Zinc Corporation Surface exploration, Underground Decline and Metallurgic Plant Operation Environmental Assessment. Please consider this draft document as a starting point. Feel free to tell the Review Board what changes you would like to see in the final document.

Focus your efforts on those specific areas where you think we need to know what the impacts of the development might be on the environment.

*The Review Board gets all comments before taking any decision. Please provide your responses on or before **May 11, 2001**.*

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**Draft Work Plan
&
Draft Terms of Reference**

DRAFT

For The

**Environmental Assessment
*Of The***

**Canadian Zinc Corporation
Surface exploration, Underground
Decline and Metallurgic Plant Operation
Development**

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1 PURPOSE OF THE WORK PLAN

This document provides a framework for the Mackenzie Valley Environmental Impact Review Board (Review Board or Board) to undertake the environmental assessment (EA) of the *Canadian Zinc Corporation (CZN) Surface Exploration, Underground Decline and Metallurgic Plant Operation* Test development proposal. The EA will be conducted in accordance with Part 5 of the *Mackenzie Valley Resource Management Act* (MVRMA). The work plan describes the general approach to completing the CZN environmental assessments and the resource allocation estimates for completing the EA by staff and the Review Board.

2 Chronology of Events

On March 5, 2001, CZN submitted applications to the Mackenzie Valley Land and Water Board (MVLWB) for the following developments:

1. Surface exploration up to 60 drill holes - Land User Permit Application MV2001C0022
2. Portal and underground decline - Land User Permit Application MV2001C0023
3. Metallurgic plant operation - Water Licence Application MV2001L2-0003.

On April 11, 2001 the *Nahanni National Park Reserve* (NNPR) referred the development proposals to the Review Board, in accordance with ss.126(2)(a) of the MVRMA, citing the following reasons for the referral,

The Nahanni National Park Reserve is of the opinion that the proposed developments have the potential to impact the ecological integrity of the park reserve. These potential impacts include effects include effects on transboundary wildlife such as grizzly bears, dall's sheep and woodland caribou, and effects on water quality and fish habitat in both Prairie Creek and the South Nahanni River.

The Review Board is required by s.126 of the MVRMA to conduct an EA of the development proposals.

3 BACKGROUND

This section provides a generalized description of the proposed development. Additional information on development components may be requested by the Review Board to complete the EA. A complete scope of development will be determined by the Review Board and included as part of the EA *Terms of Reference* (ToR) that will be issued to the developer as guidance for completing an EA Report.

3.1 Mineral Exploration Development Components

The **mineral exploration** development includes:

- Locating and drilling sixty (60) diamond drill cores, each up to 500 m in length for mineralization sampling in support of future production, approximately 500 m to 1,000 m NE of the mine site;
- Drilling with a Longyear Super 38 diamond drill, using water as a carrier fluid and lubricant down hole (down hole chemical used only if required);
- Access to drill locations by existing network of tote roads;
- Constructing additional tote roads to access site specific drill locations.

The **underground decline** includes:

- Airlifting the jumbo drill to and from the portal location;
- Opening a portal at the 905 m elevation about 600 m north of the existing mill facility;
- Excavating a 600 m long 3 m wide and 2.3 m high decline at a 15% down gradient;
- Driving the decline using a two-boom air jumbo drill;

- Removing the rock from the decline using 2-yard scoop trams;
- Transporting the rock to a location within the plant site area using a loader and truck;
- Cutting out 9 drill "cutouts" along the decline in support of an underground drill program;
- Drilling in the cutouts using a Boyles electric or hydraulic diamond drill;
- Dewatering the decline and cutouts using sumps and pumps;
- Creating a sump settling pond at the mouth of the portal; and
- Release of water from the settling pond into Harrison Creek.

The **Metallurgical** includes:

- Transporting and assembly of a "pilot plant" to the minesite and assembling it in the existing mill building;
- Operation of the pilot plant at about 1.5 tonnes per hour;
- Processing a total of 1-2,000 tonnes of rock taken from the surface or stockpile and possibly rock from the decline development;
- Using between 2000-4000 m³ of water of which half will come from an on-site aquifer using existing on-site wells;
- Release of mine water into the tailings pond;
- Storage of tailings in one of two thickeners inside the mill building; and,
- Removal of the concentrated rock in 2 tonne bags by air.

3.2 *Roles and Responsibilities*

The roles and responsibilities of the Review Board, Review Board's staff and other parties in the EA is explained.

