Record of Proceedings, Including Reasons for Decision

In the Matter of

Proponent	Ontario Ministry of th	e Environment
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- Subject Environmental Assessment Guidelines for Deloro Mine Site Cleanup Project
 - Date October 31, 2003

RECORD OF PROCEEDINGS

Proponent:	Ontario Ministry of the Environment	
Address/Location:	133 Dalton Avenue, P.O. Box 820, Kingston, Ontario K7L 4X6	
Purpose:	Environmental Assessment Guidelines for Deloro Mine Site Cleanup Project	
Date(s) of hearing:	September 26, 2003	
Location:	Canadian Nuclear Safety Commission (CNSC) Public Hearing Room, 280 Slater St., 14th Floor, Ottawa, Ontario	
Members present:	L.J. Keen, Chair C. Barnes J.A. Dosman Y.M. Giroux	A.R. Graham L. MacLachlan J.M. McDill
Counsel: Secretary: Recording Secretary:	I.V. Gendron M.A. Leblanc S. Gingras	

Proponent Represented By	Document Number
B. R. Ward, Regional Director, Eastern Region	CMD-03-H33.1
J. Ritter, Deloro Project Manager	
CNSC Staff	Document Number
C. Maloney	CMD 03-H33
• H. Jarrett	

Decision and Reasons:

Date of Decision: September 26, 2003

1. Introduction

The Ontario Ministry of the Environment (OMOE) has applied to the Canadian Nuclear Safety Commission (CNSC) for a Waste Nuclear Substance Licence for the possession, storage and management of radioactive substances at the Deloro Mine Site. The Deloro Mine Site is located adjacent to the former village of Deloro, approximately 65 km east of Peterborough, and the Moira River, Ontario. The Deloro mine originally operated as a gold mine. It later was involved between 1930 and 1960 in the refinement of smelted ores; these ores were brought to the site from Eldorado Nuclear Limited in Port Hope, Ontario. This resulted in the deposition on the mine site of low-level radioactive materials that are the subject of the current application. The Deloro mine operated for approximately 100 years before it was closed in 1961.

It has been determined that an environmental assessment of the proposed project is required pursuant to the *Canadian Environmental Assessment Act* (CEAA) (section 3.1). In accordance with the CEAA, Commission staff (CNSC staff) will prepare, and the Commission will make a decision on, an environmental assessment (EA) of the proposed project before the Commission makes a decision on the licence application.

In carrying out the assessment under the CEAA, the Commission must first determine the *scope of the project* and the *scope of the assessment*.

To assist the Commission in this regard, CNSC staff, after consulting with other government departments, the public, and other stakeholders, prepared a draft *Environmental Assessment Guidelines* document (EA Guidelines), including draft statements of scope for the approval of the Commission. The EA Guidelines also contain recommendations and instructions for the structure and methods to be used in completing the environmental assessment, including the conduct of further public and stakeholder consultations. The EA Guidelines are attached as Appendix A to CMD 03-H33.

The OMOE advised CNSC staff that the Deloro Mine Site Cleanup project was exempted from the provisions of the Ontario Environmental Assessment Act in 1981 and therefore a joint federal-provincial environmental assessment will not be required. Although exempted, the OMOE will continue to work to the general intent of the provincial EA process and will include documentation to this effect. It will seek provincial and municipal authorizations to ensure compliance with the appropriate requirements.

Fisheries and Oceans Canada (DFO) has indicated that it would be a Responsible Authority (RA) for this project if an authorization for the harmful alteration, disruption or destruction of fish habitat under section 35 of the *Fisheries Act* is required. It is not known with certainty at this point if an authorization under the *Fisheries Act* will be required. If it is not, DFO will act as an expert Federal Authority in the assessment of the project. DFO and CNSC staff agreed that the CNSC would be the lead RA for the Deloro Mine Site Cleanup project environmental assessment.

Issues:

In considering the EA Guidelines, the Canadian Nuclear Safety Commission was required to decide, pursuant to section 15(1) and 16(3) of the CEAA:

- a) the *scope of the project* for which the environmental assessment is to be conducted; and
- b) the *scope of the factors* to be taken into consideration in the conduct of the environmental assessment.

The Commission also considered whether, at this time, it would request the federal Minister of the Environment, pursuant to section 25 of the CEAA, to refer the project to a mediator or a review panel.

