



## LETTER DECISION

February 10, 2021

**VIA REGISTERED MAIL AND EMAIL**

**Reference Number: AMP-001-2020**

Dentons Canada LLP  
15th Floor, Bankers Court, 850 - 2nd Street SW  
Calgary, AB T2P 0R8  
Attention: Mr. Murray Rodych

Dear Mr. Rodych

**Re: Request for Review AMP-001-2020**

**INTRODUCTION:**

On April 27, 2018, the Canada-Newfoundland and Labrador Offshore Petroleum Board (“C-NLOPB”) was notified that a spill of synthetic based mud (SBM) had occurred from the mobile offshore drilling unit (MODU) Transocean Barents, while being operated by Suncor Energy Inc. (“Suncor”) at the Suncor et al Terra Nova L-98 14Z well, in the Canada Newfoundland Offshore Area, pursuant to authorization 23020-020-OA05 issued to Suncor.

The MODU Transocean Barents is managed by Transocean Ltd. through its subsidiary, Transocean Canada Drilling Services Ltd. (“Transocean”).

On April 23, 2020, the C-NLOPB issued a Notice of Violation, AMP-001-2020, to Suncor under the *Canada-Newfoundland and Labrador Petroleum Administrative Monetary Penalties Regulations* (the “Regulations”). The Notice of Violation (“NOV”) set out a total penalty amount of \$64,000, comprising a base penalty of \$40,000, and applying a gravity factor of +1 each for the categories of: “Negligence by person who committed violation”; and “Increased risk of harm to people or environment”.

On May 22, 2020, Suncor filed a Request for Review pursuant to section 202.2 of the *Canada-Newfoundland and Labrador Atlantic Accord Implementation Act*, S.C. 1987 c. 3, (the “Accord Act”), in respect of the NOV requesting both a review of the penalty amount and a review of the facts of violation (the “Request”). Section 202.6 of the *Accord Act* establishes the burden of proof which is to be applied where the facts of a violation are part of the review process. Under that Section, the facts of the violation are to be proven by the AMP Officer on a balance of probabilities.

Pursuant to subsection 202.02(2) of the *Accord Act*, the Board appointed a three person panel (the “Review Committee”), each of whom is a member of the Board, to conduct the review.

In accordance with joint *CNSOPB-CNLOPB Administrative Monetary Penalty Guidelines, March 2017*, (the “Guidelines”), documents used to support the NOV were provided to Suncor and the Review Committee.

The applicant, Suncor, indicated on the Request for Review form that its preference was for the review to be undertaken by written submission only. On October 15, 2020 Suncor submitted its submission and associated book of authorities including supporting documents. The AMP Officer's submission and book of authorities including supporting documents was submitted on November 13, 2020. In accordance with the *Guidelines*, on December 21, 2020 Suncor submitted a final response to the November 13, 2020 submission. Upon confirmation that no further information would be received from the parties, the Review Committee commenced its review.

**ISSUES UNDER REVIEW:**

The NOV was issued in relation to an unauthorized spill of whole SBM. Subsection 161(1) of the *Accord Act* states: "No person shall cause or permit a spill on or from any portion of the offshore area". The fact that Suncor permitted a spill as defined in the *Accord Act* on or from any portion of the offshore area has been admitted by Suncor and is not in dispute.

The issues for determination in this review are therefore limited to the following:

1. Were the gravity values set out in section 4 of the NOV applied correctly based on the facts, in particular, in respect of:
  - a. Item 4, "Negligence by person who committed violation?", and
  - b. Item 9, "Increased risk of harm to the environment?"

**DETERMINATION:**

The Review Committee confirmed that Suncor did cause or permit a spill on or from any portion of the offshore area in contravention of subsection 161 (1) of the *Accord Act*, and therefore the base penalty of \$40,000 was correctly applied.

On conducting a review of documentation provided and the amount of the penalty applied in respect of the gravity value determinations, the Review Committee concluded:

- a. The gravity value of +1, in respect of item 4, was not supported. The Review Committee does not believe that the facts as set out in all of the documentation provided to the Review Committee supported the determination that Suncor was "negligent" in the manner identified in the NOV issued by the AMP Officer. The gravity value in respect of this item shall be zero.
- b. The gravity value of +1, in respect of item 9, was not supported. The AMP Officer did not meet the burden of proof as the facts set out in the documentation provided to the Review Committee did not support the determination that the spill of SBM posed an increased risk of harm to the environment. The gravity value in respect of this item shall be zero.

