

Vancouver Energy  
Operations Facility Oil Spill Contingency Plan  
EFSEC Application for Site Certification No. 2013-01  
Docket No. EF131590



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Appendix G  
Inspection/Prevention and Maintenance

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## APPENDIX G INSPECTION/PREVENTION AND MAINTENANCE

### G.1 INSPECTION/PREVENTION MEASURES

While many of the more formal inspection procedures are described in the following sections, equipment inspection, problem detection, and incident reporting are part of the daily responsibilities of all operators, maintenance personnel and inspectors.

In carrying out their day-to-day responsibilities, operators, inspectors and other employees are expected to observe the equipment around them and report to their supervisor or other appropriate personnel any leaks, spills, or conditions that could lead to leaks or spills.

The potential for a piping rupture is minimized by the regular inspection of the overall system, including relief valves. The potential for overfilling a tank is minimized by a variety of safety features in the design and operation, including overflow alarms, tank gauge sensors, and proper training of personnel. Catastrophic tank failure is the most severe form of spill event that can be reasonably anticipated. The likelihood of this type of spill event occurring is minimized by routine inspections and proper maintenance of the tank structure. Oil handling procedures are also described in the Facility Oil Handling Operations Manual.

The Vancouver Energy (Facility) conducts self-inspections on all tanks, secondary containment units, and response equipment at the facility. This section describes procedures and checklists that are followed.

#### G.1.1 Daily Inspections

- Tank gauges, temperature and meter readings are recorded daily. Tank levels and product inventory are manually maintained on a continuous basis, and manually reconciled daily, **Figure G.1**.
- Receiving tanks are gauged and valves set prior to receipt of product from Area 200 –Unloading Area. Verbal contact is required to initiate transfer. All transfer information is recorded in the Facility Receipt Log, on file at the terminal office.
- Terminal Operators conduct visual inspection of the tank farm, all pumps and valves, sheds, office, fire protection equipment, oil/water separators, oil spill response equipment, cathodic protection systems, and safety systems and equipment. Specific inspection items are outlined in the inspection log, **Figures G.2, G.3, G.4, G.5, G.6, and G.7**. A complete inspection of dock, pipelines, transfer equipment and tankage is performed prior to marine transfers. A pre-transfer conference and Declaration of Inspection is completed in accordance with 33 CFR Part 156.
- Storm water retained within the tank dikes is inspected and released pursuant to SPCC regulations. Records of all stormwater discharge events are retained on site.
- All tanks are hand gauged daily. Tank gauges and meters are calibrated as needed.

#### G.1.2 Monthly Inspections

- A safety inspection is conducted under direction of the Terminal Manager, using the form in **Figure G.3**.
- Spill response equipment at the dock is inspected and maintained by Tesoro Terminal Operators.
- Recent adoption of API Standard 653 (Tank Inspection, Repair, Alteration, and Reconstruction) initiated new visual and non-destruction testing inspection standards. Future tank inspections will be made in compliance with API 653 Guidelines, using the form in **Figure G.3**.

#### G.1.3 Annual Inspections

- The fire extinguishers are inspected and tested.
- The dock hoses and the marine pipelines to the dock, are pressured tested in accordance with 33 CFR Part 156.
- Additional preventive maintenance conducted on a scheduled basis includes inspection/cleaning/lubing of valves and inspection of tank roofs.

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Tesoro/Vancouver Energy personnel will use the form in **Figure G.2** to record monthly, quarterly, and annual inspections.

#### **G.1.4 Response Equipment Inspection**

Using the Emergency Response Equipment Lists provided in **Section 7**, and **Appendix B** of this Plan, response equipment will be checked for the following in accordance with 40 CFR 112, Appendix F:

1. Inventory (item and quantity);
2. Storage location;
3. Accessibility (time to access and respond);
4. Operational status/condition;
5. Actual use/testing (last test date and frequency of testing); and
6. Shelf life (present age, expected replacement date).

Oil spill cleanup material and emergency response equipment will be inventoried and tested every six months or immediately after a spill. The Response Equipment Inspection is provided in **Figure G.4**.

#### **G.1.5 Secondary Containment Inspection**

Secondary containment units will be evaluated at the same time as tank inspections. During inspection, discrepancies are notes in any of the items and are reported to the proper facility personnel.

#### **G.1.6 Inspection and Preventative Maintenance Records**

Records are kept and maintained by the Terminal Manager. Inspection records for response equipment will be maintained for at least five years, and will be made available to Ecology upon request.

