

Via Email

June 23, 2017

Debbie Kerluke

Calgary Head Office
Suite 1000, 250 – 5 Street SW
Calgary, Alberta T2P 0R4
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Dear Madam:

**RE: Request for Regulatory Appeal by Debbie Kerluke
Tidewater Midstream and Infrastructure Ltd.
Application No.: 1823491 (License F48965); 1839269 (License 57708)
Location: 08-25-071-07W6M
Regulatory Appeal No., 1849415 (Regulatory Appeal)**

The Alberta Energy Regulator (AER) has considered your request under section 38 of the *Responsible Energy Development Act (REDA)* for a regulatory appeal of the AER's decision to approve the Licences. The AER has reviewed your submissions and the submissions made by Tidewater Midstream and Infrastructure Ltd (Tidewater).

The applicable provision of *REDA* in regard to regulatory appeals, section 38, states:

38(1) An eligible person may request a regulatory appeal of an appealable decision by filing a request for regulatory appeal with the Regulator in accordance with the rules. [emphasis added]

The term "eligible person" is defined in section 36(b)(ii) of *REDA* to include:

a person who is directly and adversely affected by a decision made under an energy resource enactment, if that decision was made without a hearing.

For the reasons that follow, the AER has decided that you are not directly and adversely affected by a decision made under an energy resource enactment and are therefore not eligible to request a regulatory appeal in this matter. Therefore, the requests for a Regulatory Appeal are dismissed.

Reasons for Decision

In your regulatory appeal requests, your primary concerns are with safety in the event of an incident relating to Tidewater's gas injection and storage operations, and the potential for noise, odour and groundwater impacts.

At the outset, the AER notes that the concerns you have raised and the impacts you have alleged are generally the same as those raised previously in statements of concern filed on your behalf with respect to the initial applications captioned above. In its written response to your statements of concern, the AER found that you would not be directly and adversely affected by the applications, which have now been approved.

Your main concern about the gas storage facility (License F48965) and injection of gas into the underground reservoir is the possibility that these operations will result in a leak or explosion. You have cited examples of gas leaks and fires that have occurred at facilities in other jurisdictions in support of this view.

The examples of incidents you have provided are not relevant to the AER's consideration of whether you may be impacted by Tidewater's storage scheme and related facilities because these incidents relate to different operators in separate jurisdictions, operating under different requirements. The 2014 incident in Saskatchewan relates to a solution mined storage salt cavern at a pumping tank, which is different than storage of gas into a depleted naturally occurring gas reservoir. The incident in California appears to have been caused as a result of safety valves being intentionally removed and not replaced from a well that was drilled in 1953.

Although you did not request a regulatory appeal regarding the approval of any injection wells, you expressed concerns that gas injection into the reservoir may cause earthquakes which could impact ground water sources. The AER is not aware of any instances of induced seismic events occurring in the Dimsdale Paddy A reservoir, or this same formation elsewhere in Alberta. The AER notes that the reservoir pressure is very low, and that Tidewater's operations will not result in an exceedance of the initial reservoir pressure. It is exceedingly unlikely that gas injection and storage in the Paddy Dimsdale A at or below original reservoir pressure would result in an earthquake that in turn leads to casing failure and a leak or explosion as you have suggested.

There are numerous reservoirs in Alberta currently operating under gas injection and storage approvals. The Dimsdale Paddy A Reservoir into which gas will be injected is approximately 1,300 meters below the surface. It is an approximately 10 m thick porous rock formation. Gas is injected and stored within the porous rock. Prior to being used for injection, natural gas had been produced from the reservoir. Prior to being depleted due to production, the original reservoir pressure was 10,485 kPa. Tidewater's storage approval prohibits the average reservoir pressure from exceeding the initial reservoir pressure, and limits the volume of gas that can be injected. Injection wells have met or must meet all Directive 051 requirements for injection operations, including requirements for well integrity. Further, injection at a well must not exceed the maximum wellhead injection pressure prescribed in Tidewater's scheme approval, determined through the Directive 065 application process.

