

July 06, 2007

Kathleen Graham
Regulatory Officer
Mackenzie Valley Land and Water Board
PO Box 2130
YELLOWKNIFE, NT X1A 2P6

[By Email: permits@mvlwb.com](mailto:permits@mvlwb.com)

Re: Land Use Permit Application MV2007I0033 – Taltson Hydroelectric Expansion

We have reviewed land use permit application MV2007I003 and note several heritage concerns with the proposed project. Given the scope of the project, especially its extensive linear nature, we are concerned that heritage resources might be subject to negative effects.

We note that the proponent has already undertaken some exploratory archaeological research and, on page 16-29 (s. 16.6.2.1 of the March 2007 Project Description) indicates that further work is planned at 'pre-determined sections.' While we agree that further work is needed we feel that the nature of the project requires an extensive heritage resource impact assessment before any ground disturbance is permitted through a land use permit.

Therefore, we recommend that the proponent be directed to undertake a heritage resource impact assessment before permits are approved. We would be available to assist the archaeological contractors in the design of the assessment should the proponent require it.

Sincerely,

Tom Andrews
Territorial Archaeologist
Prince of Wales Northern Heritage Centre

MVLWB Registry

From: Tom Andrews [Tom_Andrews@gov.nt.ca]
Sent: Friday, July 06, 2007 4:56 PM
To: permits@mvlwb.com
Subject: MV2007I0033 Taltson Expansion

Dear Kathleen,

Please confirm by return email that the attachment has been received. All the best,
Tom

Tom Andrews
Territorial Archaeologist
Prince of Wales Northern Heritage Centre
PO Box 1320
Yellowknife, NT X1A 2L9

867-873-7688 (tel)
867-873-0205 (fax)
tom_andrews@gov.nt.ca

Visit our website at <http://pwnhc.ca>
Visit www.lessonsfromtheland.ca

<<MV2007I0033.doc>>



DENINU KUÉ FIRST NATION

P.O. Box 1899

Fort Resolution, NT X0E 0M0

Phone (867) 394-4335/4336 Fax (867) 394-5122

July 19, 2007

Ms. Kathleen Graham, Regulatory Officer
Mackenzie Valley Land and Water Board
7th Floor – 4910 50th Avenue
P.O. Box 2130
Yellowknife NT
X1A 2P6

Mackenzie Valley Land
& Water Board

File _____

JUL 19 2007

Application # MV2007I0033

Copied To KG/Reg.

Re: Deze Energy Corp. Land Use Application File # MV2007I0033

Dear Ms. Graham

In response and support to the Land Use Application File # MV2007I0033 for Deze Energy Corp to extend a transmission corridor and expand on the existing structure of the Taltson River Hydro Plant.

Deninu Kue First Nation fully understands that this project will accommodate the existing diamond mines and future development on the north side of the lake with renewable energy. Deninu Kue First Nation strongly feels that the magnitude of this project will be very beneficial for the Akaitcho Dene and the world in general by depleting emissions that are being released into the air.

Deninu Kue First Nation must be assured that the developer's proposal will not interfere with existing Aboriginal and Treaty rights among others to hunt, fish, trap and gather in our traditional territory.

Deninu Kue First Nation - Issues of concern are:

- Impacts and effects hydro lines might have on caribou migration routes.
- Impacts and effects from increased flooding. I.e; mercury levels in aquatic habitat.
- Impacts and effects from increased activities in this pristine area from initial stage of development.
- Archeological site assessments need to be completed with Prince of Wales Northern Heritage Centre and Akaitcho Dene First Nations.
- Cumulative Effects Assessment must be included.

Deninu Kue First Nation support responsible development and takes every precaution to ensure that Akaitcho Territory's renewable and non renewable resources will be available for generations yet to come.

.../2

For further clarification you can contact Ms. Rosy Bjornson, IMA Coordinator at (867)394-4335.

Sincerely,



William Norn
Chief, DKFN

CC: DKFN Council
Akaiitcho Territory Government
Akaiitcho IMA/ ASB Office
NWT Treaty 8 Tribal Corp
Mr. Dan Grabke, Deze Energy Corp.
Ms. Wanda Anderson, Executive Director MVLWB
Mr. Wilard Hagen, Chair MVLWB
Mr. Vern Christensen, Executive Director MVEIRB
Ms. Gaberille Scott, Chair MVEIRB
Ms. Zoe Reamer, Regional Director INAC



DENINU KUÉ FIRST NATION

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FACSIMILE TRANSMITTAL SHEET

Send To: MS. KATHLEEN GRAHAM	From: Chief Man
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Company: MILLWB	Date: July 19, 2007
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Phone Number:	Program File:
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RE:

Urgent:	For Review:	Please Comment:
Please Reply:	As per Request:	Confidential:

NOTES/COMMENTS: _____

*Pls provide a copy to
Wanda Anderson and
Willard Hagen Marsi cho!*

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Mackenzie Valley Land & Water Board

File _____

JUL 20 2007

Application # MV2007I0033

Copied To KG/Reg



Northwest Territories Environment and Natural Resources

July 20, 2007

Kathleen Graham
Regulatory Officer
Mackenzie Valley Land and Water Board
PO BOX 2130
YELLOWKNIFE NT X1A 2P6

VIA FACSIMILE

Dear Ms. Graham:

DEZE ENERGY CORP.
MV2007I0033 Taltson Hydroelectric Expansion Project.

The Department of Environment and Natural Resources (ENR) has reviewed the above land use permit and would like to provide the following comments based on the mandated responsibilities under the *Wildlife Act*, the *Forest Management Act (FMA)* and The *Environmental Protection Act (EPA)*.

Project

ENR understands the project to consist of the following components:

- The application is for a Class A amended Water Licence and Land Use Permit for the new facility and transmission line would initiate a Preliminary Screening by the MVLWB.
- The Expansion Project builds on the existing hydroelectric facility in the Taltson River watershed.
- A new 36 MW hydroelectric station at Twin Gorges, utilizing the existing plant Forebay and the full elevation difference between the Forebay and the Taltson River (40 m) below Elsie Falls via a new 1250 m canal, penstocks and tailrace canal.
- A new gated control structure at the outlet of Nonacho Lake, including a micro-hydro plant for site-generated power.
- Interconnection of the new generating station and the existing 18 MW Twin Gorges generation plant in a new 115/161 kV switchyard at Twin Gorges.
- 554 km of 161 kV transmission line from Twin Gorges around the East Arm of Great Slave Lake through the Snap Lake/Gahcho Kué area to the Lac de Gras area.

- 136 km of 69 kV transmission line between Snap Lake and the proposed Gahcho Kué mine site, and between the Ekati and Diavik mine sites.
- Four new substations, one at each mine site.
- The proposed Expansion Project would provide this reliable energy from a renewable source, with a planned minimum lifetime of at least 40 years.

Proposed Mitigations

Dezé Energy Corporation presents the following mitigations in their project description submitted with their application to minimize impacts:

Wildlife

- Mitigation measures to minimize habitat impacts include minimizing the footprint of lay down areas and camps, designing the transmission line to minimize clearing, retaining vegetation up to 3 m in height within the line corridor, and maximizing use of lakes and river systems for the winter road.
- Other mitigation measures would include avoidance of construction around active nest and denning sites, if possible, and the development and implementation of a Human-Wildlife Conflict Reduction Plan.
- The span between the lines is greater than the wingspan of raptors, eliminating the threat of electrocution that occurs when two lines are touched simultaneously.

Winter Access

- The improved access from the winter roads would be limited to the winter months when the winter road is operational and only for the two to three year construction period, after which time it is not expected to be maintained.

Aquatic Environment

- Effects and mitigation plans to avoid or minimize impacts, and/or habitat compensation plans, are still under assessment and would be contingent on the minimum release flow in Trudel Creek
- Best management practices, such as isolation and fish salvage prior to construction are anticipated to mitigate any negative effects.
- As design and construction planning progresses, should the potential for a harmful alteration disruption or destruction of fish habitat be unavoidable, habitat compensation plans would be developed in consultation with DFO.
- Placement of towers near stream banks would be minimized, and wet substrate would be avoided.
- Construction practices would follow the DFO Operational Statement for Construction of Overhead Lines (OS). If the practices of the OS cannot be maintained, site-specific mitigation plans would be developed and discussed with DFO.
- Riparian zone clearing impact mitigation measures would include selective clearing and retention of shrub vegetation at a height of up to 3 m.

- Best management practices during clearing and construction, however, coupled with the Waste Management Plan and Sediment and Erosion Management Plan would be critical to avoiding erosion resulting in sedimentation and/or accidental discharges of construction wastes.