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Figure G.1. Computation of Product Inventory

Vancouver Energy Facility

DATE: \_\_\_\_\_

TANK	VISC	API	FLASH	BS&W	GAUGE	TEMP	GROSS BARRELS	FACT	NET BARRELS	H2S	LEL
0300-TK-001											
0300-TK-002											
0300-TK-003											
0300-TK-004											
0300-TK-005											
0300-TK-006											

LINE	TANK	PRODUCT	COMMENT	SUCTION	SUCTION	PRESSURE RELIEF'S
24"						
24"						
24"						
36"						
8"						

<b>LAST OIL MOVEMENT</b>	
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COMMENTS:

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**Figure G.2. Vancouver Energy Facility  
Monthly, Quarterly, and Yearly Inspection Form**

MONTHLY EVENTS YEAR: _____	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Check Cathodic Protection System												
Check Spill Response Equipment												
Check Fire System & Extinguishers												
Check All tank High Level Alarms												
Hold Safety & Spill Prevention Meeting												

QUARTERLY EVENTS	JANUARY	APRIL	JULY	OCTOBER
Grease Valves, Truck & Rail Rack				
Review Oil Spill Contingency Plan				
Inspection Vapor Recovery Unit				
Quarterly Safety Inspection				

YEARLY EVENTS	YEAR
Pressure Test Pipelines and Hoses	
Inspect Cathodic Protection System	
Check Fire Extinguisher and Foam System	
Check Back-Flow Preventer Valve	

**Figure G.3. Monthly Terminal Inspection**

**ABOVEGROUND STORAGE TANKS/TANK FARM**

	Yes	No
1. Are all <b>tank top walkways and ladders</b> safe to use?	_____	_____
2. Is all <b>tank top lighting</b> in good condition/working order?	_____	_____
3. Are all <b>tank top vents</b> in good working condition?	_____	_____
4. Are all <b>high-level alarms</b> in good working order?	_____	_____
5. Is each <b>tank</b> free of visible leaks, overflow or rupture?	_____	_____
6. Is all <b>leak detection equipment</b> in satisfactory condition?	_____	_____
7. Are all <b>liquid tight connections</b> on all tank openings other than vents functional?	_____	_____
8. Are <b>tank bottom water draw offs</b> locked when not in use?	_____	_____
9. Are all <b>side gauges</b> functional/readings accurate?	_____	_____
10. Are all <b>tank shell surfaces</b> , including any peeling areas, welds, rivets/bolts, and seams visually inspected for areas of rust and other deterioration?	_____	_____
11. Are all <b>tank foundations</b> free from visible deterioration?	_____	_____
12. Is the <b>slope</b> of the ground away from each tank toward the drainage system still maintained at 1 percent or more?	_____	_____
13. Are <b>ground surfaces</b> around tanks, containment structures, and transfer areas free of signs of leakage?	_____	_____
14. Is the <b>containment dike/berm</b> adequate and impervious with no erosion or cracks?	_____	_____
15. Are <b>diked areas</b> free of oil and excess standing water?	_____	_____

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- |     |  | Yes   | No    |
|-----|--|-------|-------|
| 16. | Are the <b>dike containment areas/bases of tanks</b> free of high grass, weeds and debris?   | _____ | _____ |
| 17. | Are the <b>dike drain valves</b> in good condition and closed and locked when not in use?  | _____ | _____ |
| 18. | Are all <b>tank and pipeline valves</b> closed when not in use?  | _____ | _____ |
| 19. | Are all <b>tank fill valves</b> locked in closed position when not in use?   | _____ | _____ |
| 20. | Are <b>valves</b> inspected for signs of leakage or deterioration and serviced on a regular basis?   | _____ | _____ |
| 21. | Are these <b>inspection and service</b> kept on record?  | _____ | _____ |
| 22. | Are all <b>valve/flange connections</b> checked for leakage, signs of wear and all bolts in place/tight?   | _____ | _____ |
| 23. | Are the valve and pipeline coupling <b>bolts</b> free of elongation, deterioration, or signs of strain?  | _____ | _____ |
| 24. | <b>Cathodic protection</b> readings adequate?<br>Amps _____ Volts _____  | _____ | _____ |
| 25. | Is <b>fire protection</b> (extinguisher/alarm/foam) adequate, operational, inspected and tagged, with extinguishers turned over once/month? Are hoses free from deterioration? | _____ | _____ |
| 26. | Is <b>ground cable</b> present and secure?   | _____ | _____ |