3.2.1 Government and the Public

Regulatory authorities, federal and territorial government departments and expert advisors are encouraged to provide any information they have that is relevant to these EA's. Experts should clearly identify impacts or issues and substantiate their findings with supporting information, and analyses. Recommendations and conclusions designed to mitigate impacts shall include rationale for their inclusion and may be supported with evidence regarding their effectiveness.

First Nations, the public and other interested parties that wish to provide information relevant to the EA, or that may be asked by the Review Board to provide any relevant information they may have, should do so in a form that is easily available to all stakeholders. All information received is before the Review Board makes a decision on the environmental assessments.

3.2.2 Developer

The Review Board encourages CZN to commence and or continue its discussions with affected communities, regulatory authorities, federal and territorial government departments, First Nations, the public and other interested parties as early as possible. The Review Board will request CZN to provide a written record verifying consultations, including how consultation may have influenced design of any part of the development. CZN is expected to respond in a suitable and timely course to the EA Terms of Reference that will be issued by the Review Board.

3.2.3 Review Board Functions

The Review Board is required to undertake the following in relation to these two EA's:

- conduct the EA's, in accordance with ss.126(1) of the MVRMA;

- take into account any previous screening or assessment report made in relation to the development, in accordance with s.127 of the MVRMA;
- determine the scope of the development, in accordance with ss.117(1) of the MVRMA;
- consider several factors, in accordance with ss.117(2) of the MVRMA;
- make a determination regarding the environmental impacts and public concern of the development, in accordance with ss.128(1) of the MVRMA;
- report to the federal Minister in accordance with ss.128(2) of the MVRMA; and,
- identify areas, and extent of effects, within or outside the Mackenzie Valley in which the development is likely to have a significant adverse impact or be a cause of significant public concern.

3.2.4 Staff Functions

The Review Board's Executive Director and staff are the primary contact for the developer, regulatory authorities, federal and territorial government departments, First Nations, expert advisors, the public and other interested parties. The staff member coordinating and facilitating the EA is Mr. Louie Azzolini.

4 EA WORK PLAN

Table 1 provides an estimated timeline for completing each indicated milestone in the two EA processes. The Review Board may amend the milestone dates at its discretion.

Table 1 - Milestone Completion Time Table

MILESTONE	CZN Drill, Decline and Test Mill
Start-up of the EA	April 17
Complete development description submitted	April 17
Draft EA work plan developed	April 30
Draft EA Terms of Reference developed	April 30
Final EA work plan and Terms of Reference approved and issued	May 18
Preparation and submission of EA Report by Developer	June 4
Conformity check	June 8
Deficiency statement	As required
Hearing date in Fort Simpson	June 27
Submission of RA and others technical reports	July 6
Closure of Public Registry	July 13
EA decision	July 31
Federal Minister's response to the Review Board's Report of EA, if required	-
Consultation - throughout / as required	-

5 Milestones and Responsibilities

This section summarizes the process for completion of an EA.

5.1 Assessment Process

The EA process is outlined below in Table 2, showing appropriate milestones and responsibility assignments. The RA, and expert advisors would provide information and advice related to regulatory requirements for the development.

Table 2 - Milestones and Responsibility Assignments for steps in the EA

MILESTONE	Developer	Board	Staff	Government
Start-up of the EA			•	
Complete development description submitted	•			
Draft EA work plan developed	•		•	•
Draft EA Terms of Reference developed			•	
Final EA work plan and Terms of Reference approved and issued		•		
Preparation and submission of EA Report by Developer	•			
Conformity check		•		
Deficiency statement	•	•		
Hearing date in Fort Simpson	•	•	•	•
Submission of RA and others technical reports	•			
Closure of Public Registry			•	
EA decision		•		
Federal Minister's response to the Review Board's Report of EA, if required	•	•	•	•

Once a development proposal is referred to the Review Board for an EA, the following milestones are established:

- Start-up of the EA;
- Advance consultation;
- Development description requirements;
- Work Planning;
- The EA Terms of Reference;
- Developer's EA Report;

- Conformity Check;
- Deficiency Statement;
- Technical Analysis;
- Information Requests;
- Consultation; and,
- EA Decision.

Where a hearing is held, it complements and augments the written hearing process conducted using Information Requests.

The time allocations and the information requirements for each milestone will vary with each EA, and depend upon the complexity, location and duration of the development. These will also vary depending on the reasons for decision provided by the preliminary screener(s), and on the information provided by the developer.