Public Hearing:

The Commission, in making its decision, considered information presented for a one-day public hearing held on September 26, 2003 in Ottawa, Ontario. The public hearing was conducted in accordance with the *Canadian Nuclear Safety Commission Rules of Procedure*. During the public hearing, the Commission received written submissions and heard oral presentations from the OMOE (CMD 03-H33.1) and CNSC staff (CMD 03-H33). There were no intervenors.

2. Decision

Based on its consideration of the matter, as described in more detail in the following sections of this *Record of Proceedings*,

the Canadian Nuclear Safety Commission, pursuant to sections 15 and 16 of the CEAA, approves the *Environmental Assessment (EA) Guidelines (Scope of Project & Assessment): Environmental Assessment of the Deloro Mine Site Cleanup Project*, as set out in Appendix A of CMD 03-H33 as modified by the Commission below.

The Commission also decides that, at this time, the project does not warrant a referral, pursuant to section 25 of the CEAA, to the federal Minister of Environment for his referral to a mediator or a review panel.

The Commission agrees with the changes proposed by CNSC staff during the hearing. Therefore, The Commission makes the following changes to the draft EA Guidelines:

In section 9.2.2, page 9, under "Spatial and Temporal Boundaries of the Assessment", the sentence:

"Study areas will encompass all relevant components of the environment including the people, land, water, air and other aspects of the natural and human environment", is replaced with:

"Study areas will encompass all relevant components of the environment including the people, non-human biota, land, water, air and other aspects of the natural and human environment".

In section 10, the wording:

- "CMD presentation of screening report to the Commission Hearing (Day 1);
- Commission Hearing (Day 2); and", is replaced by:
- "CMD presentation of screening report to the Commission Hearing (One day Hearing); and"¹

In section 11, the sentence:

"The Commission will make its decision on the Screening Report; then, it can proceed with licensing hearings to make its decisions on the Ontario Ministry of the Environment's application for a licence for the Deloro Mine Site Cleanup project", is replaced with:

"The Commission will make its decision on the Screening Report. If the Commission concludes that the project is not likely to cause significant adverse environmental effects, taking into account the appropriate mitigation measures, it may proceed with licensing hearings and decisions on the Ontario Ministry of the Environment's application for a licence for the Deloro Mine Site Cleanup Project".

The Commission makes the following additional changes to the draft EA Guidelines:

In section 9.2.2, under "Spatial and Temporal Boundaries of the Assessment", the wording:

<u>"Site Study Area</u>: Corresponding to the immediate zone of influence of the project, the site study area can initially be considered as the boundaries of the Deloro Mine Site property and the area associated with the Young's Creek remediation area south of Highway 7;", is replaced with:

<u>"Site Study Area</u>: Corresponding to the immediate zone of influence of the project, the site study area can initially be considered as the boundaries of the Deloro Mine Site property and the area associated with the Young's Creek remediation area south of Highway 7, including the sub-surface geological environment in the immediate vicinity of the Deloro Mine Site;"

¹ The Commission notes that, while a one-day hearing is envisioned in the EA Guidelines, the Commission retains the discretion to conduct the public hearing in the manner it deems appropriate at the time in accordance with the Rules of Procedures.

In section 9.2.2, under "Spatial and Temporal Boundaries of the Assessment", the wording:

"<u>Local Study Area</u>: The Local Study Area can be considered to be that area outside of the Site Study Area boundary, where there is a reasonable potential for effects on the biophysical environment.", is replaced with:

"<u>Local Study Area</u>: The Local Study Area can be considered to be that area outside of the Site Study Area boundary, including the sub-surface geological environment, where there is a reasonable potential for effects on the biophysical environment."

The Commission is satisfied that the general structure, methods, and other instructions for conducting the environmental assessment, as described in the draft EA Guidelines attached to CMD 03-H33, are adequate.

3. Issues and Commission Findings

3.1 Application of the CEAA

CNSC staff explained that the CEAA requires that an EA be completed if there is both a prescribed action by a federal authority (commonly referred to as a "trigger") and a "project". In this case, the "trigger" prescribed in the CEAA *Law List Regulations* is the need for the CNSC to issue a licence to allow the project to proceed. The "project" is the proposed completion of remedial work and construction of a storage site at the Deloro Mine Site. Furthermore, CNSC staff noted that the project is not of a type that is listed in the CEAA *Exclusion List Regulations* and hence an EA pursuant to the CEAA is required.

