

From: [Jodi McNeill](#)
To: [ARC Team](#)
Cc: jheisler@suncor.com
Subject: Statement of Concern Submission
Date: Friday, August 05, 2016 12:00:10 PM
Attachments: [OSEC SOC 5 August 2016.pdf](#)

To whom it may concern:

Please find attached to this email a Statement of Concern regarding the The Suncor Energy Inc. OSCA Application No. 1857270 and 1857274, and EPEA Application No. 075-94.

If there are any problems with this submission, technical or otherwise, please let me know.

Regards,

Jodi McNeill

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Oil Sands Environmental Coalition

5 August 2016

Alberta Energy Regulator
Authorizations Review and Coordination Team
Suite 1000, 250 – 5 Street SW
Calgary, Alberta
T2P 0R4
E-mail: ARCTeam@aer.ca

Re: The Suncor Energy Inc. Base Plant Application for the Draft Tailings Directive OSCA Application No. 1857270 and The Suncor Energy Inc. Millennium Operational Amendment Application No. 1857274 and EPEA Application No. 075-94

Dear Authorizations Review and Coordination Team:

I am writing you on behalf of the Oilsands Environmental Coalition (OSEC) regarding the proposed Suncor Energy Inc. (Suncor) Millennium Operational Amendment (MOA) and Base Plant Application for the Draft Tailings Directive (hereinafter the 'Modified Project'). The proposed modifications relate to tailings management of the Suncor Base Plant (hereinafter the "Existing Project"), which includes the Millennium Mine and upgrader (operating since 1967) and the North Steepbank Debottleneck Phase 3 and Mine Extension (operating since 2007). Pursuant to Section 13 of the Oil Sands Conservation Act (OSCA), this letter is submitted as a Statement of Concern from OSEC regarding the Modified Project.

OSEC is a coalition of Alberta-based environmental organizations with a long-standing interest in environmental issues associated with oilsands development. OSEC is comprised of the Fort McMurray Environmental Association (FMEA) and the Pembina Institute. Members of OSEC have a legal interest in recreational lease lands near the Settlement of Fort McKay, in close proximity (approximately 22 kilometers) downstream from the Modified Project operations. The interest consists of a license to occupy lands on the Muskeg and Athabasca Rivers for recreational purposes, such as camping, boating and fishing. Members of OSEC are concerned that Suncor's Modified Project will adversely impact water quality and quantity, wildlife species and terrestrial values, and recreational opportunities available to OSEC members.

OSEC is reviewing the Draft Tailings Directive 085 Application for the Modified Project. The Pembina Institute has recently engaged bilaterally with Suncor to facilitate this review and to collaboratively address issues of concern. These discussions are ongoing.

We are concerned about the extent to which the Modified Project meets the stated intent and technical requirements of the recently issued *Lower Athabasca Region – Tailings Management Framework for the Mineable Oilsands* (TMF), which comprises a policy direction intended to "manage fluid tailings volumes during and after mine operation in order to manage and decrease liability and environmental risk resulting from the accumulation of fluid tailings on the

landscape.¹ The Suncor Energy Inc. Base Plant Application for the Draft Tailings Directive **OSCA Approval No. 8535M** claims to comply with the *Draft Tailings Directive 085: Fluid Tailings Management for Oilsands Mining Projects*,² which was developed under the *Oilsands Conservation Act* (OSCA) and sets requirements for managing fluid tailings volumes for oilsands mining projects. We have several concerns regarding the sufficiency of this application in meeting the information requirements, fluid tailings management reporting, and surveillance and compliance processes stipulated by the Draft Directive. In this regard, we have prepared a preliminary list of questions and concerns that we would like to bring to the Director's attention.

1. Identify why you believe you may be directly and adversely affected by a decision of the AER on the application(s)

All members of OSEC are directly and adversely affected by a decision of the AER on the application(s) cited herein. OSEC has an interest in lands near Fort McKay and in close proximity to the Modified Project. The interest consists of a license to occupy lands on and near the McKay and Athabasca Rivers for recreational purposes, such as hiking, bird watching, camping, swimming and boating. Consequently all employees from Pembina and members of FMEA will be directly affected relative to their potential recreation activities on the recreation-leased lands.³

The Modified Project would be located in Townships 90, 91, 92 and 93, and Ranges 8, 9, and 10 West of the 4th Meridian about 25 kilometres northeast of Fort McMurray, Alberta. Given its close proximity to Fort McMurray and Fort Mackay, individual members of FMEA are directly and adversely affected by the Modified Project. As all members of OSEC have an interest in recreational lands near Fort McKay, they will be affected by environmental impacts in this region resulting from the Modified Project.

