

## BREAKOUT TANK INSPECTION FORM

A completed **Standard Inspection Report** is to be submitted to the Director within 60 days from completion of the inspection. A **Post Inspection Memorandum (PIM)** is to be completed and submitted to the Director within 30 days from the completion of the inspection, or series of inspections, and is to be filed as part of the **Standard Inspection Report**.

| Inspection Report   |   | Post Inspection Memorandum                        |  |
|---|---|---|--|
| <b>Inspector/Submit Date:</b> Dennis Ritter, Al Jones<br><br><div style="text-align: center;">March 29, 2012</div>  |   | <b>Inspector/Submit Date:</b> D. Ritter 3/29/2012 | <b>Peer Review/Date:</b> Joe Subsits 3/30/2012 |
|   |   | <b>Director Approval/Date:</b> D. Lykken 4/3/12   |  |
| POST INSPECTION MEMORANDUM (PIM)  |   |   |  |
| <b>Name of Operator:</b>  | Swissport Fueling, Inc.                 | <b>OPID #:</b>                                    | 32517  |
| <b>Name of Unit(s):</b>   | SeaTac Fuel Facilities LLC, Seattle, WA | <b>Unit #(s):</b>                                 |  |
| <b>Records Location:</b>  | Sea Tac                                 | <b>Activity #</b>                                 |  |
| <b>Unit Type &amp; Commodity:</b>   | Airport Tank Farm-Jet Fuel              |   |  |
| <b>Inspection Type:</b>   | Standard                                | <b>Inspection Date(s):</b>                        | March 19 – March 22, 2012                      |
| <b>PHMSA Representative(s):</b>   | Dennis Ritter                           | <b>AFO Days:</b>                                  |  |
| <b>Summary:</b><br>An inspection was conducted at the SeaTac Fuel Facilities LLC terminal at the south end of the runway(s). This terminal is used to deliver jet fuel to Sea Tac Airport. This terminal was formally operated by Olympic Pipeline. The terminal is now owned by a consortium of Airlines. Swissport is the operator of the terminal. This terminal is a regulated facility because tank 115 is used to relieve surge from Olympics' Sea Tac lateral. The Swissport pipeline system consists of tank 115 and the piping that connects Olympic Pipeline surge relief line to tank 115. Emergency valves and pressure relief is maintained and operated by Olympic pipeline. Overpressure protection and valve maintenance is performed by Olympic Pipeline and Swissport maintains records of Olympic's maintenance. |   |   |  |

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| <b>Findings:</b><br><b>Notice of Probable Violations:</b> <ul style="list-style-type: none"> <li>195.405(a)&amp;(b) Swissport did not know nor could it be determined if the requirements of API RP 2003 or 2026 for Tank 115 were met.</li> <li>Construction drawings for all regulated pipeline facilities as well as actual hydro test information need to be obtained from Olympic Pipeline and kept on site.</li> <li>the operator tested the rectifier for Tank 115. Cell 1 had a reading of -0.692v. Effective CP voltage must be at least -0.85v per O&amp;M manual (NACE 0169-2007)</li> <li>195.432-General Site Conditions-Tank 115 (and the entire facility) is located down in a large hollow. Runoff from tank in some areas accumulates near the base. It appears the Port of Seattle attempted to minimize water flow under tank base by installing raised curbing in these areas. It does not appear to work as a moist environment (green mold/algae on gravel around tank) was visible both outward from the curb as well as behind it. This ponding could lead to corrosion under the tank bottom</li> </ul> <b>Area of Concern:</b> <ul style="list-style-type: none"> <li>The piping schematic supplied by Swissport showing both regulated and non-regulated pipeline facilities appears to indicate that Swissport has the ability to pump product back into Olympic's line from Tank 115 (which is the only tank currently regulated) and also from Tank 114 using System 3 and 4 pumps; and from Tanks 108 and 109 using System 1 and 2 pumps. <b>This situation needs to be clarified and/or confirmed.</b> If it is confirmed, then Tanks 108, 109 and 114 would meet the definition of a breakout tank and would need to be added as regulated pipeline facilities.</li> <li>An elevation drawing of Tank 115 showing tank full level, as well as all alarms, capacity height and vent height should be included in O&amp;M Manual.</li> <li>An overall system map showing all regulated facilities relative to Olympic's Facilities should be included in O&amp;M Manual.</li> </ul> |
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| <b>Company System Maps</b> (copies for Region Files):                                  |   |
| <b>Validate SMART Data</b> (components, miles, etc): <input type="checkbox"/>          | <b>Acquisition(s), Sale or New Construction</b> (submit SMART update): <input type="checkbox"/> |
| <b>Validate Additional Requirements Resulting From Waiver(s) or Special Permit(s):</b> |   |

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|   |                |  |                         |
|---|----------------|--|-------------------------|
| <b>Name of Operator:</b> Swissport Fueling  |                |  |                         |
| <b>OP ID No.</b> <sup>(1)</sup>   | 32517          | <b>Unit ID No.</b> <sup>(1)</sup>  |                         |
| <b>HQ Address:</b>  |                | <b>System/Unit Name &amp; Address:</b> <sup>(1)</sup>                          |                         |
| 45025 Aviation Dr<br>Suite 350<br>Dulles, VA 20166  |                | Swissport Fueling Inc.<br>2350 S 190 <sup>th</sup> Street<br>Seattle, WA 98188 |                         |
| <b>Co. Official:</b>  | Mark Norris    | <b>Activity Record ID #:</b>   |                         |
| <b>Phone No.:</b>   | (703) 742-4319 | <b>Phone No.:</b>  |                         |
| <b>Fax No.:</b>   | (703) 742-4388 | <b>Fax No.:</b>  |                         |
| <b>Emergency Phone No.:</b>   | (703) 499-8687 | <b>Emergency Phone No.:</b>  |                         |
| <b>Persons Interviewed</b>  |                | <b>Title</b>   |                         |
| Nestor Soriano  |                | QA/QC Supervisor   |                         |
|   |                |  |                         |
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| <b>PHMSA Representative(s)</b> <sup>(1)</sup>   |                | <b>Inspection Date(s)</b> <sup>(1)</sup>                                       | March 19-March 21, 2012 |
| <b>Company System Maps</b> (Copies for Region Files):   |                |  |                         |
| <b>Comments:</b>  |                |  |                         |
| During the OQ portion of the inspection, the operator tested the rectifier for Tank 115. Cell 1 had a reading of -0.692v. Effective CP voltage must be at least -0.85. per O&M manual (NACE 0169-2007). |                |  |                         |
| <b>For hazardous liquid operators, the attached evaluation form should be supplemented with PHMSA Form 3 and 49 CFR 195 during PHMSA inspections.</b>   |                |  |                         |

<sup>1</sup> Information not required if included on page 1.