Based on this information, the Commission concurs with CNSC staff's decision to proceed with an EA of the proposed project under the CEAA.

3.2 Type of Environmental Assessment Required

CNSC staff explained that because the project is not of a type described in the CEAA *Comprehensive Study List Regulations*, a "screening" environmental assessment must be conducted, and a *Screening Report* prepared in accordance with subsection 18(1) of the CEAA. CNSC staff explained that it would prepare the Screening Report using the results of environmental assessment studies delegated to the proponent pursuant to subsection 17(1) of the CEAA. CNSC staff will require that those studies be carried out in accordance with the approved EA Guidelines.

3.2.1 Screening vs. Review Panel or Mediator

Another available type of assessment under the CEAA is a review panel or mediator appointed by the federal Minister of the Environment. The Commission may request such a referral at any time during the environmental assessment pursuant to section 25 of the CEAA. CNSC staff indicated that, at this time, it is not aware of any potential environmental effects or public concerns associated with this project which would warrant having it referred to a mediator or review panel pursuant to section 25 of the CEAA.

3.2.2 Conclusion on the Type of Environmental Assessment Required

The Commission decides therefore that a screening is the required type of EA in this case and accordingly that, at this time, it will not refer the project to the Minister of the Environment for referral to a review panel or mediator. The Commission may refer to the Minister for referral to a review panel at any time during the assessment and therefore requests that CNSC staff inform the Commission of any significant issues or public concerns arising during the conduct of the EA which may justify such a referral.

3.3 Consultations on the Draft EA Guidelines

This section addresses the consultation that CNSC staff conducted on the proposed draft EA Guidelines. The Commission considered the adequacy of these consultations as part of its consideration of the appropriateness of the proposed EA Guidelines, and of whether the public and other stakeholders have had an adequate opportunity to become informed and express any concerns about the project and assessment at this point in the process.

3.3.1 Federal Government Consultation

CNSC staff explained that, in accordance with the CEAA *Federal Coordination Regulations*, CNSC staff has consulted on the draft EA Guidelines, and will continue to consult during the environmental assessment with the following federal departments: Fisheries and Oceans Canada (DFO); Environment Canada; Health Canada; and Natural Resources Canada. Environment Canada, Health Canada and Natural Resources Canada have indicated that they wish to participate in the EA process as expert federal authorities. DFO has indicated that it would be a RA for the project if an authorization under the *Fisheries Act* is required; if it is not, DFO will act as an expert federal authority. DFO and CNSC staff have agreed that the CNSC would be the lead RA for the Deloro Mine Site Cleanup project EA.

As lead RA for the EA under the CEAA, CNSC staff solicited and received comments from the above-noted expert Federal Authorities during the development of the EA Guidelines document.

3.3.2 Provincial Government Consultation

CNSC staff explained that although the Deloro Mine Site Cleanup Project was exempted from the provisions of the Ontario *Environmental Assessment Act*, the Ontario Ministry of Environment is coordinating the involvement of Provincial Departments and other authorities in the remediation project. These include the following departments and agencies: the Ontario Ministry of Environment; Hastings and Prince Edward Counties Health Unit; Ontario Ministry of Health; Ontario Ministry of Labour; Ontario Ministry of Natural Resources; Ontario Ministry of Northern Development and Mines; Quinte and Moira River Conservation Authorities; and the Ontario Clean Water Agency. The Ontario Ministry of Northern Development and Mines commented on the draft EA Guidelines document after it was released to the public on May 9, 2003. The comments were dispositioned by CNSC staff and DFO.

3.3.3 Public Consultation

CNSC staff reported that it has established a public registry for the assessment in accordance with the requirements of the CEAA. As part of the registry, the CNSC maintains a list of documents pertaining to the EA. The registry is the responsibility of a licensing officer at the CNSC. Interested parties may obtain copies of specific documents on the list by contacting the appropriate licensing officer at the CNSC.