Furthermore, for over 30 years members of OSEC have demonstrated a genuine interest in sustainable development in Northern Alberta, responsible oilsands development, and the cumulative environmental impacts of oilsands mining. The organization's experience in researching and reporting on Alberta oilsands tailings include: five major technical research publications on tailings management from 2008-2013; leadership in designing and facilitating multi-stakeholder initiatives intended to manage cumulative effects of tailings; participation in numerous government consultation processes, including processes specific to tailings; membership in the AER's 2015-16 Technical Advisory Committee for Tailings Regulatory Management; and participation in the 2016 Water Management Working Group hosted by the Government of Alberta. OSEC has gained a reputation for providing substantive and well-researched perspectives that add value to regulatory processes. Members of OSEC are routinely

¹ Government of Alberta. 2015. *Lower Athabasca Region Tailings Management Framework for the Mineable Oilsands (LARP TMF)*, p.1.

² AER. 2016. *Draft Directive 085: Fluid Tailings Management for Oilsands Mining Projects*.

³ These lands are legally described as:

- a. all those portions of lots 1-4 which lie generally north and east of the left bank of the MacKay River;
- b. portions of sections 25 and 26; Township 94; Range 11; Meridian 4;
- c. LSD 16; section 27; Township 94; Range 11; Meridian 4; and
- d. LSD 1; section 34; Township 94; Range 11; Meridian 4.

contacted by media, industry, and governments both in Canada and abroad for comments and insights that are highly credible, well-researched, and fair.

2. Identify the nature of your objection to the application(s)

Suncor has applied to make several changes in its tailings management plan, including the requirement of additional measures to: manage increased volumes of FT generated from higher fines ore; draw down on legacy FT volumes; replace the treatment capacity of DDA1 as the mine advances; and, align with the TMF.⁴

Correspondingly, the MOA application proposes the following changes to the Existing Project: construction and operation of a new in-pit Dedicated Disposal Area (DDA3) for increased treated tailings treatment capacity to commence in 2018; shifting mining activity towards Millennium Mine and away from NSE in the short-term; reconfiguration of previously approved Sand Dump (SD) 9 and SD 10; modification of mining rates in Millennium and North Steepbank Extension (NSE) mines, resulting in the extension of NSE mine life; extension, construction, and operation of Mine Dump (MD) 9 South to increase storage of dried Mature Fine Tailings (MFT) within the former DDA2 footprint; and, establishment of a new Upper Pit Lake to reclaim the proposed DDA3, resulting in major alterations to the Millennium mine closure landscape.⁵

OSEC has concerns regarding the Modified Project's proposed reclamation schedule, End Pit Lake design and water management, and Mine Financial Security. Moreover, OSEC has concerns regarding AER procedures for inclusive stakeholder involvement, as well as ensuring best practices in tailings management in alignment with Directive 085 and the TMF.

These concerns are described in more detail below.

I. Proposed Reclamation Schedule

OSEC is concerned about Suncor's proposed reclamation schedule. The application appears to comply with the TMF requirement that the majority of Fluid Tailings will be treated and Ready to Reclaim (RTR) in 2043, ten years after the Modified Project's 2033 End Mine Life. As illuminated in Table 2.2-2 ('Treated Tailings Deposit Summary') and Table 2.2-3 ('Planned FT Management by Period'), Suncor predicts approximately 147 Mm³ of FT to be treated and placed in DDAs from 2033 to 2043, with the exception of 18 Mm³ of untreatable remnant FT.

However, as illuminated by Figure 2.3-1 in Suncor's application for the Draft Tailings Directive, the Base Plant will not be Ready for Reclamation (RFR) until 2081, with all reclamation certification completed by 2100. OSEC is concerned by the length of these RFR and certification periods. While the TMF does not stipulate clear timelines for RFR, the framework intends to encourage progressive reclamation with the objective of improving and speeding up reclamation of lands disturbed by oilsands mines. As the landscape will not be functionally reclaimed for 48 years after EML, the reclamation plan appears to be inconsistent with the intent of the TMF.

⁴ Suncor. 2016. *Suncor Energy Inc. Millennium Operational Amendment (MOA) Application*. 14 April.

⁵ Suncor Energy Inc. (Suncor). 2016. *Suncor Base Plant Application for the Draft Tailings Directive*. 16 April.