## BREAKOUT TANK INSPECTION FORM

| <b>Design and New Construction of Aboveground Breakout Tanks</b> |   | S   | U | N/A | N/C |
|--|---|---|---|-----|-----|
| <b>.132</b>  | (a)   | Each aboveground breakout tank must be designed and constructed to withstand the internal pressure produced by the hazardous liquid to be stored therein and any anticipated external loads.  |   |     |     |
|  | (b)   | After Oct. 2, 2000 compliance with paragraph (a) above requires:  |   |     |     |
|  |   | (1) Shop-fabricated, vertical, cylindrical, closed top, welded steel tanks with nominal capacities of 90 to 750 barrels and with internal vapor space pressures that are approximately atmospheric must be designed and constructed in accordance with <b>API Specification 12F, (11<sup>th</sup> edition, November 1, 1994, reaffirmed 2000, errata February 2007).</b>  |   |     |     |
|  |   | (2) Welded, low-pressure (i.e., internal vapor space pressure not greater than 15 psig) carbon steel tanks that have wall shapes that can be generated by a single vertical axis of revolution must be designed and constructed in accordance with <b>API Standard 620, (11<sup>th</sup> edition, February 2008, addendum 1 March 2009).</b>  |   |     |     |
|  |   | (3) Vertical, cylindrical, welded steel tanks with internal pressures at the tank top approximating atmospheric pressures (i.e., internal vapor space pressures not greater than 2.5 psig, or not greater than the pressure developed by the weight of the tank roof) must be designed and constructed in accordance with <b>API Standard 650, (11<sup>th</sup> edition, June 2007, addendum 1, November 2008).</b> |   |     |     |
|  | (4) High pressure steel tanks (i.e., internal gas or vapor space pressures greater than 15 psig) with a nominal capacity of 2000 gallons or more of LPG must be designed and constructed in accordance with <b>API Standard 2510, (8<sup>th</sup> edition, 2001).</b> |   |   |     |     |

**Comments:**  
195.132 (a) and (b) Records provided by Swissport indicate Breakout Tank 115 was constructed to API 650 in 1970 (precode).

| <b>Tank Repairs, Alterations, and Reconstruction Procedures</b> |   | S  | U | N/A | N/C |
|---|---|--|---|-----|-----|
| <b>.205</b>   | (a)   | Aboveground breakout tanks repaired, altered, or reconstructed and returned to service must be capable of withstanding the internal pressure produced by the hazardous liquid to be stored therein and any anticipated external loads.   |   |     |     |
|   |   | <i>The repair/alteration history includes all data accumulated on a tank from the time of its construction with regard to repairs, alterations, replacements, and service changes (recorded with service conditions such as stored product temperature and pressure). These records should include the results of any experiences with coatings and linings.</i>   |   |     |     |
|   | (b)   | After Oct. 2, 2000 compliance with paragraph (a) above requires:   |   |     |     |
|   |   | (1) Tanks designed for approximately atmospheric pressure, constructed of carbon and low alloy steel, welded or riveted, and non-refrigerated built to <b>API Standard 650</b> , or its predecessor <b>Standard 12C</b> , must be repaired, altered, or reconstructed according to <b>API Standard 653, (3<sup>rd</sup> edition, December 2001, addendum 1 (September 2003), addendum 2 (November 2005), addendum 3 (February 2008), and errata (April 2008)).</b> |   |     |     |
|   |   | (2) Tanks built to <b>API Specification 12F</b> , or <b>API Standard 620</b> , the repair, alteration, and reconstruction must be in accordance with the design, welding, examination, and material requirements of those respective standards.  |   |     |     |
|   | Tanks built to API 620 may be modified by the design, welding examination and testing provisions of API 653 in proper conformance with the stresses, joint efficiencies, material and other provisions in API standard 620. |  |   |     |     |
|   | (3) For high pressure tanks built to <b>API Standards 2510</b> , repaired, altered, or reconstructed will be in accordance with <b>API 510, (9<sup>th</sup> edition, June 2006).</b>  |  |   |     |     |

**Comments:**  
195.205 (a) and (b) No significant alterations or repairs on Tank 115 since the last inspection (or since constructed).

