



Indian and Northern
Affairs Canada

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Box 1500
Yellowknife NT X1A 2R3

File: EA0708-007

June 11, 2009

Tawanis Testart
Environmental Assessment Officer
Mackenzie Valley Environmental Impact Review Board
Box 938
#200 Scotia Centre, 5102-50th Avenue
Yellowknife, NT X1A 2N7

Re: Deze Energy Corporation – Taltson Hydroelectric Expansion Project – Information Requests

Dear Ms. Testart:

Indian and Northern Affairs Canada (INAC) is pleased to provide the following information requests on the developer's assessment report for Deze Energy Corporation's Taltson Hydroelectric Expansion Project to the Mackenzie Valley Environmental Impact Review Board (Review Board).

INAC found the Review Board's Technical Sessions May 27-28, 2009 to be very helpful in terms of providing clarification to a number of questions. Deze Energy Corporation staff and consultants were able to answer questions from the Parties in-person on specific sections of the Developers Assessment Report, which was extremely beneficial. Review Board staff encouraged the Parties to continue to ask questions by email thus alleviating unnecessary Information Requests. A separate email will be sent to the Review Board for the public record with the results of the email discussions between Deze Energy Corporation and INAC Water Resources.

If you have any questions about these comments, please contact Candace Ross in Environment and Conservation at 867-669-2407 or via email at Candace.Ross@inac-ainc.gc.ca.

Sincerely,

David Livingstone
Director, Renewable Resources and Environment

IR Number: 1
Source: Indian and Northern Affairs Canada
To: Deze Energy Corporation
DAR Section: Ch. 13/14 (end of section “monitoring” is briefly discussed)
Terms of Reference Section: 3.2.7 Monitoring Programs

“Specifically the DAR must include a description of any follow up programs, contingency plans, or adaptive management programs the developer proposes to employ before, during and after the proposed development for the purpose of recognizing and managing unpredicted problems to valued components.”

Preamble

INAC recognizes that the developer would like to work with interested parties to develop monitoring programs and we are willing to participate in such discussions; however, we note that Terms of Reference requested a description of such monitoring, including clearly distinguishing which of the following meanings is meant with each use of the term “monitoring” in the DAR – 1) Compliance inspection 2) Environmental monitoring and 3) Follow-up. Most discussion in the DAR that reference monitoring did not go into such detail.

Secondly, INAC notes that the Terms of Reference state that the DAR must include a description of any contingency plans or adaptive management programs. The term adaptive management was only used in section 10.35 but stated that adaptive management would be implemented if monitoring detects effects not predicted.

Request

- 1) That the Deze Energy Corporation provide draft monitoring frameworks for the following areas as soon as possible:
 - Talston River Watershed
 - Trudel Creek
 - Canal Construction and Canal Operation

These draft monitoring programs should serve as a starting point for Deze Energy Corporation to work with interested parties to develop monitoring programs.

- 2) That the Deze Energy Corporation identify contingency plans should mitigation measures fail, and provide an outline of any adaptive management programs related to water quality and quantity. This should include effects both during and post construction.

IR Number: 2
Source: Indian and Northern Affairs Canada
To: Deze Energy Corporation
DAR Section: 13.4.2
Terms of Reference Section: 3.1.6.3 Water quality and quantity

Existing water quality for major water bodies identified as being potentially affected by the development.

Preamble

In the Terms of Reference it was stated that the developer must provide "...existing water quality for major water bodies identified as being potentially affected by the development". The DAR, specifically section 13.4.2 presented baseline water quality data for Nonacho Lake and zone 3, while 14.4.2 presented the same data for zone 5. No baseline data was collected for zones 1, 2 and 4. Construction at the Nonacho Dam could lead to water quality changes in zone 1. With the 56MW option there could be significant water level changes in zone 2; and pre-construction water quality data in zone 4 could be compared to post construction data to ensure no water quality changes occur downstream of Twin Gorges.

It would be beneficial to have baseline water quality data for all zones in the event that water quality is affected due to project construction or operation. Without baseline data for all zones there could be no before and after comparison of water quality data.

Request

- 1) To explain why baseline water quality data was not collected in zones 1, 2 and 4?
- 2) To indicate whether the Deze Energy Corporation will collect water quality data for these zones and identify the time frame for the collection of that data?

IR Number: 3
Source: Indian and Northern Affairs Canada
To: Deze Energy Corporation
DAR Section: 13.4.2.1.9, 14.4.2.3, 14.4.2.2.6 and 14.4.3.4.6 - Dissolved Oxygen.
Terms of Reference Section: 4.1.2a and 4.1.3b.