OSEC requests that Suncor provide more information to formally elucidate and justify the timelines in their proposed reclamation schedule. In particular, elaboration regarding Suncor's rationale for balancing trade-offs between quality and quantity in its reclamation processes, as well as the grounding of the reclamation targets and standards of this plan in precedents set by Suncor's reclamation work to date would be highly valued. Further an important component of this justification should elaborate upon Suncor's decision to utilize In-Line Flocculation as opposed to centrifuges as its primary technology in the filtering of FT, the latter technology being more capital and energy intensive but also more efficient and time-sensitive.

II. End-Pit Lake Design and Water Management

OSEC is concerned that Suncor intends to expand its End Pit Lake and tailings infrastructure, and requests that Suncor provide more detailed information regarding additional strategies to manage their impacts. Centrally, potential impacts on terrestrial values, wildlife species, and local communities are probable due to substantial changes to the Modified Project's closure landscape with the inclusion of an End-Pit Lake over DDA3. In particular, any existing uncertainties with water capping technology could be more formally and comprehensively delineated. OSEC is enthusiastic to learn more about where knowledge gaps in the existing academic and technological literature persist, and precisely how Suncor's proposed End Pit Lake fits within the contemporary consensus of the risks and benefits associated with this technology.

Furthermore, in Section 2.3.5 of its application for the Draft Tailings Directive, Suncor states that from 2043-53 "treated tailings in the deposit will settle/consolidate at a low rate," and then they will be capped with a combination of residual process water, closure drainage water from the reclamation landscape, and water pumped from the Athabasca River. OSEC is concerned about the ambiguity surrounding the phrase "low rate." OSEC understands that this projected consolidation method has been selected as opposed to a more short-term, high-risk, and rapid settling trajectory. Nonetheless, formal clarification regarding any target metrics for settling rates, as well as mitigation strategies for any below-optimal results would be highly valued.

Finally, as illuminated by Figure 2.3-8 in Suncor's application for the Draft Tailings Directive, the End Pit Lake to be placed over DDA3 will be transformed into an open water management system from 2053 onwards. A Phase 3 is planned from 2053-63, wherein "Suncor will use a combination of Athabasca River water, run-off, and closure drainage water to establish a controlled rate of water release from the Upper Pit Lake to the Millennium End Pit Lake, which is released to the Athabasca River. The objective of this phase is to control the release of dissolved ions from the water cap flowing back to the Athabasca River." Thereafter, Phase 4 from 2063 onwards will see "water return under natural flow."⁶ While OSEC recognizes that water return is an inevitable component of oilsands mines reclamation, there is a major existing policy gap in that criteria for water release from oilsands operations into the natural environment have not yet been regulated. OSEC is accordingly concerned about the implications of this planned water return on both the ecology of the Athabasca river and the livelihoods and recreational activities of local stakeholders.

⁶ Suncor. 2016. 'Section 2.3.5' of *Suncor Base Plant Application for the Draft Tailings Directive*. 16 April.

The responsibility for defining and implementing regulations to mitigate these potential impacts lies principally with the Government of Alberta, and this issue remains a critical missing element in addressing tailings management at the industry level. As the timelines for water release in the plans for several projects – including but not limited to this one – are quickly approaching ten-year time scales, OSEC is highly concerned with the deficiency of strong and forward-looking Government-led initiatives for addressing this policy gap to date. The 2016 Water Management Working Group of the AER has constituted a suitable first step, however supplementary actions on addressing this problem are imminently required. In particular, OSEC is concerned by the absence of any existing guidelines or standards on naphthenic acids. As this is an issue unique to the Alberta oilsands industry, it is OSEC's recommendation that the Government of Alberta and the AER prioritize addressing it directly with an inclusive and concentrated policymaking working group. Extensive consensus-building and consultation processes will ultimately be imperative to designing and implementing water return regulations for this industry.

III. AER Public Consultation and Stakeholder Involvement

OSEC is concerned that the Alberta Energy Regulator has not clearly outlined the components of public processes it will be following with TMF associated applications. Following non-consensus regarding Draft Directive 085, the AER was responsible for determining components of this public process. However, Directive 085 as released in July 2016 did not alter its description of Application Review Processes in Section 4.2.4. This description states that REDA application review processes will be followed, and that "this process will be supplemented as appropriate."⁷ OSEC contends this description is both vague and insufficient to ensure inclusivity and consensus-building between industry, government, local stakeholders, and civil society.