## BREAKOUT TANK INSPECTION FORM

| Impoundment, Protection Against Entry, Relief, and Venting Procedures |     | S   | U   | N/A | N/C |
|---|-----|---|---|-----|-----|
| .264  | (a) | A means must be provided for containing hazardous liquids in the event of spillage or failure of an aboveground breakout tank. Containment and impoundment are effective means of controlling environmental releases and fires.   |   | X   |     |
|   | (b) | (1) For tanks built to <b>API Specification 12F</b> , <b>API Standard 620</b> , and others (such as <b>API Standard 650</b> or its predecessor <b>Standard 12C</b> ), the installation of impoundment must be in accordance with the following sections of <b>NFPA 30, Flammable and Combustible Liquids Code, (2008 edition, approved August 15, 2007)</b> : |   |     |     |
|   |     | (i) Impoundment around a breakout tank must be installed in accordance with Section 3.2.3.2; and  |   | X   |     |
|   |     | (ii) Impoundment by drainage to a remote impounding area must be installed in accordance with Section 4.3.2.3.1.  |   | X   |     |
|   |     | (2) For tanks built to <b>API Standard 2510</b> , the installation of impoundment must be in accordance with Section 5 or 11 of <b>API Standard 2510, (8<sup>th</sup> edition, 2001)</b> .  |   | X   |     |
|   | (c) | Aboveground breakout tank areas must be adequately protected against unauthorized entry.  |   | X   |     |
|   | (d) | Normal/emergency relief venting must be provided for each atmospheric pressure breakout tank. Each low-pressure and high-pressure breakout tank must have pressure/vacuum-relieving devices.  |   | X   |     |
|   | (e) | For normal/emergency relief venting and pressure/vacuum-relieving devices installed on aboveground breakout tanks after October 2, 2000, compliance with paragraph (d) of this section requires the following for the tanks specified:  |   |     |     |
|   |     | (1)   | Normal and emergency relief venting installed on atmospheric pressure tanks built to <b>API Specification 12F, Specification for Shop Welded Tanks for Storage of Production Liquids</b> , must be in accordance with Section 4, and Appendices B and C, of <b>API Specification 12F, (applicable edition IBR at time of installation)</b> .  | X   |     |
|   |     | (2)   | Normal/emergency relief venting installed on atmospheric pressure tanks (such as those built to <b>API Standard 650</b> or its predecessor <b>Standard 12C</b> ) must be in accordance with <b>API Standard 2000, Venting Atmospheric and Low-Pressure Storage Tanks Nonrefrigerated and Refrigerated, (applicable edition IBR at time of installation)</b> .   | X   |     |
|   |     | (3)   | Pressure-relieving and emergency vacuum-relieving devices installed on low pressure tanks built to <b>API Standard 620 (Design, Construction, Large, Welded, Low-Pressure Storage Tanks)</b> must be in accordance with <b>Section 9 of API Standard 620</b> and its references to normal and emergency venting requirements in <b>API Standard 2000, (applicable editions IBR at time of installation)</b> . | X   |     |
|   |     | (4)   | Pressure and vacuum-relieving devices installed on high pressure tanks built to <b>API Standard 2510, Design and Construction of LPG Installations</b> , must be in accordance with Sections 7 or 11 of <b>API Standard 2510, (applicable edition IBR at time of installation)</b> .  | X   |     |

**Comments:**

195.264 Tank 115 was constructed in 1970 (precode) to API 650 has capacity of 92,122 bbls and is vented to atmosphere. The existing impoundment has capacity for storing 169,604 bbls. Product spills and all surface waters are directed to a special pump station adjacent to the facility which pumps them to a Port of Seattle owned treatment facility immediately west of the southerly end of the runways.

| Pressure Test Procedures/Pressure Testing Aboveground Breakout Tanks |     | S  | U | N/A | N/C |
|--|-----|--|---|-----|-----|
| .307   | (a) | Aboveground breakout tanks built to <b>API Specification 12F</b> and first placed in service after October 2, 2000, pneumatic testing must be in accordance with section 5.3 of <b>API Specification 12F (applicable edition IBR at time of testing)</b> .   |   | X   |     |
|  | (b) | Aboveground breakout tanks built to <b>API Standard 620</b> and first placed in service after October 2, 2000, hydrostatic and pneumatic testing must be in accordance with section 7.18 of <b>API Standard 620 (applicable edition IBR at time of testing)</b> .  |   | X   |     |
|  | (c) | Aboveground breakout tanks built to <b>API Standard 650</b> and first placed in service after October 2, 2000, hydrostatic and pneumatic testing must be in accordance with section <b>5.3.5 of API Standard 650 (applicable edition IBR at time of testing)</b> .   |   | X   |     |
|  | (d) | Aboveground atmospheric pressure breakout tanks constructed of carbon and low alloy steel, welded or riveted, and non-refrigerated and tanks built to <b>API Standard 650</b> or its predecessor <b>Standard 12C</b> that are returned to service after October 2, 2000, the necessity for the hydrostatic testing of repair, alteration, and reconstruction is covered in section <b>12.3 of API Standard 653, (applicable editions IBR at time of testing)</b> . |   | X   |     |

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| Pressure Test Procedures/Pressure Testing Aboveground Breakout Tanks |  | S | U | N/A | N/C |
|--|--|---|---|-----|-----|
|  | (e) Aboveground breakout tanks <b>built to API Standard 2510</b> and first placed in service after October 2, 2000, pressure testing must be in accordance with <b>ASME Boiler and Pressure Vessel Code, Section VIII, Div.1 or 2, (applicable edition IBR at time of testing).</b>  |   |   | X   |     |
| .310   | (a) A record must be made of each pressure test required by this subpart, and the record of the latest test must be retained as long as the facility tested is in use.   |   |   | X   |     |
|  | (b) The record required by paragraph (a) of this section must include:<br>(1) The pressure recording charts;<br>(2) Test instrument calibration data;<br>(3) The name of the operator, the name of the person responsible for making the test, and the name of the test company used, if any;<br>(4) The date and time of the test;<br>(5) The minimum test pressure;<br>(6) The test medium;<br>(7) A description of the facility tested and the test apparatus;<br>(8) An explanation of any pressure discontinuities, including test failures, that appear on the pressure recording charts;<br>(9) Where elevation differences in the section under test exceed 100 feet (30 meters), a profile of the pipeline that shows the elevation and test sites over the entire length of the test section; and<br>(10) Temperature of the test medium or pipe during the test period. |   |   | X   |     |

**Comments:**

195.307-310 Tank 115 was constructed in 1970 (precode) to API 650. No pressure testing done since last inspection or since tank was constructed. Swissport will attempt to obtain the hydrotest from BP as they are the original owner and these documents were not given to Swissport after operations transferred.