While not part of this formal EA process, CNSC staff reported that consultation activities on this project have been ongoing since 1997, including with two committees external to the OMOE: the Deloro Public Liaison Committee and a Technical Liaison Committee. In addition to the committees listed above, a broader public consultation program has been established by the OMOE.

CNSC staff, together with OMOE, made a public presentation on July 8, 2003 to the Quinte Watershed Cleanup Group to discuss the CNSC licensing and EA process. An earlier draft of the EA Guidelines Document was released to the public on May 9, 2003 for a comment period ending on June 6, 2003. Comments were received from six individuals and organizations. CNSC staff dispositioned the comments received and made appropriate amendments to the draft EA Guidelines document. The disposition of comments received from the public and government organizations is included in CNSC staff report CMD 03-H33, Appendix B.

3.3.4 Conclusions on the Adequacy of Consultations on the Draft EA Guidelines

Based on this information, the Commission is satisfied that the public and other stakeholders have had sufficient opportunity to become informed about, and provide input on the draft EA Guidelines. As noted above in section 3.2.1, the Commission is also satisfied that the public concerns expressed to date from this process do not warrant a referral of the project to the Minister of the Environment for referral to a review panel or mediator.

The Commission notes that the public will continue to be consulted during the conduct of the EA studies and will have a further opportunity to provide comments on the results of the screening EA when the matter comes before the Commission for a decision at a future public hearing.

3.4 The Scope of the Project

3.4.1 General

"Scope" under the CEAA is expressed in two parts: the *scope of the project* (i.e., the physical works and activities proposed) and the *scope of the assessment* (i.e., the scope of the factors to be considered in assessing the effects of the project). This section addresses the issues relating to

the *scope of the project*. The issues related to the *scope of the assessment* are considered in section 3.5 of this *Record of Proceedings*.

CNSC staff explained how the CEAA requires the responsible authority, pursuant to section 15 of the CEAA, to systematically identify the *scope of the project*. This begins with the identification of the *principal project* that is the subject of the prescribed trigger, in this case the proposed completion of remedial work and construction of a contaminated materials storage site at the Deloro Mine Site. CNSC staff then explained how the CEAA requires that other physical activities directly related to the principal project be considered for inclusion in the *scope of the project*.

In response to a question from the Commission about whether any remediation work would be done on the Moira River Watershed, the OMOE stated that, at this time, no remediation work is planned. The OMOE stated that the most important thing to do at this stage of the cleanup is to address the issues at the site itself. The OMOE added that the results of the study also showed some evidence that natural self-remediation has occurred in the watershed downstream of the site, and that disrupting the sediments in an attempt to remediate those areas would likely make the situation worse.

The Commission sought clarification on the transfers of contaminated materials to the Deloro site. The OMOE answered that waste or other materials not associated with historical mining, or the activities on the site, will not be brought to the site.

In summary, CNSC staff recommended that the Commission identify the project as including: site preparation; construction of the storage facility for the wastes; upgrade or construction of any access roads; excavation and transportation; on- and off-site remediation; on-site materials management; materials and waste handling activities; modifications to the operations of the effluent treatment plant and its infrastructure; operational and post-remediation environmental monitoring of the storage facility; and site maintenance. A preliminary decommissioning plan for the Deloro Mine Site will be included in the assessment.

3.4.2 Conclusions on the Scope of the Project

Based on the above information and considerations, the Commission accepts the CNSC staff recommendation concerning the definition of the *scope of the project* and approves the definition of the project scope as set out in section 7.0 of the draft EA Guidelines. The Commission notes that, although the radioactive wastes which trigger the assessment constitute only a minor part of the total wastes present at the site, the assessment will not be restricted to these radioactive wastes. The environmental assessment will address all of the wastes and waste types involved in the proposed remediation project.

3.5 Scope of the Assessment

3.5.1 General

The second part of "scope" under the CEAA (the *scope of the project* being the first part) is the *scope of the assessment* – otherwise described in the CEAA as the scope of the factors that will be considered in assessing the environmental effects of the project.

CNSC staff explained that the scope of a screening assessment under the CEAA must be determined by the Commission pursuant to subsection 16(3) of the CEAA, and include the factors set out in paragraphs 16(1)(a) to (d) of the CEAA. Other factors may be included at the discretion of the Commission under paragraph 16(1)(e) of the CEAA.