Trudel Creek

- The proposed minimum flow release would reduce flows in Trudel Creek from current flow volumes; potentially affect fish habitat as well as reducing the present bank erosion. An assessment of fish habitat and productivity in Trudel Creek is currently on going, and would be critical in developing a proposed minimum flow release and associated potential effects

Forestry/Access

- Mitigation measures applied during line design to minimize clearing requirements include assessing route locations in accordance with VC sensitivities, such as locating poles on high elevation rock outcrops and spanning lowlands, locating the line in previously burned areas, and avoiding wetlands and riparian zones.
- Vegetation of up to 3 m in height can be retained under the line while achieving the electrical clearance zone.
- Clearing for winter roads, camps, and lay down areas would be minimized to only those areas necessary to support the construction activities.
- The new road corridor would maximize use of lake and wetland complexes; where portage clearing would be required, the corridor would be single lane width.

Soils

- Soil disturbances associated with the transmission line towers, camps and staging areas would be minimal.
- Towers design avoids wetlands and marshes with high soil contents.
- Generally towers would be located on rock outcrops or eskers and would have minimal site disturbances.
- Camps and staging areas would be levelled prior to use, and reclaimed, as practical, after use.
- Clearing and construction would occur predominantly by helicopter; therefore, minimal or no soil disturbances and thus sedimentation, generally associated with road construction, are required.

Air Quality

- As blasting activities would only occur during the construction phase and do not involve substantial re-handling of material – which tends to increase the fine (particle?) content and thus the available particulate matter to become airborne – dust mitigation plans would not be effective in reducing available particulate matter.

- To minimize equipment exhaust emissions, best management practices would be employed. These include actions such as shutting off ignitions during extended periods of downtime.
- The Project is anticipated to have a substantial long-term positive net effect on regional and global air quality.

Preliminary Spill Contingency and Response Plan

- All spills and emergencies are to be reported to the NWT Spill Report Line
- Spill and emergency response duties
- Spill response training
- Spill and emergency response equipment
- Incidents
- General material spill response guidelines

Cumulative Effects

- In addition, cumulative effects of the Project may be realized on a regional and global scale. These may include:
 - Increased longevity of winter roads due to reduced truck use;
 - Reduced impact on wildlife and habitat from reduced truck use on winter mine road corridors;
 - Reduced fossil fuel use and resource depletion;
 - Reduced toxin and particulate matter accumulation in the Arctic "sink";
 - Reduced bioaccumulation of toxins in the food chain; and
 - Reduced anthropogenic contribution to global and regional climate change

ENR staff commends the proponent on the extent of consideration given to mitigating potential impacts to wildlife and wildlife habitat. ENR would like to identify the following *species-specific concerns that need detailed mitigative measures to avoid or reduce impacts to:*

Wildlife

Caribou – project within the range of Barren Ground Caribou, specifically the Bathurst, Ahiak and Beverly herds <http://www.nwtwildlife.com/NWTwildlife/caribou/distribution.htm>. Satellite maps of herd locations shows that it is likely caribou will be present in the project area during operations <http://www.nwtwildlife.com/NWTWildlife/caribou/satellite2.htm>. Mitigation measures are necessary to reduce impacts to caribou in the project area

- **Road Corridors** – when road corridors are no longer required, periodically place slash material across the corridor (every 80 m) in order to provide obstacles to wolf movement.

- **Encounters** - If caribou are encountered during development the proponent should shut down operations if they approach within 500m of drilling operations/sites; suspended activities include drilling, aircraft overflights, and ATV or snowmobile use. When caribou are further than 500m away operations may resume.
- No wildlife should be disturbed, chased, or harassed by human beings on foot, in a motorized vehicle, or by aircraft. Chasing, harassing or molesting wildlife is prohibited by the Wildlife Act (s. 38 (1) (a)). These activities can lead to greater expenditures of energy on the part of the animal and a loss of fitness. This is especially important for mammals in the winter and when female animals are still feeding their young through lactation. This is also critically important for raptors during the nesting season. ENR staff consider the chasing or stalking of wildlife for photography or during Eco-tourism to be harassment.
- The recreational use of all-terrain vehicles and snow machines by personnel will not be permitted in the project area.
- **Winter Land Access** – increases the likelihood that hunting and recreation will use the new access throughout the area. What will be the mitigative measures to ensure that access is restricted to the public?
- **Rutting and Calving** – What are the mitigative measures for development taking place during periods of increased caribou sensitivity?
- **Winter Operations** – What are the mitigative measures for the construction that is going to be taking place at Nonacho Lake were caribou are present?
- **Water/Ice crossings** - Water crossings are limited on the landscape and as such are very important in facilitating movements across the landscape. Any diversion from a crossing could result in substantial increases in energy expenditures as caribou backtrack to find another appropriate route on their migratory path. Therefore, no drilling activity should be conducted within 5 km of a recognized caribou water crossing from May 15th till Oct 15th.

Birds (Raptors, Migratory Birds) - Disturbance of peregrine falcons and short-eared owls while nesting can affect incubation success, survival and/or fitness of the young. Therefore, if a nest site of either species is identified in the project area, a buffer of 1.5 km should be maintained between development activities and the nest site from April 15th to September 15th.

Forestry

Windrows

- Windrowing of slashed vegetation can restrict and/or alter wildlife movements on the landscape. ENR recommends that breaks occur every 60m and are at least 10 m in length to reduce the disruption of natural wildlife movements and prevents wicking in the event of forest fire.
- Disposal of vegetative debris should be windrowed to the side of the cleared areas and compacted to lie flat. A 2-metre buffer from the standing timber should be maintained.

Merchantable Timber

- If deemed merchantable and practical, any transfer of ownership of this timber, will require a forest authorization pursuant to the Forest Management Act.
- Merchantable timber located on the area of the proposed land use activity must be stockpiled.

Permafrost

- Mitigation measures to reduce the detrimental effects of permafrost areas will be implemented using best practices methods.

Environment

Waste Management

- The proponent should ensure that the amount of waste burned is reduced as much as possible through implementation of pollution prevention strategies such as purchasing policies that focus on reduced packaging, and on-site diversion and segregation programs (i.e. the separation of non-food waste items suitable for storage and subsequent transport and disposal or recycling).
- If burning is the only alternative available, installation of an incineration device capable of meeting the emission limits established by the Canadian Council of Ministers of the Environment (CCME) under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emissions is required for a camp(s) of this size and duration.
- Open burning of camp waste is not acceptable.

GENERAL RECOMMENDATIONS

ENR provides the following general recommendations/concerns with respect to sufficiently minimizing potential impacts:

Wildlife

SARA

- The federal Species At Risk Act (SARA) states that **adverse effects on listed species must be identified, and regardless of significance, mitigated and monitored (s.79)**. It is ENR's view that those species listed under the Act (i.e. those species listed on Schedule 2 and 3 of the Act) be treated in a similar fashion consistent with recommendations in "The Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada."

Ungulates (Caribou & Moose)

- **Mineral/salt licks** - Mineral/salt licks are a key habitat area for ungulates and as such tend to attract them. If a mineral lick is present in the project area, the proponent should maintain a 300m buffer zone between any development activities and the lick ensuring minimal disturbance to the animals as they access these sites.

Bears/Carnivores - Safety, Denning, Territorial Displacement, Bear-Human Conflict

- **Safety in Bear Country: A Reference Manual** - human interaction, including measures to deter bears from camps and other facilities.
- **Food and Waste Management Guidelines** - Impacts to carnivores will be adequately mitigated with the proper handling and storage of food and food wastes.
- **Bear Response Guidelines** - In the event that a grizzly bear is disturbed and/or encountered during project operations, information on the sighting should be forwarded to the local Wildlife officer at the earliest opportunity. This will allow the Department a greater ability to relocate bears that frequent areas of development before they become habituated and must be destroyed as nuisance wildlife. Any defence of life and property (DLP) kills must be reported ASAP. Since all human caused mortalities are accounted for under the quota any DLP kills will result in a reduction of the community quota.
- **NWT Mine Health and Safety Regulations (s. 15.05)** - require that all field personnel involved in mineral exploration undertake bear-safety training. ENR staff supports this requirement, as it is both a worker safety and wildlife issue. If all field workers have bear safety training and learn how to react to bears, this will decrease the cases of bear attacks and the

number of bears destroyed as nuisance wildlife. This training is also important because it will inform employees and owners on proper bear proofing methods for camps.

- **Berry Patches/Denning Sites** – If a bear is located in, at or near a den site, work in the area must halt. Staff from ENR should be notified as they will assess the site and may implement measures to ensure bears are not unduly disturbed. This may include the establishment of an exclusion zone of 300 meters around the den in which no work will be permitted. Work inside the exclusion zone will remain stalled until after den emergence.