| BREAKOUT TANK PROCEDURES |  | S | U | N/A | N/C |
|--------------------------|--|---|---|-----|-----|
| .402(c)(3)               | .404(a) Operator shall maintain current maps and records of its pipeline systems that include at least the following information; (1) Location and identification of (i) breakout tanks.   | X |   |     |     |
|                          | .405(a) Provide protection against ignitions arising out of static electricity, lightning, and stray currents IAW <b>API Recommended Practice 2003, Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents, (7<sup>th</sup> edition, January 2008).</b>   |   |   | X   |     |
|                          | .405(b) Review, consider, and incorporate into operator's procedure manual, the potentially hazardous conditions, safety practices and procedures associated with access/egress onto floating roofs IAW <b>API 2026, Safe Access/Egress Involving Floating Roofs of Storage Tanks In Petroleum Service, (2<sup>nd</sup> edition, April 1998, reaffirmed June 2006).</b>  |   |   | X   |     |
|                          | .422 Repairs shall be made in a safe manner and made so as to prevent damage to persons or property.   |   |   | X   |     |
|                          | .428(a) Inspect and test each overfill protection system, pressure limiting device, relief valve, pressure regulator, or other pressure control equipment (annually/NTE 15 mo), except as provided in paragraph (b) of this section.   | X |   |     |     |
|                          | .428(b) In the case of or relief valves on pressure breakout tanks containing <b>HVLs</b> , operator shall test each valve at intervals not exceeding 5 years.   |   |   | X   |     |
|                          | .428(c) Aboveground breakout tanks <ul style="list-style-type: none"> <li>• constructed or significantly altered according to section 5.1.2 of <b>API Standard 2510</b> after October 2, 2000, must have an overfill protection system according to <b>5.1.2 of API Standard 2510, (8<sup>th</sup> edition, 2001).</b></li> <li>• <b>if (600 gallons or more)</b> constructed or significantly altered after October 2, 2000, must have overfill protection according to <b>API Recommended Practice 2350, Overfill Protection for Storage Tanks in a Petroleum Facility, (3<sup>rd</sup> edition, January 2005).</b></li> </ul> |   |   | X   |     |
|                          | .430 Each operator shall maintain adequate firefighting equipment at each breakout tank area. The equipment must be–<br>(a) In proper operating condition at all times;<br>(b) Plainly marked so that its identity as firefighting equipment is clear; and<br>(c) Located so that it is easily accessible during a fire.   | X |   |     |     |

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| BREAKOUT TANK PROCEDURES |  | S | U | N/A | N/C |
|--------------------------|--|---|---|-----|-----|
| <b>.432(b)</b>           | Each operator shall inspect the physical integrity of in-service atmospheric and low-pressure steel aboveground breakout tanks according to <b>API Standard 653, (3<sup>rd</sup> edition December 2001, includes addendum 1 (September 2003), addendum 2 (November 2005), addendum 3 (February 2008), and errata (April 2008).</b> However, if structural conditions prevent access to the tank bottom, the bottom integrity may be assessed according to a plan included in the operations and maintenance manual under <b>§195.402(c)(3)</b> . | X |   |     |     |
|                          | -Owner/operator visual, external condition inspection interval not to exceed <b>one month</b> (more frequent inspections may be needed based on conditions at particular sites)  | X |   |     |     |
|                          | -External inspection, visual, by an Authorized Inspector at least every <b>five years</b> or at the quarter corrosion rate life of the shell, whichever is less.<br>-External ultrasonic thickness measurement of the shell based on the corrosion rate. If the corrosion rate is not known, the maximum interval shall be <b>five years</b> .   | X |   |     |     |
|                          | Are corrosion rate-based internal inspection intervals established in accordance with API 653, and in no case exceed <b>20 years</b> ? (Unless Risk-Based Inspection alternative is applied).  | X |   |     |     |
|                          | If tank bottom upper or lower side corrosion rate is unknown, the Out of Service inspection interval shall not exceed <b>10 years</b> .  | X |   |     |     |
| <b>.432(c)</b>           | Each operator shall inspect the physical integrity of in-service steel aboveground breakout tanks built to <b>API Standard 2510</b> according to <b>section 6 of API 510</b> .   |   |   | X   |     |
| <b>.432(d)</b>           | The intervals of inspection specified by documents referenced in paragraphs (b) and (c) of this section begin on <b>May 3, 1999</b> , or on the operator's last recorded date of the inspection, whichever is earlier.   | X |   |     |     |
| <b>.434</b>              | Maintain signs visible to the public around each breakout tank area. Each sign must contain the name of the operator and a telephone number (including area code) where the operator can be reached at all times.  |   |   | X   |     |
| <b>.436</b>              | Operator shall provide protection for each breakout tank area and other exposed facility (such as scraper traps) from vandalism and unauthorized entry.  | X |   |     |     |
| <b>.438</b>              | Operator shall prohibit smoking and open flames in each breakout tank area where there is a possibility of the leakage of a flammable hazardous liquid or of the presence of flammable vapors.   | X |   |     |     |

**Comments:**

195.405(a)&(b) Tank 115 was constructed in 1970 to API 650 (precode). Records indicate Tank 115 does have a groundwire connected to the top of the floating roof (it was repaired by HMT in 2005).  
 195.422 No significant repairs made since last inspection.  
 195.428(b) No HVLs  
 195.428(c) Tank 115 constructed in 1970; no significant repairs or alterations since then.  
 195.432(c) Tank 115 constructed to API 650.  
 195.434 Tank 115 is not accessible by the public nor visible from a public road. There are visible signs on the outer fence line.