CNSC staff stated that the mandatory factors in subsection 16(1) of the CEAA are: the environmental effects of the project, including as may be caused by malfunctions or accidents and any cumulative environmental effects with other projects; the significance of the environmental effects; comments from the public that are received in accordance with the CEAA and its regulations; and measures that are technically and economically feasible that would mitigate any significant adverse environmental effects of the project.

In addition to these factors, CNSC staff recommended that the Commission include, pursuant to paragraph 16(1)(e), the following factors: the need for the project; the purpose of the project; alternative methods of carrying out the project that are technically and economically feasible and the environmental effects of any such alternative methods; the need for, and requirements of, a follow-up program in respect of the project; and the capacity of renewable resources that are likely to be significantly affected by the project.

The Commission sought clarification about whether the Moira River Watershed was included in the regional study area. The OMOE answered that it has included the entire Moira River Watershed in its study to date. CNSC staff added that the regional study area has been enlarged to include the entire Moira River Watershed to reflect the concerns expressed by the public.

In response to a question from the Commission as to what CNSC staff expects from the OMOE concerning the examination of alternative strategies, CNSC staff stated that there may be different ways of handling the different contaminants at the site and that it expects the OMOE to look at different approaches and justify the rationale for putting forth a preferred alternative.

In response to a question from the Commission concerning whether the traces of uranium found in the main well of the village of Tweed is in any way linked to the Deloro site, the OMOE stated that the uranium issue at Tweed is not related to the Deloro Mine Site and therefore this is not within the proposed scope of the assessment.

With reference to some of the public concerns raised during the earlier review of the draft EA Guidelines, the Commission sought further clarification on the proposed study areas for the assessment. CNSC staff answered that the regional study area has been enlarged in response to

public comments. The Commission requests that maps of the different study areas be included in the EA Screening Report to assist both the public and the Commission in understanding the geographic extent of the assessment.

In response to a question from the Commission on whether there is contamination in the deeper groundwater flow systems, the OMOE stated that this is a significant issue and that it is doing a significant amount of groundwater modelling in order to ensure that the proposed alternatives will address those hydrogeological issues. The Commission feels that this will be a key factor in the EA and therefore requests that the EA Screening Report and/or supporting technical studies include detailed information on this topic (including diagrams) in order to have a better understanding of the transport of contaminants into the ground. To ensure this factor is adequately captured in the EA, the Commission decided to modify section 9.2.2 of the draft EA Guidelines, as reflected in section 2 of this Record of Proceedings, to ensure the sub-surface geologic environment is explicitly included in the definitions of the site and local study areas.

In response to a question from the Commission about whether CNSC staff is confident that the screening as planned will adequately delineate the risk to the public from radioactive contamination, staff answered that yes, it is confident that it will.

3.5.3 Conclusion on the Scope of the Assessment

Based on the above information and considerations, the Commission concludes that the scope of the assessment, as described in section 8.0 of the draft EA Guidelines, is appropriate for the purpose of the EA of the proposed project.

3.6 Environmental Assessment Structure and Method

3.6.1 General

The draft EA Guidelines, in addition to containing statements describing the scope of the project and scope of the assessment (as addressed in the foregoing sections 3.4 and 3.5 of this *Record of Proceedings*), contain instructions relating to the structured approach and method to be used in conducting the environmental assessment. Therefore, in its consideration of the acceptability of the draft EA Guidelines document, the Commission also considered and made decisions on the recommended structure and methods for the assessment described therein.

Referring to the draft EA Guidelines, CNSC staff outlined the proposed structure and methods for completing the environmental assessment studies and Screening Report. This includes instructions for describing: the project (remedial work and activities, post-remedial operations, accidents and malfunctions, and decommissioning); the spatial and temporal boundaries of the assessment; the existing environment; the assessment and mitigation of environmental effects; the assessment of cumulative effects; the significance of residual effects (post-mitigation); the conduct of stakeholder consultations throughout the assessment; and the design and implementation of a follow-up program.

With respect to public consultation during the assessment, CNSC staff informed the Commission that the assessment will include notification of, and consultation with, the potentially affected stakeholders. Various media will be used to inform and engage individuals, interest groups, local governments, the local community and other stakeholders in the assessment. OMOE will be expected to hold appropriate public consultation events in accordance with the general framework set out in the EA Guidelines. The detailed stakeholder consultation program of OMOE is to be reviewed and accepted by CNSC staff and DFO in the early stages of the study.

