Alberta Energy Regulator

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August 21, 2024

By email only

Andrew Hardy, Project Executive
Imperial Oil Resources Limited
505 Quarry Park Blvd SE
Calgary, AB T2C 5N1

(hereafter, IORL)

email: andrew.w.hardy@esso.ca

IMPOSITION OF TERMS AND CONDITIONS on HOLDER of BA CODE: 0007
***Oil and Gas Conservation Act* (*OGCA*), section 22**

Re: Kearl Oil Sands Processing Plant and Mine

Dear Mr. Hardy,

Section 22 of the *OGCA* provides the authority for the AER to impose any terms and conditions on a holder of a BA code it considers appropriate if the AER has reasonable grounds to believe that there has been a contravention of any Act, regulation, or rule under the jurisdiction of the Regulator in respect of the operations of the BA code holder.

As set out in the August 21, 2024, Directors Decision and the April 26, 2024, Preliminary Administrative Penalty Assessment (PA) appended to the Directors Decision, the AER has established that IORL, as holder of BA code 0007, is in contravention of its *Environmental Protection and Enhancement Act* (*EPEA*) Approval 46586-01-00, section 4.2.1, issued pursuant to section 68(2) of *EPEA*. The underlying incident, which is further described in those documents, shall be referred to in this document as the "Kearl shallow seepage release".

On April 26, 2024, the AER provided IORL with a copy of this Section 22 Letter in draft form and the PA. The AER and IORL met on April 30, 2024, to review the facts related to the Kearl shallow seepage release contraventions, on which the PA and draft section 22 letter were based, how the PA was calculated, briefly describe the draft section 22 letter's terms and conditions, and provide an opportunity

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for IORL to share any relevant information not previously submitted to be considered prior to the AER making a final decision. In this meeting, IORL indicated that it had no issues with the overall educational objective of the terms and conditions. IORL shared comments and asked questions on the details, practicality, and scope of some of the terms and conditions. During this meeting, IORL indicated that it intended to file a written submission for the AER's consideration. After making requests for extensions on time to file, which were granted by the AER, IORL filed its written submission on July 31, 2024.

The AER has considered all of IORL's written and oral submissions related to the draft section 22 letter, including the written submission filed July 31, 2024, in making this decision.

TERMS AND CONDITIONS

In consideration of the facts and resulting contravention, as well as the principles set out in the AER's *Integrated Compliance Assurance Framework* and *Manual 013: Compliance and Enforcement Program*, the AER finds it is necessary and appropriate to impose terms and conditions on IORL in relation to the contravention, pursuant to section 22 *OGCA* which states:

> *The Regulator may impose any terms and conditions it considers appropriate on the holder of an identification code, licence or approval or on the identification code, licence or approval if*
>
> *(a) the Regulator has reasonable grounds to believe that*
>
> *(i) there has been a contravention of* ***any Act*** *or regulation or rules under the jurisdiction of the Regulator or a direction or order of the Regulator in respect of the operations of the holder…*[1]

Accordingly, the AER imposes the following terms and conditions on IORL.

IORL MUST:

1. Submit a proposal to the satisfaction of the AER for sharing of lessons learned from the Kearl shallow seepage release with other oil sands operators and develop a plan to ensure tailings seepage mitigation and monitoring processes are completed with consideration of tailings dam

[1] *Responsible Energy Development Act,* section 69(2) states, "Except to the extent that the regulations made under subsection (3) provide otherwise, for the purposes of enforcing an energy resource enactment, a specified enactment or a o of the Regulator, the Regulator may exercise any inspection, investigation **or other compliance or enforcement power or function under any energy resource enactment or specified enactment**." [bold added]

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design for existing and future tailings dams and quality assurance and quality control processes are applied through the design, construction and operation phases (the "Quality Assurance Project"). The proposal is to be submitted to the AER by November 1, 2024. The project proposal must include, at a minimum:

a. Verification steps that ensure construction and operation of the seepage mitigation and monitoring process aligns with design specifications during handover from project organizations to construction and field operations to minimize risk associated with unanticipated pathways for seepage.

b. Construction management techniques to identify potential seepage pathways not previously detected in the design phase and actions to prevent offsite shallow groundwater seepage during the operational phase.

c. Project review plan including potential 3rd party review of engineering work products;

d. The Quality Assurance Project schedule including:

    i. The frequency and content of interim reporting to the AER; and,

    ii. The delivery date of a final report to the AER which shall be no later than 6 months after the completion of all the research objectives;

e. A public and industry education component that includes:

    i. Sharing the findings of the Quality Assurance Project respecting the incident root cause, IORL's incident response actions, differentiation of natural groundwater from impacted groundwater, methods for identification and delineation of shallow groundwater impacts, and mitigation strategies considered and implemented with other oil sands mining operators in a presentation/workshop or other format;

    ii. Sharing the final report for the Quality Assurance Project with other oil sands operators respecting the incident root cause, IORL's incident response actions, differentiation of natural groundwater from impacted groundwater, methods for identification and delineation of shallow groundwater impacts, and mitigation strategies considered and implemented; and,

    iii. Publication of the final report for the Quality Assurance Project on IORL's website and communication of the results to all the parties included in the