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**PIPELINES**

- |   | Yes   | No    |
|---|-------|-------|
| 1. Are pipelines <b>blanked-flanged and marked</b> accordingly when out of service?   | _____ | _____ |
| 2. Are all pipelines <b>marked</b> with their contents?   | _____ | _____ |
| 3. Are all above-ground pipelines <b>painted</b> ?  | _____ | _____ |
| 4. Is each <b>pipe support</b> adequate to minimize abrasion and corrosion yet allow for expansion and contraction?             | _____ | _____ |
| 5. Is each pipeline to tank truck unloading rack provided with a <b>check valve</b> for automatic protection against back flow? | _____ | _____ |

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**OIL/WATER SEPARATOR SYSTEM**

- |  |       |       |
|--|-------|-------|
| 1. Has the daily/weekly <b>separator maintenance</b> been completed? | _____ | _____ |
| 2. Is the separator free of any <b>internal corrosion</b> ?          | _____ | _____ |
| 3. Is the separator free of <b>solids and oil buildup</b> ?          | _____ | _____ |
| 4. Are any <b>cracks</b> evident?                                    | _____ | _____ |
| 5. Are the <b>weirs</b> in good condition and working properly?      | _____ | _____ |

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

DOCK/DOCK SHACK

- |  | Yes   | No    |
|--|-------|-------|
| 1. Are <b>valves/flanges</b> free of leakage and secured with all bolts?           | _____ | _____ |
| 2. Are <b>valves</b> not in use shut and locked?                                   | _____ | _____ |
| 3. Are <b>valves</b> properly color-coded?   | _____ | _____ |
| 4. Are pipelines <b>marked with current MAWP</b> ?                                 | _____ | _____ |
| 5. Are blanked pipelines <b>marked “not in use”</b> ?                              | _____ | _____ |
| 6. Are <b>pipe supports</b> adequate and in good condition?                        | _____ | _____ |
| 7. Is <b>drip-pan cover</b> free of deterioration and tears?                       | _____ | _____ |
| 8. Is <b>drip pan</b> empty?   | _____ | _____ |
| 9. Are <b>pressure gauges</b> in working order?                                    | _____ | _____ |
| 10. Are <b>first aid and eye wash kits</b> complete and in date?                   | _____ | _____ |
| 11. Are <b>ring buoys and lifelines</b> present?                                   | _____ | _____ |
| 12. Is <b>lighting</b> adequate and working?                                       | _____ | _____ |
| 13. Is <b>communication equipment</b> working?                                     | _____ | _____ |
| 14. Are <b>emergency shutdown valves</b> marked and operational?                   | _____ | _____ |
| 15. Are <b>loading arms</b> secured and operational, free from leakage?            | _____ | _____ |
| 16. Are <b>grounding devices</b> in good working order?                            | _____ | _____ |
| 17. Are <b>emergency signs</b> posted properly and in good shape?                  | _____ | _____ |
| 18. Are the <b>planking, pilings and dolphins</b> in good shape?                   | _____ | _____ |
| 19. Are <b>chainfalls</b> and safety hook in good order?                           | _____ | _____ |
| 20. Is the <b>spill boom</b> stowed in the proper manner and ready for deployment? | _____ | _____ |

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- |  | Yes   | No    |
|--|-------|-------|
| 21. Is the <b>spill boom</b> free of rips and tears?   | _____ | _____ |
| 22. Are all necessary <b>absorbent materials</b> on hand?  | _____ | _____ |
| 23. Is <b>fire protection</b> (extinguisher/alarm/foam) adequate, operational, inspected and tagged, with extinguishers turned over once/month? Are hoses free from deterioration? | _____ | _____ |

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**PUMP AREA**

- |   |       |       |
|---|-------|-------|
| 1. Are pumps free of abnormal <b>leakage/noise/vibration</b> ?  | _____ | _____ |
| 2. Are <b>guards</b> in place?  | _____ | _____ |
| 3. Are pump <b>drip containers</b> kept emptied?  | _____ | _____ |
| 4. Are <b>lubricant levels</b> maintained?  | _____ | _____ |
| 5. Are <b>pressure gauges</b> secure/in proper working order?   | _____ | _____ |
| 6. Are <b>slop drums</b> pumped down when full?   | _____ | _____ |
| 7. Are all electric motor <b>grounds</b> in place?  | _____ | _____ |
| 8. Is <b>fire protection</b> (extinguisher/alarm/foam) adequate, operational, inspected and tagged, with extinguishers turned over once/month? Are hoses free from deterioration? | _____ | _____ |

