DEPARTMENT OF ECOLOGY
State of Washington

UST ID #: 97436

County : Whatcom

# GALVANIC CATHODIC PROTECTION EVALUATION CHECKLIST

FOR Underground Storage Tanks

*This checklist certifies that cathodic protection testing activities were performed and conducted in accordance with Chapter 173-360 WAC.*

| I. UST FACILITY | II. CERTIFIED CATHODIC PROTECTION TESTER |
|---|---|
| Facility Compliance Tag #:A3508 | Service Provider Name: Tyler Hardy |
| UST ID #: 97436 | Company Name: Northwest Tank & Environmental Services, Inc. |
| Site Name: Parkway Shell | Address: 21120 Hwy 9 SE |
| Site Address: 3124 Old Fairhaven Parkway | City: Woodinville State: WA Zipcode: 98072 |
| City: Bellingham | Phone: (800) 742-9620 Email: info@nwtank.com |
| Site Phone: 360-734-9360 | Certification Type: STI Cathodic Protection ICBO U4 |
| County: Whatcom | |

**III. RESULTS OF EVALUATION** (which include results of both continuity system surveys)

☑ **PASS** The criteria, used to evaluate whether cathodic protection is adequate, were in accordance with a code of practice developed by a nationally recognized association (e.g. NACE), as required by

☐ **FAIL** the Washington State Underground Storage Tank Regulations.

Date CP Evaluation Performed: 11/18/2021

**IV. CRITIRIA APPLICABLE TO EVALUATION**

| Continuity Survey: | ☑ **PASS** - continuity data is passing and no action is needed. ☐ **FAIL** – continuity data is failing and the system requires a repair or retrofit. |
|---|---|

| System Survey | | #TANKS | #PIPE RUNS | #STP SFCs[1] | #DISP SFCs[2] | |
|---|---|---|---|---|---|---|
| Neg. 850 mV ON | ☑ **PASS** | 3 | | 3 | | A negative (cathodic) potential of at least -850 mV with the cathodic protection applied. This potential is with respect to a saturated copper-copper sulfate reference electrode containing electrolyte. |
| | ☐ **FAIL** | | | | | |
| Neg. 850 mV Instant Off | ☐ **PASS** | | | | | A negative polarized potential of at least 850 mV relative to a saturated copper-copper sulfate reference electrode ("Instant Off" Potential). |
| | ☐ **FAIL** | | | | | |
| 100 mV Polarization | ☐ **PASS** | | | | | A minimum of 100 mV of cathodic polarization between the structure surface and a stable reference electrode contacting the electrolyte. |
| | ☐ **FAIL** | | | | | |

| V. ACTION REQUIRED AS A RESULT OF THIS EVALUATION (check one box and explain further in comment box below). | |
|---|---|
| ☑ **NONE** | The cathodic protection system is adequately providing protection. No further action is necessary at this time. System must be tested in three years unless more immediate attentionis required. |
| ☐ **RETEST** | The cathodic protection system may not be adequately protecting steel from corrosion. Retesting is necessary |
| ☐ **RETROFIT/REPAIR** | The cathodic protection system is not adequately providing protection. Retrofitting or repairing is necessary. |
| ☐ **RETEST AFTER RETROFIT/REPAIR** | The cathodic protection system has been retrofitted or repaired and tested at time of the retrofit/repair. A re-test is required within one to six months of retrofit or repair. |
| Comments (include type of testing gear used, steel components tested, etc.): | |

1.If no submersible turbine pump (STP) is present, these steel flex connectors (SFC) are on the tank end of piping.
2.If no dispenser is installed, these SFCs are on the non-tank end of piping.

| VIII. REMARKS (describe any modifications made to the CP system) |
|---|
| Continuity to turbine proves protection to flex. |

**IX . CONTINUITY SURVEY**

| Structure "A" | Structure "B" | Point "A" to Point "B" or Fixed Cell Location >30' | Structure "A" Fixed Voltage >30' | Structure "B" Fixed Voltage >30' | Point-to-Point or Fixed Voltage Difference | Continuous | Isolated | Method and Standards Used (e.g. RP-0285, R051) |
|---|---|---|---|---|---|---|---|---|
| Tank 1 Tank bottom | Tank 1 Turbine | 2 | | | | ☑ | ☐ | Pt to Pt RP-0285 |
| Tank 2 Tank bottom | Tank 2 Turbine | 1 | | | | ☑ | ☐ | Pt to Pt RP-0285 |
| Tank 3 Tank bottom | Tank 3 Turbine | 2 | | | | ☑ | ☐ | Pt to Pt RP-0285 |
| 1 (Tank) | 2 (Tank) | 894 | | | | ☐ | ☑ | Pt to Pt RP-0285 |
| 1 (Tank) | 3 (Tank) | 788 | | | | ☐ | ☑ | Pt to Pt RP-0285 |
| 2 (Tank) | 3 (Tank) | 834 | | | | ☐ | ☑ | Pt to Pt RP-0285 |

