

BY E-MAIL ONLY

October 31, 2017

Laurie Friesen

**TIDEWATER MIDSTREAM AND INFRASTRUCTURE
SUBSURFACE APPLICATION NO. 1882581
INFRASTRUCTURE APPLICATIONS NO. 1882589, 1882591, 1882653, 1884135
STATEMENTS OF CONCERN NO. 30712 and 30714**

Dear Laurie Friesen:

You are receiving this letter because you filed statements of concern about the above applications. The Alberta Energy Regulator (AER) has reviewed your statements of concern, along with the applications, the applicable requirements, and other submissions or information about the applications. The AER has decided that a hearing is not required under an enactment, or necessary, to consider the concerns outlined in your statements of concern.

In its review of your concerns, the AER considered the following:

- The pipelines proposed in application 1884135 are located approximately 17.6 km from your property and will transport sweet natural gas.
- The pipeline proposed in application 1882591 is a 70 meter sweet natural gas pipeline that will connect the existing Tidewater facility at 5-36-71-7W6M with a pipeline to be constructed in the future. It is located approximately 1.4 km from your lands.
- The proposed pipeline meets the AER's technical requirements, and Tidewater must operate the pipeline in accordance with all applicable AER requirements, which are protective of safety and the environment. As there is no H₂S content in the pipeline substances, the only setback is the width of the right-of-way. The AER is satisfied with the proposals for construction and operation of the pipelines.
- Regarding Application 1882589, this is an amendment to a previously approved facility licence, and will result in a decrease to the gas inlet rates and will replace the 3 licensed gas and 3 licensed electric compressors with 3 smaller gas and 2 smaller

electric compressors. No further land will be disturbed and no additional emissions would result from the approval of the application.

- The concerns raised in your statement of concern on Application 1882589 relate generally to Tidewater's gas storage project, are outside the scope of and do not relate specifically to the facility amendment application. You have not indicated whether or how you will be impacted by this application.
- You do not own the subsurface rights or the lands on which the project is located. Your lands are located about 960 meters west of the lease boundary of the proposed wells (Application 1882653), which are the nearest part of the project.
- The applications are part of the Dimsdale Gas Storage project, which was approved in January, 2014. The applications are in compliance with AER directives and regulations that ensure the components of the project (wells, pipelines, facilities) may be constructed and operated with minimal risk to residents and the environment.
- Application 1882581 seeks approval for a previously drilled well (Licence # 0480964) to be used as an injector for sweet gas disposal into the depleted Dimsdale Paddy A pool. AER technical staff has reviewed the geological characteristics of the reservoir, the injection pressures, and the well designs, and regard the safety risks as minimal. The Dimsdale Paddy A reservoir into which sweet natural 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 existing storage approval (12203C) prohibits the average reservoir pressure from exceeding the initial reservoir pressure, and limits the volume of gas that can be injected. The well meets 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 application process. The amendment that is required to add this well will not result in any changes to the approved operating conditions of Scheme Approval No. 12203C.
- In addition, Tidewater has committed to testing and inspecting all injection and observation wells in the approval area of their disposal scheme, and assessing the integrity of existing wells that penetrate the storage zone. Tidewater has indicated that this will include working with third party owners of these wells to ensure proper inspection and required remediation takes place.
- Regarding your water well concerns, the AER's has numerous requirements with which Tidewater must comply to ensure that groundwater sources are protected. Tidewater has gone beyond AER requirements by committing to perform baseline and follow-up tests of your water. Given the nature and depth of the reservoir into which injection will occur, and the AER's numerous requirements which are protective of groundwater sources, it is very unlikely that your well water will be impacted.