5.1.1 Start-up of the EA

At the start of the EA the developer, RA's, as required, federal and territorial government departments, First Nations, expert advisors, the public and other interested parties are informed of the referral. The notification lets people know that while the development is in the EA process, no licence, permit or other authorization can be issued by government. As part of the referral, staff starts a public registry on the development and start tracking development issues.

Public, and government notification of the referral is done by:

- Written notification
- News release
- Newspaper advertising

Tasks involved in starting the environmental assessment are listed below.

- Open case file
- Open public registry and registry log
- Public notification of referral
- Notify regulatory authorities of the referral
- Review Board notifies the developer of the referral

Deliverable: Public registry, public notification, government notification, developer notification, issue tracking, expert advisor identification, responsible authority self-identification.

5.1.2 Advance consultation

Advance consultation is used to identify and inform stakeholders about the EA process. The public, First Nations, and government would be identified and contacted. Advance consultation can parallel the developer submitting additional information as required by the Review Board for work planning purposes. Development of the draft EA work plan by Review Board staff would also occur concurrently with Advance consultation.

Pre-scoping meetings and discussions with RA's, as required, and experts to review the referral, development description, and supporting information provided by the developer. A stakeholder notification list is prepared and can include any of the following:

- Communities
- Organizations

- DRAFT**
- Special Interest Groups
 - First Nations
 - Relevant Businesses
 - Representative Groups
 - Government
 - Experts
 - Regulatory Authorities
 - Designated Regulatory Agency (if required)
 - Developer
 - Staff may conduct public information sessions to inform the public and stakeholders about the Review Board and the EA process. Developers would be asked to participate in these sessions to provide information about their development proposal.
 - Possible site visits by the Review Board and staff.

Deliverable: Information about the Review Board, the EA process and the development proposal. Any relevant issues raised by the public and stakeholders during this Advance consultation step would be noted and brought to the attention of the Review Board for possible inclusion in the EA Terms of Reference.

5.1.3 Development Description Requirements

The Review Board may require a more detailed and complete description of the proposed development from the developer. This would enable the Review Board to determine a proper scope of development and issue a complete set of EA Terms of Reference that address all phases and components of the development. The developer is responsible for providing a development description that is suitable for consultation with Aboriginal, public and government stakeholders.

The Review Board would inform stakeholders of its direction to the developer using the following involvement methods:

- Fax out of Review Board's direction to the developer;
- News release to media;
- Newspaper advertising informing people of the overall EA process and the Review Board's direction to the developer.

The developer will be responsible for providing its final development description to all identified stakeholders.

Deliverable: A complete description of the proposed development provided by the developer to the Review Board and identified stakeholders.

5.1.4 Work Planning and Time Frames

A work plan for completing the EA will be developed by staff in consultation with stakeholders. Each work plan is unique as is every development proposal referred to EA. For example, if the developer completed and submitted a detailed EA Report along with any application(s) that triggered the EA, that information could affect the length of time and level of effort spent on a particular step in the EA process, and would be reflected in the Work plan. An estimate of resource requirements for completing the EA would also be developed. This Work plan would be developed concurrently during the Advance consultation phase.

Once the Advance consultation phase is completed the draft Work plan would be presented to the Review Board for its approval.

Deliverable: Approved works plan, including an estimate of resource requirements, for completing the EA.

5.1.5 EA Terms of Reference and Scope of Development Determination

The EA Terms of Reference are the Review Board's instructions to the developer designed to ensure the appropriate information is provided to understand the environmental consequences and the benefits of the proposed development. The Terms of Reference are developed from the development description provided by the developer and any other relevant information. The Terms of Reference also provide the scope of the development and scope of assessment determination of the Review Board.

Staff will coordinate the preparation of the draft Terms of Reference. After the Review Board's consideration and approval of the Terms of Reference, they are issued to the developer and others as required.

Deliverable: Draft and final Terms of Reference, direction to the developer including confirmed scope of development and associated scope of assessment, identification of key issues, effects, baseline data requirements, and desired results of research, and suggested environmental assessment report table of contents.

5.1.6 Preparation and Submission of the EA Report

CZN will use the EA Terms of Reference to complete its EA report and tell the story of how people and the natural world could be changed by the proposed development and what is to be done about these changes.

Deliverable: An EA report from the developer that addresses the requirements of the EA Terms of Reference and additional information from other sources as directed by the Review Board.

