

Environment & Conservation
Box 1500
Yellowknife, NT, X1a 2R3

Date August 23, 1999

Gordon Stewart
Luciano Azzolini
Mackenzie Valley Environmental
Impact Review Board
Box 938
Yellowknife, NT, X1A 2N7

RE: Environmental Assessments - Ranger Oil and BHP Expansion:

In response to your request for written recommendations we enclose the following suggestions on Scope of Project and Assessment for the Ranger Oil project and the BHP expansion project. It should be noted that these are only preliminary comments and it is expected that more substantive discussion on these issues will occur as the scope is finalized and the EA guidelines are developed. With regard to written recommendations on Environmental assessment guidelines, we suggest that these be developed in draft format by the Review Board for discussion in a coordinated fashion with regulatory authorities (RA's) and other expert advisors. A suggestion would be to utilize existing guidelines for other projects and tailor these to the project at hand. Giving reviewers a draft document to analyse would be more likely to result in a focused, coordinated approach. One advantage to this approach may be a reduction in the projected timelines for both these assessments which are currently longer than ideal. The department encourages the Review Board to seek clarification from our staff who may be able to assist in both in a technical capacity and in the project assessment processes.

It is our experience that an important initial step, the Scope of the Project should not only be not only defined by the reviewing authority, but it should meet agreement of the Regulatory authorities and the proponent. Defining the scope of the project is vital as it gives clarity and provides the basis for focusing the Assessment on issues and concerns which are relevant. Agreement of all parties on both the scope of project and assessment provides the basis for a good EA and assists immeasurably in managing potential legal challenges on the process or at the least, managing potential public criticism of process.

Scope of the Project

In the absence of guidelines under the MVRMA, we have used existing guides or discussion documents under the *Canadian Environmental Assessment Act* to assist in defining the scope of the project. The MVRMA and regulations, in particular the Preliminary Screening listing was then used to refine the process. In short we attempted to ask ourselves 3 main questions (similar to CEAA guidelines).

1. What is the development (physical work or activity) for which preliminary screening has to be conducted?
2. What other associated developments (works or activities) on the preliminary screening list regulations would trigger a screening?
3. What other undertakings in relation to the development identified in 1) and 2) are present?

A more detailed discussion of Scope of Project and Scope of Assessment for both projects follows.

Sincerely,


Mary Tapsell
Manager

References:

1. Operational Policy Statement (OPS-EPO/1-1988) "Establishing the Scope of Environmental Assessment". Canadian Environmental Assessment Agency
2. "Scope of an Environmental Assessment under CEAA" Canadian Environmental Assessment Agency, December, 1995 (Draft)
3. Environmental Evaluation guidelines for BHP NWT Diamonds Project - DIAND August 1994 (Draft)
4. Guidelines for Environmental Impact Assessment (EIA) in the Arctic. Arctic Environmental Protection Strategy, June 1997

GENERAL OUTLINE - SCOPE OF PROJECT and SCOPE OF ASSESSMENT

As requested by the Review Board, we have attempted to outline our recommendations for scope of project and scope of assessment. The following understanding of scope was used as a guide for the recommendations offered.

It is noted that the scope of the project is understood to be all components (physical works and activities in CEAA terms) of the proposed development. It includes the geographic area (footprint) of the project in its entirety. This includes existing infrastructure and facilities to be utilized for processing, disposal, storage and transportation and activities associated with the project which relate to the new pipes to be developed in the BHP project for instance.

In contrast, the scope of the assessment is understood to relate to the predicted effects of those proposed physical works or activities. In the case of BHP, the process of determining the scope of assessment starts with identification of potential impacts. The second step will be determining if those impacts have already undergone environmental assessment and, if they have not, including them in the assessment. It would not include impacts of existing facilities and infrastructure where these impacts have already been assessed under the previous Panel review. However, changes to the capacity or extent, composition, duration and purpose of use, etc of these facilities and infrastructure or other impacts of the expansion will need to be included as part of the scope of the assessment.

The environmental screening of this project was initiated through the application for a water licence. However the environmental assessment of the project was triggered through the joint referral to the Review Board by DIAND and Fisheries and Oceans.

