

STATE OF MISSISSIPPI

IMPRESSED CURRENT CATHODIC PROTECTION SYSTEM EVALUATION

- This form must be utilized to evaluate underground storage tank (UST) cathodic protection systems in the State of Mississippi.
- Access to the soil directly over the cathodically protected structure that is being evaluated must be provided.
- A site drawing depicting the UST cathodic protection system and all reference electrode placements must be completed.

I. UST OWNER		II. UST FACILITY	
NAME:		NAME:	ID #
ADDRESS:		ADDRESS:	
CITY:	STATE:	CITY:	COUNTY:
III. CP TESTER		IV. CP TESTER'S QUALIFICATIONS	
TESTER'S NAME:		NACE INTERNATIONAL CERTIFICATION NUMBER:	
COMPANY NAME:		MDEQ CERTIFICATION NUMBER:	
ADDRESS:		OTHER (EXPLAIN): _____	
CITY:	STATE:		

V. REASON SURVEY WAS CONDUCTED (mark only one)

- Routine - 3 year
 Within 6 months of installation
 Re-survey after repair/modification
 Other (specify): _____

VI. CATHODIC PROTECTION TESTER'S EVALUATION (mark only one)

- 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 (indicate all criteria applicable by completion of Section VIII).
- 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 (complete Section IX).
- INCONCLUSIVE** The adequacy of the impressed current system must be evaluated by a qualified corrosion expert (complete Section VII).

CP TESTER'S SIGNATURE:

DATE CP SURVEY PERFORMED:

VII. CORROSION EXPERT'S EVALUATION (mark only one)

The survey must be conducted and/or evaluated by a corrosion expert when: a) supplemental anodes or other changes in the construction of the impressed current system are made; b) stray current may be affecting buried metallic structures or c) an inconclusive result was indicated in Section VI.

- 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 (indicate all criteria applicable by completion of Section VIII).
- 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 (indicate what action is necessary by completion of Section IX).

CORROSION EXPERT'S NAME:

COMPANY NAME:

NACE INTERNATIONAL CERTIFICATION:

NACE INTERNATIONAL CERTIFICATION NUMBER:

CORROSION EXPERT'S SIGNATURE:

DATE:

VIII. CRITERIA APPLICABLE TO EVALUATION (mark all that apply)

- 850 INSTANT OFF** Structure-to-soil potential more negative than -850 mV with respect to a Cu/CuSO₄ reference electrode with protective current temporarily interrupted (instant-off).
- 100 mV POLARIZATION** Structure(s) exhibit at least 100 mV of cathodic polarization.

IX. ACTION REQUIRED AS A RESULT OF THIS EVALUATION (mark all that apply)

- REPAIR & RETEST** Cathodic protection is not adequate. Repair as soon as practical but within the next 90 days and retest.
- Repair Needed** Cathodic protection is adequate and passes, however there are boots or sumps present that do NOT adequately protect the piping termination from corrosion. Repair as soon as practical but within the next 90 days.
- ROUTINE MONITORING** Cathodic protection is adequate. Monitor the rectifier every 60 days to ensure adequate operation.
 If the rectifier amperage falls below _____ amps during routine monitoring contact a qualified person to investigate.
 The next "routine" cathodic protection survey must be conducted by no later than _____.

X. DESCRIPTION OF UST SYSTEM

TANK #	PRODUCT	CAPACITY	TANKS MATERIAL	INSTALL	PIPING MATERIAL	INSTALL
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

PIPING TERMINATIONS

LOCATION	TYPE OF CORROSION PROTECTION	LOCATION	TYPE OF CORROSION PROTECTION	LOCATION	TYPE OF CORROSION PROTECTION
(example) REGULAR STP SUMP	(example) GALVANIC	(example) DISP 1/2	(example) BOOTED	(example) PREMIUM STP	(example) I.C. SYSTEM

Cathodic Protection Reference Cell Calibration Information

Cell #	Date last calibrated	Calibrated by	Potential Difference (mV)
1			
2			
3			

Additional Description of UST System

Comments:

XI. IMPRESSED CURRENT RECTIFIER DATA (complete all applicable)

In order to conduct an effective evaluation of the cathodic protection system, a complete evaluation of rectifier operation is necessary.

RECTIFIER MANUFACTURER:	RATED DC OUTPUT:	_____ VOLTS	_____ AMPS
RECTIFIER MODEL:	RECTIFIER SERIAL NUMBER:		
RECTIFIER SHUNT: _____ mV = _____ Amps	SHUNT FACTOR = _____ Amps / mV		

"AS FOUND"	TAP SETTINGS OR RHEOSTAT %			DC OUTPUT										HOUR METER
	COARSE	FINE	RHEOSTAT	INDICATED VOLTS	INDICATED AMPS	MEASURED VOLTS	MEASURED AMPS							
								_____ (Shunt Voltage = _____)						
	POSITIVE AND NEGATIVE CIRCUIT MEASUREMENTS (Amps)											Anode Shunt Size =	0.01 Ω	
	CIRCUIT	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
	ANODE (+)													Amps
	STRUCTURE (-)													Amps

Mark this box if rectifier was not changed from the "AS FOUND" settings.

"AS LEFT"	TAP SETTINGS OR RHEOSTAT %			DC OUTPUT										HOUR METER
	COARSE	FINE	RHEOSTAT	INDICATED VOLTS	INDICATED AMPS	MEASURED VOLTS	MEASURED AMPS							
								_____ (Shunt Voltage = _____)						
	POSITIVE AND NEGATIVE CIRCUIT MEASUREMENTS (Amps)											Anode Shunt Size =	0.01 Ω	
	CIRCUIT	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
	ANODE (+)													Amps
	STRUCTURE (-)													Amps

XII. DESCRIPTION OF CATHODIC PROTECTION SYSTEM REPAIRS AND/OR MODIFICATION

Complete if any repairs or modifications to the cathodic protection system are made OR are necessary. Certain repairs/modifications as explained in the text of the MDEQ cathodic protection guidance document are required to be designed and/or evaluated by a corrosion expert (completion of Section VII required).

- Additional anodes added or replaced for an impressed current system (attach corrosion expert's design).
- Repairs or replacement of rectifier (explain in "Comments" below).
- Anode wires repaired and/or replaced(explain in "Comments" below).
- Negative wires repaired and/or replaced(explain in "Comments" below).
- Other (explain in "Comments" below)

Comments:

Description of Repairs Needed:

XIII. UST FACILITY SITE DRAWING

Attach detailed drawing of the UST and cathodic protection systems. Sufficient detail must be given in order to clearly indicate where the reference electrode was placed for each structure-to-soil potential that is recorded on the survey forms. Any pertinent data must also be included. At a minimum you should indicate the following: All tanks, piping and dispensers; All buildings and streets; All anodes and wires; Location of CP test stations; Each reference electrode placement must be indicated and correspond with the locations recorded in Section XIV of this form.

AN EVALUATION OF THE CATHODIC PROTECTION SYSTEM IS NOT COMPLETE WITHOUT AN ACCEPTABLE SITE DRAWING.