5.1.7 Conformity Check

After receiving the developer's completed EA report the Review Board will ensure the developer has provided the information requested in the Terms of Reference. Opportunity is provided for parties having expressed an interest to be involved in the EA to contribute to this stage. **Note:** *this conformity check determines whether or not the developer has responded to what was asked for in the EA Terms of Reference; it does not reflect the technical adequacy of the information provided by the developer. Any additional technical information, or further explanation, required would be requested through information requests (IR's). IR's would facilitate the technical analysis of the development.*

Where a developer has submitted a satisfactory EA report with the original application (e.g., at preliminary screening or at the start of the EA), this conformity check would likely occur shortly after the Review Board's approval and release of the EA Terms of Reference.

Deliverable: A draft deficiency statement of the EA report for Review Board consideration and approval.

5.1.8 Deficiency Statement

The Review Board will decide conformity and, where required, issue a deficiency statement if needed.

Deliverable: Review Board issues deficiency statement on developers EA report.

5.1.9 Technical Analysis

The Review Board's staff will coordinate the analysis of the EA. The aim is to provide opportunities for RA's, federal and territorial governments, First Nations, the public and other interested parties to

participate in the EA process and express their ideas, and present their information (e.g., traditional knowledge holders and scientific experts) to the Review Board. The more complete the analysis the better the EA.

The analysis identifies unresolved issues and environmental impacts, and provides possible suggestions for addressing the issues and impacts. Where unresolved or unclear issues or impacts are identified, the developer, and other appropriate parties (e.g., RA's, experts) will have the opportunity of responding. The developer can formally provide and present its views on the information brought to the Review Board's attention after submission of its environmental assessment report including any proposed amendments, additions or refinements to the development or the environmental assessment.

The Review Board tries to secure a sound technical analysis and where warranted will conduct public meetings and hearings.

Deliverable: This is a critical stage in the EA process where the key issues and impacts are identified and opportunities for public input in a public forum are possible. The Review Board would like to receive technical reports from participants that clearly state reviewer's conclusions, recommendations and supporting rationales. At public meetings or hearing, it's important that those that want to speak have an opportunity to speak and to listen to others speak.

5.1.10 Information Requests

Throughout the Conformity Check and Technical Analysis phases of the EA, the Review Board and stakeholders may have additional information needs for technical analysis of the developer's environmental assessment report. This information would be requested use of IR's. These IR's and responses would form part of the public registry and body of evidence or information the Review Board would consider.

Deliverable: The IR's represent very specific and focused requests for clarification or additional information, required in order for the party or parties requesting the information to complete its analysis and reach a conclusion about the developer's EA report and proposed development. The developer's response, or the stakeholders response in cases for example where an IR is sent to a government department or RA, to the IR is placed on the public registry and circulated to all stakeholders.

5.1.11 Consultation

The Review Board may decide a round of public consultation is warranted to discuss the developer's EA report and stakeholder responses. This consultation could take one of two forms. A forum where people make their presentations about the development proposal to the Review Board; and, as a formal hearing where people could, under certain rules developed by the Review Board, ask questions to any other stakeholder.

Deliverable: A public forum for the Review Board to listen to and get additional information about the EA, the development proposal and the conclusions reached by stakeholders in filed documents.

5.1.12 EA Decision and Written Reasons

The Review Board will prepare its determination after considering the EA Report, its analysis, and the information on the Public Registry. The Review Board will then prepare its written reasons. The Review Board will give the Minister of DIAND its written reasons. The Minister of DIAND will distribute them to every responsible minister. The referring body, NNPR, and the developer, CZN, also receive copies of the Review Board's written reasons.

Staff would work with the Review Board in the preparation of its Report of EA and written reasons.

Deliverable: Report of the Review Board on the EA, with decision and written reasons.

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6 TERMS OF REFERENCE

These EA Terms of Reference (ToR) provide direction to the Canadian Zinc Corporation (CZN) on what information is required about the proposed development and its potential environmental effects. The ToR also provides guidance to CZN for the submission of this information in the form of an EA Report. The information provided will assist the Review Board in reaching an EA decision, in accordance with ss.128(1) of the MVRMA. The Review Board will conduct the EA and make its decision in the context of Part 5 of the MVRMA.

7 SCOPE OF THE DEVELOPMENT

The Review Board is required to provide a scope of development determination according to ss.117(1) of the MVRMA. This section describes what the Review Board considers the scope of the developments. The Review Board has decided to combine the proposed developments.

