

**PROVINCE OF SASKATCHEWAN
MINISTRY OF ENVIRONMENT
MINISTERIAL CHANGE APPROVAL
PURSUANT TO SECTION 16(2)(a)
THE ENVIRONMENTAL ASSESSMENT ACT**

**SASKATCHEWAN POWER
CHANGES TO ASH LAGOON CHEMISTRY
BOUNDARY DAM POWER STATION**

WHEREAS:

- A. Pursuant to Section 15(1)(a) of The Environmental Assessment Act (the Act) Ministerial Approval was given (September 28, 2006) to Saskatchewan Power (the Proponent) to proceed with Expansion of the Ash Lagoons at the Boundary Dam Power Station (hereinafter called “the development”), subject to terms and conditions imposed in the Ministerial Approval;
- B. The Proponent’s Environmental Impact Statement (EIS) for the development addressed all significant impacts related to the expanded operation of the Ash Lagoon system at the Boundary Dam Power Station in its entirety and the subsequent Ministerial Approval, terms and conditions applied to those impacts;
- C. The Proponent proposes to make a change to the approved development that does not conform to the terms or conditions contained in the previous Ministerial Approvals, notice, particulars of which are set out in a document entitled “Boundary Dam Power Station Ash Lagoon Expansion Environmental Assessment Act-Section 16 Review, SaskPower” dated November 9, 2010 (hereinafter referred to as “the project proposal”), which includes an analysis of the scope of the proposed changes and the impacts of the changes on the environment;
- D. The Minister has reviewed the project proposal to change the ash chemistry in the existing ash lagoon system, and has concluded that the proposed change will not result in significant environmental impacts different from those identified in the original EIS and is satisfied that the requirements of the Act have been met;

PURSUANT TO SECTION 16(2)(a) of the Act, Ministerial Approval is hereby given to Saskatchewan Power for the Proposed Change subject to the following terms and conditions:

1. The Proponent shall design, implement, operate and maintain the development in accordance with the mitigation measures outlined in the Section 16 project proposal (November 2010) except where alterations are required by the subsequent terms and conditions.
2. The Proponent shall comply with all applicable legislation and regulations relevant to the development and the approved change. Where the legislation and regulations impose more stringent standards than those imposed by the mitigation measures and environmental protection measures described in the proposal, the Proponent shall comply with the more stringent requirements of the legislation and regulations.
3. The Proponent shall obtain all required approvals, licences or permits, and/or obtain all required amendments to existing approvals, licences, or permits as a result of the proposed changes, including changes to the existing Environmental Monitoring Program as outlined in the project proposal.
4. Except as otherwise provided in this Ministerial Change Approval, the Ministerial Approval of September 28, 2006 (EAPTS#2004-095) remain in full force and effect.
5. The Proponent shall inform the Minister, in the manner described in Section 16(1) of the Act, of any change to the development that does not conform to the terms and conditions of this Approval.
6. This Ministerial Change Approval takes effect on the date of signing.

Dated at Regina, Saskatchewan this 23rd day of February, 2011

Original approved by Minister

APPROVED BY:

Dustin Duncan
Minister of Environment

**REASONS FOR DECISION
MINISTERIAL APPROVAL
PURSUANT TO SECTION 16(2)(a)
THE ENVIRONMENTAL ASSESSMENT ACT**

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Introduction

The Environmental Assessment Act (hereinafter called the Act) states that where a proponent has received Ministerial Approval to proceed with a development and the proponent intends to make a change in the development that does not conform to the terms or conditions contained in the approval, the proponent must receive Ministerial Approval prior to making those changes.

In November 2010, Saskatchewan Power (SaskPower) submitted a project proposal to the Minister for approval under Section 16 of the Act for changes to the approved Ash Lagoon Expansion project at the Boundary Dam Power Station, to allow modified ash chemistry accommodating the byproducts of a carbon-capture process to be incorporated at the Station. The Proponent's project proposal addressed the rationale for and the effects of the changes to the ash chemistry and storage process.