Forestry

Summer Operation – ENR's South Slave Regional Office requires a burning plan, which includes an advisement on operating locations and numbers of persons and facilities in use on an ongoing basis for forest fire response.

- Disposal of debris by burning during the closed season (May 1 to September 30) requires a permit to burn issued pursuant to the Forest Protection Act (RSNWT). A permit to burn may be obtained from regional offices of ENR.
- The operator should have available in good working order at the work site a forest fire suppression kit for remote camps. The details of such a kit may be obtained from the regional offices of ENR.

Reclamation/Revegetation - Past use of seed mixes for reclamation purposes in the Northwest Territories has led to the introduction of non-native plant species, many of which are considered invasive. Therefore, ENR staff recommend that:

- Seeding be avoided whenever possible and that minimally disturbed ground be replanted with tree seedlings, native plant cuttings or propagules, or left to natural regeneration depending on site specific objectives.
- Any seed mix that is used for stabilizing areas of greater disturbance should be free of invasive, alien species, sub-species or varieties and should be approved by regional ENR staff.

Environment - GNWT is responsible for initiatives, which control the discharge of contaminants and their impacts on the natural environment. EPS is responsible for ensuring that environmentally acceptable management procedures, emission levels and disposal methods are maintained. By practice EPS programs are applied to commissioners Land, lands administered by municipal governments or GNWT undertakings.

- Environmental Protection Website lists numerous guideline documents. Proponents should review and adhere to all of these documents prior to conduction operations.
<http://www.enr.gov.nt.ca/eps/leg.htm>

REQUESTS OF THE PROPONENT

Lastly, ENR makes the following requests:

Cumulative Effects - ENR believes that the potential project-specific effects on species at risk may contribute to regional cumulative effects on some wildlife species. Further consideration of cumulative effects on species at risk is required.

Waste Management Plan – Proponents should supply a Waste Management Plan including waste segregation and disposal and the strategy for implementation that includes:

- The identification of non-hazardous, hazardous, combustible, and non-combustible wastes, and plans of waste segregation and the strategy/plan for its implementation.
- A listing of expected waste quantities (as related to waste types identified) to be generated.
- Detailed waste treatment and disposal plans.
- Listing of expected waste types and quantities to be transported off-site.
- Identification of acceptable and alternate hazardous waste disposal facilities.
- Confirmation that the community referenced has authorization to accept proposed wastes types and quantities at community waste handling facilities.
- Confirmation that the Proponent has received permission from the community referenced to transfer proposed waste types and quantities to community waste handling facilities.
- Alternate disposal options in the case that the referenced community's waste handling facility cannot accommodate the proposed and estimated waste types and quantities listed.

The Waste Management Plan should also consider and include:

- Purchasing policies that focus on reduced packaging,

- On-site diversion and segregation programs (i.e. the separation of non-food waste items suitable for storage and subsequent transport and disposal or recycling).
- If incineration is required, ensure diligent operation and maintenance of the incineration device and ensure appropriate training is provided to the personnel operating and maintaining the incinerator.
- A waste tracking system will manage and account for all waste.
- Sewage disposal methods.

Burning Plan – this should include a list of equipment being used in the process (construction and operation), along with a clearer definition of what they consider combustible and hazardous waste.

Reclamation - forestry would like more detailed information on method of disposal for vegetative debris/merchantable timber, and physical site restoration of cleared areas and revegetation process.

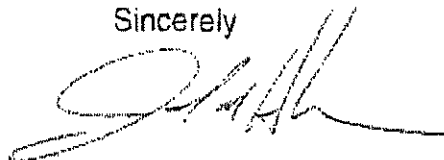
Incorporating Traditional Knowledge - A relationship between the developer and traditional knowledge holders should be established in order to gain the full value of traditional knowledge during the project planning stages.

- *Statement Policy for GNWT Traditional Knowledge* – “The Government of the Northwest Territories recognizes that the aboriginal peoples of the Northwest Territories have acquired a vast store of traditional knowledge through their experience of centuries of living in close harmony with the land. The Government recognizes that aboriginal traditional knowledge is a valid and essential source of information about the natural relationship of people to the land and to each other, and will incorporate traditional knowledge into government decisions and actions where appropriate”

<http://www.enr.gov.nt.ca/plc/pdf/Traditional%20Knowledge%20Policy%20-%20FINAL.pdf>

Should you have any questions regarding the above, please contact me at 920-6106.

Sincerely



Joel M. Holder
Environmental Assessment Analyst
Environmental Assessment and Monitoring
Environment and Natural Resources

- C. Sarah True
Regional Environmental Assessment Coordinator
South Slave Region



Northwest
Territories Environment and Natural Resources

Food and Waste Management Guidelines

Minimizing the Attraction of Carnivores to a Camp

1. ENR strongly encourages the use of a properly installed electric fence designed for deterring bears and other carnivores.
2. Burning garbage in pits or barrels and storing garbage for fly-out are the most common causes of wildlife conflicts, regardless of the size of the camp. ENR requires the use of an approved incinerator¹ for the incineration of combustible camp garbage and kitchen wastes and encourages daily incineration of wastes. The incinerator should be housed within the electric fence.
3. Burning of waste products releases numerous contaminants, many being persistent and toxic, that can result in serious impacts to human and wildlife health through direct inhalation and bioaccumulation through food chains. The proponent should ensure that the amount of waste burned is reduced as much as possible through implementation of pollution prevention strategies.² The objective should be to ensure that only food waste and food-contaminated waste is burned (the use of paper, cardboard and clean wood as supplementary fuel is acceptable).
4. The residual ash from incineration may also contain toxic contaminants and should be assessed in accordance with the *NWT Environmental Guideline for Industrial Waste Discharges* to determine the appropriate disposal method.
5. Storing refuse in a manner likely to attract wildlife is a violation of the Wildlife Act. Garbage stored in plywood boxes or in sheds develops a strong odour, which lingers for days. This odour will attract wildlife to the site. If garbage is going to be stored on site, it must be in a sealed container, to prevent wildlife from being attracted to the odours. If the camp proposes to fly or drive their garbage out, an animal proof, sealed container must be used for storing garbage on site.
6. Unless within an electrified bear fence, the kitchen should be at least 50 meters from all other structures and the doors to the other structures should face the kitchen. Wherever possible, the kitchen should be down-wind of the

¹ For large, permanent camps and/or operational facilities (e.g. mines), installation of an incineration device capable of meeting the emission limits established under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emissions is required (both the Government of Canada and the Government of the Northwest Territories are signatories to these Standards). For small, temporary camps the use of a modified burn barrel (with grate, bottom draft, lid and chimney) may be acceptable. The proponent should review the incineration options available and provide justification for the selected device to the regulatory authority.

² For example, purchasing policies that focus on reduced packaging. Other options include on-site diversion and segregation programs (i.e. the separation of non-food waste items suitable for storage and subsequent transport and disposal or recycling).

FAX TRANSMISSION SHEET



Northwest Territories Resources, Wildlife and Economic Development

Policy, Legislation and Communications
Government of the Northwest Territories
5102 - 50th Avenue, 6th Floor Scotia Centre
P.O. Box 1320
Yellowknife NT X1A 2L9
Canada

Tel: (867) 920-8046
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Date: July 20, 2007

To: Kathleen Graham

MVLWB

Fax: 873-6610

This fax contains 14 **page(s), including the cover sheet.**

From: Joel Holder

Comments:

GNWT **comments** on **Taitson** **Hydro** **expansion.**

Original to: Follow in the mail

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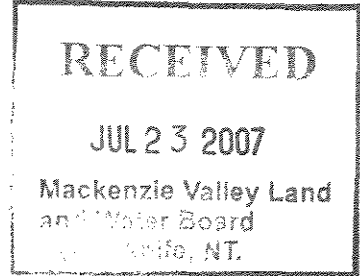
Your file - Votre référence

July 20, 2007

Our file - Notre référence

Mackenzie Valley Land and Water Board
7th Floor, 4910-50th Avenue
YELLOWKNIFE, NT X1A 2P6

FAXED
June 23/07



MV200710033

ATTENTION: Kathleen Graham

Dear Ms. Graham,

**Re: LUPA MV200710033 – Deze Energy Corporation
Taltson Hydroelectric Expansion Project
Twin Gorges to Ekati Diamond Mine**


Indian and Northern Affairs Canada (INAC) have reviewed the Land Use Permit Application MV200710033, submitted by Deze Energy Corporation to conduct various activities associated with the proposed Taltson Hydroelectric Expansion Project.

Based on the information received and reviewed, it is recommended by INAC that the Mackenzie Valley Land and Water Board conduct a joint preliminary screening of the land use permit application and the existing water license once the Board has approved an assignment from the NWTPC to Deze Energy Corporation.