The revised penalty to be paid by Suncor is \$40,000.

The reasons the Review Committee reached the foregoing conclusions are set out below.

**DISCUSSION OF FACTS AND REASONING:*****Were the gravity values correctly applied in the Suncor Notice of Violation.***

At approximately 13:45 on April 27, 2018, the MODU Transocean Barents experienced an unauthorized discharge of 28m<sup>3</sup> of SBM to the sea. The discharge occurred during cement displacement operations which were being undertaken to terminate a well-bore. The process required the installation of a cement plug, which involved pumping cement, spacer and SBM downhole by a cement unit on board the Transocean Barents. Following installation of the cement plug, the Halliburton cement unit would be flushed to sea through overboard discharge (dump) valves (ODVs) in accordance with the Environmental Protection Plan.

Suncor's submission states that Transocean personnel, in concert with Suncor personnel and Halliburton cementing personnel, planned for this procedure and prepared for the overboard discharge valves on the Transocean Barents to be open during cementing operation due to the potential for an emergency requiring the release of cement to sea. Personnel prepared a dedicated procedure and associated checklist in accordance with the Rig Procedure for Open Cement Unit Overboard Valves and Checklist (ODV Procedure: RP-TBR-164).

Suncor states the procedure required several controls to be in place to reduce risk of inadvertent discharge while the ODVs were open. The control measures included a Control of Work meeting and a tool-box talk, identification of the correct valves to be operated, including guidance to the cementers in relation to ODVs operation. Suncor clarifies in its submission that there are two types of ODVs. Halliburton internal ODV's on the cement unit and the main ODVs, the Transocean overboard discharge valves.

At 15:30 on April 26, 2018, the Control of Work meeting was held and a discussion occurred regarding the status of the Transocean ODVs, i.e. mud status would be "red" meaning they would be open on the cement floor. Later that day Transocean issued a Discharge Certificate to Halliburton which permitted for the planned flushing and discharge of cement after completion of the cementing job so as to prevent the cement from setting up and drying on equipment. The submission states that the Discharge Certificate, which was signed off by the appropriate personnel, identified that the ODVs and the potential for incorrect valve line-ups as hazards associated with the operation.

In accordance with procedure, the lock keys for the ODVs were provided to Halliburton lead cementer (HC1) at 0400 hrs on April 27, 2018 (Suncor Investigation) for the purposes of flushing lines after the cementing operation. In a tool-box talk (which took place at 10:45 hrs on April 27, 2018, Suncor Investigation) responsibilities and specific instructions for personnel involved in the operation were reiterated.

Setting the abandonment cement plug operation commenced at 11:00 hrs and no problems were encountered until the stage of the cementing operation when cement was being displaced by SBM. Notwithstanding the measures implemented and other steps taken to check and verify various valve line ups and status prior to commencing operations, losses and discoloration were noted in sea water at approximately 13:45, April 27, 2018 (Suncor Investigation). An investigation ensued.

The submission indicates that Suncor ultimately concluded that the credible root cause was the improper opening of two successive valves on the cement unit line by Haliburton cementer (HC2) that connected to the open Transocean overboard discharge valves while cement was still being displaced by SBM. This caused the SBM to flow through the open cement unit valves to the open Transocean overboard discharge valves.

There is no evidence to conclude that the discharge was intentionally caused by any person. The inadvertent opening of certain valves on the cement unit during the operation was determined to be the most likely explanation as to how whole SBM was improperly discharged to sea.

### ***Application of Gravity Values***

The Review Committee conducted a review of facts underlying the portion of the penalty attributable to the gravity factors to determine whether all or part of them correctly applied in the NOV. Specifically, the Review Committee had to consider, based on the entirety of the information available to them, whether the AMP Officer's application of the gravity factors in respect of item 4 negligence, and item 9 increased risk of harm was supported.

Section 202.6 of the *Accord Act* establishes the burden of proof which is to be applied in a review such as this. Section 202.6 states:

“If the facts of a violation are reviewed, the person who issued the notice of violation shall establish, on a balance of probabilities, that the person named in it committed the violation identified in it.” [Emphasis added]

In view of the foregoing, the Review Committee has proceeded on the basis that the burden lies on the AMP Officer to prove on a balance of probabilities that Suncor committed the violation as it was specifically described by the AMP Officer in the NOV. Therefore, the AMP Officer cannot advance, nor can this Review Committee consider, additional allegations of negligence or increased risk of harm that were not specifically identified in the NOV.