OSEC continues to strongly advocate for an inclusive review process with the participation of NGOs as directly and adversely impacted parties. In particular, OSEC recommends the need for an AER-led alternative dispute resolution (ADR) process and multi-party forum to review all oilsands tailings applications including appropriate funding for directly affected and genuine interest interveners. The intention is to address issues in order to support the withdrawal of our Statement of Concern. If resolution cannot be reached the AER should apply a materiality test to the information presented in determining if there should be hearings or not.

IV. Mine Financial Security

OSEC is concerned about the liability for Suncor's tailings management and reclamation plans, particularly given that the schedule will not be complete until the end of the century. Neither the Millennium Operational Amendment nor the application for the Draft Tailings Directive outline any detailed financial contingency strategies pending a failure to meet stated reclamation criteria.

OSEC recognizes that Suncor is obliged to post funds under the auspices of the 2011 Mine Financial Security Program of the Alberta Energy Regulator. However, OSEC remains concerned regarding the extent to which these funds will cover true reclamation costs. These concerns are borne primarily from major deficiencies in ensuring mine financial security that existed under the previous Alberta Environmental Protection Security Fund. As such, OSEC

⁷ AER. 2016. *Draft Directive 085: Fluid Tailings Management for Oilsands Mining Projects*, p.10.

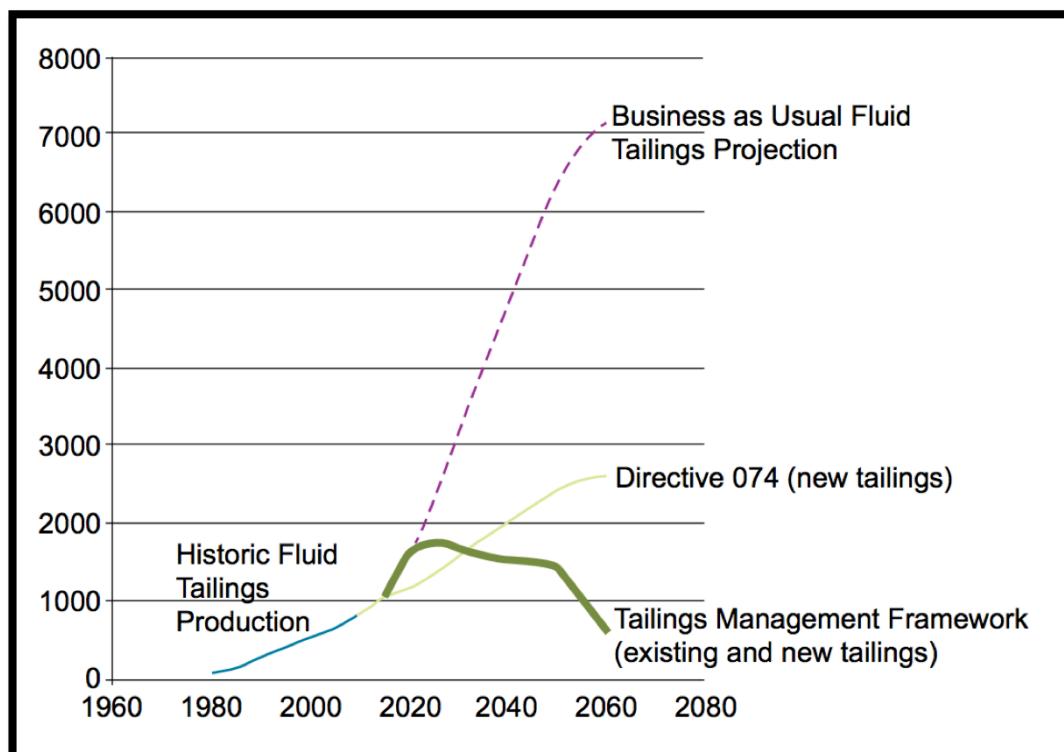
would value more detailed analysis regarding the extent to which the Modified Project's reclamation costs will be covered under the MSFP through to projected certification in 2100, as well as any additional contingency plans pending failure to meet stated targets.

V. Ensuring Best Practices in Tailings Management

OSEC is interested in ensuring that all companies are using best practices in addressing tailings management and that operators will be held to similar standards. Notably, Pembina has recently received access to Directive 085 applications for several other oilsands mining projects, and preliminary analysis of cumulative tailings inventories has demonstrated a clear contradiction with the industry-wide targets outlined by the TMF. As such, it will be imperative for the AER to consolidate all the plans, critically analyze these trajectories, and delineate which projects are underperforming at the expense of industry-wide expectations.