| Corrosion Control Procedures |                           | S   | U | N/A | N/C |  |
|------------------------------|---------------------------|---|---|-----|-----|--|
| <b>.402(c)(3)</b>            | <b>.563(d)</b>            | Breakout tank areas, bare pipelines, and buried pumping station piping must have cathodic protection in places where previous editions of this part required cathodic protection as a result of electrical inspections.   | X |     |     |  |
|                              | <b>.565</b>               | <b>Breakout Tank CP installation</b> After 10/02/2000, required cathodic protection systems to protect above ground breakout tanks over 500 bbl capacity, shall be installed in accordance with <b>API RP 651, (3<sup>rd</sup> edition, January 2007)</b> .   |   |     | X   |  |
|                              | <b>.571</b>               | <b>Cathodic Protection (CP) Acceptance Criteria</b> CP levels must comply with <b>NACE Standard RP0169-2002<del>96</del></b> (paragraphs 6.2 and 6.3), <b>(reaffirmed March 15, 2007)</b> .   |   | X   |     |  |
|                              | <b>.573(d)</b>            | <b>Breakout Tank CP inspections</b> Cathodic protection systems used to protect breakout tanks must be inspected in accordance with <b>API 651, (3<sup>rd</sup> edition, January 2007)</b> .  | X |     |     |  |
|                              | <b>11.3.1<del>2</del></b> | <b>Cathodic Protection Surveys</b> – Annual CP surveys are required. Surveys may include one or more of the following:<br>1. Structure to soil potential.<br>2. Anode current.<br>3. Native structure to soil potentials<br>4. Structure-to-structure potential<br>5. Piping-to-tank isolation if protected separately. | X |     |     |  |
|                              |                           | X   |   |     |     |  |
|                              |                           |   |   | X   |     |  |
|                              |                           |   |   | X   |     |  |
|                              |                           |   |   | X   |     |  |

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| Corrosion Control Procedures |   | S | U | N/A | N/C |
|------------------------------|---|---|---|-----|-----|
|                              | 6. Structure-to-soil potential on adjacent structures.  |   |   | X   |     |
|                              | 7. Continuity of structures if protected as a single structure.   | X |   |     |     |
|                              | 8. Rectifier DC volts, DC amps, efficiency, and tap settings.   | X |   |     |     |
|                              | <b>Rectifier Inspections:</b>   |   |   |     |     |
|                              | - <u>Every 2 months.</u> – (Inspections should include a check for electrical shorts, ground connections, meter accuracy, and circuit resistance).  | X |   |     |     |
|                              | <b>Tank Bottoms</b> – Tank bottom should be examined for evidence of corrosion whenever access to the bottom is possible. (During repairs, modifications, during API653 inspections)<br><b>11.3.3.4</b> Examinations may be done by coupon cutouts or nondestructive methods.   |   |   | X   |     |
| <b>.577(a)</b>               | <b>Interference Currents</b> For breakout tanks exposed to stray currents, is there a program to minimize the detrimental effects?  |   |   | X   |     |
| <b>.579(d)</b>               | <b>Breakout tank – internal corrosion mitigation</b> After October 2, 2000, tank bottom linings installed in tanks built to <b>API 12F, API 620, API 650, or its predecessor 12C</b> must be installed in accordance with <b>API RP 652 (3<sup>rd</sup> edition, October 2005)</b> .  |   |   | X   |     |
| <b>.581(c)</b>               | <b>Atmospheric Corrosion Protection</b> Except for soil-to-air interfaces, atmospheric corrosion protection is not required where it is demonstrated by test, investigation, or similar environmental experience; that corrosion will –<br>(1) Only be a light surface oxide; or<br>(2) Not affect the safe operation of the pipeline before the next scheduled inspection. | X |   |     |     |
| <b>.583(a)</b>               | <b>Atmospheric Corrosion Monitoring</b> Inspect each pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion at least once every 3 calendar years, but with intervals not exceeding 39 months.   | X |   |     |     |
| <b>.583(c)</b>               | If you find atmospheric corrosion during an inspection, you must provide protection against the corrosion as required by §195.581.  | X |   |     |     |

**Comments:**

195.571 Breakout Tank 115 Manual pg 39 XXVIII Corrosion Control Procedures, notes the NACE standard RP0169-2002. Correct Reference should be NACE 0169-2007. N. Soriano corrected this error on site.  
 195.565 No new CP installation since last inspection.  
 11.3.1 NACE certified corrosion engineers performed annual inspection NACE RP0169-2007 (Kadlec in 2010, Norton in 2011)  
 11.3.3.4 Tank 115 was last internally inspected and bottom NDE tested in 2003. Next scheduled inspection based on corrosion criteria from this inspection is 2019.  
 195.577(a) No interference currents detected on site.  
 195.579(d) No new tank bottom installed since last inspection (or since constructed).

| FIELD REVIEW   |  | S | U | N/A | N/C |
|----------------|--|---|---|-----|-----|
| <b>.258(a)</b> | Is each valve installed in a location that is accessible to authorized employees and protected from damage or tampering?   | X |   |     |     |
| <b>.260(b)</b> | A valve must be installed on each line entering or leaving a breakout storage tank area in a manner that permits isolation of the tank area from other facilities.   | X |   |     |     |
| <b>.264</b>    | Impoundment areas adequate, dikes not eroded, and dike drains operational.   | X |   |     |     |
| <b>.428</b>    | Pressure Limiting Devices, relief valve, pressure regulator, overfill protection systems.  | X |   |     |     |
| <b>.430</b>    | Each operator shall maintain adequate firefighting equipment at each breakout tank area that is: <ul style="list-style-type: none"> <li>• In proper operating condition,</li> <li>• Plainly marked, and</li> <li>• Located to be readily accessible</li> </ul> | X |   |     |     |
| <b>.434</b>    | Signs visible to the public around each breakout tank area that contains the name of the operator and a telephone number (including area code) where the operator can be reached at all times.   | X |   |     |     |
| <b>.436</b>    | Protection for each breakout tank area from vandalism and unauthorized entry.  | X |   |     |     |
| <b>.438</b>    | Prohibition of smoking and open flames in breakout tank areas  | X |   |     |     |
| <b>.565</b>    | Cathodic Protection System Facilities <b>No new CP on Tank 115 since last inspection</b>   |   |   | X   |     |

## BREAKOUT TANK INSPECTION FORM

| FIELD REVIEW |  | S | U | N/A | N/C |
|--------------|--|---|---|-----|-----|
| .581         | Atmospheric Corrosion (piping, tanks, soil/air interfaces, splash zones)                           | X |   |     |     |
| .501-.509    | <b>Operator Qualification</b> - Use PHMSA Form 15 Operator Qualification Field Inspection Protocol |   |   |     |     |



