

October 30, 2015

Project No. 1418718

Sonia Bumpus, Siting Specialist
Energy Facility Site Evaluation Council
1300 S. Evergreen Park Dr. S.W.
PO Box 43172
Olympia, WA 98504-3172

**RE: TESORO-SAVAGE FACILITY PLAN REVIEWS
WORK ORDER #15-MC-27, AMENDMENT NO. 2**

Dear Ms. Bumpus:

The Energy Facility Site Evaluation Council (EFSEC) retained Golder Associates Inc (Golder) to provide review of selected facility plans prepared by the applicant for the Tesoro-Savage Vancouver Energy Distribution Terminal. The facility is proposed to be sited at an existing industrial/terminal site within the Port of Vancouver in Clark County, Washington. The purpose of the reviews is to provide feedback to EFSEC and to Tesoro-Savage on the content of the plans and the appropriateness of plan detail for the current stage of the proposal's development [preliminary design currently under State Environmental Policy Act (SEPA) review].

1.0 INTRODUCTION

The Tesoro-Savage Vancouver Energy Distribution Terminal is being developed to transfer crude oil delivered by rail car to ocean-going cargo vessels. Preliminary design documents have been developed for the planned terminal components including rail car unloading, crude oil storage tanks, marine oil loading facilities and the supporting infrastructure.

Numerous supporting documents have been prepared to define expected construction and operation activities as well as plans to highlight health, safety, security, and environmental protection programs. The applicant provided these plans to EFSEC as part of the SEPA review.

2.0 TESORO-SAVAGE FACILITY PLANS REVIEWED

Golder reviewed and provided comments on the following plans prepared for the Tesoro-Savage Vancouver Energy Distribution Terminal:

- Construction Safety and Health Manual
- Construction Security Plan
- Construction Spill Prevention, Control, and Countermeasures Plan
- Construction Transportation Management Plan
- Construction Wildlife Monitoring Plan
- Contaminated Media Management Plan
- Cultural Resources Inadvertent Discovery Plan
- Marine Mammal Monitoring Plan
- Oil-Water Separator Sizing Calculations (Appendix G of NPDES Permit Engineering Report)

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- Operations Facility Oil Handling Manual
- Operations Facility Oil Spill Contingency Plan
- Operations Facility Safety Program
- Operations Spill Prevention, Control, and Countermeasures Plan
- Water Quality Protection and Monitoring Plan

Specific comments and recommendations for these facility plans are provided in Appendix A. Various other documents prepared for the Tesoro-Savage facility, including related sections of the Application for Site Certification (ASC) and Appendices, received cursory review for project description and cross-checking related data and other supporting information. The ASC contributes to our overall understanding of the project, the context within which these plans apply, and their relationship to one another for siting a marine terminal facility.

3.0 PLAN REVIEW SUMMARY

The reviewed documents were generally determined to be suitable for the current state of the project (SEPA review). Overall, the documents provided clear overview of the management plans and procedures; some lacked details for which Golder recommended additional information. In some cases, information gaps or document inadequacies were identified; in other cases, document inconsistencies or observations related to the future revisions of the plans were identified. Detailed reviews are included in **Appendix A**.

The following major recommendations are noted:

- Address discrepancy in the estimated construction trip generation between the Construction Transportation Management Plan and the ASC. As applicable, address any additional impact to future traffic volume and level of service due to the higher trip generation presented in this Plan.
- The Cultural Resources Inadvertent Discovery Plan should include training plans for facility operators and construction personnel;
- The Operations Spill Prevention, Control, and Countermeasures Plan needs additional information regarding training of facility operational staff, or an explanation of when that and other operational data will be provided;
- The Operations Facility Safety Program lacks elements that are found in a complete Construction Safety and Health Manual; Golder recommends that this document be amended with additional information.

Plans will need to be submitted to EFSEC, approved, and implemented *in advance* of specific project milestones (permitting, construction, or operation), as summarized in **Table 1**.

Table 1: Project Milestones for which Plans Require Advanced Approval

Facility Plan	Permitting	Construction	Operation
Construction Safety and Health Manual		X	
Construction Security Plan		X	
Construction Spill Prevention, Control, and Countermeasures Plan		X	
Construction Transportation Management Plan	X		
Construction Wildlife Monitoring Plan		X	
Contaminated Media Management Plan		X	
Cultural Resources Inadvertent Discovery Plan	X		
Marine Mammal Monitoring Plan		X	
Oil-Water Separator Sizing Calculations (Appendix G of NPDES Permit Engineering Report)			X
Operations Facility Oil Handling Manual			X
Operations Facility Oil Spill Contingency Plan			X
Operations Facility Safety Program			X
Operations Spill Prevention, Control, and Countermeasures Plan			X
Water Quality Protection and Monitoring Plan		X	

We appreciate the opportunity to assist you with this project. Please contact me if you have any questions at kwarn@golder.com or at (503)607-0780.