| X . SYSTEM SURVEY | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Structure | Contact Point | Half Cell Location | Local Voltage "ON" | Local Voltage "Instant Off" | Local Voltage (Depolarized) | Voltage Change | Remote Voltage(On) > 30 | PASS | FAIL | Method and Standards Used |
| 1 (Tank) | Inside of Tank | 1 | -1540 | | | | | ☑ | ☐ | -850 on R051 |
| 1 (Tank) | Inside of Tank | 2 | -1578 | | | | | ☑ | ☐ | -850 on R051 |
| 1 (Tank) | Inside of Tank | 3 | -1569 | | | | | ☑ | ☐ | -850 on R051 |
| 1 (Tank) | Inside of Tank | Remote | | | | | -1650 | ☑ | ☐ | -850 on R051 |
| 2 (Tank) | Inside of Tank | 4 | -1422 | | | | | ☑ | ☐ | -850 on R051 |
| 2 (Tank) | Inside of Tank | 5 | -1681 | | | | | ☑ | ☐ | -850 on R051 |
| 2 (Tank) | Inside of Tank | 6 | -1544 | | | | | ☑ | ☐ | -850 on R051 |
| 2 (Tank) | Inside of Tank | Remote | | | | | -1541 | ☑ | ☐ | -850 on R051 |
| 3 (Tank) | Inside of Tank | 7 | -1452 | | | | | ☑ | ☐ | -850 on R051 |
| 3 (Tank) | Inside of Tank | 8 | -1551 | | | | | ☑ | ☐ | -850 on R051 |
| 3 (Tank) | Inside of Tank | 9 | -1606 | | | | | ☑ | ☐ | -850 on R051 |
| 3 (Tank) | Inside of Tank | Remote | | | | | -1655 | ☑ | ☐ | -850 on R051 |

## XI . UST SITE PLAN

**Customer Name:** Parkway Shell **Site Name:** Parkway Shell

**Site Address:** 3124 Old Fairhaven Parkway, Bellingham
**Job Number:** 104486

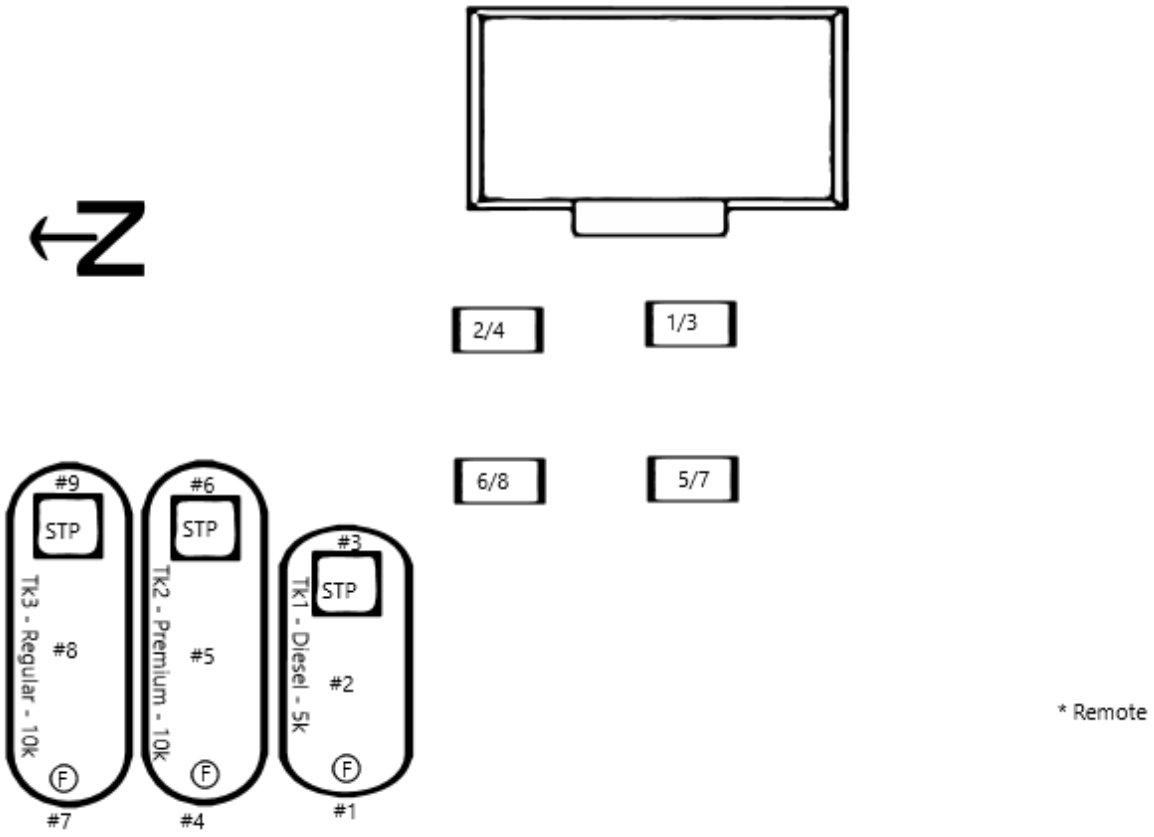


Diagram the UST System, including tanks, piping, and dispenser locations, approximate scale, and any other notable structures/physical features. Indicate north with arrow. On the map below, include the half cell locations used during testing. All test points must be easily identifiable, so that testing can be reproduced and your results verified.

## XIII . RETROFIT OR REPAIR DESIGN (if applicable)

All retrofitting or repairs to CP systems shall be designed by a Corrosion Expert. I certify that I am a Corrosion Expert qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. I have attached copies of the retrofit/repair design and of the Underground Storage Tank Retrofit and Repair Checklist

| | |
|---|---|
| Corrosion Expert's Name: | National Recognized Organization: |
| Corrosion Expert's Name: | Certification Number: |
| **Corrosion Expert's Signature:** | **Date:** |

## XIII . REQUIRED SIGNATURES

The service provider certifies the criteria used to evaluate whether cathodic protection is adequate were in accordance with a code of practice developed by a nationally recognized association (e.g. NACE), as required by the Washington State Underground Storage Tank Regulations

| | | |
|---|---|---|
| 11/18/2021 |  | Tyler Hardy - Tech |
| Date | Signature of Certified Cathodic Protection Tester | Print or Type Name |
| | | |
| Date | Signature of Tank Owner or Authorized Representative | Print or Type Name |