## BREAKOUT TANK INSPECTION FORM

| RECORDS REVIEW |   | S | U | N/A | N/C |
|----------------|---|---|---|-----|-----|
| .132           | Design and Construction of aboveground breakout tanks   |   |   | X   |     |
| .205           | Tank alteration and reconstruction records. For tanks repaired after 10/2/2000, records reflecting compliance with the referenced API standards.  |   |   | X   |     |
| .264           | Impoundment determination records. For tanks constructed after 10/2/2000, records reflecting compliance with the referenced API/NFPA standards.   |   |   | X   |     |
| .264(d)        | Record of calculations for normal/relief vents and pressure/vacuum vents.   |   |   | X   |     |
| .310           | Hydrostatic/pneumatic testing records for above ground breakout tanks for tanks first placed in service after 10/2/2000.  |   |   | X   |     |
| .404           | Maps and records of location and identification of breakout tanks   | X |   |     |     |
| .405(a)        | API RP 2003 (if not followed by operator, must have a documented basis)   |   | X |     |     |
| .405(b)        | Review applicable hazards in API RP 2026 for inclusion in the procedure manual  |   | X |     |     |
| .428           | Testing of overpressure safety devices and overfill protection systems  | X |   |     |     |
| .432           | Inspection of in-service breakout tanks (in accordance with applicable API Standard)  |   |   |     |     |
|                | Monthly inspection reports  | X |   |     |     |
|                | Annual inspection report(s) (not required if operator has implemented API 653 inspection program, but may be required by operator's O&M procedures).                                    |   |   | X   |     |
|                | In-service inspection report(s), including next inspection interval calculation   | X |   |     |     |
|                | Out-of-service inspection report(s), including next inspection interval calculation   | X |   |     |     |
|                | Follow-up actions from inspection findings (repairs, fill level height adjustments, other recommendations from inspection report).  |   |   | X   |     |
| .573           | External corrosion control monitoring records in accordance with API RP 651   | X |   |     |     |
|                | Rectifiers (6 times per calendar year, not to exceed 2 ½ month intervals)   | X |   |     |     |
|                | Electrical isolation and or bonds   |   |   | X   |     |
|                | Structure to Soil potentials, annual surveys  | X |   |     |     |
| .579           | Tank bottom linings in accordance with API RP 652, if installed after October 2, 2000   |   |   | X   |     |
| .581           | Atmospheric corrosion monitoring (every 3 years not to exceed 39 months)  | X |   |     |     |
| .589           | Current records or maps of cathodic protection and monitoring facilities, including galvanic anodes, installed after January 29, 2002, and neighboring structures bonded to CP systems. | X |   |     |     |

**Comments:**

195.132-310 No new construction or alterations of Tank 115.  
 195.405(a)&(b) Swissport did not know nor could it be determined if the requirements of API RP 2003 or 2026 for Tank 115 were met.  
 195.432 Tank 115 has not had API 653 inspection since last inspection in 2009. Next scheduled in service inspection is 2013.  
 195.432 No follow up action since last inspection  
 195.573 No electrical isolation or bonds

## BREAKOUT TANK INSPECTION FORM

| Breakout Tank Field Review (Complete one page for each tank or tank impound area inspected) |  |   |   |     |     |
|---|--|---|---|-----|-----|
| .432  | Tank Number(s) Tank 115  | S | U | N/A | N/C |
| <b>General Site Conditions</b>  | a. Runoff rainwater from the shell drains away from tank, and site drainage away from tank. <b>See comment below</b>                   |   | X |     |     |
|   | b. No vegetation against tanks, no flammable materials, trash.   | X |   |     |     |
| <b>Tank Foundation, Bottom Shell</b>  | c. No voids under tank/tank foundations, or settlement around perimeter of tank.   | X |   |     |     |
|   | a. Concrete (no broken concrete, spalling, or cracks).   | X |   |     |     |
|   | b. Plate and weld in bottom angle area (No thinning or corrosion).   | X |   |     |     |
|   | c. Integrity of the bottom-to-foundation seal, if present. <b>No seal</b>  |   |   | X   |     |
| <b>External Shell</b>   | d. No signs of bottom leakage.   | X |   |     |     |
|   | a. Exterior coating (No paint failure, pitting, or corrosion).   | X |   |     |     |
|   | b. Rivet or seam leakage.  | X |   |     |     |
|   | c. No cracks or signs of leakage on weld joints at nozzles, manways, and reinforcing plates.   | X |   |     |     |
|   | d. No shell deformation.   | X |   |     |     |
| <b>Tank Piping and Manifolds</b>  | e. No shell plate dimpling around nozzles, caused by excessive pipe deflection.  | X |   |     |     |
|   | a. No manifold piping, flange, or valve leakage.   | X |   |     |     |
|   | b. Anchored piping (check that it would not cause tank shell bottom connection damage during earth movement).                          | X |   |     |     |
|   | c. Adequate thermal pressure relief of piping to the tank. <b>No thermal pressure relief</b>   |   |   | X   |     |
| <b>Shell-Mounted Sample Station</b>   | d. Temperature indicators are accurate and undamaged. <b>No temperature indicators</b>   |   |   | X   |     |
|   | a. Sample line and return-to-tank line valves, seals, and drains function properly. <b>No sample station</b>                           |   |   | X   |     |
| <b>Mixer</b>  | b. Circulation pump has no signs of leaks or operating problems. <b>No sample pump</b>   |   |   | X   |     |
|   | a. Mounting flange is properly supported. <b>No mixer</b>  |   |   | X   |     |
| <b>Gauging System(s)</b>  | b. No signs of leaks or operating problems. <b>No mixer</b>  |   |   | X   |     |
|   | a. Verify proper operating condition   | X |   |     |     |
| <b>Inspection Recommendation(s) Follow-up</b>   | b. Evidence of operating problems <b>No evidence</b>   |   |   | X   |     |
|   | a. Have recommended actions from inspection reports been taken? <b>Procured overpressure maintenance records from Olympic Pipeline</b> | X |   |     |     |
|   | b. Have repairs identified by required inspections been made? <b>No repairs required</b>   |   |   | X   |     |

**Comments:**

195.432-General Site Conditions-Tank 115 (and the entire facility) is located down in a large hollow. Runoff from tank shell in some areas accumulates near the base. It appears the Port of Seattle attempted to minimize water flow under tank base by installing raised curbing in these areas. It does not appear to work as a moist environment (green mold/algae on gravel around tank) was visible both outward from the curb as well as behind it. This ponding could lead to corrosion under the tank bottom.

