

Nancy Hynes

From: Eric Theriault
Sent: July 15, 2011 4:32 PM
To: Thillet, Marielle
Cc: Roma, Jayne [Dartmouth]; Humphrey, Donald; Keith Landra; Document Control; Elizabeth MacDonald; Don Logan
Subject: EnCana's Deep Panuke Production Environmental Protection and Compliance Monitoring Plan (EPCMP) (2005-295Z)

Categories: EDP41-107
Attachments: Oil bird collection protocol.pdf; revisedFlowchart.ppt; WilliamsChardineHandling Protocol_Jan2011.pdf

Marielle:

Thank you for submitting the subject report. We have completed our review, which also includes comments and advice from Environment Canada and the Department of Fisheries and Oceans. In general, the EPCMP does an excellent job at outlining specific environmental protection and compliance monitoring requirements, and provides good direction to project personnel on methods of eliminating, minimizing and mitigating adverse environmental effects throughout the life of the project.

Please provide a response to the following questions and make the appropriate revisions, as required, to the EPCMP:

Scope

The Scope states the EMCMP has been prepared in accordance with the most recent version of the Offshore Waste Treatment Guidelines (OWTG). Although the OWTG do have a principal role in the preparation on the EMCMP, the primary is the Environmental Protection Plan Guidelines. Also, you may wish to also reference the Chemical Selection Guidelines for Drilling and Production Activities on Frontier Lands (April 2009), and the Guideline for the Reporting and Investigation of Incidents (June 2009).

Discharges

Section 8.1.1, 2nd Paragraph.

The wording in this paragraph needs to be strengthened. Suggest wording similar to "EnCana will meet the performance targets as specified in the OWTG, and will strive to perform better than these targets". Previous commitments were made in the Development Plan Application and should be referenced.

Various Sections referencing the 2010 OWTG (primarily Sections 1.0 and 8)

The 2010 Offshore Waste Treatment Guidelines (OWTG) appears to be referenced throughout the EPCMP somewhat as a regulation or statute. While it is recognized that the performance targets in these guidelines may be appropriate, and EnCana has stated that they would strive to perform better than the performance targets in the OWTG, the EPCMP should provide reasoning/justification explaining why these limits are appropriate for this particular project within the first year. Furthermore, it is recommended that rather than using the words "in accordance with" or "as per", the EPCMP employ "as recommended by" when referencing performance targets or monitoring/reporting measures from the OWTG.

Reference to the OWTG (2010) should state "or as revised"

Various subsections in Section 8 Offshore Waste Streams and Associated Protection Measures and Compliance Monitoring

EC has several questions of clarification regarding the commitments related to oily discharges in Section 8. Initial EC requested the SBM Deep Panuke PFC Operations Manual, Volume 4; however, after further discussion, there were several specific questions posed. Please provide a written response to myself and Jayne Roma (EC) on the following specific questions. Based on the nature of those responses, a follow-up

meeting may be requested.

- Section 8.2.3. Please provide more specific information on the frequency of the liquid level checks (e.g., is it 3 times / day?)
- Section 8.4.1. Please provide more information about the maintenance / calibration of the oil in water analyzer. Please explain in more detail the statement that the sheen analyzer will be triggering an alarm if sheen level in the clean compartment reaches 10cm.
- Section 8.4.1 and 8.4.4. Please provide more information about how the on-line analyzer functions (e.g., more information about how often it analyzes the effluent, how long would it take to stop the discharge if the analyzer detected greater than 15 mg/L). Also, it was noted that the results from the manual samples may not be available until after the discharge. How long will it take to obtain results from the manual samples? What is preventing the collection and analysis of manual samples before discharging? How many manual samples will be taken and analyzed and how often?
- Section 8.5.3: Will the off-spec alarm based on an instantaneous level of 25 mg/L? This section also makes reference to methanol being added to produced water to prevent hydrate formation. Is this right or do they rather mean that methanol, which is added to production well fluids to prevent hydrate formation, will be present in the produced water discharge?
- Section 8.7.4 and Section 8.9.4. Please provide more information on when and how often the routine audits will be conducted.

Section 8.5.4 Produced Water Compliance Monitoring Requirements

Please provide addition detail as to why EnCana intends to characterize produced water only twice a year.

Marine Birds

Section 13.3.1 Oiled Birds

Section 13.3.1 should be revised to reference the attached Oiled Bird Collection Protocol that is now available from the Canadian Wildlife Service of EC. While this protocol was developed primarily for beached oiled birds, it provides applicable direction to an operator should they encounter either live or dead oiled birds in the offshore. Please note that rather than disposing of a dead oiled bird at sea if "shipping to shore is not possible", EC suggests that EnCana commit to freezing (not with food) any dead oiled bird and shipping to shore as soon as logistics permit.