7.1 *Principal Development*

The development proposes:

- Mineral exploration program made up of about 60 drill holes.
- Decline about 600 m in length and underground exploration drilling.
- Test metallurgical processing plant.

7.2 *Accessory Developments and Activities*

The accessory undertakings associated with the principle development proposals include:

Exploratory drilling

- Use of an existing tote road to access the drill sites.
- Development of additional tote roads to access site specific drill areas
- Removing vegetation and overburden for the drilling area.
- Drawing water from a local water supply/aquifer for drilling purposes.
- Using sump to retain drill cuttings and any return water.
- Drill site restoration where applicable.
- Return of equipment to the main mine site.

Underground decline and drilling

Airlifting the jumbo drill to and from the portal location;

- Use of area at the portal at the 905 m elevation about 600 m north of the existing mill facility;
- Excavating a 600 m long 3 m wide and 2.3 m high decline at a 15% down gradient;
- Driving the decline using a two-boom air jumbo drill;
- Removing the rock from the decline using 2-yard scoop trams;
- Transporting the rock to a location within the plant site area using a loader and truck;
- Cutting out 9 drill “cutouts” along the decline in support of an underground drill program;
- Drilling in the cutouts using a Boyles electric or hydraulic diamond drill;
- Dewatering the decline and cutouts using sumps and pumps;
- Creating a sump settling pond at the mouth of the portal; and
- Release of water from the settling pond into Harrison Creek.

The **Metallurgical** includes:

- Transporting and assembly of a “pilot plant” into the existing mill building;

- Operation of the pilot plant at about 1.5 tonnes per hour;
- Processing a the rock taken from the surface stockpile and possibly rock from the decline development;
- Using between 2000-4000 m³ of water of which half will come from an on-site aquifer using existing on-site wells;
- Release of mine water into the tailings pond;
- Storage of tailings in one of two thickeners inside the mill building; and,
- Removal of the concentrated rock in 2 tonne bags by air.

Logistical Support includes:

To undertake the proposed development the following logistical support services and infrastructure would be utilized.

- Use of existing mine site facilities at Prairie Creek as base camp for operations,
- Use of existing trucking and mining equipment to support the decline, drill and testing development,
- Helicopter support for safety, equipment and personnel transport as required, and
- Permanent storage of mined and milled rock at mine site.

8 SCOPE OF ASSESSMENT

Scope of assessment covers the components of the environment that will be evaluated for impacts from the proposed development. For the purposes of this environmental assessment, MVRMA ss.117(2) factors must be considered, as well as,

- Impact on the environment - means any effect on land, water, air or any other component of the environment, as well as on wildlife harvesting, and includes any effect on the social and cultural environment or on heritage resources.
- Environment - means the components of the Earth and includes land, water and air, including all layers of the atmosphere; all organic and inorganic matter and living organisms; and the interacting natural systems.
- Harvesting - in relation to wildlife, means hunting, trapping or fishing activities carried on in conformity with a land claim agreement or, in respect of persons and places not subject to a land claim agreement, carried on pursuant to aboriginal or treaty rights.

In making this determination, the Review Board took into account the reasons for referral, the project description, previous screening reports, public comments and other documents on the public registry.

8.1 Previous Screenings and Reports

In accordance with s.127 of the MVRMA, the Review Board is required to consider any report made in relation to the development proposal under the Canadian Environmental Assessment Act (CEAA) and the Environmental Assessment and Review Process Guidelines Order (EARPGO) before the proclamation of the MVRMA. The Prairie Creek mine was established in 1982/83, and has been under different ownership since that time. The site is maintained under a Land Lease issued by DIAND that was transferred to the present owners, Canadian Zinc Corporation.

Application for the development proposals were made to the MVLWB for two Land Use Permits and a water licence under the MVRMA. There were no CEAA or EARPGO reports identified by preliminary screeners with respect to this development proposal; however, there is a completed environmental assessment report for the Prairie Creek mine and a sufficiently complete report for the exploratory drilling provided by CZN in its Land Use Permit Application.

Table 3 summarizes the Review Board's evaluation of the available environmental information. A "Yes" indicates that the Review Board has adopted available environmental information to satisfy its ss.117(2)

requirements. A “No” indicates that CZN shall address the relevant 11 / (2) requirement in its submission to the Review Board.