Application of The Environmental Assessment Act

When a proponent wishes to make a change to an approved development the proposed change has to be reviewed to determine the application of Section 16 of the Act. In seeking approval to change the ash chemistry at the ash lagoon expansion, SaskPower has, in accordance with Section 16(1) of the Act, informed the Minister of the proposed change before proceeding with it, and is seeking approval to proceed with the modification.

I am therefore satisfied that the Proponent has met the requirements of subsection 16(1) of the Act.

Under Section 16(2) of the Act, once notice of a proposed change to an existing approval has been received, a Ministerial Decision is required. This decision determines the scope of the environmental assessment required to review the proposed change.

Ministerial Decision options under section 16(2) of the Act are:

- (a) approve the proposed change and impose any terms and conditions that are considered advisable;

- (b) refuse to approve the change in development; or
- (c) direct the proponent to seek approval for the proposed change in the manner prescribed in sections 9 to 15 of the Act.

The Environmental Assessment Branch reviewed SaskPower's request for changes to ash lagoon chemistry and operation at the Boundary Dam Power Station, and this review was used in making my decision under section 16(2) of the Act.

Proposed Changes

SaskPower proposes to change the chemistry of the ash slurry delivered to the existing lagoon storage system to accommodate future byproducts of the planned Boundary Dam Integrated Carbon Capture and Sequestration project. Existing lagoon operation will allow for relatively rapid degradation of biodegradable organic acid components of the changed ash slurry. Total dissolved solids (TDS) in the lagoons will rise, but water quality in the lagoons is predicted to match that of existing non-potable groundwater. Therefore, higher TDS in seepage from the lagoons will have no significant effect on groundwater, and will cease moving upon planned decommissioning of the lagoons in approximately twenty years, thus having little potential to reach surface waters. Volume of ash slurry handled will increase slightly, but can be accommodated in existing lagoons. Existing water monitoring programs will be enhanced to allow confirmation of predictions made in the project proposal. No other changes to the ash lagoon operation are proposed.

Environmental Assessment of the Proposal

Review of the proponent's proposal to change the ash lagoon system by accepting effluent with new chemistry did not identify any specific significant environmental effects that are not already anticipated and addressed in the existing Environmental Impact Statement (EIS), and its approval terms and conditions.

The Ministry is satisfied that SaskPower has addressed the pertinent environmental issues associated with the change in the development, and that there are other mitigation and environmental protection measures in place per the original impact statement. These factors are consistent with public expectations that both the proponent and government will ensure all reasonable steps are taken to protect the environment.

I have concluded that any adverse environmental effects associated with the change to ash chemistry at the Boundary Dam Power Station are minimal and that the overall environmental impacts of the change are well understood in relation to the original EIS. I am also satisfied that the environmental effects that may occur are acceptable given the benefits that will result. I have also concluded that the proposed change is fundamentally sound.

These conclusions are based on the Proponent's commitments as documented in the

proposal, on my ability as the Minister of Environment to impose specific conditions at this time, and on the knowledge that any additional environmental protection requirements can be imposed through terms and conditions forming parts of the permits, licences, and approvals required by provincial legislation.

Duty to Consult

The Environmental Assessment Branch considers there to be no potential impact to Treaty and/or Aboriginal rights and/or traditional use. No notification is required beyond what is typically provided to the public or as required by legislation.

Summary

This proposed change allows SaskPower to modify the ash lagoon expansion to accommodate anticipated new ash chemistry. The proposed will not result in significant additional environmental impacts not already anticipated in the original EIS.

My decision to approve the changed ash chemistry at the ash lagoon expansion is based on my conclusions that:

1. the proposed change will not significantly impact the environment in ways that differ in nature from those already identified and addressed in the previous approval;
2. the proposed change can be regulated through the terms and conditions of the original 2006 approval, the terms and conditions attached to this approval, and the terms and conditions forming parts of the permits, licenses, and approvals for the change required by other provincial legislation; and
3. further public review is not necessary given the limited nature of the changes.

My decision to grant this approval was made with the knowledge that concerns identified during the environmental review of the proposal can be addressed by the terms and programs of other government legislation.

Dated at Regina, Saskatchewan this 23rd day of February, 2011

ISSUED BY:
Original signed by Minister
Dustin Duncan
Minister of Environment