



OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY  
Underground Storage Tank Program

CATHODIC PROTECTION TEST REPORT FORM  
COVER PAGE AND INSTRUCTIONS

Steel underground storage tank (UST) systems are required to have cathodic protection (CP) systems in order to prevent corrosion and possible failure of UST system components. These CP systems are required to be inspected and tested at regular intervals in order to demonstrate they are providing the necessary protection. This report form is intended to provide a format, technical references, and guidelines for adequate performance and documentation of cathodic protection (CP) system testing.

**CP System Testing Frequency and Reporting** - Oregon Administrative Rule (OAR) 340-150-0325(2), requires inspection and testing of CP systems within six months of installation and at least every three years thereafter. Owners and permittees of UST systems are required to report any failed CP system test results within 24 hours and submit a report of the test results. Passing CP system test results do not need to be reported to the DEQ. However, owners and permittees are required to keep records of CP system tests and must have the last two test results available for review during an inspection. Although only the last two CP test results are required to be kept, DEQ recommends that copies of all CP tests results be maintained for the operating life of the UST system.

**CP Testing Standards & References** - Oregon rules specify that inspection and testing of CP systems must be done in accordance with the National Association of Corrosion Engineers (NACE RP-0285), "Standard Recommended Practice: Corrosion Control of Underground Storage Tank Systems by Cathodic Protection." In addition, some UST manufacturers have specific procedures described for testing a CP system. For example, the Steel Tank Institute (STI), which manufactures the commonly found STI-P3 tanks, has a recommended practice for CP testing as well as a manufacturer's certification for testing STI tanks.

**CP Test Station** - Oregon Rules also require a permanent CP "test station" be installed or a written CP system test procedure be established. As described in OAR 340-150-0320(3)(d), a CP "test station" must have an electrical connection to the structure (tank and/or pipe) and access for placing a reference cell. A written test procedure must contain sufficient detail to ensure repeatable test procedures.

**Steel Tank Integrity Assessment** - Of critical importance in designing, installing, and testing of all CP systems is assessing the integrity or condition of the steel tank to be protected. Steel tanks and piping that have had CP systems installed must complete an integrity assessment of the steel tank as described by OAR 340-150-0560. Documentation of the integrity assessment must be kept with the permanent facility records and be available for review at the time of a DEQ inspection.

**Protection Of All UST System Components** –Oregon Administrative Rule 340-150-0325(1), requires CP for all UST system components that routinely contain product. This includes all stainless steel flex-lines, steel fittings, and steel piping, including those in dispensers and sumps, that may be in contact with soil, backfill material, and water. These steel UST system components must be isolated from the soil, backfill and water or have a CP system installed. CP systems installed to protect these portions of a UST system must be tested just as the CP systems that protect the tank(s).

**UST System Modifications & Repairs Notifications** – Both 30 & 3 day notices are required to “modify” a UST system. Modifying a UST system includes installation of a CP system that did not previously exist. For example, installation of spike anodes or ankle bracelets to pipe and/or fittings that did not previously have CP. Another modification example would be installing an impressed current CP system after a galvanic system has failed. An example of a CP system repair would be installing new anodes after failure of existing anodes

**UST Supervisor & Service Provider Licenses** – Installation, modification, testing, repair and replacement work with CP systems always requires both an Oregon CP Supervisor license and an Oregon Service Provider license. Design of field-installed CP systems must be done by a corrosion expert or engineer with appropriate background in CP system design.

## **USE OF THIS FORM**

Use of this form is voluntary. DEQ offers this form with the intent to establish a format that captures all the relevant information collected during an impressed current or galvanic (sacrificial) cathodic protection test. A complete report for record keeping consists of either:

Cathodic Protection Test Information Page (3) **and**

Impressed Current CP Test Results Report Page (4) **or** Galvanic CP Test Results Report Page (5)

## **HELP WITH THIS FORM**

If you have any questions about this CP system test report form, please phone your nearest DEQ Regional Office (see below for telephone numbers). You can also phone the UST Program’s toll-free Oregon number, 1-800-742-7878. This is a message answering machine for calls made in Oregon. Underground Storage Tank Program staff will return your call within 24 hours (one business day). You can also obtain UST program information from our web page at

**<http://www.deq.state.or.us/lq/tanks/ust/index.htm>**

NORTHWEST REGION Phone: (503) 229-5263	WESTERN REGION / COOS BAY Phone: (541) 269-2721
WESTERN REGION / SALEM Phone: (503) 378-8240	EASTERN REGION/THE DALLES Phone: (541) 298-7255
WESTERN REGION / EUGENE Phone: (541) 686-7838	



Facility Name \_\_\_\_\_ Test Date \_\_\_\_\_ Facility # \_\_\_\_\_

<b>IMPRESSED CURRENT CP TEST RESULTS REPORT PAGE</b>							
<b>RECTIFIER DATA</b>							
RECTIFIER MANUFACTURER:				RATED DC OUTPUT:		VOLTS	AMPS
RECTIFIER MODEL:				RECTIFIER SERIAL NUMBER:			
RECTIFIER OUTPUT AS INITIALLY DESIGNED OR LAST RECOMMENDED (if available):						VOLTS	AMPS
	DATE	TAP SETTINGS		DC OUTPUT		HOUR METER	COMMENTS
		Coarse	Fine	Volts	AMPS		
"As Found"							
"As Left"							
<b>STRUCTURE TO SOIL POTENTIAL MEASUREMENTS</b>							
ID	STRUCTURE	CONTACT POINT	REFERENCE CELL ID	ON	INSTANT OFF	100MV	
						NATIVE	CHANGE
<b>CP TEST STATION REQUIREMENTS</b>							
Have previous CP system test records been reviewed? <input type="checkbox"/> Yes <input type="checkbox"/> No				Has this CP test been performed consistent with previous CP system tests? <input type="checkbox"/> Yes <input type="checkbox"/> No			
If test procedures have changed since last test please explain: _____ _____ _____							
Have potential measurements been made at all tanks and piping including any buried flex-connectors? <input type="checkbox"/> Yes <input type="checkbox"/> No							
<b>COMPLETE IF ANY REPAIRS OR MODIFICATIONS TO THE CP SYSTEM ARE MADE OR ARE NECESSARY</b>							
Complete if any repairs or modifications to the cathodic protection system are made or are necessary.							
<input type="checkbox"/> Additional anodes for an impressed current system (attach corrosion experts design)							
<input type="checkbox"/> Repairs or replacement of rectifier (explain below)							
<input type="checkbox"/> Anode header cables repaired and/or replaced (explain below)							
<input type="checkbox"/> Impressed current protected tanks/piping not electrically continuous (explain below)							
Remarks/Other:: _____ _____ _____ _____							