Please advise if this is an acceptable option with regards to the preliminary screening. If this is not an acceptable option, we are prepared to forward the recommended land use operating conditions from our Inspector as well as other comments received from within INAC.

We thank you for the opportunity to review this application. Should you have any questions or concerns regarding our recommendations or, require further information, please contact myself at 669-2760 or Charlene Coe, at 669-2762.

Yours truly,


Darnell McCurdy
District Manager
South Mackenzie District

cc: RMO – Fort Smith Sub-district
Environment and Conservation – Attn: Lorraine Seale

FAXED
June 23/07

DM/cc

Environmental Protection Operations Directorate
Suite 301, 5204 - 50th Avenue
Yellowknife, NT X1A 1E2
tel: (867) 669-4700

July 20, 2007

Our File: 4339 001 017

Mackenzie Valley Land and Water Board
7th Floor, 4910-50 Avenue
Yellowknife, NT
X1A 2P5

Attention: Kathleen Graham
Regulatory Officer

Re: Land Use Permit Review Process – Deze Energy Corporation Taltson Hydroelectric Expansion Project – Power Transmission Line

On behalf of Environment Canada, I have reviewed the information submitted with the above application, received May 3, 2007 and June 25, 2007. The following advice is provided pursuant to Section 22 of the *Mackenzie Valley Resource Management Act*. Environment Canada's (EC) contribution to your request for specialist advice is based primarily on the mandated responsibilities for the enforcement of Section 36(3) of the *Fisheries Act*, the *Canadian Environmental Protection Act* (CEPA) the *Migratory Birds Convention Act* (MBCA), and the *Species at Risk Act* (SARA).

It is the understanding of Environment Canada that Deze Energy Corporation has applied for a land use permit to conduct the following works: construct a new power plant, power channel chute and intake at Twin Gorges, make upgrades to the gate at Nonacho Lake, and construct approximately 700 kilometres of transmission line from the hydrostation to the mines (Snap Lake, Diavik, Ekati and Gahcho Kué). To facilitate the construction of this project, 12 staging areas will be required along the length of the transmission line, each approximately two hectares in size. Two land based camps will be required, one at Nonacho lake, accommodating a maximum of 150 people, with a footprint of approximately 3000m², the other at Twin Gorges, accommodating a maximum of 100 people, with a footprint of approximately 4500m². In addition, two barge based camps will be required, but the locations of these are not finalized. Each barge based camp will accommodate a maximum of 50 people. It is expected that Gahcho Kué, Snap Lake and either Ekati or Diavik will each accommodate workers as well. The winter road from Fort Smith to Twin Gorges will be redeveloped for use, and portions of all weather road will be constructed beyond Twin Gorges.

Environment Canada cannot conduct a review of the above applications without the following information:

1. An assessment of cumulative effects.
2. Identification of predicted impacts of the project and the appropriate mitigation measures. Environment Canada supports the use of Best Management Practices (bmp).
3. The proponent is requested to provided the following plans:



- a. Operational Water Management Plan
 - b. Material and Waste Management Plan
 - c. Helicopter Protocols to Protect Wildlife
 - d. Vegetation Management
 - e. Erosion and Sediment Control, and
 - f. Emergency Response Plan
4. The proponent has identified a number of on-going studies in relation to this project. The results of these studies may assist in the prediction of impacts and identification of appropriate mitigation measures. The proponent is requested to provide these results upon completion of the studies.
5. The proponent has indicated that issues related to Acid Rock Drainage (ARD) are not anticipated. Further, the Proponent has stated that drill cuttings / samples will be tested for acid-base accounting, and that surface samples of exposed rock would be tested for net neutral potential. However the proponent has not provided sufficient details in a number of areas, including:
- a. The type of ARD testing methodologies to be used.
 - b. Where (by who?) the ARD testing will be carried out.
 - c. Whether (and how?) additional testing (e.g. additional static and/or kinetic testing) will be carried out should preliminary tests indicate ARD potential?
 - d. Contingency planning should acid generating rock be detected?
 - e. It is recommended that sample design adequately test ARD potential of all formations to be excavated in the area.
6. The proponent has indicated that incineration will be used to dispose of kitchen and paper-like (what's paper-like but not paper?) waste. Please provide the following information:
- a. The make, model and year of each incinerator to be used
 - b. The training that the incinerator operator has had
 - c. The volume of waste to be incinerated
 - d. Description of waste segregation plan
 - e. How will the Proponent demonstrate compliance with the Canada Wide Standards for the Dioxins & Furans and Mercury
7. The proponent has indicated that large quantities of fuel will be stored in staging areas. Please provide clarification as to how the fuel will be transported (in fuel bladders or in barrels, transportable tanks?), and how the fuel will be stored. It is recommended that all fittings as well as fuel containers be contained within an appropriate berm (insta-berms highly recommended). Further, the containers should be inspected regularly to ensure containment.
8. Section 6 (a) of the Migratory Birds Regulations states that no one shall disturb or destroy the nests or eggs of migratory birds. The project description states that line construction would occur almost completely outside of the winter season, but it is not clear from the project description exactly what activities might occur during the migratory bird nesting season (approximately May 15 to July 31). There is a risk of disturbing or destroying nests or eggs during land clearing activities. The proponent is asked to clarify what project activities will be occurring during the migratory bird nesting season and what mitigation measures will be undertaken to ensure that the



nests or eggs of migratory birds are not disturbed or destroyed.

9. The proponent notes that waterfowl have been identified as a Valued Component (page 17-8), yet limited information is presented on baseline data collected for waterfowl and other Migratory Birds in the area. The proponent is asked to provide more information on waterfowl and other migratory birds in the area. This baseline information for birds should also include information on Whooping Cranes and Yellow Rail, two Species at Risk that the proponent has indicated as potentially occurring in the project area. This information is needed so that the impact of the project on waterfowl and other Migratory Birds can be adequately assessed.
10. Mortality of birds can result when birds collide with power lines. What mitigation measures is the proponent proposing to undertake to minimize the risk of bird collisions with the power lines?
11. The structures associated with transmission lines can provide nesting and roosting sites for ravens and raptors. These birds are predators of other birds and increased numbers of these predators in an area can negatively impact local bird populations. What mitigation measures is the proponent proposing to undertake to minimize the likelihood of birds nesting on the transmission structures and other project infrastructure?
12. Camp waste can attract predators of migratory birds (e.g., foxes and ravens) to an area if not disposed of properly. What mitigation measures will be undertaken by the proponent to ensure that wildlife is not attracted to the project activities?
13. The following comments are pursuant to the Species at Risk Act (SARA), which came into full effect on June 1, 2004. Section 79 (2) of SARA, states that during an assessment of effects of a project, the adverse effects of the project on listed wildlife species and its critical habitat must be identified, that measures are taken to avoid or lessen those effects, and that the effects need to be monitored. This section applies to all species listed on Schedule 1 of SARA. However, as a matter of best practice, Environment Canada suggests that species on other Schedules of SARA and under consideration for listing on SARA, including those designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), be considered during an environmental assessment in a similar manner.

Impacts could be disturbance, attraction to operations, and habitat destruction.

The project description has identified Species at Risk with potential to exist in the Project Area (Table on A-2 to A-3). However, Environment Canada recommends that further information is required to properly assess the impacts of the project on Species at Risk. For each species identified as at risk by COSEWIC (this includes species listed in SARA) and potentially occurring in the project area, the following questions should be addressed:

- Are there any potential adverse effects to the species from the project? If so, what are the adverse effects?
- What measures would the proponent undertake to avoid or to lessen the adverse effects?
- What monitoring would the proponent undertake to determine the effectiveness of mitigation measures or to identify where further mitigation may be required?

For migratory bird species (e.g. Whooping Crane, Yellow Rail), Environment Canada will be able to provide further advice on adverse effects, and appropriate mitigation and/or monitoring measures. For species under the responsibility of the Territorial Government, the Territorial Government should be consulted to identify appropriate mitigation and/or monitoring measures to minimize effects to these species from the project. Mitigation and monitoring measures must be taken in a way that is consistent with applicable recovery strategies and action/management plans.

14. In regards to Species at Risk, Environment Canada also notes that there are some omissions in the information presented on the Table “Species at Risk with Potential to exist in the Project Area” (Table on A-2 to A-3). The following information was missed:
 - a. Northern Leopard Frog and Yellow Rail are listed on Schedule 1 of SARA.
 - b. Short-eared Owl is on Schedule 3 of SARA.
 - c. Rusty Blackbird was listed as Special Concern by COSEWIC in April 2006. Schedules of SARA and the COSEWIC status of species are amended on a regular basis. The proponent should check the SARA registry (www.sararegistry.gc.ca) to get the current status of all Species at Risk in their project area and for more information on specific species.