## BREAKOUT TANK INSPECTION FORM TANK DATA

| (See Note Below for * Items) |   | 1                            | 2 | 3 | 4 | 5 | 6 |
|------------------------------|---|------------------------------|---|---|---|---|---|
| FACILITY NAME(S):            |   | Sea Tac Terminal             |   |   |   |   |   |
| * (A)                        | PRODUCT                                     | Jet a                        |   |   |   |   |   |
| (B)                          | TANK #                                      | 115                          |   |   |   |   |   |
| (C)                          | CONSTRUCTION YEAR and API STANDARD          | 1970/API 650                 |   |   |   |   |   |
| * (D)                        | CONSTRUCTION TYPE                           | Welded                       |   |   |   |   |   |
| (E)                          | CAPACITY (BBL)                              | 92,122*                      |   |   |   |   |   |
| (F)                          | LINING? (Y/N)                               | N                            |   |   |   |   |   |
| (G)                          | LINING TYPE?                                |                              |   |   |   |   |   |
| (H)                          | TANK HT.(FT)                                | 48                           |   |   |   |   |   |
| (I)                          | MAX. FILL HT. (FT)                          | 40**                         |   |   |   |   |   |
| (J)                          | DIA (FT)                                    | 120                          |   |   |   |   |   |
| * (K)                        | ROOF TYPE                                   | Int float/fixed roof         |   |   |   |   |   |
| * (L)                        | VOLUMETRIC ALARM(S)                         | Hi; hi-hi; emergency hi; low |   |   |   |   |   |
| (M)                          | DIKE VOLUME (BBL)                           | 169,602                      |   |   |   |   |   |
| * (N)                        | DATE LAST INTERNAL INSPECTION               | 2003                         |   |   |   |   |   |
| * (O)                        | OUT OF SERVICE REPAIR OR OTHER MAJOR REPAIR | n/a                          |   |   |   |   |   |
| (P)                          | DATE API 653 APPLIED                        | May 2003                     |   |   |   |   |   |
| * (Q)                        | CP TYPE & ANODE TYPE                        | rectified                    |   |   |   |   |   |
| * (R)                        | C P MONITORING                              | Fixed ref                    |   |   |   |   |   |
| (S)                          | DUE DATE FOR NEXT INTERNAL INSPECTION?      | 2019                         |   |   |   |   |   |
| (T)                          | INTERNAL INSPECTION INTERVAL? (YEARS)       | 16.5                         |   |   |   |   |   |
| * (U)                        | INTERNAL INSPECTION INTERVAL BASIS?         | Calculated                   |   |   |   |   |   |
| (V)                          | DUE DATE FOR NEXT EXTERNAL INSPECTION?      | 2013                         |   |   |   |   |   |
| * (W)                        | EXTERNAL INSPECTION INTERVAL BASIS?         | API Max                      |   |   |   |   |   |
| (X)                          | DUE DATE FOR NEXT U. T. INSPECTION?         | 2013                         |   |   |   |   |   |
| (Y)                          | SHELL U.T. INSPECTION INTERVAL              | 5 yrs                        |   |   |   |   |   |
| * (Z)                        | SHELL U.T. INSPECTION INTERVAL BASIS?       | API Max                      |   |   |   |   |   |

NOTE: Enter the applicable codes below in the table above:

- (A): (R) Refined; (C) Crude; (HVL) Highly Volatile Liquid; (O) Other  
 (D): (W) Welded; (R) Riveted; (B) Bolted; Note if Tank is Insulated  
 (K): (EF) External Floater; (IF) Internal Floater; (F) Fixed  
 (L): (H) High; (HH) High-High; (OF) Overfill; (O) Other  
 (N): Most Recent Date  
 (O): Most Recent Date  
 (Q): (A) Anodic; (R) Rectified (N) None - Document why not needed.  
 (R): (F) Fixed Reference Cells Under Floor; (S) CP Monitored at Edge of Shell  
 (U): (C) Calculation (based upon known corrosion rate); (M) API Maximum Allowed Interval; (O) Other; (SS) Similar Service  
 (W): (C) Calculation (based upon known corrosion rate); (M) API Maximum Allowed Interval; (O) Other; (SS) Similar Service  
 (Z): (C) Calculation (based upon known corrosion rate); (M) API Maximum Allowed Interval; (O) Other; (SS) Similar Service

**Comments: \* max volume at elevation 45.1; \*\* operationally, max fill height is elevation 40'. Hi alarm at 42.2, Hi-Hi alarm at 43.2, EHA at 43.4, vent at 46.0**