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communication plan approved under the February 6, 2023, Environmental Protection Order (EPO); and,

f. The outline of the final report, including, at minimum:

i. The methods, findings, and conclusions of the Quality Assurance Project; and,

ii. Document feedback and learnings received from public engagement with the parties identified in 1(e)(iii), and, if applicable, describe how feedback was incorporated into final report, and how feedback will be implemented in future and current operations.

2. Submit a research proposal for an Industrial Wastewater (Process Affected Water and CST Porewater) Release Research Project to further study and understand the potential impacts of the release of industrial wastewater (including process affected water and CST porewater) on the ecosystem, including fish and aquatic ecosystems, soil, vegetation, wildlife, and public safety, to the satisfaction of the AER by November 30, 2024. The proposal must, at a minimum, include the following:

a. A preliminary research roadmap outlining planned Indigenous community and stakeholder engagement for inputs, including traditional knowledge, if applicable, to the formulation of the research objectives and methodology development;

b. A plan for studying the potential impacts to the ecosystem under differing release scenarios, which can include but should not be limited to, the existing Kearl shallow seepage release incident, from industrial wastewater (including process affected water and CST porewater) released to the watershed and toxicology of tailings constituents on the ecosystem, considering regional background levels of constituents;

c. A project review plan that will ensure the transparency and the robustness of the research and underlying data supporting the research, including 3rd party review of any work conducted by IORL employees and may include peer review and submission for journal publication;

d. The timeline for the Industrial Wastewater (Process Affected Water and CST Porewater) Release Research Project and the final report including:

i. The frequency and content of regular progress reports to the AER;

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ii. The date of delivery of a final report to the AER which shall be no later than 6 months after the completion of all the research objectives;

e. A public and industry education component that includes sharing the final report with:

i. all the parties included in the communication plan approved under the EPO;

ii. industry;

iii. other regulatory bodies; and,

f. The outline of the final report, including, at minimum, the methods, findings, and conclusions of the Industrial Wastewater (Process Affected Water and CST Porewater) Release Project.

i. Document feedback and learnings received from public engagement with the parties identified in 2(e)(i), and

ii. Describe how feedback was incorporated into the final report, and how feedback will be implemented in future and current operations, if applicable.

3. Publish all progress reports for the Quality Assurance Project and the Industrial Wastewater (Process Affected Water and CST Porewater) Release Research Project on its website.

4. Complete the Quality Assurance Project and the Industrial Wastewater (Process Affected Water and CST Porewater) Release Research Project, including submission of the final reports, as authorized in writing by the AER.

General Terms and Conditions

5. The Projects described in Clauses 1 and 2 must not be based solely on any activity that is or will be undertaken or performed for the purposes of, or that will have the effect of satisfying, an existing or reasonably foreseeable future regulatory obligation of any person pursuant to an energy resource enactment or a specified enactment, as those terms are defined in the *Responsible Energy Development Act* (Alberta).

6. All work and reports required under these terms and conditions must be completed by qualified personnel. An independent and qualified third party shall review final work products completed by IORL employees.

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7. All required submissions are to be emailed to: Compliance Assurance at <ComplianceAssurance@aer.ca>
8. Where a deadline has been specified in the above terms and conditions, the AER may authorize in writing a different deadline or reporting frequency as applicable.
9. The AER may vary these terms and conditions if, in its opinion, the circumstances so warrant.

Any questions should be directed to the email identified in clause 7, above.

Regards,

< original signed by >

Paul Ferensowicz
Principal Regulatory Advisor, Regulatory Enhancement

Subject to the provisions under the *Freedom of Information and Protection of Privacy Act*, the AER will publish or otherwise provide to the public all information submitted by IORL pursuant to these terms and conditions.

In complying with these terms and conditions, the party or parties named must obtain all approvals necessary, notwithstanding the above requirements.

Under the *Responsible Energy Development Act*, an eligible person may appeal decisions that meet certain criteria. Eligible persons and appealable decisions are defined in section 36 of the *Responsible Energy Development Act* and section 3.1 of the *Responsible Energy Development Act General Regulation*. If you wish to file a request for regulatory appeal, you must submit your request according to the AER's requirements. You can find filing requirements and forms on the AER website, www.aer.ca, under Regulating Development: Project Application: Regulatory Appeal Process.

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