The oiled bird portion of Figure 13.1 can be significantly reduced by simply referencing the Protocol (an example is also attached).

For non oiled birds, it is still appropriate to employ the Williams and Chardine Protocol. A slightly revised version is attached which includes a NS contact number.

Other

Section 12.3.3 Halocarbon Releases

It is recommended that the second paragraph and bullets be reworded using the following text or something similar:

"The following requirements regarding the above Regulations will be implemented as part of the xxx plan:

- *All halocarbon releases over 10kg will be reported within the deadlines set out in the Regulations - for a release of 100kg or more, a verbal or written report will be submitted within 24 hours, followed by a written report within 14 days of detecting the release. Written reports for releases of more than 10kg and less than 100kg will be submitted twice annually, not later than 30 days after January 1 and July 1.*
- *Unless authorized by a permit issued by Environment Canada, refrigeration, air-conditioning or fire-extinguishing system that operates with a halocarbon other than HCFCs, HFCs and PFCs will not*

be installed."

Section 13.1 Fire Suppression Systems

As EnCana is likely aware, Perfluorooctane Sulfonate (PFOS) is present in the environment primarily as a result of human activity, such as its use in aqueous film-forming foams (AFFFs). The Perfluorooctane Sulfonate (PFOS) and its Salts and Certain Other Compounds Regulations (the PFOS Regulations) under CEPA 1999 prohibit the use of PFOS in various products, including AFFF as of May 29, 2013.

With the voluntary phase-out in production by the largest international PFOS manufacturer between 2000 and 2002, PFOS based AFFFs can no longer be purchased in Canada. Alternative non-PFOS-based AFFFs now dominate the marketplace. However, the average useful service life of AFFFs can be in the order of 25 years or longer, so existing stockpiles may exist.

If EnCana intends to use "older" AFFFs that contain PFOS, they should be aware that the PFOS Regulations exempt:

- At any time, the use of AFFFs containing PFOS at a concentration 0.5ppm or below
- Until May 29, 2013, the use of AFFFs containing PFOS at a concentration of >0.5ppm that were manufactured or imported before May 29, 2008.

The proponent can verify the list of ingredients in the material safety data sheets (MSDS) to help determine if their AFFFs contain PFOS. Additional information regarding the PFOS Regulations can be obtained from Gerry McCormick at 426-7966 or gerry.mccormick@ec.gc.ca

Environmental Protection Plan Guidelines (2011)

EPP Guidelines, Section 4.6.6.2. Structures, Facilities, Equipment and Systems Critical to Environmental Protection

Section 4.6.6.2 of the Environmental Protection Plan Guideline (EPP Guidelines) states:

"Pursuant to paragraph 9(e) of the Regulations, the EPP shall include a list of all structures, facilities, equipment and systems critical to environmental protection, and a summary of the system in place for their inspection, testing and maintenance."

The EPMCP need to be revised to include the above. Please see the Section 4.6.6.2 of the Guideline for additional detail.

EPP Guidelines, Section 4.6.8. Disposal of Waste Material

The EPCMP refers to SBM's Waste Management Documents. Pursuant to paragraph 9(h) of the Drilling and Production Regulations, the EPP shall include a description of equipment and procedures for the treatment, handling and disposal of waste material. Please see the Section 4.6.8. of the EPP Guideline for additional detail and revise the EPMCP appropriately to reflect these requirements.

Also, *Section 5.2 Relationship to Other Deep Panuke Plans*, Table 5.1, in the EPCMP makes reference to "SBM Waste Management Plan for Deep Panuke" and "SBM Chemical Management Plan for Deep Panuke". Please provide a copy of these plans.

Editorial

MARPOL is missing from the list of abbreviations.

Table 7.2 should also identify that EC is the lead with regards to Section 36 of the *Fisheries Act*; as well as the *Species-at Risk Act* should be listed.

S. 8.5.4 should read: The Biological Test Method: Fertilization Assay Using Echinoids (Sea Urchins and Sand Dollars) (Environmental Protection Directorate Report no. EPS 1/RM/27, Environment Canada 1992, amended in 1997).

It is recommended that the title of Section 12 be changed to "Spills and Other Unauthorized Discharges".

Appendix 2: commitment 1.33 – flaring is primarily addressed under s. 8.10, not 8.11.

Appendix 2: commitment 1.56 and commitment 1.58 are the same.

Appendix 2: commitment 1.57 and 1.60 are also duplicates.

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