A: Scope of the Project (BHP - All additional pipes)

Modifications to:

- Existing facilities and infrastructure (includes potential increase in footprint and height of Koala/Panda waste rock or lake bed sediment dump due to added tailings disposal, modification of existing quarry sites)

Construction of:

- additional facilities and infrastructure (including diversion channels, haul and access roads, waste rock storage area, disposal sites, Sable road and stream crossings (culvert placement), and quarry locations where these are in addition to existing sites)
- construction of additional open pits (through dewatering of lakes or excavation of on-land pipes and the associated effects of this activity on fish, fish habitat, local drainage patterns etc)

B: Scope of Assessment

General

- In general, for all new pits, the environmental effects of the project, including effects of malfunctions or accidents
- technically and economically feasible alternative means of carrying out the project and the environmental effects of such alternative means
- any changes or impacts on existing infrastructure and facilities as a result of the expansion
- potential for ARD with addition of new material to waste rock storage areas or disposal sites.

- potential increase in traffic on existing haul roads and transportation corridors
- potential cumulative effects on wildlife and aquatic systems need to be considered with respect to the existing BHP operations and anticipated new developments. The significance of predicted impacts should be assessed

1. Beartooth Pit Development - it is expected that the scope of the assessment for the Beartooth pit will be relatively narrow as compared to others as it is located within the minesite lease and within the area which was assessed in 1995. All waste products generated from it are going to be integrated into the waste sites already established. Impacts of dewatering have been well documented in lakes which have been dewatered to date but will need to be included in the assessment. Other works or activities of a minor nature will include the diversion of the creek by pump/flowline, restoration of the pit by natural filling and removal of the small dam to re-establish the creek. Even though it is claimed that there is no fish passage from Beartooth to Bearclaw Lake, the potential for nutrients passage should be assessed. The fisheries resources of Ulu Lake is unknown and potential impact should be investigated.

2. Pigeon Pit Development - this pit is located in a new watershed so the assessment should reflect that. The waste rock/sediments are going to be placed in existing facilities at the minesite. The potential for ARD should be investigated. The diversion of Pigeon creek will have to be addressed. The facilities to be built (fuel storage and truck shed) are not extensive and impacts are expected to be minor. The main waste which will be generated is pit water which can be trucked the short distance to the Long Lake tailings pond or used for road watering. Again, impacts of dewatering are well documented but this will need to be assessed. The proposed reclamation of the site and pit will have to be addressed but are similar to what is documented in the 1995 assessment.

Sable Road - the archeological evaluation of the route will have to be assessed and that information is needed. The route crosses a few drainages but they are all minor in nature and can be easily handled by small culverts. The source of the rock for use on the road is to be addressed and if it the same as used on the existing infrastructure then this has been assessed in 1995. Alternatives to the all weather road are not specified and should be assessed for economic and technical feasibility.

Sable Pit - this pit is being developed in a new watershed. There will be waste products generated here which will have to be thoroughly assessed. Specifically, the waste rock and the acid generating potential of some of it. The lake bed sediment, its placement and the control of the runoff from it will need to be assessed. The pit water and the handling and disposal of same will need to be assessed. The facilities that are going to be built are a little more extensive than that of Pigeon with the addition of the sedimentation pond. The effects of dewatering appear to be predictable and mitigable with known technology but will need to be assessed. The reclamation of the site with the added waste dumps needs to be more thoroughly assessed.

c: Questions to pose to developers

- Were alternatives to all weather road considered?
- does BHP have a consultation plan and has this been initiated?

D: Key Issues

- The assessment will need to take into account the previous environmental review of the project and delineate the new impacts to be assessed as a result of the expansion.
- The previous environmental review established the focus for consultation with affected communities and groups, which have defined the extent of ongoing consultation on the project to date. These groups will need to be included in the consultation related to the expansion.

- the need for the Review Board to be familiar with the extent of current monitoring programs and research being undertaken under the Environmental Agreement which is in addition to terms and conditions of existing authorizations.

Ranger Oil Project

A: Scope of Project

The scope of project is a routine gas well and pipeline tie-in application. The work plan as submitted appears to be complete and well organized. Project has changed to include a well site facility at the Chevron K-29 site, and at N-61, a new alignment for pipeline and water line, a retention of the original pipeline from Canadian Forest Oil's N61 to Pointed Mountain, on a new alignment, and an extension of the road from K-29 to P68A. They are succinctly described in the background attached to their request to amend the application. On page 1 of the Integrated Project description, there are three headings, "Project Components", "Scope of Development Work" and "Associated Development Activities". These three, combined, should form the Scope of the Project. To summarize, it should cover all aspects of the construction, operation, modification, decommissioning, abandonment and post-closure activities related to the entire project, not just the exploratory program.