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**AREA 300 BOILER ROOM**

- |   | Yes   | No    |
|---|-------|-------|
| 1. Is the boiler room <b>floor</b> kept free of debris/trash?             | _____ | _____ |
| 2. Are boiler <b>controls</b> in good working condition?                  | _____ | _____ |
| 3. Are <b>emergency shutdowns</b> in proper working condition?            | _____ | _____ |
| 4. Are <b>chemical levels</b> kept up to requirements?                    | _____ | _____ |
| 5. Are boiler <b>chemical containers</b> properly marked?                 | _____ | _____ |
| 6. Is the <b>inspection</b> current?                                      | _____ | _____ |
| 7. Is <b>fire protection</b> adequate, operational, inspected and tagged? | _____ | _____ |

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**AREA 600 BOILER ROOM**

- |  | Yes   | No    |
|--|-------|-------|
| 8. Is the boiler room <b>floor</b> kept free of debris/trash?              | _____ | _____ |
| 9. Are boiler <b>controls</b> in good working condition?                   | _____ | _____ |
| 10. Are <b>emergency shutdowns</b> in proper working condition?            | _____ | _____ |
| 11. Are <b>chemical levels</b> kept up to requirements?                    | _____ | _____ |
| 12. Are boiler <b>chemical containers</b> properly marked?                 | _____ | _____ |
| 13. Is the <b>inspection</b> current?                                      | _____ | _____ |
| 14. Is <b>fire protection</b> adequate, operational, inspected and tagged? | _____ | _____ |

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**MOTOR CONTROL/ELECTRICAL ROOM**

- |   | Yes   | No    |
|---|-------|-------|
| 1. Is the <b>floor</b> clean and kept free of trash and debris?   | _____ | _____ |
| 2. Are <b>spare parts and tools</b> stored in orderly manner?   | _____ | _____ |
| 3. Are <b>electrical panel covers</b> in place and secure?  | _____ | _____ |
| 4. Are <b>exits</b> marked, unobstructed, and well lit?   | _____ | _____ |
| 5. Is all electrical <b>wiring and equipment</b> maintained as specified in the city/state electrical code?   | _____ | _____ |
| 6. Is <b>first aid kit</b> complete and in date?  | _____ | _____ |
| 7. Is <b>Lock Out/Tag Out</b> system properly implemented?  | _____ | _____ |
| 8. Is <b>fire protection</b> (extinguisher/alarm/foam) adequate, operational, inspected and tagged, with extinguishers turned over once/month? Are hoses free from deterioration? | _____ | _____ |

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**LOADING RACK**

- |   | Yes   | No    |
|---|-------|-------|
| 1. Are <b>pipng, valves and flanges</b> free of leaks?  | _____ | _____ |
| 2. Are piping and handrails free of any apparent <b>damage</b> ?  | _____ | _____ |
| 3. Is <b>lighting</b> adequate and in working order?  | _____ | _____ |
| 4. Are “ <b>dead man</b> ” <b>handles</b> operational?  | _____ | _____ |
| 5. Are <b>ground cables</b> present and in good condition?  | _____ | _____ |
| 6. Is <b>fire protection</b> (extinguisher/alarm/foam) adequate, operational, inspected and tagged, with extinguishers turned over once/month? Are hoses free from deterioration? | _____ | _____ |
| 7. Is <b>spill containment</b> adequate and free of cracks?   | _____ | _____ |

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**DRUM RACK**

- |  |       |       |
|--|-------|-------|
| 1. Are <b>spigots</b> threaded properly onto drum fittings, free of cracks or other deterioration, and kept closed tight/no leaks? | _____ | _____ |
| 2. Are drums <b>properly marked</b> with appropriate hazard label affixed to drum?   | _____ | _____ |
| 3. Is <b>spill containment</b> adequate and in place?  | _____ | _____ |

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**OFFICE AREA**

- |   | Yes   | No    |
|---|-------|-------|
| 1. Are <b>desks</b> kept neat and clean?                        | _____ | _____ |
| 2. Are <b>floors</b> clean, dry and free of debris?             | _____ | _____ |
| 3. Are <b>aisles</b> unobstructed?                              | _____ | _____ |
| 4. Is <b>lighting</b> adequate and in good working order?       | _____ | _____ |
| 5. Are <b>lunch table, countertop, and sink</b> kept clean?     | _____ | _____ |
| 6. Is <b>kitchen equipment</b> kept clean and in working order? | _____ | _____ |
| 7. Are <b>cabinets</b> kept neat and orderly?                   | _____ | _____ |
| 8. Is <b>smoke alarm</b> operational?                           | _____ | _____ |