### ***Gravity Factor 4: Negligence by the person who committed the violation***

In the Penalty Calculation section of the NOV in respect of negligence, the AMP Officer stated the following:

“Suncor knew or ought to have known, that failing to follow its own plans and procedures related to SBM could cause a spill. Suncor failed to do what was reasonable in the circumstances by failing to follow its own plans and procedures related to SBM. A spill occurred as a result of the failure to follow procedures.”

In the Relevant Facts section, the AMP Officer made the following statements:

“Based on information provided by witnesses, operations at the MODU Transocean Barents on April 27, 2018 were being conducted in a manner which did not conform to the requirements of Suncor's Offshore Drilling Completions and Interventions Manual – that is, the manual contained a prohibition on open overboard dump gates during operations with SBM, but operations were in fact being conducted with open overboard dump gates. It is also clear from the investigation report submitted by Suncor on July 5, 2018, that the forms and risk assessments required were not properly completed in association with the transfer of SBM to support cementing operations on April 27, 2018.

Based on a review of Suncor documents, witness statements, and the investigation report submitted by Suncor to the C-NLOPB on July 5, 2018, the C-NLOPB concludes that Suncor, and its Offshore Drilling Supervisor, failed to ensure and verify procedural compliance on the MODU Transocean Barents, and that procedural compliance would likely have prevented the spill of SBM that occurred on April 27, 2018.”

In its October 15, 2020 submissions Suncor disputes the finding of negligence for the purposes of assigning a gravity factor and the underlying facts referred to above.

In respect of the first allegation of negligence, Suncor states that there was no prohibition on open overboard dump gates applicable during the relevant operation, and further states that the open status of the Transocean overboard discharge valves was consistent with the recommendations in Suncor's DCI Operations Manual. Suncor's Investigation Report, which formed part of the documentation provided for the review of the NOV, referenced Transocean's procedure for "Open Cement Unit Discharge Valves" (RRP-TBR-164), which "allowed for the possibility that the ODVs could be opened at times other than immediately prior to when the cleaning/flushing of lines was to occur." While the Review Panel accepts that such a procedure was applicable to the operation being conducted, the document provided in Suncor's submission indicates it was updated 29 April 2018, after the date of the spill. Suncor did not identify which provisions were applicable at the time of the spill, and which provisions if any were modified following the spill. However, reference to RRP-TBR-164 as being in effect occurs in the Suncor Investigation report. Since there was no dispute of this fact in the AMP Officer's submissions, the Review Committee accepts that the procedure was applicable at the relevant time and did in fact allow for the possibility that ODVs could be opened at times other than immediately prior to cleaning/flushing.

Suncor's DCI Operations Manual Chapter 6, Practices, s. 6.5.6, sets out a list of its "guidelines for the use of SBM that should be considered for all operations". The particular Suncor guideline relied upon by the AMP Officer states, in relation to operations with SBM:

"identify all overboard lines and lock out all dump gates after ensuring their integrity to ensure valves are not accidentally opened".

The Review Committee finds that this Suncor guideline was to be considered during the execution of all East Coast offshore drilling operations and taken into consideration when determining the specific procedure to be followed during the cementing operation. The Review Committee notes that the Transocean overboard discharge valves were not accidentally opened in this incident. They were deliberately placed in the open position for the purposes of the cementing operation and cement unit cleanup procedures. As noted in the applicable witness statements, the Suncor Investigation Report, and the Suncor submissions, the fact that the Transocean overboard discharge valves were to be open during the cement displacement operation was made known in the Control of Work meeting which occurred prior to the commencement of the operation.

In respect of the second allegation of negligence, Suncor confirms that while the incomplete forms were Transocean documents and despite not forming part of Suncor's own plans and procedures, Suncor contends that Transocean's and Halliburton's non-completion of the documents did not cause the discharge. Suncor alleges that it cannot be said that "the discharge would not have occurred but for the incomplete paperwork", and thus that the same "cannot constitute negligence". Suncor further notes that the Suncor Investigation Report dated July 5, 2018, found that the non-completion of the forms was "not a cause of the incident."

The AMP Officer's submission did not provide any additional information to further support the determination that the incomplete forms and risk assessments, which were required by policy and procedure for the activity being undertaken on the day of the spill, caused the spill.