The decision to approve an energy activity, including injection and storage of gas into an underground formation, assumes operational compliance with all AER requirements and approval conditions. Tidewater must operate in accordance with the terms and conditions of its approval as well as all AER operating requirements. It is a contravention of AER requirements to impact ground water sources due to energy activities. Any such contravention would be subject to AER enforcement action, which may include suspension of operations and other remedial action. Many of these requirements are specifically aimed at protection of groundwater sources. Tidewater has gone beyond AER requirements by committing to perform baseline and follow-up tests of your water. Given AER requirements and the nature and depth of the reservoir into which injection will occur, it is very unlikely that your well water will be impacted.

In your most recent regulatory appeal request submission, you have indicated that you feel your water has been impacted by Tidewater's recent drilling of a well to the north of you, though you did not request a regulatory appeal regarding the injection approval for this well. The AER expects that the follow-up water well tests will have been or will be performed and analyzed under the direction of a qualified professional registered with APEGA, and provided to water well owners as well the AER's Grande Prairie Field Center. To report any operational concerns about impacts to your well water which you feel may be caused by energy resource activity, please call the **AER's Energy and Environmental 24-hour Response Line at 1-800-222-6514**.

Your main concern with pipeline Licence 57708, is that there will be an accident leading to a release or explosion. As indicated in the AER's letter to you dated December 10, 2015 in response to your statement of concern, Tidewater must comply with a number of operational requirements and technical specifications in the design, construction, and operation of its pipeline. Tidewater will also use Supervisory Control and Data Acquisition equipment to provide 24 hour a day monitoring of the pipeline for possible leaks or ruptures. The pipeline will have emergency shutdown valves and pressure control devices which will activate in the event of a change in pressure. Please also note that the pipeline has recently been amended to account for lower operating pressure and a smaller diameter of pipe. Given the above, the distance of the nearest boundary of your lands from the pipeline (approximately 539 meters away), and the fact that the pipeline will transport sweet natural gas, you have not demonstrated that you are or may be directly and adversely affected by the AER's decision to approve pipeline License 57708.

Regarding your concerns about Tidewater's plans to address emergency situations in the event of an incident, the AER confirms that Tidewater is required to have and keep current a corporate level emergency response plan pursuant to *Directive 071* requirements.

Concerns about odours and noise were also previously raised and addressed by the AER in its December 10, 2015 letter in response to your statement of concern. The AER reiterates that Tidewater has employed noise and odour reduction techniques and equipment at its facility and that the AER has operational requirements with which Tidewater must comply that address your concerns. For these and the reasons previously stated in its December 10, 2015 letter, the AER finds that you have not demonstrated that you are or may be directly and adversely impacted by noise or odours. Similarly, you have re-stated your concerns about property value but have provided no new information that might support your claim of impacts to your property value. Your lands are approximately 1.1 km away from Tidewater's well and facility sites, and there is pre-existing oil and gas infrastructure in similar proximity to your lands. In addition, Tidewater's pipeline will be buried underground.

As you are aware the AER has required Tidewater to bolster its participant engagement program, including requiring Tidewater to notify you of and file all future applications non-routinely if they relate to Tidewater's gas storage project. The AER is satisfied that since your regulatory appeals have been filed Tidewater has devoted additional time and effort towards addressing stakeholder concerns and has indicated a willingness to participate in AER ADR processes. The AER has also recently advised that it expects Tidewater to bundle its individual applications wherever possible so that the AER can

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emergency 1-800-222-6514

consider the applications, potential impacts, and statements of concern on a project basis. Tidewater's most recent applications have followed this process.

The AER finds that you have not demonstrated that you are or may be directly and adversely affected by the decision to issue the licences. Therefore, you are not an eligible person for the purposes of section 38(1) of REDA and the request for a regulatory appeal is dismissed.

Sincerely,

< original signed by >

K. Parks
Chief Geologist

< original signed by >

K. Fisher
Manager, Regulatory Effectiveness,

< original signed by >

R. Marx
Director, Regulatory Development, Strategic Management

Cc: Tidewater