## BREAKOUT TANK INSPECTION FORM TANK DATA

| (See Note Below for * Items) |   | 7 | 8 | 9 | 10 | 11 | 12 |
|------------------------------|---|---|---|---|----|----|----|
| FACILITY NAME(S):            |   |   |   |   |    |    |    |
| *(A)                         | PRODUCT                                     |   |   |   |    |    |    |
| (B)                          | TANK #                                      |   |   |   |    |    |    |
| (C)                          | CONSTRUCTION YEAR and API STANDARD          |   |   |   |    |    |    |
| *(D)                         | CONSTRUCTION TYPE                           |   |   |   |    |    |    |
| (E)                          | CAPACITY (BBL)                              |   |   |   |    |    |    |
| (F)                          | LINING? (Y/N)                               |   |   |   |    |    |    |
| (G)                          | LINING TYPE?                                |   |   |   |    |    |    |
| (H)                          | TANK HT.(FT)                                |   |   |   |    |    |    |
| (I)                          | MAX. FILL HT. (FT)                          |   |   |   |    |    |    |
| (J)                          | DIA (FT)                                    |   |   |   |    |    |    |
| *(K)                         | ROOF TYPE                                   |   |   |   |    |    |    |
| *(L)                         | VOLUMETRIC ALARM(S)                         |   |   |   |    |    |    |
| (M)                          | DIKE VOLUME (BBL)                           |   |   |   |    |    |    |
| *(N)                         | DATE LAST INTERNAL INSPECTION               |   |   |   |    |    |    |
| *(O)                         | OUT OF SERVICE REPAIR OR OTHER MAJOR REPAIR |   |   |   |    |    |    |
| (P)                          | DATE API 653 APPLIED                        |   |   |   |    |    |    |
| *(Q)                         | CP TYPE & ANODE TYPE                        |   |   |   |    |    |    |
| *(R)                         | C P MONITORING                              |   |   |   |    |    |    |
| (S)                          | DUE DATE FOR NEXT INTERNAL INSPECTION?      |   |   |   |    |    |    |
| (T)                          | INTERNAL INSPECTION INTERVAL? (YEARS)       |   |   |   |    |    |    |
| *(U)                         | INTERNAL INSPECTION INTERVAL BASIS?         |   |   |   |    |    |    |
| (V)                          | DUE DATE FOR NEXT EXTERNAL INSPECTION?      |   |   |   |    |    |    |
| *(W)                         | EXTERNAL INSPECTION INTERVAL BASIS?         |   |   |   |    |    |    |
| (X)                          | DUE DATE FOR NEXT U. T. INSPECTION?         |   |   |   |    |    |    |
| (Y)                          | SHELL U.T. INSPECTION INTERVAL              |   |   |   |    |    |    |
| *(Z)                         | SHELL U.T. INSPECTION INTERVAL BASIS?       |   |   |   |    |    |    |

NOTE: Enter the applicable codes below in the table above:

- (A): (R) Refined; (C) Crude; (HVL) Highly Volatile Liquid; (O) Other
- (D): (W) Welded; (R) Riveted; (B) Bolted; Note if Tank is Insulated
- (K): (EF) External Floater; (IF) Internal Floater; (F) Fixed
- (L): (H) High; (HH) High-High; (OF) Overfill; (O) Other
- (N): Most Recent Date
- (O): Most Recent Date
- (Q): (A) Anodic; (R) Rectified (N) None - Document why not needed.
- (R): (F) Fixed Reference Cells Under Floor; (S) CP Monitored at Edge of Shell
- (U): (C) Calculation (based upon known corrosion rate); (M) API Maximum Allowed Interval; (O) Other; (SS) Similar Service
- (W): (C) Calculation (based upon known corrosion rate); (M) API Maximum Allowed Interval; (O) Other; (SS) Similar Service
- (Z): (C) Calculation (based upon known corrosion rate); (M) API Maximum Allowed Interval; (O) Other; (SS) Similar Service

**Comments:**

## BREAKOUT TANK INSPECTION FORM TANK DATA

| (See Note Below for * Items) |   | 13 | 14 | 15 | 16 | 17 | 18 |
|------------------------------|---|----|----|----|----|----|----|
| FACILITY NAME(S):            |   |    |    |    |    |    |    |
| *(A)                         | PRODUCT                                     |    |    |    |    |    |    |
| (B)                          | TANK #                                      |    |    |    |    |    |    |
| (C)                          | CONSTRUCTION YEAR and API STANDARD          |    |    |    |    |    |    |
| *(D)                         | CONSTRUCTION TYPE                           |    |    |    |    |    |    |
| (E)                          | CAPACITY (BBL)                              |    |    |    |    |    |    |
| (F)                          | LINING? (Y/N)                               |    |    |    |    |    |    |
| (G)                          | LINING TYPE?                                |    |    |    |    |    |    |
| (H)                          | TANK HT.(FT)                                |    |    |    |    |    |    |
| (I)                          | MAX. FILL HT. (FT)                          |    |    |    |    |    |    |
| (J)                          | DIA (FT)                                    |    |    |    |    |    |    |
| *(K)                         | ROOF TYPE                                   |    |    |    |    |    |    |
| *(L)                         | VOLUMETRIC ALARM(S)                         |    |    |    |    |    |    |
| (M)                          | DIKE VOLUME (BBL)                           |    |    |    |    |    |    |
| *(N)                         | DATE LAST INTERNAL INSPECTION               |    |    |    |    |    |    |
| *(O)                         | OUT OF SERVICE REPAIR OR OTHER MAJOR REPAIR |    |    |    |    |    |    |
| (P)                          | DATE API 653 APPLIED                        |    |    |    |    |    |    |
| *(Q)                         | CP TYPE & ANODE TYPE                        |    |    |    |    |    |    |
| *(R)                         | C P MONITORING                              |    |    |    |    |    |    |
| (S)                          | DUE DATE FOR NEXT INTERNAL INSPECTION?      |    |    |    |    |    |    |
| (T)                          | INTERNAL INSPECTION INTERVAL? (YEARS)       |    |    |    |    |    |    |
| *(U)                         | INTERNAL INSPECTION INTERVAL BASIS?         |    |    |    |    |    |    |
| (V)                          | DUE DATE FOR NEXT EXTERNAL INSPECTION?      |    |    |    |    |    |    |
| *(W)                         | EXTERNAL INSPECTION INTERVAL BASIS?         |    |    |    |    |    |    |
| (X)                          | DUE DATE FOR NEXT U. T. INSPECTION?         |    |    |    |    |    |    |
| (Y)                          | SHELL U.T. INSPECTION INTERVAL              |    |    |    |    |    |    |
| *(Z)                         | SHELL U.T. INSPECTION INTERVAL BASIS?       |    |    |    |    |    |    |

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 (Z): (C) Calculation (based upon known corrosion rate); (M) API Maximum Allowed Interval; (O) Other; (SS) Similar Service

|           |
|-----------|
| Comments: |
|-----------|