GOLDER ASSOCIATES INC.

Kara Warner, Ph.D.
 Senior Project Environmental Scientist

Grant Bailey
 Principal, Practice Leader

cc: Stephen Posner, EFSEC Manager

Attachments or Enclosures: Appendix A – Plan Review Forms



PLAN REVIEW COMMENT FORM

TESORO SAVAGE VANCOUVER ENERGY DISTRIBUTION TERMINAL

Plan Title – Vancouver Energy Operations Facility Oil Spill Contingency Plan

Materials Reviewed

Vancouver Energy Operations Facility Oil Spill Contingency Plan/182 pages

Figures – All

Tables - All

Appendices –

A – Training and Exercises

B – Vancouver Energy Contractor Response Equipment

C – Vancouver Energy Facility Operations

D – Hazard Evaluation/Risk Analysis

E – Cross Reference/OPA 90 requirements

F – Response Techniques and Guidelines

G – Inspection/Prevention and Maintenance

H – Trajectory Analysis

I – Acronyms and Definitions

Other documents reviewed to determine plan completeness –

Vancouver Energy Operations Spill Prevention, Control, and Countermeasures Plan (oSPCCP)

Overview

Generally Thorough and Detailed

Appropriate for this stage of siting

Falls short of minimal requirements

Plan should be completed in advance of: operation

Comments and Recommendations

Comments

- This plan needs to be complete and implemented (including initial training) prior to introduction of product (crude oil) into the facility. Per 40 CFR 112.20(a)(2)(iii), the plan must also be submitted to the EPA Regional Administrator prior to start of operation. Then, adjustments to the response plan to reflect changes that occur at the facility during the start-up phase of operations must be submitted after an operational trial period of 60 days.

- Section 3 Notification Procedures do not include making notification to any other facilities in the vicinity of or among the sections of the Vancouver Energy facility.
- Section 6.4.1 states that the Rainier, Oregon drinking water intake would not be threatened. However, no reasoning is given for this determination.
- Section 6.4.6 states that utilities are not expected to be affected by a spill. However, given the nature of the material most likely to spill (crude oil), ignition of the spill may be a significant risk. A fire could likely impact elevated power lines above the area of the spill.
- Fire risk is not discussed with any detail. The facility lists Bakken Crude as a possible type of crude oil stored at the facility; Bakken Crude typically has an unusually high vapor pressure for crude oil, which can contribute to a higher than expected fire risk (i.e. lower flash point).
- The lighting discussion in Section 7.2 Site Security Measures does not address lighting for the offsite portion of a spill response effort.
- Section 7.2 Site Security Measures does not mention the Clark County Jail located between the rail unloading area and the dock area.
- Section 7.2 Site Security Measures and Section 7.4 Decontamination refer to the standard “hot”, “warm”, and “cold” zones as “safety”, “dirty”, and “clean”. This could cause confusion with first responder personnel.
- The Risk Matrix Checklist in Appendix D does not appear to be complete. For example, the spill potential and response sections are not filled out for all answers indicating a risk exists.
- Section D.2.4 mentions that it would take 60 seconds from discovery of a spill at the dock area to pumping cessation. Section D.3.6 states that the volume spilled would be less than 100 barrels. No supporting calculation is given.
- Appendix G contains inspection checklists for oil containing equipment as well as response equipment. The former should appropriately be in the Operational Spill Prevention, Control, and Countermeasures Plan (oSPCCP).

Recommendations

- Include making notification to other facilities in the vicinity of or among the sections of the Vancouver Energy facility in Section 3. In particular, notification to the Clark County Jail should be made due to the large concentration of people there.
- Provide a rationale in Section 6.4.1 as to why the Rainier, Oregon drinking water intake would not be threatened.
- Include the fire risk to utilities in Section 6.4.6.
- Discuss fire risk factors in greater detail. Mention the potential for higher than usual flammability material to be spilled. Discuss ignition sources normally at the facility and those potentially introduced to the area during a spill response. Discuss safety and mitigation measures.
- Address lighting for the offsite portion of a spill response effort in Section 7.2.
- Mention in Section 7.2, the Clark County Jail located between the rail unloading area and the dock area.
- Refer to the response zones using standard incident management terms of “hot”, “warm”, and “cold”.
- Complete the Risk Matrix Checklist in Appendix D for all identified risks.
- In Section D.3.6, provide supporting calculations for the estimate of maximum volume spilled of 100 barrels.
- Include the Appendix G inspection checklists in the Operational Spill Prevention, Control, and Countermeasures Plan (oSPCCP). Note that the same checklists can appear in both the OSCP and the oSPCCP if the facility desires to use a single inspection form for both preventative and response items/equipment.