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**LAB**

- |   | Yes   | No    |
|---|-------|-------|
| 1. Is <b>lab equipment</b> clean and in working order?  | _____ | _____ |
| 2. Are lab <b>work tables</b> free of clutter?  | _____ | _____ |
| 3. Are <b>first aid kit and eye wash</b> complete and in date?  | _____ | _____ |
| 4. Are <b>exhaust hoods</b> (lights, fan) operational?  | _____ | _____ |
| 5. Are <b>spill kits</b> present?   | _____ | _____ |
| 6. Is <b>fire protection</b> (extinguisher/alarm/foam) adequate, operational, inspected and tagged, with extinguishers turned over once/month? Are hoses free from deterioration? | _____ | _____ |
| 7. Are <b>lab solvent containers</b> in good condition and properly marked with contents?   | _____ | _____ |
| 8. Are <b>lab liquid waste containers</b> in good condition, properly labeled, kept closed and emptied each day?  | _____ | _____ |
| 9. Is proper <b>PPE</b> available and in good condition?  | _____ | _____ |
| 10. Is <b>sample storage area</b> clean and orderly?  | _____ | _____ |
| 11. Are sample <b>bottles</b> properly labeled, clean, and no apparent leaks?   | _____ | _____ |
| 12. Are <b>retained samples</b> disposed of in a timely manner when no longer needed?   | _____ | _____ |

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**ROADS/BOUNDARIES**

- |  | Yes   | No    |
|--|-------|-------|
| 1. Is the <b>road</b> in acceptable condition?                               | _____ | _____ |
| 2. Are the <b>gates</b> operating in good condition?                         | _____ | _____ |
| 3. Is the <b>fence</b> in good condition (no bad rust or broken chain link)? | _____ | _____ |
| 4. Is the <b>barbed wire</b> intact?   | _____ | _____ |

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**VEHICLES**

1.	Record <b>Mileage</b> _____		
2.	Record <b>Fluid levels</b>		
	Gasoline_____		
	Motor Oil_____		
	Transmission Fluid_____		
	Coolant_____		
	Differential_____		
	Brake_____		
		Yes	No
3.	<b>Battery</b>		
	Corrosion - none apparent	_____	_____
	Water level O.K.	_____	_____
4.	<b>Gauge Pack</b> - operational		
	Fuel	_____	_____
	Amps	_____	_____
	Oil Pressure	_____	_____
	Coolant Temperature	_____	_____
5.	<b>Brakes</b> - operational	_____	_____
6.	<b>Lights</b> - operational		
	Headlights	_____	_____
	Signal lights	_____	_____
	Tail lights	_____	_____
	Brake lights	_____	_____
7.	<b>Tires</b> - good condition	_____	_____
8.	<b>Windshield wipers</b> - good condition	_____	_____
9.	<b>Mirrors</b> - present and good condition	_____	_____
10.	<b>Body</b> - good condition (report any damage)	_____	_____
11.	<b>Seat belts</b> - good condition	_____	_____
12.	<b>Fire extinguisher</b> - adequate, operational, inspected and tagged, with extinguisher turned over once/month? Are hoses free from deterioration?	_____	_____
13.	<b>Cleanliness</b>		
	Interior	_____	_____
	Exterior	_____	_____

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**SCBAs**

- |    |  | Yes   | No    |
|----|--|-------|-------|
| 1. | Are all air cylinders full?<br>Pressure_____             | _____ | _____ |
| 2. | Are all air cylinders within <b>hydro date</b> ?         | _____ | _____ |
| 3. | Are all <b>masks</b> clean and available?                | _____ | _____ |
| 4. | Are <b>cleaning and disinfecting</b> supplies available? | _____ | _____ |

**H<sub>2</sub>S Personal Alarms**

- |    |   |       |       |
|----|---|-------|-------|
| 1. | Are all personal alarms <b>available and in proper working order</b> ?          | _____ | _____ |
| 2. | Are <b>calibrations</b> up to date?<br>Calibration date_____                    | _____ | _____ |
| 3. | Are <b>test gases/equipment</b> to check alarm set point available and in date? | _____ | _____ |

**Combustible gas detectors/explosimeters**

- |    |   |       |       |
|----|---|-------|-------|
| 1. | Are instruments <b>available and in proper working order</b> ?                  | _____ | _____ |
| 2. | Are <b>calibrations</b> up to date?<br>Calibration date_____                    | _____ | _____ |
| 3. | Are <b>test gases/equipment</b> to check alarm set point available and in date? | _____ | _____ |

**Drager pumps**

- |    |   |       |       |
|----|---|-------|-------|
| 1. | Are pumps <b>available and in proper working order</b> - bellows checked for leakage and deterioration? | _____ | _____ |
| 2. | Is an adequate number of <b>indicator tubes</b> available in proper range and in date?                  | _____ | _____ |

**Comments:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**NOTES:**

- Answers to all above questions should be YES. If not, corrective action is to be taken immediately.
- Terminal Manager shall retain a signed copy of inspection for three years from date of signature.





