



UST CATHODIC PROTECTION SYSTEM EVALUATION FORM

This form may be utilized to evaluate underground storage tank (UST) cathodic protection systems.

- Access to the soil directly over the cathodically protected structure that is being evaluated should be provided.
- A site drawing depicting the UST cathodic protection system and all reference electrode placements must be completed if this form is used.

The criteria that are used to determine that cathodic protection is adequate as required by the Storage Tank Act shall be in accordance with a code of practice developed by a Nationally recognized association.

I. FACILITY INFORMATION – Type or print (in ink) all items.

| | | | |
|--------------------------|----------------|---------------|--|
| Facility ID #: | Facility Name: | | |
| Facility Street Address: | | | |
| Facility Telephone: | County: | Municipality: | |

II. REASON SURVEY WAS CONDUCTED – Mark only one.

| | |
|--|--|
| <input type="checkbox"/> Routine / Required | <input type="checkbox"/> Re-survey after fail |
| <input type="checkbox"/> Post-Installation – within 6 months of installation | <input type="checkbox"/> Re-survey after repair/modification |
| Cathodic Protection Survey Date: _____ | SYSTEM TYPE – Mark one or both |
| Date next cathodic protection survey due: _____ (Required within 6 months of installation/repair and at least every 3 years thereafter). | |
| <input type="checkbox"/> Galvanic | |
| <input type="checkbox"/> Impressed Current | |

III. CATHODIC PROTECTION TESTER'S EVALUATION – Mark only one.

| | |
|--|--|
| <input type="checkbox"/> Pass | All protected structures at this facility pass the cathodic protection survey and it is judged that adequate cathodic protection has been provided to the UST system(s). |
| <input type="checkbox"/> Fail | One or more protected structures at this facility fail the cathodic protection survey and it is judged that adequate cathodic protection has not been provided to the UST system(s). |
| <input type="checkbox"/> Inconclusive | The cathodic protection tester is unable to conclusively evaluate the cathodic protection system. |

| | | | |
|--|--|------------------|--------|
| Tester's Name: | | Company Name: | |
| Address: | | City/State: | Phone: |
| Certification Source/Type: | | Certification #: | |
| Nationally Recognized Association Followed for Test: | | | |
| Tester's Signature: | | Date Signed: | |

IV. CORROSION EXPERT'S EVALUATION – Mark only one.

Section IV only needs to be completed if the cathodic protection system evaluation was conducted by a cathodic protection tester and was declared "inconclusive" in Section III above.

| | |
|--------------------------------------|--|
| <input type="checkbox"/> Pass | All protected structures at this facility pass the cathodic protection survey and it is judged that adequate cathodic protection has been provided to the UST system(s). |
| <input type="checkbox"/> Fail | One or more protected structures at this facility fail the cathodic protection survey and it is judged that adequate cathodic protection has not been provided to the UST system(s). |

| | | | |
|-------------------------------|--|------------------|--------|
| Corrosion Expert's Name: | | Company Name: | |
| Address: | | City/State: | Phone: |
| NACE Int./P.E. certification: | | Certification #: | |
| Corrosion Expert's Signature: | | Date Signed: | |

V. CRITERIA APPLICABLE TO EVALUATION – Mark all that apply.

| | |
|---|--|
| <input type="checkbox"/> 850 mV On | Structure-to-soil potential more negative than -850 mV with respect to a Cu/CuSO ₄ reference electrode with the protective current on (galvanic systems only). |
| <input type="checkbox"/> 850 mV Off | Structure-to-soil potential more negative than -850 mV with respect to a Cu/CuSO ₄ reference electrode with the protective current temporarily interrupted (galvanic and/or impressed current systems). |
| <input type="checkbox"/> 100 mV Polarization | Structure(s) exhibit at least 100 mV of cathodic polarization (galvanic and/or impressed current systems). |

VI. ACTION REQUIRED AS A RESULT OF THIS EVALUATION – Mark only one.

| | |
|---|--|
| <input type="checkbox"/> None | Cathodic protection is adequate. No further action is necessary at this time. Test again by no later than the date listed in Section II. |
| <input type="checkbox"/> Retest | Cathodic protection may not be adequate. Retest to determine if passing results can be achieved. |
| <input type="checkbox"/> Repair & Retest | Cathodic protection is not adequate. Repair or modification is necessary. |

Facility ID #: _____ Facility Name: _____ Survey Date: _____

VII. DESCRIPTION OF UST SYSTEM

Complete this section for each UST system that utilizes a cathodic protection system to meet corrosion protection requirements.