Table 3 – Summary Evaluation of Available Environmental Information

Scope of the Assessment	Existing Information Acceptable?		
	Drill	Test Mill	Decline and Drill
Environmental Assessment Methodology	Yes	No	No
Public Consultation	Yes	Yes	Yes
Environmental Considerations in the Development Design	Yes	Yes	Yes
Accidents and Malfunctions	Yes	Yes	Yes
Alternatives	Yes	No	No
Existing Environment			
• Air Quality and Climate	Yes	Yes	Yes
• Terrain including Soil and Bedrock	Yes	Yes	Yes
• Vegetation and Plant Communities	Yes	Yes	Yes
• Water Quality and Quantity	Yes	Yes	Yes
• Aquatic Resources and Habitat	Yes	Yes	Yes
• Wildlife and Wildlife Habitat	Yes	Yes	Yes
• Cultural and Heritage Resources	Yes	Yes	Yes
• Socio-Economics	Yes	Yes	Yes
• Land and Resource Use	Yes	Yes	Yes
• Noise	Yes	Yes	Yes
• Visual and Aesthetic	Yes	Yes	Yes
Potential Impacts and Predicted Residual Impacts after Mitigation			
• Air Quality and Climate	Yes	No	No
• Terrain including Soil and Bedrock	Yes	No	No
• Vegetation and Plant Communities	Yes	No	No
• Water Quality and Quantity	Yes	No	No
• Aquatic Resources and Habitat	Yes	No	No
• Wildlife and Wildlife Habitat	Yes	No	No
• Cultural and Heritage Resources	Yes	No	No
• Socio-Economics	Yes	No	No
• Land and Resource Use	Yes	No	No
• Noise	Yes	No	No
• Visual and Aesthetic	Yes	No	No
Cumulative Impacts			
• Natural Environment	Yes	No	No
• Socio-Economic and Cultural Environment	Yes	Yes	Yes
Abandonment And Restoration	Yes	Yes	Yes
Follow-Up Programs	No	No	No

9 ENVIRONMENTAL ASSESSMENT

This section provides direction to CZN about the information required by the Review Board and its advisors in order to make an EA decision.

The EA Terms of Reference are the Review Board’s instructions to CZN are designed to ensure the appropriate information is provided to understand the environmental consequences and the benefits of the proposed development. The Terms of Reference are developed from the development description

provided by the developer and other relevant information. The Terms of Reference also provide the scope of the development and scope of assessment determination of the Review Board. The Review Board may also request CZN to respond to Information Requests from Regulatory Authorities, expert advisors, and interested participants.

To properly execute its duties under the MVRMA, the Review Board should have the following information on the proposed development:

1. Title (of the development proposal);
2. Executive Summary (translated into appropriate aboriginal languages, if requested);
3. Corporate and development information including an environmental record;
4. Description of the development (e.g., phases, timetables, location, technology used, alternatives to the development, development design details taking into account the environment);
5. Description of the existing environment potentially impacted by the proposed development, (e.g., natural and human setting);
6. Impact of the development on the environment, including those caused by accidents or malfunctions, and any cumulative impact(s);
7. List of potential impacts and the proposed mitigation or remedial measures;
8. Identification and description of the residual impacts following mitigation or remedial measures;
9. Results and summary of issues from public and community consultation, including any concerns and mitigation;
10. Plans for any environmental management plan, follow-up and monitoring;
11. List of supporting evidence and information sources, including previous environmental assessments; and
12. List of the required licences, permits and other authorizations, if relevant.

The information listed above is normally supplied by the developer to the Review Board in the form of a single EA report. However, for this EA the Review Board has adopted existing documentation to address some of the items in the above list. As such, the submission from the developer in response to these Terms of Reference need only address those items listed in the remainder of this section.

To address the deficiencies identified in Table 3 with the existing documentation, as well as provide the information required by the above list, CZN shall provide the Review Board with a submission that provides the information requested in Sections 9.1 to 9.XXX

In preparing its submission, CZN shall ensure that the following information is provided when discussing development impacts:

- Identify the development activity;
- Identify the potential impact of this activity (with supporting evidence)
- Propose mitigative measures with evidence that the mitigation will work; and
- Predict the significance of residual impacts that cannot be mitigated.

9.1 Executive Summary

CZN shall provide an Executive Summary that encompasses the contents of the existing documentation and the information submitted in response to these Terms of Reference.