**Figure G.6. Tank Inspection Report**

DATE:

<input type="checkbox"/> EXTERNAL <input type="checkbox"/> INTERNAL		PLANT		TANK NO.	
CODE	ROOF TYPE	PRODUCT	SIZE	BY	
CLEANED BY (CONTR)			SANDBLASTED (EXTENT)		
ITEM	CONDITION GOOD/*FAIR/*BAD/N/A		ITEM	CONDITION GOOD///*FAIR/*BAD/N/A	
LEAKS			LEGS		
SETTLEMENT			ROOF RAIN		
FOUNDATION			NON-ROTATOR		
DRAINAGE			SHOES		
INSULATION			SEALS		
PAINT			HANGER ASSEMBLY		
VISUAL CORROSION (EXT)			SECONDARY SEAL		
BOTTOM ANGLE			P/V VENT		
VENTS			FLAME ARRESTOR		
WELDS			MANUAL GAUGE		
NOZZLES			AUTOMATIC GAUGE		
PIPING			FOAM SYSTEM		
WATER DRAW VALVES			HIGH LEVEL ALARM		
LADDER/STAIRWAY			INTERNAL COATING		
PLATFORMS			CORROSION (INT)		
HANDRAILS			PITTING		
SUCKLES/BULGES			SUMP		
ROOF ANGLE			ROOF STRUCTURAL		
MANWAYS			FLOATING SUCTION		
HATCHES			GAUGE WELL		
PONTOONS			STRIKING PLATE		
LADDER			MID POINT THERMOMETER		
GROUNDS			HEATING COILS		

\* Explain reason for fair and bad condition on comments page.

Figure G.7. Safety Inspection Form

Vancouver Energy Facility  
 5501 NW Lower River Road  
 Vancouver, WA 98660

\_\_\_\_\_  
 TERMINAL MANAGER

\_\_\_\_\_  
 INSPECTION PERFORMED BY

\_\_\_\_\_  
 DATE

(4) Okay      (X) Correction Needed      (N/A) Not applicable

Evaluation	Date Correction to be Completed	Evaluation Item	Comments
		<b>1. Fire Extinguisher and Fire Blankets</b>	
		a. Checked monthly	
		b. Serviced annually	
		c. In designated place	
		d. Properly mounted	
		e. Seals intact	
		f. Refills available	
		g. Blankets in place/in good condition	
		<b>2. Ignition controls</b>	
		• Spills	
		a. Contained	
		b. Promptly cleaned up	
		c. Employees aware of reporting requirements and procedures followed	
		• Cleaning solvents	
		a. Gasoline not used as solvent	
		b. Approved solvents utilized	
		• Smoking, matches and open flames	
		a. Allowed only in designated area	
		b. Signs posted in appropriate locations	
		c. "Strike anywhere" matches and lighters that do not require two actions prohibited	
		• Hot work	
		a. Hot work permits with Terminal Manager's signature required before beginning work	
		b. Work closely supervised	
		c. Fire watch provided	
		d. Fire extinguishing equipment on standby and ready for use	
		• Power equipment	
		a. Internal combustion engines, electrical hand tools, other power equipment not allowed in flammable mixture atmosphere	
		• Heating equipment	
		a. Heating equipment supplied without ignition source	
		b. Properly installed and correct design	
		c. Heater rooms clean and orderly and not utilized for storage	
		• Electrical equipment	
		a. Installed in compliance with NFPA and API recommended practices	
		b. All breakers labeled	