1. Indicate the Tank Sequence # from the facility's Storage Tank Registration/Permit Certificate (e.g. 001, 002, etc.)
2. Indicate if the tank is Double Wall (DW) or Single Wall (SW), and its type (e.g. steel, sti-P₃[®], fiberglass, composite, etc.)
3. Indicate if the piping is Double Wall (DW) or Single Wall (SW), and its type (e.g. fiberglass, flexible plastic, coated steel, galvanized, copper, etc.)
4. Indicate how metal pipe segments such as flex connectors and other pipe fittings are protected from corrosion (e.g. CP w/ anodes, booted, in containment, not in contact w/ soil, etc.)

| Tank # ¹ | Product | Capacity (gallons) | Tank Type ² | Piping Type ³ | Metal Segments at Tank ⁴ | Metal Segments at Dispenser ⁴ |
|---------------------|---------------|--------------------|---|--------------------------|-------------------------------------|--|
| <i>Ex. 001</i> | <i>Diesel</i> | <i>10,000</i> | <i>SW sti-P₃[®]</i> | <i>DW Fiberglass</i> | <i>CP w/ anodes</i> | <i>In Containment</i> |
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VIII. IMPRESSED CURRENT RECTIFIER DATA – Complete all applicable.

Rectifier Manufacturer: _____ Rated DC Output: _____ volts _____ amps

Rectifier Model: _____ Rectifier Serial Number: _____

Rectifier Output as Initially Designed or Lastly Recommended (if available): _____ volts _____ amps

| Event | Date | Tap Settings | | DC Output | | Hour Meter | Comments |
|------------|------|--------------|------|-----------|------|------------|----------|
| | | Coarse | Fine | Volts | Amps | | |
| "As Found" | | | | | | | |
| "As Left" | | | | | | | |

60-DAY LOG OF RECTIFIER OPERATION – Document the last three amp readings (plus volts and hours where available), recorded at least once every 60 days

| | Date | DC Output | | Hour Meter | Comments |
|-----------------------|------|-----------|------|------------|----------|
| | | Volts | Amps | | |
| Most Recent | | | | | |
| 60-Days Prior | | | | | |
| 120-Days Prior | | | | | |

IX. IMPRESSED CURRENT POSITIVE & NEGATIVE CIRCUIT MEASUREMENTS

Complete if the system is designed to allow such measurements (i.e. individual lead wires for each anode are installed and measurement shunts are present).

| Circuit | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total Amps |
|------------------|---|---|---|---|---|---|---|---|---|----|------------|
| Anode (+) | | | | | | | | | | | |
| Tank (-) | | | | | | | | | | | |