In light of this further information required, Environment Canada offers the following recommendations to be considered while further developing this proposal:

15. Meeting the requirements of the *Fisheries Act* is mandatory, irrespective of any other regulatory or permitting system. Section 36(3) of the *Fisheries Act* specifies that unless authorized by federal regulation, no person shall deposit or permit the deposit of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water. The legal definition of deleterious substance provided in subsection 34(1) of the *Fisheries Act*, in conjunction with court rulings, provides a very broad interpretation of deleterious and includes any substance with a potentially harmful chemical, physical or biological effect on fish or fish habitat.
16. Section 35 of the *Migratory Birds Regulations* states that no person shall deposit or permit to be deposited, oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds.
17. A copy of the spill contingency plan should be posted where crew members have access to it, and at each fuel cache and refuelling station.
18. The Proponent should reference in their Spill Contingency plan the attached *Schedule 1 from the Spills Working Agreement* for conditions that require immediate reporting as well as immediately reportable quantities.
19. Fuel containers, including barrels, should be marked with the responsible party’s name, product type, and year purchased or filled.



20. Fuel caches shall be located above the high water mark of any waterbody and in such a manner as to prevent the contents from entering any waterbody frequented by fish.
21. The fuel caches shall be inspected on a regular basis and locations of all fuel caches provided to authorities.
22. Environment Canada recommends the use of secondary containment with an impervious liner, such as self-supporting insta-berms, for storage of all barreled fuel rather than relying on natural depressions to contain spills.
23. A spill kit including shovels, barrels, sorbents, pumps, etc. shall be consistently maintained and readily available at each fuel cache and re-fueling station.
24. Fuel or hazardous substance transfers – Secondary containment or a surface liner (drip pans, fold-a-tanks, etc) should be placed under all containers or vehicle fuel tank inlet and outlet points, hose connections and hose ends during fuel or hazardous substance transfers. Secondary containment should be of adequate size and volume to contain and hold fluids for the purpose of preventing spills (the worst-case scenario). Appropriate spill response equipment and clean-up materials (absorbents, containment devices, etc) must be on hand during any transfer of fuel or hazardous substances and at vehicle-maintenance areas.
25. Transfer operations should be attended by trained personnel at all times.
26. Berm areas - Decanting of snow or water from the berm area should proceed only if the appropriate chemical analysis has determined the contents meet the requirements of Section 36(3) of the *Fisheries Act*.
27. Waste tracking, or “manifesting,” should be implemented to ensure proper use, storage, and management of materials. Manifests provide detailed information to first responders in the event of an accident and serve as a tool for confirming that shipments of dangerous or hazardous waste are properly handled, transported, and disposed of.
28. The proponent shall ensure that all hazardous wastes, including waste oil, receive proper treatment and disposal at an approved facility.
29. All non-combustible solid wastes (e.g. potable water bottles) shall be disposed of at an appropriate facility, e.g., Yellowknife, NT, or Inuvik, NT. The proponent is encouraged to make use of recycling facilities for all recyclable materials.
30. The proponent must ensure that camp wastes to be burned are incinerated in an efficient burner and that incinerator wastes are disposed of appropriately.
31. Water crossings should be at right angles to streams. Snow and ice fill crossing should be used and removed or V-notched when finished to avoid ice-jamming in the spring.
32. Winter lake/stream crossings shall be located to minimize approach grades and shall be constructed entirely of ice and snow materials. The banks of any watercourse or waterbody are to be protected at all times. Bank disturbance is to be avoided, and



mechanized clearing should not be done immediately adjacent to any watercourse; water crossings should be at right angles to streams and stream crossings shall be removed or notched prior to spring break-up.

33. No disturbance of the stream bed or banks of any definable watercourse is permitted; clearing adjacent to streams/lakes should be done without disturbing the organic layer. Suitable erosion control measures shall be implemented at all stream/lake crossings.
34. In order to reduce disturbance to nesting, moulting, and migrating birds, Environment Canada recommends that aircraft used for travelling between project sites maintain a flight altitude of at least 650 m during horizontal (point to point) flight unless safety or cloud ceiling do not permit.
35. In order to reduce disturbance to resting, feeding, or moulting birds, Environment Canada recommends that aircraft used in conducting project activities maintain a vertical distance of 1000 m and minimum horizontal distance of 1500 m from any observed concentrations (flocks / groups) of birds.
36. The proponent has identified Eskimo Curlew as a potential Species at Risk in the Project Area. No verified nests (or young) have been found for over 100 years, although occasional sightings of non-breeding birds have occurred as recently as 1998. The National Recovery Team for this species has determined that recovery for this species is not feasible at this time. Recovery of this species is not possible unless the existence and location of breeding birds can be established. In light of its current status, there is no need for further action with respect to Eskimo Curlew. An appropriate mitigation and monitoring plan will be developed with the Proponent if it is established that this species does occur in the area.
37. EC recommends that all field operation staff be made aware of the proponent's commitments to these mitigations measures and provided with appropriate advice/training on how to implement them.

Waste Management & Incineration

Environment Canada recognizes that timely disposal of camp waste - specifically food waste - is of critical importance to minimize safety risks associated with wildlife attraction. Timely disposal is usually achieved through burning. However, burning of waste products releases numerous contaminants to the air, many of them persistent, bioaccumulative and toxic (e.g. polycyclic aromatic hydrocarbons - PAH's - heavy metals, chlorinated organics – dioxins and furans). These contaminants can result in serious impacts to human and wildlife health through direct inhalation and they can also be deposited to land and water, where they bioaccumulate through food chains affecting wildlife and country foods. Therefore, burning should only be considered after all other alternatives for waste disposal have been explored.

A variety of incineration devices are available and selection of the most appropriate will depend on considerations of technical and economical feasibility for each situation. Installation of an incineration device capable of meeting the emission limits established under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emissions is required (both the Government of Canada and the Government of the Nunavut are signatories to these Standards and are required to implement them according to their respective jurisdictional responsibility).

The proponent should review the incineration options available and provide justification for the selected device to the regulatory authority.

If burning is the only alternative available, the proponent should ensure that the waste is burned in a device that promotes efficient combustion and reduction of emissions, and that the amount of waste burned is reduced as much as possible. The use of appropriate waste incineration technology should be combined with a comprehensive waste management strategy (especially waste segregation) that is designed to reduce and control the volumes of wastes produced, transported, and disposed of.

The Waste Management Plan Waste should consider and include:

- Purchasing policies that focus on reduced packaging,
- On-site diversion and segregation programs (i.e. the separation of non-food waste items suitable for storage and subsequent transport and disposal or recycling).
- If incineration is required, ensure diligent operation and maintenance of the incineration device and ensure appropriate training is provided to the personnel operating and maintaining the incinerator.

The objective should be to ensure that only food waste and food-contaminated waste is burned (the use of paper, cardboard and clean wood as supplementary fuel is acceptable).

Used absorbent materials, oily or greasy rags, and equipment servicing wastes (such as used engine oil, antifreeze, hydraulic oil, lead acid batteries, brake fluid and other lubricants) should be safely stored and transported in sealed containers (odour free to prevent animal attraction) and safely transported to a facility that is authorized for the treatment and disposal of industrial hazardous wastes.

Please do not hesitate to contact me at (867) 669-4782 or lorraine.sawdon@ec.gc.ca with any questions or comments with regards to the foregoing.