The TMF outlines the expected cumulative trajectory of all tailings on the landscape including peak dates for tailings accumulation, rate of decline, and the point at which tailings cumulative tailings volumes will actually decline (**Figure 1**). OSEC and the AER's ability to determine the adequacy of Suncor's plans are dependent on an assessment that the sum of the approved tailings plans are consistent with the TMF objectives.

Figure 1: Expected Cumulative Tailings Under the TMF⁸



⁸ Government of Alberta. 2015. *Lower Athabasca Region Tailings Management Framework for the Mineable Oilsands (LARP TMF)*, p.18.

More broadly, it is essential for regulators and stakeholders to be able to compare all tailings plans in conjunction to ensure responsible regulatory decisions are made. We thereby strongly recommend that no applications be approved until all company plans have been submitted.

3. Identify the outcome of the application you advocate

At this time, OSEC submits that Suncor's Draft Directive 085 application is incomplete. OSEC correspondingly requests that Suncor provide the aforementioned additional evidences to increase confidence regarding the Modified Projects' compliance with the TMF. In order to fulfill its mandate to ensure safe, efficient and responsible development of Alberta's natural resources, the Alberta Energy Regulator should request additional information from the proponent before proceeding to a hearing. OSEC wishes to work with Suncor and the AER to comprehensively address the deficiencies and impacts outlined above and review the cumulative tailings trajectory expected from approval of this and other applications.

OSEC would like to commend Suncor for their proactive and inclusive engagement of genuine-interest stakeholders to date in clarifying various quantitative and qualitative elements of their application, and exploring the associated impacts and alternatives. Engagement between OSEC and Suncor to date has been constructive, and OSEC looks forward to further bilateral and multilateral cooperation on this file.

4. Identify the location of your land, residence, or activity in relation to the location of the energy resource that is the subject of the proposed application; and your contact information including your name, address in Alberta, telephone number, e-mail address or, if you do not have an email address, your fax number.

The Pembina Institute and the Fort McMurray Environmental Association have signed an agreement with Fort McKay Metis Local #63. The lands in the agreement are partially adjacent to the McKay River and are legally described as:

- a. all those portions of lots 1-4 which lie generally north and east of the left bank of the MacKay River;
- b. portions of sections 25 and 26; Township 94; Range 11; Meridian 4;
- c. LSD 16; section 27; Township 94; Range 11; Meridian 4; and
- d. LSD 1; section 34; Township 94; Range 11; Meridian 4.

The contract lands are approximately 50 kilometers upstream from the Modified Project. The recreational agreement provides that OSEC members may access the contract lands to recreate (i.e hiking, camping, swimming) providing one week's prior notice is offered to Fort McKay Metis #63.

The Oilsands Environmental Coalition (OSEC) is an unincorporated coalition of Alberta public interest groups and individuals with a long-standing interest in the Athabasca Oilsands area. OSEC was formed to facilitate more efficient participation in the regulatory approvals processes for oilsands applications. Its current members include the Fort McMurray Environmental Association (FMEA) and the Pembina Institute.

Fort McMurray Environmental Association (FMEA)
260 Grandview Crescent
Fort McMurray, Alberta
T9H 4X8
Attention: Ann Dort-MacLean
girlsinc@telus.net

FMEA consists of residents living in and around Fort McMurray who are concerned about the effects of oilsands development on human health, the ecosystem and the socio-economic quality of life in the municipality of Wood Buffalo. As of 2012, FMEA had 37 members.

The Pembina Institute
219 19 Street NW
Calgary, AB
T2N 2H9

The Pembina Institute is a non-profit environmental research organization founded in Alberta in 1985. One of its objectives is to minimize the environmental impacts associated with fossil fuel development in Alberta. It has monitored the health and environmental implications of oilsands development since the mid-1980's and has been particularly active in the assessment and management of long term, chronic and cumulative impacts.

Conclusion

This Statement of Concern should be considered preliminary rather than final and conclusive. OSEC retains the right, upon further analysis of the project proponent's regulatory filings, to bring new issues to bear in a regulatory setting. OSEC is interested in continuing to work with Suncor to attempt to resolve these important issues and we seek a formal ADR process and forum to support this assessment.

Sincerely,

Jodi McNeill

Jodi McNeill
Analyst, Responsible Fossil Fuels
Pembina Institute
On behalf of the Oil Sands Environmental Coalition

cc
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