OMOE informed the Commission that it is committed to a full public review of the proposed cleanup plan. Stakeholder consultation will begin with the set up of the Project Liaison Committee, followed by broader public consultation.

Based on the information presented, the Commission is satisfied that the general structure, methods, and other instructions for conducting the environmental assessment and consultation with the public, as described in the draft EA Guidelines attached to CMD 03-H33, are adequate. The Commission requests that CNSC staff closely monitor the conduct of the EA studies to ensure that the studies are being carried out in accordance with the EA Guidelines.

4. Conclusion

The Commission has considered the information and submissions of the project proponent and CNSC staff, as presented in the material available for reference on the record provided at the hearing.

The Commission, in making its decision pursuant to sections 15 and 16 of the CEAA, approves the *Environmental Assessment (EA) Guidelines (Scope of Project & Assessment): Environmental Assessment of the Deloro Mine Site Cleanup Project*, as presented as Appendix A to CMD 03-H33, modified as follows:

The Commission makes the following changes to the draft EA Guidelines, as proposed by CNSC staff during the hearing:

In section 9.2.2, page 9, under "Spatial and Temporal Boundaries of the Assessment", the sentence:

"Study areas will encompass all relevant components of the environment including the people, land, water, air and other aspects of the natural and human environment", is replaced with:

"Study areas will encompass all relevant components of the environment including the people, non-human biota, land, water, air and other aspects of the natural and human environment".

In section 10, the wording:

- "CMD presentation of screening report to the Commission Hearing (Day 1);
- Commission Hearing (Day 2); and", is replaced by:
- "CMD presentation of screening report to the Commission Hearing (One day Hearing); and"²

In section 11, the sentence:

"The Commission will make its decision on the Screening Report; then, it can proceed with licensing hearings to make its decisions on the Ontario Ministry of the Environment's application for a licence for the Deloro Mine Site Cleanup project", is replaced with:

"The Commission will make its decision on the Screening Report. If the Commission concludes that the project is not likely to cause significant adverse environmental effects, taking into account the appropriate mitigation measures, it may proceed with licensing hearings and decisions on the Ontario Ministry of the Environment's application for a licence for the Deloro Mine Site Cleanup Project".

The Commission makes the following additional changes to the draft EA Guidelines:

In section 9.2.2, under "Spatial and Temporal Boundaries of the Assessment", the wording:

<u>"Site Study Area</u>: Corresponding to the immediate zone of influence of the project, the site study area can initially be considered as the boundaries of the Deloro Mine Site property and the area associated with the Young's Creek remediation area south of Highway 7;", is replaced with:

<u>"Site Study Area</u>: Corresponding to the immediate zone of influence of the project, the site study area can initially be considered as the boundaries of the Deloro Mine Site property and the area associated with the Young's Creek remediation area south of Highway 7, including the sub-surface geological environment in the immediate vicinity of the Deloro Mine Site;"

In section 9.2.2, under "Spatial and Temporal Boundaries of the Assessment", the wording:

"<u>Local Study Area</u>: The Local Study Area can be considered to be that area outside of the Site Study Area boundary, where there is a reasonable potential for effects on the biophysical environment.", is replaced with:

"<u>Local Study Area</u>: The Local Study Area can be considered to be that area outside of the Site Study Area boundary, including the sub-surface geological environment, where there is a reasonable potential for effects on the biophysical environment."

² The Commission notes that, while a one-day hearing is envisioned in the EA Guidelines, the Commission retains the discretion to conduct the public hearing in the manner it deems appropriate at the time in accordance with the Rules of Procedures

The Commission also concludes that, at this time, it will not request the federal Minister of the Environment to refer the project to a mediator or review panel in accordance with the provisions of the CEAA.

The Commission requests CNSC staff to closely monitor the conduct of the technical assessment studies and stakeholder consultations activities and report to the Commission on any issues that could justify the Commission giving further consideration to a referral of the project to the Minister of the Environment, or amending the scope of the project or assessment.

Marc A. Leblanc Secretary, Canadian Nuclear Safety Commission

Date of decision: September 26, 2003 Date of release of Reasons for Decision: October 31, 2003