(4) Okay      (X) Correction Needed      (N/A) Not applicable

Evaluation	Date Correction to be Completed	Evaluation Item	Comments
		<ul style="list-style-type: none"> <li>Spontaneous combustion and vegetation</li> </ul>	
		<ul style="list-style-type: none"> <li>a. Oily rags, trash and flammable material stored in covered metal containers or isolated</li> </ul>	
		<ul style="list-style-type: none"> <li>b. Grass, weeds, etc., controlled and good housekeeping maintained</li> </ul>	
		<b>3. Fire Control Procedure</b>	
		<ul style="list-style-type: none"> <li>Written preplanned emergency procedure on hand</li> </ul>	
		<ul style="list-style-type: none"> <li>All employees familiar with procedure and drills conducted</li> </ul>	
		<ul style="list-style-type: none"> <li>Local fire department personnel involved and familiar with facility</li> </ul>	
		<b>4. Personnel Safety</b>	
		<ul style="list-style-type: none"> <li>First Aid</li> </ul>	
		<ul style="list-style-type: none"> <li>a. Fully equipped first aid kit on premises</li> </ul>	
		<ul style="list-style-type: none"> <li>Falls</li> </ul>	
		<ul style="list-style-type: none"> <li>a. Safe working/work surfaces maintained</li> </ul>	
		<ul style="list-style-type: none"> <li>b. Ladders for access available</li> </ul>	
		<ul style="list-style-type: none"> <li>c. Snow and ice treated or removed as necessary</li> </ul>	
		<ul style="list-style-type: none"> <li>Hand tools</li> </ul>	
		<ul style="list-style-type: none"> <li>a. Special tools provided (i.e. bung wrenches, drumcarts, trucks, skids)</li> </ul>	
		<ul style="list-style-type: none"> <li>b. Defective tools removed from service</li> </ul>	
		<ul style="list-style-type: none"> <li>c. Tools properly stored for inventory control</li> </ul>	
		<ul style="list-style-type: none"> <li>Lifting</li> </ul>	
		<ul style="list-style-type: none"> <li>a. Personnel instructed on proper lifting techniques</li> </ul>	
		<ul style="list-style-type: none"> <li>b. Assist devices provided</li> </ul>	
		<ul style="list-style-type: none"> <li>Contact with petroleum products</li> </ul>	
		<ul style="list-style-type: none"> <li>a. Contaminated clothing removed properly</li> </ul>	
		<ul style="list-style-type: none"> <li>b. Decontamination facilities provided</li> </ul>	
		<ul style="list-style-type: none"> <li>c. Tank entry and cleaning precautions taken</li> </ul>	
		<ul style="list-style-type: none"> <li>d. Inhalation of vapors controlled</li> </ul>	
		<ul style="list-style-type: none"> <li>Personal protective equipment</li> </ul>	
		<ul style="list-style-type: none"> <li>a. Safety shoes</li> </ul>	
		<ul style="list-style-type: none"> <li>b. Hard hats</li> </ul>	
		<ul style="list-style-type: none"> <li>c. Eye and face protection</li> </ul>	
		<ul style="list-style-type: none"> <li>d. Appropriate work clothing</li> </ul>	
		<b>5. Yard Safety</b>	
		<ul style="list-style-type: none"> <li>Vehicle parking</li> </ul>	
		<ul style="list-style-type: none"> <li>a. Designated area(s) remote from operating area</li> </ul>	
		<ul style="list-style-type: none"> <li>Drum storage</li> </ul>	
		<ul style="list-style-type: none"> <li>a. Neatly arranged</li> </ul>	
		<ul style="list-style-type: none"> <li>b. Checked and supported</li> </ul>	
		<ul style="list-style-type: none"> <li>c. Away from bulk tanks</li> </ul>	
		<ul style="list-style-type: none"> <li>d. Secured from unauthorized persons</li> </ul>	
		<ul style="list-style-type: none"> <li>e. Bungs in place on empties</li> </ul>	
		<ul style="list-style-type: none"> <li>f. Leaking drums disposed of</li> </ul>	
		<ul style="list-style-type: none"> <li>Fences and gates</li> </ul>	
		<ul style="list-style-type: none"> <li></li> </ul>	

(4) Okay      (X) Correction Needed      (N/A) Not applicable

Evaluation	Date Correction to be Completed	Evaluation Item	Comments
		a. Good condition	
		b. Total perimeter protection	
		c. Lock equipped	
		• Drainage	
		a. Adequate drainage	
		b. Ditches and sewers in repair	
		c. Public draining systems and waterways protected	
		• Walkways and Driveways	
		a. Clear and crossovers over pipes and ditches	
		b. Level and free of potholes	
		c. Fixed equipment protected with barriers	
		• General	
		a. Stop signs at highway exits	
		b. Speed limit and one-way signs	
		c. Emergency notice signs	
		d. Signs prohibiting unauthorized vehicles	
		e. "No smoking" signs posted at manifold, rack and tank areas	
		f. Road conditions checked	
		g. Weed control maintained	
		h. Overhead wiring identified	
		i. General housekeeping maintained	
		j. Man holes secured	
		<b>6. Warehouse Safety</b>	
		• Doors, passageways and windows	
		a. Windows and doors in good condition and mechanisms in working order	
		b. Passageways clear	
		c. Fire equipment not blocked	
		d. Exits identified	
		• Floors and stairways	
		a. Free from oil, grease, water, weak flooring and holes	
		b. Support members in good condition and load limits posted	
		• Packaged stocks	
		a. Stacked properly and secured	
		b. Pallets in good condition, empties stored outside	
		c. Drums and packaged goods sealed and spills promptly cleaned up	
		d. Drums containing material with flash points of 100 F or below not stored inside unless local fire codes met	
		• Filling portable containers	
		a. Filling done outside only and ignition sources eliminated	
		b. Drum and container connected to prevent static charge build up	
		<b>7. Garage Safety</b>	
		a. Exhaust vented outside or doors left open	
		b. Flammables stored outside and atmosphere vapor-free	
		c. Proper housekeeping maintained	

