the PEMBINA institute
Sustainable Energy Solutions

Denise Auriat
AENV.PolicyFeedback@gov.ab.ca
Senior Partnership Advisor
Oil Sands Environmental Management Division
Alberta Environment

February 13, 2009

Re: Emission Standards for the Use of Non-gaseous Fossil Fuels for Steam Generation in In-Situ Bitumen or Heavy Oil Recovery Projects

Dear Ms. Auriat,

The Pembina Institute would like to take the opportunity to provide feedback on the draft emissions standard policy.

The Pembina Institute recommends that Alberta Environment withdraw the policy until such time as the Government of Alberta or the Government of Canada impose a legally enforceable cap on total greenhouse gas emissions and impose regional air emission caps on air pollution that are protective of both human health and the environment.

If implemented, the policy allows companies to use high-carbon fuels that will result in increased greenhouse gas, criteria air contaminants and hazardous air pollutants (PM and metals). While the policy states that companies must be capture ready, there are no rules or policies in place to ensure that the greenhouse gas emissions from high-carbon fuels will be addressed through carbon capture and storage. The policy states that it is intended to meet an integrated set of goals that include reducing cumulative effects, but this policy has the potential to accelerate the rate of release of local air pollutants in the absence of precautionary environmental threshold for air emissions (regional caps on air pollution).

Allowing the combustion of high carbon fuels, such as coke and asphaltenes, without mitigation of climate impacts is misaligned with the new Provincial Energy Strategy that strives for the outcome of "clean energy production." According to our calculations, an in situ operation burning petroleum coke to produce steam would produce 66 percent more greenhouse gas emissions than the same operation burning natural gas to produce steam.[1]

[1] *Impact of the Introduction of a Carbon Capture and Storage System in the Oil Sands Sector on Air Contaminant Emissions Part 1 Air Contaminant Emissions Impacts for the Oil Sands Sector*, prepared by Canadian Energy Research Institute for Environment Canada, June 2008. Note: This analysis assumes that the gasification of petroleum coke without carbon capture and storage generates the same CO_2 emissions as directly burning petroleum coke (Table 3.2).

Furthermore, allowing operators to burn upgrader wastes or bitumen will result in an acceleration of already deteriorating air quality in regions affected by in situ oil sands development.

Just over one year ago, Alberta Environment released a guideline entitled *Emission Guidelines for Oxides of Nitrogen (NO_X) for New Boilers, Heaters and Turbines Using Gaseous Fuels Based on a Review of Best Available Technology Economically Achievable (BATEA) (December 2007)*. It did so in response to concerns about air emissions from oil sands operations. The Department reduced the compliance limit for new boilers running on natural gas to 26 g/GJ NO_X. The new policy would allow a similar unit burning upgrader wastes and bitumen to discharge up to 50 g/GJ NO_X. This represents a 92 percent increase in the NO_X limit for a boiler.

Burning petroleum coke or bitumen would also result in the release of SO_2 and heavy metals. These emissions are avoided when burning natural gas.

This policy, which would allow the emission intensity of in situ operations to rise significantly and contribute to cumulative impacts, appears to conflict with the recently released Alberta Government report entitled *Responsible Actions — A Plan for Alberta's Oil Sands*, particularly section 1.1.2:

> *1.1.2 Protect human health and ecosystems by setting regional outcomes and thresholds for air, water, land, and biodiversity, and by providing public assurance through coordinated monitoring and compliance systems.*

The Pembina Institute is of the view that the Government of Alberta should not permit companies to switch to burning more pollution-intensive fuels without regional air emission limits that are both precautionary and protective of human health and the environment.

Finally, we would like to register a concern with the manner in which the Government of Alberta has presented this policy to Albertans. The explanatory documents should clearly disclose how much CACs and GHGs could rise as a result of the policy.

Sincerely,

Simon Dyer
Oil Sands Program Director
The Pembina Institute