Sincerely,

Lorraine Sawdon
Environmental Protection Operations Directorate

cc: Carey Ogilvie (Head, Environmental Assessment, EPOD)
Mike Fournier (Northern Assessment Coordinator, EPOD)
Myra Robertson (Environmental Assessment Coordinator, CWS)

Schedule 1 – Immediately Reportable Quantities

TDG Class	Substance	Immediately Reportable Quantities for NWT/NU 24-Hour Spill Reports
1 2.3 2.4 6.2 7 None	Explosives Compressed gas (toxic) Compressed gas (corrosive) Infectious substances Radioactive Unknown substance	Any amount
2.1 2.2	Compressed gas (flammable) Compressed gas (non-corrosive, non-flammable)	Any amount of gas from containers with a capacity greater than 100 L
3.1 3.2 3.3	Flammable liquid	≥ 100 L
4.1 4.2 4.3	Flammable solid Spontaneously combustible solids Water reactant	≥ 25 kg
5.1 9.1	Oxidizing substances Miscellaneous products or substances excluding PCB mixtures	≥ 50 L or 50 kg
5.2 9.2	Organic peroxides Environmentally hazardous	≥ 1 L or 1 kg
6.1 8 9.3	Poisonous substances Corrosive substances Dangerous wastes	≥ 5 L or 5 kg
9.1	PCB mixtures of 5 or more parts per million	≥ 0.5 L or 0.5 kg
None	Other contaminants, e.g., crude oil, drilling fluid, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, wastewater, etc.)	≥ 100 L or 100 kg
None	Sour natural gas (i.e., contains H ₂ S) Sweet natural gas	Uncontrolled release or sustained flow of 10 minutes or more
3.1-3.3 None	Flammable liquid Vehicular fluid	≥ 20 L When released on a frozen waterbody used as a working surface

MVLWB Registry

From: Steven Shen [Steven_Shen@gov.nt.ca]
Sent: Tuesday, August 21, 2007 11:50 AM
To: Permits (E-mail)
Cc: Colleen Ingram
Subject: MV200710033, MV2007L4-0029

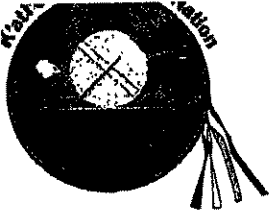
Dear Sir/Madame

RE: MV200710033, MV2007L4-0029

GNWT-Health has no comments on the above listed applications at this time.

Yours Sincerely

Steven Shen
Environmental Health Officer
Stanton Territorial Health Authority
Diamond Plaza, Main Floor
P.O. Box 10, Yellowknife
Northwest Territories X1A 2N1
Office: (867)669-8979
Direct: (867)766-7924
Fax: (867)669-7517
E-mail: steven_shen@gov.nt.ca



Katlodeeche First Nation

P.O Box 3060, Hay River Dele Reserve, NT X0E 1G4
Ph: (867) 874-6701, Fax: (867) 874-3229
Email: landsnresources@Katlodeeche.com

September 5, 2007

MVLWB
7th Floor 4910 50th Avenue
P.O. BOX 2130
Yellowknife, NT

Mackenzie Valley Land
& Water Board

File

SEP 05 2007

Application #

MV2007LV0029
MV2007I0045

Copied To KG/Reg.

Attention: Kathleen Graham

Re: Taltson Dam Extension File #MV2007I0045/MV2007LV0029

Chief and Council have met to discuss the above land application and have no comments or concerns. However the Chief and Council are interested in discussing the potential economic and employment opportunities that will become available with the construction of the dam. Our community is constantly seeking training and employment opportunities that will benefit our community members.

We will be available to meet with you at your convenience and appreciate you taking the time to consider our request.

If you have any questions you can contact me @ (867) 874-6701.

Thank you,

Victoria Martel St Jean
Lands and Resources
Katlodeeche First Nation



Katlodeeche First Nation

P.O. Box 3060, Hay River Reserve, NT X0E - 1G4

Phone: (867) 874 - 6701 Fax: (867) 874 - 3229

Email: landsnresources@katlodeeche.com

FAX

TO: Kathleen Graham

FROM: Victoria Martel - St. Jean, Lands & Resources Manager

FAX: (867) 873-6610 DATE: Sept 5, 2007

RE: land application PAGES (INCLUDING COVER): 2

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY

COMMENTS:

THIS FAX WAS SENT BY: [Signature]

HARD COPY TO FOLLOW: YES OR NO

PLEASE CONTACT THE ABOVE NUMBER, IF YOU REQUIRE MORE INFORMATION.

THANK YOU.



Akaitcho Interim Measures Agreement Implementation Office

NWT Treaty #8 Tribal Corporation

Stephen Ellis – Akaitcho IMA Implementation Coordinator
 NWT Treaty #8 Tribal Corporation
 Box 28
 Lutsel K'e, NT X0E 1A0
 Ph: (867)-370-3217
 Fax: (867)-370-3209

Mackenzie Valley Land
 & Water Board

File

September 7, 2007

SSEP072007 MV2007I0033

Application# MV2007L4-0029

Copied to KG / Reg.

Willard Hagen – Interim Chair
 Mackenzie Valley Land and Water Board
 Box 2130
 7th Floor – 4910 50th Avenue
 Yellowknife, NT X1A 2P6
 Fax: (867) 873-6610

RE: Applications by the Deze Energy Corporation to expand the Talston Hydro Project (MV2007I0033) and construct a transmission line into the Slave Geological Province (MV2007L4-0029)

Mr. Hagen:

The Akaitcho Dene First Nations (AKFNs) are generally supportive of the use of hydro power to generate electricity as an alternative to diesel fuel. That being said, the Akaitcho Screening Board has significant outstanding environmental concerns with the developments proposed in MV2007I0033 and MV2007L4-0029. These concerns must be addressed in an environmental assessment, and are as follows:

- The impact of the proposed transmission line on wildlife is largely unknown. Of particular concern is the potential impact of the transmission line upon the movement of large ungulates (caribou, moose, muskox) and their predators.
- The technologies to be employed to run the transmission line across permafrost must be examined in depth.
- The potential effects of the upgraded gate at Nonacho Lake are of significant concern to current and former residents of Fort Resolution, Lutsel K'e, and Rocher River. Many residents still remember the flooding and subsequent destruction of traditional homelands caused by the original gate works, and are concerned that these impacts may be further compounded.

- The proposed transmission line might impinge upon the integrity of the proposed national park in the East Arm of Great Slave Lake and Artillery Lake currently being advanced by the Akaitcho Dene First Nations. How the transmission line might potentially coexist with a national park must be explored.
- There must be an analysis of the cumulative effects of these proposed developments. The creation of a hydroelectric power source in the Slave Geological Province may significantly increase the economic viability of many base metal and gem deposits in the region. The incidence of "reasonably foreseeable" developments in the region may correspondingly increase. Conversely, hydropower in the Slave Province will likely reduce greenhouse gas emissions and ease pressure off the existing ice road corridors. Some careful visioning and forecasting must be completed.
- The transmission towers and lines might create / destroy bird nesting and roosting habitat. The significance of such impacts must be examined.
- Alternate routes for the transmission line must be considered, both very generally (crossing over Great Slave Lake at the Simpson Islands, going around the western part of the lake alongside existing transportation corridors) and specifically (location of transmission structures around/over water structures, etc.).
- The specific routing of the ice road (during the construction phase) on lakes and portages, the location and capacity of construction and maintenance camps, and the management of ice road traffic must be carefully considered. The ice road will provide industrial access to an area that has been largely untouched except by aboriginal harvesters, an area that continues to be readily used in the winter months by trappers and hunters. The impacts upon their way of life must be considered.
- The impacts of the proposed barge activity in the East Arm of Great Slave Lake associated with transmission line construction must be explored in detail.

The ASB looks forward to exploring these issues during an environmental assessment process.

Sincerely,



Stephen Ellis – Akaitcho IMA Implementation Coordinator
NWT Treaty #8 Tribal Corporation

- c. Chief Adeline Jonasson – LKDFN
A/Chief Louie Balsillie – DKFN
Chief Fred Sangris – YKDFN (Ndilo)
Chief Eddie Sangris – YKDFN (Dettah)
Florence Catholique – A/Wildlife, Lands and Environment Manager, LKDFN
Rosie Bjornson – IMA Coordinator, DKFN
Phil Moonson – Lands Director, YKDFN
Gabrielle Mackenzie-Scott – Chair, MVEIRB



Akaitcho Interim Measures Agreement Implementation Office
NWT Treaty #8 Tribal Corporation

FAX TRANSMITTAL FORM

To: Willard Hagen, mvlwb From: Steve Ellis

Fax # 878-6610

Number of pages including cover page: 5

Phone #

Date: Sept 7/07

RE: Deze Energy Corp. - Teltron Hydro Project.

Message:

Please forward fax to Interim Chair.
Thank You.