Facility ID #: _____

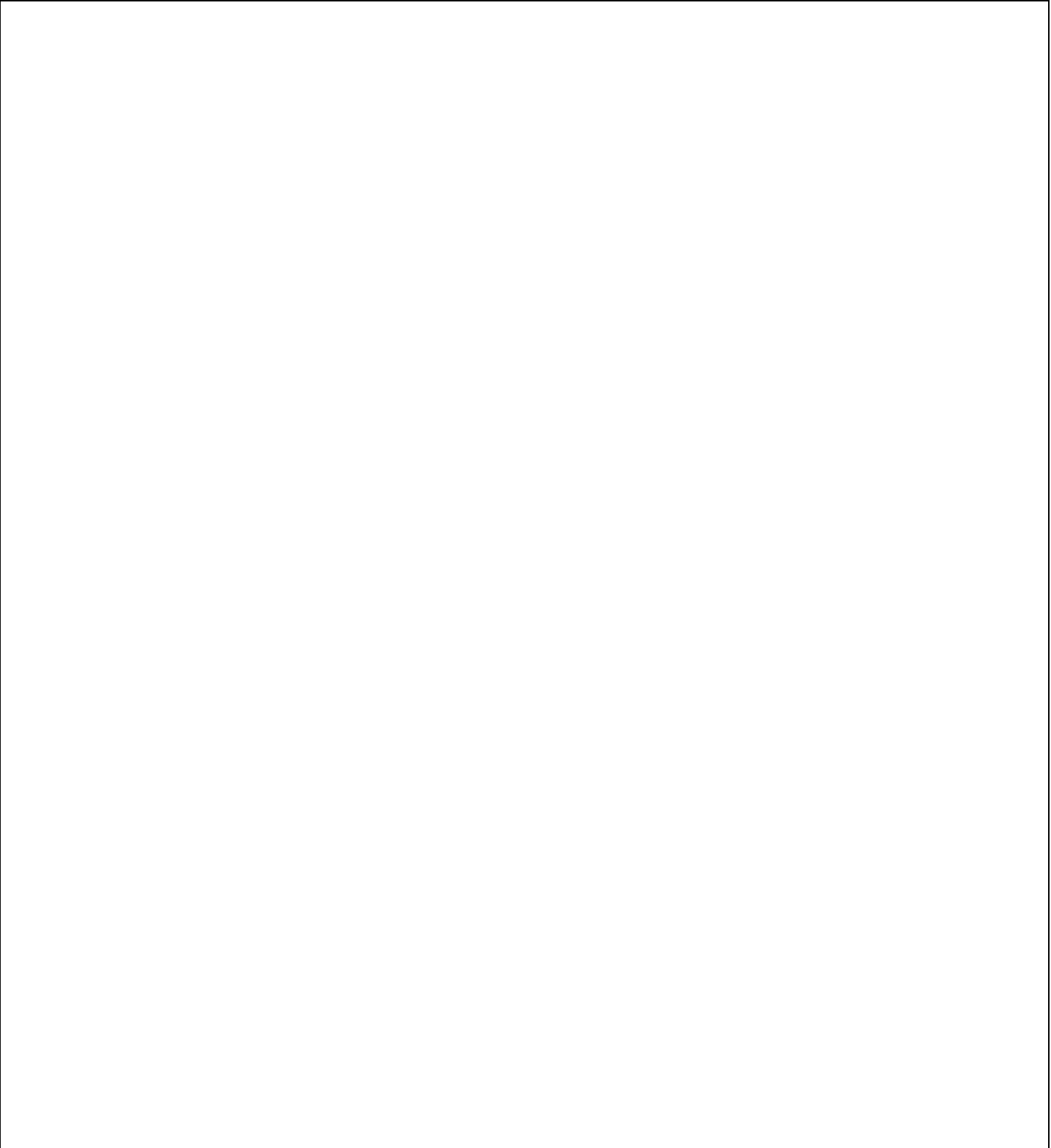
Facility Name: _____

Survey Date: _____

XII. UST FACILITY SITE DRAWING

Provide a detailed site drawing of the UST(s) and cathodic protection system(s) in the space below (or attach a detailed site drawing prepared on a separate sheet). At a minimum, indicate the following: all tanks, piping, and dispensers; all buildings and streets; all anodes, wires, and rectifiers; and the location of any cathodic protection test stations. In addition, clearly indicate where the reference electrode was placed for each structure-to-soil potential measurement. Label each reference electrode placement by the code (e.g. R1-IC, R2-G, R3-IC, etc.) that corresponds to the respective structure-to-soil potentials documented in Section XI. Any other pertinent data should also be included.

An evaluation of the cathodic protection system should not be considered complete without an acceptable site drawing.



Facility ID #: _____

Facility Name: _____

Survey Date: _____

XIII. COMMENTS

The comments section should be used to note additional information discovered or actions taken during the cathodic protection survey that affect compliance at the facility. For example, include comments concerning any observations made by the tester that would affect the survey results. Record phone conversations or email correspondence with DEP personnel that took place concerning this survey. If additional comment sheets are needed, label each sheet with the report header information and attach the sheet(s) to the back of this form.