The details with respect to the non-compliances were found primarily in the Enquiry Report and the Suncor Investigation Report. The Enquiry Report stated at page 19 that:

- The Transocean discharge certificate was not properly completed in accordance with Transocean Procedure and critical information including valve orientation requirements, transfer rates and discharge volumes were not recorded;
- No written risk assessment was completed in connection with the discharge certificate as required by Transocean policy; and
- The Transocean permit to work was not properly completed in accordance with Transocean Procedure.

The Review Committee notes that neither the NOV nor the Enquiry Report identified any specific step in any of the foregoing which might have changed the outcome and prevented the spill. Turning to the only specific procedural failures that were cited in the Enquiry Report, which were derived from the Suncor Investigation Report, the Review Committee notes that:

1. A risk assessment was performed but was not put in writing. While a failure to put it in writing may have been a procedural failure, no information before the Review Committee supports the conclusion that producing a written risk assessment could have prevented the spill.
2. With respect to the discharge certificate, while there may again have been a procedural failure related to its completion, there was no information provided to the Review Committee which supports the conclusion that properly completing the discharge certificate could have prevented the spill. The discharge certificate submitted by Suncor identifies as hazards the overboard valves and incorrect valve lineup, identified which valves discharged to sea, and also noted that the valve line ups were physically checked and would be monitored during the task.
3. With respect to the incomplete permit to work certificate, there was no information provided to the Review Committee that would support the conclusion that had it been properly completed, doing so could have prevented the spill.

The Review Committee has considered the facts as presented in the documents provided for the review of the NOV and found no information which supports the conclusions reached by the AMP Officer that:

“Suncor failed to do what was reasonable in the circumstances by failing to follow its own plans and procedures related to SBM. A spill occurred as a result of the failure to follow procedures.”;

or that:

“Suncor, and its Offshore Drilling Supervisor, failed to ensure and verify procedural compliance on the MODU Transocean Barents, and that procedural compliance would likely have prevented the spill of SBM that occurred on April 27, 2018.”

The Review Committee has concluded that:

- a. There was no documentation or information to support the conclusion that there was a blanket or “zero tolerance” prohibition on open overboard dump gates in relation to the activity being undertaken on the day of the spill;
- b. That while certain forms and risk assessments required for the operation were not properly completed in association with the transfer of SBM in undertaking the cementing operations, there was no information, documentation or rationale provided to the Review Committee for it to reasonably conclude that strict procedural compliance to these forms or assessments would have

prevented the spill. The Review Committee could not reasonably characterize these deficiencies as negligence.

The Review Committee concludes that the application of a gravity value of +1 in the determination of “Negligence by a person who committed (the) violation” could not be supported.

### **Gravity Factor 9: Increased risk of harm to people or the environment**

In the Penalty Calculation section of the NOV, in respect of item 9, Increased risk of harm to the environment, the AMP Officer stated the following:

“There was a localized risk of harm to the environment.”

In the Relevant Facts section of the NOV, the AMP officer made the following statements:

“Synthetic base mud (SBM) is a fluid consisting of a highly refined petroleum product mixed with weighting agents and other additives to form a drilling mud.”

“The discharge of whole SBM is prohibited under the Environmental Protection Plan submitted by Suncor as part of its application for an authorization, and as such, it was not a discharge authorized as part of authorization 23020-020-0A05.”

The NOV contains no further information or clarification as to how or why the AMP Officer concluded that the spill of SBM posed an increased risk of harm and a “localized risk of harm to the environment”.

The CNLOPB Enquiry Report, *Section 7. Description of Spilled Material* states:

“Suncor reported and the C-NLOPB accepts that 28,000 litres of SBM spilled to sea from the MODU Transocean Barents between 13:45 and 14:05 on April 27, 2018.

SBM consists primarily of Synthetic Base Fluid (SBF) mixed with some water, weighting agents and additives. The base fluid in the SBM is used on the Transocean Barents on April 27, 2018 was Puredrill, an SBF manufactured by Petro-Canada. The composition of Puredrill is described as petroleum in SAFETY DATA SHEETS publically available from Petro-Canada’s website.”