Scope of project should include:

The scope of the project covers its entire footprint and is as follows:

- Activities such as construction, maintenance, operation and reclamation of wellsite dehydration facilities at each wellsite (including ESD valves, cooler, separator, metering, glycol dehydrator, produced water storage tanks, pig senders
- any surface or buried pipelines (including tie-ins) for transportation of products including sour gas, water etc.
- construction access road between Ranger P-68a and Chevron K-29 (adjacent to pipeline ROW)
- injection well facilities to tie-in water pipelines
- piping to tie proposed gas pipelines into Westcoast pipeline
- construction and operation of small power generation facilities

The four camps:

- (a) Pointed Mountain: 100 persons
- (b) Ranger P-68: 50 persons
- (c) Chevron K-29: 200 persons
- (d) Canadian Forest Oil N-61: 50 persons

B: Scope of Assessment:

This would include those considerations listed in Section 117(2) and (3) of the MVRMA, with emphasis on the impact of linear developments on the environment, alternative routes and reclamation methods and techniques

The scope of the assessment should be limited to first, verifying that the additional information provided as it relates to new alignments, facilities and additional road, supports the conclusions in the proponent's Environmental Assessment Report, and subsequently the conclusions of the Preliminary Screeners, (with the exception of the reasons given by the Review Board for their motion.) Assuming that there have been no significant changes to the potential for significant impact (as assessed by Preliminary screeners), nor the predicted success of known and accepted practice in mitigating impacts, the concerns first expressed by the Review Board would thus continue to be the only concerns needing to be addressed by further assessment.

As well, are the reasons for referral for EA still valid? For instance, a concern over ridge and slope stability, is perhaps negated since there is no longer any consideration of crossing the Liard Range via horizontal bore, which is where the stability questions were first raised.

The is concern (similar to that expressed by the NEB) that this project is being viewed as a 'worst case

scenario' basis. It is unclear why there is such a delay between EA work plan (July 30) and preparation of draft guidelines (Sept. 16). Other timelines could be tightened. It does not appear that there are significant gaps in the information provided. Specifics to be assessed will be discussed in the context of future discussions on EA guidelines. However, it is understood that much of this information is provided by the proponent in their project description and associated documents.

C: Questions to Pose to Developers:

- Reason for substantial quantities of production water. Where is the location of the 2 water injection wells noted in the Scope of Development Work? They are not mapped. What criteria/justification was used to determine the spatial boundaries? Clarification of the method used to determine temporal boundaries.
- the quantity and quality of produced water and disposal location(s)
- water use requirements for winter road construction including the road locations, sources and quantities of water required.

D: Key Issues to be Addressed:

From a Lands perspective, detailed mapping of all infrastructure including well sites, borrow sources, pipeline and roads; quarry management and reclamation plan for borrow sources; abandonment and restoration plan for all infrastructure at the end of the project (meaning, when the well runs dry, not just the exploration program) which includes revegetation, etc.; other exploration programs that may utilize the project infrastructure in the future; the effects of the environment on the project (severe events-earthquakes, permafrost); effects of permafrost in alpine settings; compensation (IBA's); land tenure requirements; performance record.

The Board should also be informed that Land Administration is the RA for issuance of land tenure instruments, and as such should be contacted directly on all related matters. Information submitted to the Board in relation to this project, should be distributed by the Board to us as an RA.

As an RA, Land Administration will be making the final decision on land tenure once the Board's recommendations on the project are received. However, we welcome any comments they may have on conditions for incorporation into any regulatory instrument.

Down hole water disposal remains unaddressed from an assessment perspective, and remains a part of the EA scope, since it was identified by the Review Board. This seems to be more an issue of understanding geological processes, than one of environmental import. Perhaps NEB and NOGD could assist the Review Board in outlining what formation water is, and what happens when this is re-injected into a similar, but non-producing formation.

Confirmation with the National Energy Board should be obtained on the acceptability of placing the produced water pipeline in the same trench as the gas pipeline.

Potential cumulative effects was one of the reasons given by the Review Board for referral to an EA. For biological effects, a suggestion would be that the areal extent should be limited to the southerly end of the Liard Range. The mountains to the west, the Liard River to the south and east, create useful natural bounds. The Liard River serves as a suitable delineation of aquatic effects. Fisherman Lake and Creek both end up there. For effects on economic resources, specifically timber, a broader base should be used, since local mills and operators depend on a much wider, regional land base. The workforce currently affected is the Liard workforce, with some involvement from Nahanni Butte. It is reasonable to expect workforce participation from Fort Simpson, and perhaps the rest of Deh Cho, as local labour requirements become stable, and understood by potential participants. Seismic, exploration drilling, as well as production drilling can reasonably be expected to be ongoing activities in the area.