Akaitcho (IMA) Interim Measures Agreement Office
Box 28, Lutsel K'e, NT XOE IAO
Phone: (867) 370-3217 Fax: 867 370-3209

MVLWB Registry

From: Glen MacKay [Glen_MacKay@gov.nt.ca]
Sent: Wednesday, September 12, 2007 3:30 PM
To: permits@mvlwb.com
Subject: Attn Kathleen Graham MV2007I0033

Hi Kathleen,

Please refer to the letter submitted by Tom Andrews of the Prince of Wales Northern Heritage Centre on July 6th for our recommendations relating to land use permit application MV2007I0033. Please confirm receipt of this message. Thanks,

Glen MacKay

Glen MacKay
Assessment Archaeologist
Prince of Wales Northern Heritage Centre
PO Box 1320
Yellowknife, NT X1A 2L9

867-920-6182
867-873-0205
glen_mackay@gov.nt.ca



Yellowknives Dene First Nation
Box 2514, Yellowknife, N.T. X1A 2P8

Dettah:	Ph.:	(867) 873-4307
Dettah:	Fax:	(867) 873-5969
Ndilo	Ph.:	(867) 873-8951
Ndilo	Fax:	(867) 873-8545

September 12, 2007

Willard Hagen
Interim Chair
Mackenzie Valley Land and Water Board
7th Floor 4910-50th Avenue
Yellowknife NT X1A 2P8
Fax: 867-873-6610

Mackenzie Valley Land
& Water Board

File

SEP 13 2007
MV2007L4-0029
Application # MV2007I0033
Copied To K61 Reg

Attention Mr. Hagen:

RE: Application by the Deze Energy Corporation to Expand the Taltson Hydro Electric Project (MV2007I0033) and Construct a Transmission Line into the Slave Geological Province (MV2007L4-0029)

The Yellowknives Dene First Nation (YKDFN) Lands Management and the Land and Environment Program reviewed the Deze Energy Corporation's proposed project and agrees with the recommendations of the Akaitcho Screening Board. The following concerns need to be addressed in an environmental assessment before the proposed project is allowed to proceed. They are:


- The impact of the proposed transmission line on wildlife is largely unknown. Of particular concern is the potential impact of the transmission line on the movement of large ungulates such as caribou, moose, muskoxen, and their predators.
- The technologies to be employed to run the transmission line across permafrost must be examined in depth.
- The potential effects of the upgraded gate at Nonacho Lake are of significant concern to current and former residents of Fort Resolution, Lutsel'ke, and Rocher River. Many residents still remember the flooding and subsequent destruction of traditional homelands caused by the original gate works, and are concerned that these impacts may be further compounded.

- The Impact of the Transmission line on birds is unknown.
- The proposed transmission line will impact the proposed national park in the east arm of Great Slave Lake and Artillery Lake.
- There is serious concern about the cumulative impacts of the proposed project. Therefore, it is necessary to undertake an appropriate cumulative impacts study before the proposed project proceeds.
- Alternative routings and associated impacts of the transmission line need to be fully considered.

The Yellowknives Dene First Nation agrees with the Akaitcho Screening Board and requests that an Environmental Assessment be conducted of the proposed project before it is allowed to proceed.

If you have any questions or concerns regarding this letter please contact the undersigned at 867-766-3496.

Sincerely,
Yellowknives Dene First Nation



Rachel Ann Crapeau
Manager L&E



Phil Moon
Director Lands Management

Copy: Chief Eddie Sangris, Dettah, Fax: (867) 873-5969
Chief Fred Sangris, Ndilo, Fax: (867) 873-8545
Greg Empson, Legal Counsel, Edmonton, AB. Fax: 780-424-5852

Yellowknives Dene First Nation
Treaty Entitlement Office

FAX COVER SHEET

To: Willard Hagen
From: Phil Son
Company: MVLWB
Date: Sept. 12 / 07
Fax number: 873-6610
Total No. Of pages including cover: 3
Re: Deze Energy Corp

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

NUMERICAL COMMENTS

Yellowknives Dene First Nation
Box 2514 Yellowknife, NT X1A 2P8
Phone: (867) 766-3496
Fax: (867) 766-3497



Parks Canada Parcs Canada

145 McDermot Ave.
Winnipeg, MB
R3B 0R9

September 17, 2007

Ms. Kathleen Graham
Mackenzie Valley Land and Water Board
7th Floor – 4910 50th Avenue
Yellowknife, NT
X1A 2P6

Re: Taltson Hydroelectric Expansion Project (MV2007I0033, MV2007L4-0029)

Dear Ms. Graham,

Parks Canada has reviewed the project description for the Taltson Hydroelectric Expansion Project (MV2007I0033, MV2007L4-0029). This project crosses through the area that has been withdrawn under the *Territorial Lands Act* for national park purposes on the East Arm of Great Slave Lake. As a result, if this project does not proceed to environmental assessment, Parks Canada would like an additional opportunity to comment.

Thank you,

Sincerely,

Katherine Cumming
Environmental Assessment Scientist

Canada

MVLWB Registry

From: Kathleen Graham [kgraham@mvlwb.com]
Sent: Monday, September 17, 2007 2:11 PM
To: 'Dan Grabke'; Louie@Terra-Firma.ca
Cc: 'Peter Lennie-Misgeld'; Registry (permits)
Subject: FW: FW: Taltson Hydroelectric Expansion Project (MV2007I0033, MV2007L4-0029)



Taltson
omments.pdf (48 KE)

-----Original Message-----

From: bob.gamble@pc.gc.ca [mailto:bob.gamble@pc.gc.ca]
Sent: Monday, September 17, 2007 2:12 PM
To: Katherine.Cumming@pc.gc.ca
Cc: david.murray@pc.gc.ca; gordon.hamre@pc.gc.ca; Kathleen Graham;
Richard.Leonard@pc.gc.ca
Subject: Re: FW: Taltson Hydroelectric Expansion Project (MV2007I0033,
MV2007L4-0029)

It is fortunate that we will be able to comment further on this, Katherine. One matter we might want to question is the under-the-lake alternative to the land line proposal. Since the last cost estimate for this project, the cost of the technology for underwater transmission has decreased considerably. Last spring I heard from an expert in this field that this technology (from Denmark, I believe) makes the under-the-lake option only marginally more expensive than around-the-lake with a land line.

Also, as you may know the proposed OiC land withdrawals for both the national park study area and the Akaitcho Process contain the following caveat:

"Subject to interests in land which will be required for the construction and maintenance of the future Taltson Hydro Electric transmission line, and subject to land required for the future ancillary facilities, sub-stations and associated infrastructure for the Taltson Hydro Electric Project."

Thanks for picking up on this.

Bob

Bob Gamble
Public Involvement Officer
Parks Canada
Box 1166, Yellowknife, NT X1A 2N8
ph (867) 766-8462 fax (867) 766-8466
bob.gamble@pc.gc.ca

Katherine Cumming

<kgraham@mvlwb.com> To: "Kathleen Graham"
17/09/2007 09:04 cc: Gordon
Hamre/NOTES/PC/CA@PC, Bob Gamble/NOTES/PC/CA@PC, David
AM Murray/NOTES/PC/CA@PC,
Richard Leonard/NOTES/PC/CA@PC
Subject: Re: FW: Taltson



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Fish Habitat Management
Suite 101, 5204-50th Avenue
Yellowknife, Northwest Territories
X1A 1E2

Gestion de l'Habitat du Poisson
Suite 101 5204, 50e Avenue
Yellowknife (Territoires du Nord-Ouest)
X1A 1E2

Your file *Votre référence*
MV200710045
MV2007L4-0029
Our file *Notre référence*
YK-07-0104

September 17, 2007

Mackenzie Valley Land and Water Board
c/o Kathleen Graham, Regulatory Officer
PO Box 2130
Yellowknife, NT
X1A 2P6

Dear Ms. Graham:

RE: Deze Energy Corporation, Transmission Line (Land Use Application MV200710045) and Taltson Hydroelectric Expansion Project (Water License Application MV2007L4-0029)

As requested in correspondence dated August 13, 2007, the Department of Fisheries and Oceans Canada, Fish Habitat Management – Western Arctic Area (DFO) has reviewed the Land Use Permit application MV200710045 and Water License application MV2007L4-0029 submitted by the Deze Energy Corporation for the purposes of expanding the Taltson Hydroelectric Facility with construction of an associated transmission line. Our review has been limited to potential impacts of the project on fish and fish habitat pursuant to the responsibilities of DFO under the habitat protection provisions of the *Fisheries Act*.

We have concluded that components of the proposed works will likely result in the harmful alteration, disruption or destruction (HADD) of fish habitat. The HADD of fish habitat is prohibited unless authorized by DFO pursuant to subsection 35(2) of the *Fisheries Act*. In keeping with the Department's Policy for the Management of Fish Habitat, authorizations are not issued unless acceptable measures to compensate for the habitat loss are developed and implemented by the proponent. Under Sections 124 and 125 of the *Mackenzie Valley Resource Management Act* (MVRMA), DFO is participating in a preliminary screening of the project by providing the following comments.

DFO has determined that the information provided to date is not sufficient to enable us to fully evaluate the impacts of the proposed work on fish and fish habitat. Although it is understood that there are a number of ongoing fish habitat and hydrological studies in relation to this project, as described, the proposed Taltson Hydroelectric Expansion Project has the potential for significant environmental impacts.