Preamble

INAC thanks Deze for the explanation provided by email regarding winter dissolved oxygen (DO) levels with the changes to correct the number of ice cover days. The corrected DO levels for Trudel Creek show that levels in Unnamed Lake will be 5.23 mg/L and 5.42mg/L for the 56MW and 36MW expansion scenarios respectively (Note these are revised levels provided to INAC by the developer). These levels are below the CCME guideline for DO of 6.0 mg O₂/L for sensitive early life stages and 5.5 mg O₂/L for all other life stages.

INAC notes that DO was only monitored in summer and that in section 13.4.2.1.9 it states "Dissolved oxygen content is not measurable in sub-zero temperatures because of ice formation". INAC would like to point out that options exist for assessing DO concentrations in the winter, and recommends such monitoring.

Request

- 1) That the Deze Energy Corporation expand the current dissolved oxygen (DO) monitoring into the winter season, to accurately reflect all levels. Particular attention should be on DO concentrations (summer and winter) in zones 2 and 5, where water levels are expected to decrease.

IR Number: 4
Source: Indian and Northern Affairs Canada

To: Deze Energy Corporation
DAR Section: Ch. 14.4 Appendix - Trudel Creek Erosion Assessment
Terms of Reference Section: 4.1.3a

Preamble

The Kohn Crippen Berger Ltd 2009 report, titled Trudel Creek Erosion Assessment recommends erosion sites 1, 2 and 3 be monitored several times per year, especially before low and high flow periods, and that turbidity measurements be taken to provide more a complete baseline record. INAC understands that erosion along Trudel Creek will generally decrease if the expansion project goes ahead; however this reduction could also lead to changes in water quality and possible reduction of fish habitat. In addition, unplanned ramping events will likely still cause erosional events.

INAC is pleased that the developer intends to use the recommendations of INAC's draft Aquatic Effects Monitoring Program (AEMP) guidelines to engage interested parties in developing a monitoring program. However, we would like to point out that an AEMP would not be fully implemented until the Water Licencing phase is complete, and therefore we encourage the developer to begin any necessary baseline monitoring as soon as possible.

Request

- 1) That the Deze Energy Corporation commit to monitoring the erosion potential along Trudel Creek both pre and post construction in accordance with the recommendations from the Kohn Crippen Berger Ltd. 2009 report. The purpose of this monitoring would be to ensure that there is sufficient base line data available.

IR Number: 5
Source: Indian and Northern Affairs Canada
To: Deze Energy Corporation
DAR Section: 6.5.4.3.2 (Barge camps), 6.8.4.3 (possible sewage lagoon)
Terms of Reference Section: 3.1.5.3 Waste management

Preamble

The Terms of Reference state that the DAR must provide a plan for waste management during construction and operation, including: a) camp sewage; b) camp refuse; c) engine fluids or other hydrocarbons at lay down areas and on access routes, etc... The DAR provides some detail on managing waste in both small and large land base camps; however, barge camps are briefly mentioned in section 6.5.4.3.2 yet a waste management plan for the above mentioned waste types is not provided.

Secondly, section 6.8.4.3 discusses reclamation of a possible sewage lagoon; however, there is no mention of a sewage lagoon in the camp descriptions (see section 6.5).

Request

- 1) That the Deze Energy Corporation develop a waste management plan for barge camps;
- 2) That barge camps be addressed as part of the draft spill contingency plan; and
- 3) That the Deze Energy Corporation provide a more detailed description of the potential sewage lagoon including location and justification for its requirement.

IR Number: 6
Source: Indian and Northern Affairs Canada
To: Deze Energy Corporation
DAR Section: 15.2.3.1.7.2 Canal Construction SON
Terms of Reference Section: 5.2.1

Preamble

The Terms of Reference requests planning and management strategies for the extracted rock and overburden which should include the potential impact of runoff that may contain sediment and/or residual explosives.

Request

- 1) That the Deze Energy Corporation provide the vaporizing potential of the water resistant explosives proposed for use at and near stream blasting areas.
- 2) That the Deze Energy Corporation provide an outline of mitigation measures to be utilized should explosives not completely combust/evaporate and or chemicals enter the surrounding water bodies.
- 3) That the Deze Energy Corporation provide a plan for pumping out the water that may collect within the blasting area (i.e., channel) such that the surrounding aquatic environment is not impacted.

IR Number: 7
Source: Indian and Northern Affairs Canada
To: Deze Energy Corporation
DAR Section: not found
Terms of Reference Section: 4.1.2/4.1.3

Preamble

INAC notes that no flood hydrology was provided in the DAR. This would be useful in the discussion surrounding effects of altered flows and changes to water quality on water bodies both upstream and downstream of the Taltson Twin Gorges (as per section 4.1.2 of the Terms of Reference).

Request

- 1) That the Deze Energy Corporation provide the Flood Hydrology .
- 2) That the Deze Energy Corporation indicate the source of the inflow design flood information used for planning the expansion project (i.e., the latest dam safety assessment or NTPC Dillon Engineering flood hydrology ca. 1996).