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- The decision to approve an energy activity, including injection 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. As has been indicated to you in previous correspondence from the AER, to report any impacts to your well water which may be caused by energy resource activity, please call the AER's Energy and Environmental 24-hour Response Line at 1-800-222-6514.
- The examples of incidents you have provided are the same as provided in previous applications relating to Tidewater's Gas Storage Project. You have also provided additional information from a United Kingdom periodical regarding the safety of Gas storage particularly in respect of salt cavern storage. These incidents and sources of information are not relevant to the AER's consideration of whether you may be impacted by Tidewater's storage in the depleted Paddy Dimsdale A gas reservoir (not a salt storage cavern) and related facilities because these incidents relate to different operators in separate jurisdictions, operating under different requirements.
- There is no fracturing associated with any of Tidewater's applications. To the extent that your concerns relate to the fracturing operations of other operators, such operations must comply with the requirements of AER *Directive 083: Hydraulic Fracturing – Subsurface Integrity*, including requiring operators to take steps to minimize the chance of communication with offset wellbores. 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.
- Further to your concerns about emissions and pollution, Tidewater must comply with the requirements of *Directive 060: Upstream Petroleum Industry Flaring, Incinerating and Venting*, and *Alberta Ambient Air Quality Objectives (AAAQO)*. Moreover, Tidewater has committed to completing a baseline air quality test and post-operational follow-up, with results made available to residents. If you have any concerns regarding odours or emissions once the project is in operation, please contact the AER's 24 hour Response line.
- In relation to your concerns about noise, the AER notes that drilling and construction are temporary activities. Tidewater has committed to installing continuous noise monitoring equipment when the facility is operational, and will share data with residents. Tidewater is also required to meet the requirements of AER *Directive 038: Noise* in its production and injection operations. Any concerns about noise once the project is operating should be communicated to the AER's 24 hour response line.
- As there is no H₂S associated with Tidewater's project, a site specific ERP is not required. Tidewater must have a Corporate ERP that meets the requirement of AER *Directive 071: Emergency Preparedness and Response Requirements for the Petroleum Industry*. A corporate ERP must be in place to respond to incident, and ensure that there is an effective level of preparedness, and capability of personnel and equipment for an effective emergency response.

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- Your concerns about previous Tidewater applications, approved infrastructure, and vandalism at Tidewater's site do not relate to and are outside the scope of the current applications.
- Tidewater has met the *Directive 056* consultation and notification requirements for the infrastructure applications, and must continue to notify all persons with known concerns on future applications. The infrastructure and subsurface applications are being considered as a project in its entirety.
- In support of your concerns about impacts to property values, you have provided a 230 page thesis by a graduate student at Purdue University in West Lafayette, Indiana. The paper is an examination into the effects of natural gas storage reservoirs and related infrastructure on property values in Indiana. This academic paper provides information about gas storage projects in Indiana, and is not specific to your property, Tidewater's gas storage project, or the area in Alberta where Tidewater's the project is located. It is therefore of limited value and does not support the argument that there may be an impact on your property value due to the current infrastructure or scheme amendment applications by Tidewater. The AER notes that you are approximately 1 km away from Tidewater's nearest proposed infrastructure (application 1882653), and 17.6 km away from the furthest proposed infrastructure (application 1884135). There is pre-existing oil and gas infrastructure and development in similar proximity to your lands. In addition, except where required to operate safely and effectively, Tidewater's natural gas pipelines will be buried underground.
- The concerns you have raised in your statement of concern have also been previously raised by you and adequately dealt with or addressed by AER decisions on previous applications, and by decisions of the AER on regulatory appeal requests filed by you in relation to those applications.

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Based on the above, you have not demonstrated that you may be directly and adversely affected by approval of the applications or that the AER should hold a hearing before making its decision on the applications. The AER has issued the applied-for approvals, and this is your notice of that decision. Copies of the approvals are attached. Under the *Responsible Energy Development Act* an eligible person may file a request for a regulatory appeal on an appealable decision. 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 in the form and manner and within the timeframe required by the AER. You can find filing requirements and forms on the AER website, <http://www.aer.ca/applications-and-notice/appeals>.

If you have any questions, contact Lonny Olsen at 403-297-3513 or e-mail Lonny.Olsen@aer.ca.

Sincerely,

<original signed by>

Lane Peterson

Director, Pipeline Authorizations

Enclosure (5): **(1 approval, 4 licences)**

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cc: Clark Dickson, Tidewater
AER SOC Coordinator,
AER Grande Prairie Field Centre