9.2 Alternatives

CZN shall provide an explanation of the alternatives to the principal and accessory parts of the development, such as options to reduce drill site clearing sizes.

For clarity, the scope of factors to be considered in the environmental assessment shall include, the following.

9.3 Environmental Impacts

The environmental assessment report shall report impacts resulting from the test plant and decline drilling on the physical, biological and social, economic and cultural components of the environment. The impacts due to the drilling of exploration holes can be assessed with existing information and so does not need to be discussed in the EA report.

9.3.1 Air Quality and Climate

Report the impacts of the proposed development on air quality. Include a discussion of measures considered to minimize the release of air contaminants (dust, particulate exhaust fumes and other air Contaminants).

9.3.2 Terrain

Report the impacts on the environment when surficial geology, bedrock or soils are disturbed, or used for construction purposes.

9.3.3 Vegetation and Plant Communities

Analyze impacts of the proposed development on local plant communities, rare or highly valued species, and long-term, direct and indirect, habitat loss or alteration.

9.3.4 Water Quality and Quantity

Provide an analysis of proposed development impacts on surface and ground waters. This analysis shall include the impacts on water quality and quantity, catchment areas.

9.3.5 Aquatic Habitat

The impacts on aquatic organisms and their habitat shall be considered taking into account predicted water quality and quantity impacts.

9.3.6 Wildlife and Wildlife Habitat

The environmental assessment report shall provide an analysis of the proposed development's impacts, (both direct and indirect), on wildlife and wildlife habitats, including migratory birds. Special consideration shall be given to species listed as vulnerable or endangered on the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) list.

9.3.7 Cultural and Heritage Resources

Describe potential impacts of the proposed development on cultural and heritage resources.

9.3.8 Land and Resources Use

Assess the impacts of the proposed development on the use of land, water and renewable resources, including:

- Traditional land use and occupation.
- Existing land use and occupation.
- Hunting, trapping, and outfitting, recreational, commercial and sport fishing.
- Availability, abundance and quality of wildlife, fishing, gathering, recreational
- Commercial land and water-based areas.
- Protected areas.

9.3.9 Socio-economics

The impact of the proposed development on the economy, having regard to direct, indirect and induced impacts on income and employment. Incremental abandonment and restoration costs resulting from the proposed development.

9.3.10 Noise

Assess the impact of the proposed development on the environment resulting from changes to ambient noise levels, continuous exposure versus acute noise.

9.3.11 Visual and Aesthetic Resources

Assess the visual and aesthetic impact of the proposed development. Report design components that mitigate visual and aesthetic impacts.

9.4 Cumulative Effects Assessment

Add Your Request for Information Regarding the Environmental Impact of the Proposed Development Here. **Refer to Table 3, only those with a Yes should be addressed in Part of the EA.**

9.5 EA DECISION PROCESS

When the public registry has closed for this EA, the Review Board will consider all of the evidence received and reach an EA decision in accordance with ss.128(1) of the MVRMA. Once the Review Board has made a decision and provided its written reasons, the Review Board's Report of EA, made in accordance with ss.128(2), will be forwarded to the federal Minister of DIAND for his decision in accordance with s.130. As this development also involves a DRA (the NEB), the Review Board's Report of EA will also be forwarded to the NEB for its decision in accordance with s.131.

9.6 Direction to Others

The Review Board may request information from expert advisors, RA's, or others, through the issuance of information requests (IR's). Information requested and received through the IR process would assist the Review Board in completing the EA and reaching an EA decision. Parties receiving an IR should provide clear rationale for statements made, conclusions reached and any recommendations provided to the Review Board. With an anticipated EA decision date of late January 23, all responses to IR's and any other information parties wish to provide to the Review Board should be submitted as soon as possible, and certainly before the closure of the public registry.

10 EA DECISION PROCESS

When the public registry has closed for this EA the Review Board will consider all of the evidence received and reach an EA decision in accordance with ss.128(1) of the MVRMA. Once the Review Board has made a decision and provided its written reasons, the Review Board's Report of EA, made in accordance with ss.128(2), will be forwarded to the federal Minister of DIAND for his decision in accordance with s.130.

APPENDIX 1

Environmental Assessment Process Overview

APPROACH TO COMPLETING THE MVRMA EA PROCESS

This section provides a more detailed discussion of the Review Board's approach, some general expectations, and milestones in the MVRMA EA process. This approach is used as a template, to be applied specifically to the development undergoing an EA. The Review Board reserves the right to vary or change its approach to completing an EA based on the circumstances, size, and complexity of the development.