The Enquiry Report further notes that:

1. SBM is a highly refined petroleum product mixed with weighting agents and other additives which meets the definition of petroleum in s. 2 of the *Accord Act*;
2. The discharge of whole SBM is described as a prohibited activity in Suncor’s Environment Protection Plan and in the E&P East Coast Drilling Completions and Interventions Safety Plan Terra Nova Extension; and finally, also from the EPP;
3. The Operation of the drilling mud systems can have potential environmental concerns. The main areas of concern are discharge of mud into the environment and drill cuttings discharge into the environment.

The AMP Officer’s submission did not provide any further evidence in support of the determination that the spill of whole SBM constituted an increased and localized risk of harm. The AMP Officer did however make the following arguments in support of the determination of “increased” and “localized” risk of harm:

30. “In assessing whether there was an “Increased risk of harm to people or environment” per criteria 9, ... the AMP Officer determined it was sufficient to consider the basic known facts of the incident as set out in the Enquiry Report.”

35. "...it would not make sense for the discharge of whole SBM to be a prohibited activity and among the main areas of concern in the EPP, as well as being "one of the identified environmental risks under the EPP, yet not constitute an increased risk of harm to the environment around the Transocean Barents MODU where it was discharged."

37. "Therefore, based on the foregoing facts and analysis, the AMP Officer submits that it is more likely than not that there was a localized risk of harm to the environment from the SBM spill."

Suncor's submission to the Review Committee contained a Petro-Canada Fact Sheet for "Puredrill IA-35 Drilling Mud Base Fluid", and stated in its submissions that:

...the evidence establishes that the SBM is not harmful to the environment. The synthetic base fluid in the discharged SBM was Puredrill IA-35. As described by the manufacturer in a product fact sheet, Puredrill IA-35 is readily biodegradable" and "non-toxic to humans, marine and wild life".

Suncor further states that "there is simply no evidence that the SBM has caused any actual environmental harm or increased risk of harm".

While the Board's Enquiry Report only makes reference to Puredrill IA -35, and the Petro-Canada fact sheet submitted by Suncor was for Puredrill IA-35, the Review Committee notes that the actual SBM spilled on April 27, 2018 was **Enviromul with Puredrill IA-35LV** (emphasis added). This was stated in the Suncor Investigation report on the document titled "Final Incident Investigation Report". The Safety Data Sheet (SDS) for Enviromul System-Puredrill IA-35LV is publicly available. However, since neither the SDS nor any other information in relation to Enviromul with Puredrill IA-35LV was submitted to the Review Committee or specifically referenced in either the Enquiry Report or the AMP Officer's submission, the Review Committee determined it could not consider the information contained on the Enviromul Puredrill IA-35LV SDS in its adjudication of the +1 gravity factor in respect of an "increased risk of harm to the environment".

The fact that discharge of whole SBM occurred and is not permitted is not in dispute in this review. The Review Committee notes that the primary violation in the NOV was a "spill", being defined as a "discharge, emission or escape of petroleum" contrary to s.161. It is common ground between the parties that whole SBM is classified as petroleum and meets the definition of "spill". The penalty attributable to such spill of petroleum (SBM), is \$40,000 and was applied to Suncor in the NOV. In the opinion of the Review Committee, the "increased risk of harm" contemplated in the gravity factors must be something beyond the mere fact of the spill of petroleum for which a penalty is already assessed.

For certainty, the Review Committee wishes it to be understood by both parties and any other person who may read this decision, that the Review Committee expressly has not made a determination that a spill of whole SBM does not carry with it an increased risk of harm. We merely find in this case that the necessary information or documentation to meet the burden of proof imposed on the AMP Officer was not provided.

Therefore, the Review Committee concludes that the application by the AMP Officer of the gravity value of +1 in the determination of "increased risk of harm to the environment" could not be supported.

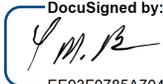
**CONCLUSION ON GRAVITY VALUES:**

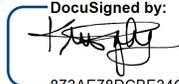
The Review Committee having found that:

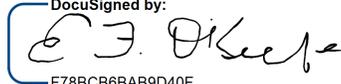
1. the gravity factor of +1 with respect to negligence was not correctly applied based on the absence of sufficient evidence to reach a conclusion of negligence; and
2. the gravity factor of +1 with respect to increased risk of harm to the environment was not correctly applied based on the absence of evidence to establish such increased risk of harm,

the Review Committee has determined that in accordance with the Regulations, the total penalty amount to be levied on Suncor is \$40,000.

Review Committee:

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Lori Bevan

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Kim Dunphy

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