DFO has identified the following areas of concern where aspects of the proposal that will likely result in impacts to the aquatic environment:

Taltson River Drainage Basin

The addition of an automated outflow control structure on Nonacho Lake can have widespread impacts to the health of the aquatic ecosystem within the Taltson River drainage basin. The Nonacho Lake reservoir is located in the

upper reaches of the Taltson River drainage basin and directly contributes water to an interlinked series of dependent lakes and streams while on its course to Great Slave Lake. Regulation of Nonacho Lake's outflow may impose flow and lake level regulation throughout the entire drainage basin below Nonacho Lake. Flow regulation beyond that of background levels will likely have a cascading impact on the quantity, quality, accessibility and reliability of fish habitat throughout the Taltson River drainage basin.

Prior to the expansion of the current hydroelectric facility, a comprehensive baseline habitat suitability survey should to be completed in all representative parts of the Taltson River Drainage Basin that would experience alteration in flow and/or water level as a result of the proposed project. The results of this survey would locate and quantify the current habitat within the drainage basin, and be used as a reference point in which to gauge the projected impact. This study should also predict reservoir sedimentation rates and potential impacts to fish communities and fish habitat. The proponent should be required to compare the projected post-expansion flow conditions to the baseline habitat study to determine the likely areas of habitat impact. These identified areas should be assessed to determine their level of importance to the fish community.

Once the above habitat information is obtained, the proponent should develop mitigation strategies to minimize impacts to fish habitat, and identify impacts that are unavoidable.

Fish Migration

The combination of flow regulation and control structures can drastically impact the ability and likelihood of fish migration. Fish migrate longitudinally, laterally and vertically within drainage systems for various reasons, including for spawning, rearing, over wintering, and feeding activities. Any barrier to fish passage can impact the productivity of the local fishery. It is necessary to identify all possible barriers to fish migration, and develop mitigation strategies to ensure proper fish passage, or predict impacts as a result of preventing fish passage. During the development of these mitigation strategies it is important to consider safe passage for both upstream and downstream migration of fish.

Specific Components

North Gorge Power Generation Facility

The construction and operation of the proposed North Gorge Power Generation Facility has the potential to impact fish and fish habitat through a variety of venues including: structural footprint, in-water works, barrier to fish passage, blasting, total gas pressure, fish entrance into turbines, tailrace scouring, downstream sedimentation, acid rock drainage (ARD), flow/drainage shift within the Twin Gorges Reservoir, and flow alteration of the Taltson River. All potential impacts should be identified and assessed, and appropriate mitigation strategies developed.

Spillway (Trudel Creek)

The diversion of water into the proposed North Gorge Generation Facility will reduce the average flow through the Trudel Creek spillway and create sudden spikes in flow during facility shutdown events and natural high water events. Further detail is required for the expected environmental shift in Trudel Creek,

including: water level fluctuation range, timing, duration and frequency, habitat shift, and erosion potential. Strategies should be developed to re-establish fish passage at the spillway structure. The spillway structure also has the potential to impact the total gas pressure and gas saturation levels in the plunge pool downstream.

Control Structure on Nonacho Lake

The construction and operation of the proposed Nonacho Lake outflow control structure has the potential to impact fish and fish habitat.

Mitigation for the potential impacts to fish and fish habitat during construction proposed new outflow control structures should be developed. Potential impacts include: loss of habitat through infilling and flow diversion during construction, fish entrapment, barriers to fish passage, blasting, impacts to water quality from concrete wash water, and potential for Acid Rock Drainage. Provision of migratory fish passage should also be incorporated into the design of the new control structures.

Although the proposed outflow control structures are expected to maintain the lake level within the limits set by the existing water license (N1L4-0154), the timing and duration of flow releases will be more regulated with increased frequency in water level fluctuations. Construction of the new control structure will also alter the baseline drainage of Nonacho Lake, which may result in the alteration or elimination of fish habitat. Potential impacts include:

- Flooding due to dam and diversion structure (unstable banks in drawdown zone, unreliable access of fish to important habitats, changes in water quality, accelerated sedimentation rate, unreliable chemoclines and thermoclines)
- Reduction in stream flow and change in hydrology in all dependent waterbodies (flow diversion, unreliable flow in downstream environments, fish passage, inconsistent access to habitat, shift in water quality)
- Changes in stream morphology (shift in existing habitats)
- Diversion and relocation of drainage (fish passage, fish ability to locate and use new drainage)

As indicated previously, increased regulation of Nonacho Lake water level could impact fish and fish habitat throughout the Taltson River Drainage Basin, from Nonacho Lake to Great Slave Lake, including all drainage through the Tronka Chua Gap and Trudel Creek. The watershed impact needs to be recognized, with projections for impacts on the aquatic ecosystem.

Transmission Line / Substation

A finalized plan for the transmission line should be provided, including locations of towers, proposed in-, and near-water works, including riparian clearing. Complete details are required for the barge landings, staging areas, camps and access trails. Potential impacts to aquatic ecosystem should be identified, including potential cumulative impacts, and mitigation strategies to address these impacts should be included in the finalized plan.

During the development of plans for the transmission line, we refer the proponent to the DFO Northwest Territories Operational Statement for Overhead Line Construction found on the website located at: <http://www.dfo->

[mpo.gc.ca/regions/central/habitat/os-eo/prov-terr/nt/os-eo11_e.htm](http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/prov-terr/nt/os-eo11_e.htm). Provided it complies with the conditions found in the Operational Statement, incorporating the Measures to Protect Fish and Fish Habitat set out in the Operational Statement into the project will ensure that any potentially adverse effects on fish and fish habitat will be mitigated and no additional DFO review would be necessary. For further information, electronic versions of the Operational Statements can be obtained through our regional website located at: http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/prov-terr/index_e.htm

Winter Road / All Season Road

A final route plan should be identified for the winter road between the Twin Gorges facility and North Nonacho Lake, including details for the construction of the all-season portion(s) and staging areas. All potential impacts from stream crossings should be identified, including those resulting from any in-water works, explosive works, clearing of riparian vegetation, alteration of flows, and cumulative impacts. Appropriate mitigation should developed to minimize these impacts

During the development of plans for the winter road, we refer the proponent to the DFO Northwest Territories Operational Statements for Clear-Span Bridges (found at http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/prov-terr/nt/os-eo05_e.htm) and Ice Bridges (found at http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/prov-terr/nt/os-eo09_e.htm). Provided it complies with the conditions found in the Operational Statements, incorporating the Measures to Protect Fish and Fish Habitat set out in the Operational Statements into the project will ensure that any potentially adverse effects on fish and fish habitat will be mitigated and no additional DFO review would be necessary.

DFO appreciates the opportunity to review and provide comments on this proposal. Please note that this advice should not be taken to imply DFO's approval of the project, or any part thereof, in accordance with the *Fisheries Act* or any other federal legislation. DFO will continue to work with the proponent with respect to fish and fish habitat and the Mackenzie Land and Water Board will be copied on all appropriate correspondence. DFO looks forward to the continued review of this project.

If you have any questions, please feel free to contact Murray Somers (Area Habitat Biologist) at (867) 669-4944, by fax (867)669-4940, or email somersm@dfo-mpo.gc.ca.

Sincerely,



Ernest Watson
Habitat Team Leader
Fish Habitat Management
Department of Fisheries and Oceans - Western Arctic Area

c.c.: Murray Somers (DFO – Area Habitat Biologist)
Shelley Jepps (DFO – Area Habitat Biologist)
Beth Pechter (DFO – Environmental Assessment Analyst)
Gerald Fillatre (DFO – Fishery Officer)
Mike Fournier (Environment Canada)
Charlotte Henry (INAC)
Edward Smith (NTPC)
Dan Grabke (NTPC)

MVLWB Registry

From: Kathleen Graham [kgraham@mvlwb.com]
Sent: Monday, September 17, 2007 11:26 AM
To: 'Dan Grabke'; Louie@Terra-Firma.ca
Cc: Registry (permits)
Subject: FW: DFO comments on LUP and WL for Taltson Hydro Expansion
Importance: High

From: Somers, Murray [mailto:SomersM@DFO-MPO.GC.CA]
Sent: Monday, September 17, 2007 11:09 AM
To: Kathleen Graham
Cc: Jepps, Shelley F; Pechter, Beth; Fillatre, Gerald; Fournier, Mike: EC; Henry, Charlotte: INAC; dgrabke@ntpc.com; esmith@ntpc.ca; Linda Zurkirchen
Subject: DFO comments on LUP and WL for Taltson Hydro Expansion

Hi Kathleen,

Attached are DFO's comments regarding applications LUP MV2007I0045 and WL MV2007L4-0029 from the Deze Energy Corp for the purpose of expanding the Taltson hydro facility and installing a transmission line to the diamond mines.

Please feel free to call me if you have any questions or comments.

Thanks,

Murray Somers
Fish Habitat Biologist