The Review Board determines, based on the size, complexity and nature of the development, and on the nature of the environmental effects and public concerns associated with the development, the level of effort and detail required to complete the EA. The level of effort and detail required to complete the EA would be reflected in the Review Board's determination of the scope of the development and scope of assessment, issued with the EA Terms of Reference.

1.0 Review Board Context for Environmental Assessment

The Review Board, in exercising its authority is guided by the following legal principles and by definitions, purposes and factors found in the MVRMA. This context provides the developer, RA's, the DRA (NEB) as required, federal and territorial governments, First Nations, expert advisors, and other affected or interested parties the framework within which the EA will be conducted.

1.1 Legal Principles

The Review Board is governed by the rules of natural justice and procedural fairness. This essentially means that fair play is required when exercising decision making functions. Three of the basic elements are:

- (i) **The right to be heard** - means providing fair opportunity for parties to prepare and state their case, and to correct or contradict relevant statements prejudicial to their position;
- (ii) **The rule against bias** - is a rule against prejudging a case; addressing not only actual bias but also any reasonable apprehension of bias; and,
- (iii) **Fettering of discretion** - means the Review Board is governed by the common law principle which requires that As/he who hears must decide. This means that the Board members who hear or review the evidence in an EA must be the decision makers. Members who did not participate can play no role in the decision. The law also requires that the Board and its members must be free to exercise their full authorities under the statute. The Board must decide each case on its own merits.

1.2 Context

The context within which the Review Board conducts an EA is based on following definitions and indicated sections from the MVRMA.

Development - means any undertaking, or any part of an undertaking, that is carried out on land or water and, except where the context otherwise indicates, wholly within the Mackenzie Valley, and includes measures carried out by a department or agency of government leading to the establishment of a national park subject to the National Parks Act and an acquisition of lands pursuant to the Historic Sites and Monuments Act.

Environment - means the components of the Earth and includes

land, water and air, including all layers of the atmosphere;
all organic and inorganic matter and living organisms; and
the interacting natural systems that include components referred to in paragraphs (a) and (b).

Follow-up program - means a program for evaluating

the soundness of an environmental assessment or environmental impact review of a proposal for a development; and
the effectiveness of the mitigative or remedial measures imposed as conditions of approval of the proposal.

Harvesting - in relation to wildlife, means hunting, trapping or fishing activities carried on in conformity with a land claim agreement or, in respect of persons and places not subject to a land claim agreement, carried on pursuant to aboriginal or treaty rights.

Heritage resources - means archaeological or historic sites, burial sites, artifacts and other objects of historical, cultural or religious significance, and historical or cultural records.

Impact on the environment - means any effect on land, water, air or any other component of the environment, as well as on wildlife harvesting, and includes any effect on the social and cultural environment or on heritage resources.

Mitigative or remedial measure - means a measure for the control, reduction or elimination of an adverse impact of a development on the environment, including a restorative measure.

s.114 *The purpose of this Part is to establish a process comprising a preliminary screening, an environmental assessment and an environmental impact review in relation to proposals for developments, and*

to establish the Review Board as the main instrument in the Mackenzie Valley for the environmental assessment and environmental impact review of developments;
to ensure that the impact on the environment of proposed developments receives careful consideration before actions are taken in connection with them; and
to ensure that the concerns of aboriginal people and the general public are taken into account in that process.

s.115 The process established by this Part shall be carried out in a timely and expeditious manner and shall have regard to

the protection of the environment from the significant adverse impacts of proposed developments; and
the protection of the social, cultural and economic well-being of residents and communities in the Mackenzie Valley.

ss.117(1) Every environmental assessment of a proposal for a development shall include a determination by the Review Board of the scope of the development, subject to any guidelines made under section 120.

ss.117(2) Every environmental assessment and environmental impact review of a proposal for a development shall include a consideration of:

- the impact of the development on the environment, including the impact of malfunctions or accidents that may occur in connection with the development and any cumulative impact that is likely to result from the development in combination with other developments;
- the significance of any such impact;
- any comments submitted by members of the public in accordance with the regulations or the rules of practice and procedure of the Review Board;
- where the development is likely to have a significant adverse impact on the environment, the imposition of mitigative or remedial measures; and
- any other matter, such as the need for the development and any available alternatives to it, that the Review Board or any responsible minister, after consulting with the Review Board, determines to be relevant.

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