(4) Okay (X) Correction Needed (N/A) Not applicable

Evaluation	Date Correction to be Completed	Evaluation Item	Comments
		<b>8. Pumps and Motors</b>	
		a. Motor controls and pumps identified and remote controls provided	
		b. Ventilation in pumphouse adequate and considered off limits for storage or other purposes	
		c. Ventilators not blocked	
		d. All moving parts guarded	
		e. Free of leaks	
		f. Electrical services maintained and approved for area classifications	
		g. Pressure gauges	
		h. Drain lines and utility piping	
		i. Seals and packing	
		<b>9. Storage Tanks</b>	
		a. Dike stairways, walkways, ladders and handrails provided	
		b. Water draws functional	
		c. Tank shell in good condition and painted	
		d. Proper grounds – tank and pumps	
		e. Leaky valves or piping or tank repaired	
		f. Electrical wiring per code	
		g. Vacuum and relief valves functional	
		h. Hatch seals and emergency vents operational	
		i. Condition of roof checked	
		j. Housekeeping, erosion, weeds and debris checked	
		• High level alarms	
		a. Level switches functional	
		b. Properly set	
		c. Audio	
		d. Visual	
		e. Transmission of signal	
		<b>11. Railroad Tank Cars</b>	
		• General	
		a. Authorized personnel only	

(4) Okay (X) Correction Needed (N/A) Not applicable

Evaluation	Date Correction to be Completed	Evaluation Item	Comments
		• Spotting cars	
		a. Car mover tool available	
		b. Brakes set and wheels blocked	
		c. Sign – “Stop – Tank Car Connected” posted on track	
		• Opening cars	
		a. Pressure relieved before opening dome or outlet valve	
		b. Proper tools utilized	
		c. Volume and contents verified	
		• Tank delivery	
		a. Valves properly set	
		b. Checked for leaks and catch container available	
		c. Delivery lines checked for leaks	
		d. System and cars secured after delivery completed	
		• Miscellaneous	
		a. Stairways, walkways and handrails	
		b. Oily rag storage	
		c. Fire extinguishers	
		d. Truck and rack ground wires	
		e. General housekeeping	
		<b>12. Manifold Areas</b>	
		a. Valves and flanges	
		b. Sump covers and alarms	
		c. Electrical wiring and lights	
		d. Separators	
		e. Fire extinguishers	
		f. Housekeeping and cleanliness	
		g. Bleeder valves	
		h. Proper tanks	
		i. Valve operator	
		j. Valve numbered and tagged per line up drawing	
		k. Sample box	
		<b>13. Sample House</b>	
		a. Proper storage of samples – daily samples being pulled	
		b. Outdated samples	
		c. Stored material other than samples	
		d. Identification of building	
		e. No smoking	
		f. Proper ventilation	
		g. Building condition	
		h. Housekeeping	
		<b>14. Laboratory</b>	
		a. Gas connections checked	
		b. Flammables properly stored	
		c. Proper ventilation	
		d. Chemicals properly stored	
		e. Smoking prohibited	
		f. Adequate equipment	
		g. Drains properly set up	
		<b>15. Building</b>	
		a. In good repair	

(4) Okay (X) Correction Needed (N/A) Not applicable

Evaluation	Date Correction to be Completed	Evaluation Item	Comments
		b. Electrical wiring	
		c. Flues and vents	
		d. Restrooms	
		e. Bulletin board up to date	
		f. Proper disposal of waste	
		g. Lighting	
		<b>16. Office Records</b>	
		a. Administrative procedure guide	
		b. Terminal procedure guide	
		c. Filing system neat and orderly	
		d. General housekeeping	
		e. Storage of files	
		f. Phone numbers posted – emergency numbers	
		g. Operating procedure	
		h. Valve line up charts and drawing	
		i. Emergency procedure	
		j. Loading procedure	
		k. Record of keys	
		l. Loading agreements	
		m. Invoice registers	
		n. Inventory and sales report up to date	
		o. Contingency plan up to date	
		p. Reports filed and current	
		q. Meter vs. tank gauge	
		r. Tickets	
		s. Provings	
		t. Monthly distillation test results	