

GALVANIC (SACRIFICIAL ANODES) CATHODIC PROTECTION SYSTEM EVALUATION

	KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION	<i>Mail completed form to:</i> DIVISION OF WASTE MANAGEMENT UNDERGROUND STORAGE TANK BRANCH 200 FAIR OAKS LANE, SECOND FLOOR FRANKFORT, KENTUCKY 40601 (502) 564-5981 http://waste.ky.gov/ust	FOR STATE USE ONLY

GENERAL INFORMATION

- This form shall 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 shall be provided.
- A site drawing depicting the UST cathodic protection system and all reference electrode placements shall be provided.

I. UST OWNER		II. UST FACILITY	
NAME:		NAME:	AGENCY INTEREST NUMBER:
		SUNOCO	16476
ADDRESS:		ADDRESS: 1911 US HWY 50	
CITY:	STATE:	CITY: BEDFORD, IN	COUNTY:
III. CP TESTER		IV. CP TESTER'S QUALIFICATIONS	
TESTER'S NAME: RYAN HARTMAN		CERTIFICATION:	
COMPANY NAME: MIDWEST TANK TESTING		☐ NACE ☒ STI ☐ OTHER (specify) _____	
ADDRESS: 316 W Indiana Ave.		CERTIFICATION NUMBER: CP-T1251	
CITY: Chesterton	STATE: IN	ZIP: 46304	EXPIRATION DATE: October 24, 2024
PHONE: 219-561-3401	E-MAIL:		
	ryan@midwesttanktesting.co		

V. REASON EVALUATION WAS CONDUCTED (MARK ONLY ONE)

- ☐ Initial – within 180 days of installation ☐ Reevaluation after fail due to adverse physical conditions – within 90 days
☒ Routine – 3 year ☐ Reevaluation after repair/modification – within 180 days

Date next cathodic protection system evaluation shall be conducted by: _____

VI. CATHODIC PROTECTION TESTER'S EVALUATION (MARK ONLY ONE)

Date of CP Evaluation: 5-10-23

☒ PASS	All protected structures at this UST facility pass the cathodic protection system evaluation 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 UST facility fail the cathodic protection system evaluation and it is judged that adequate cathodic protection has not been provided to the UST system (complete Section IX)
☐ INCONCLUSIVE	If the remote and the local potential readings do not both indicate the same test result on all protected structures (both pass or both fail), the cathodic protection system shall be reevaluated and/or retested by a corrosion expert (complete Section VII)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents, and that, I believe that the submitted information is true, accurate, and complete.

CP TESTER'S SIGNATURE: *Ryan Hartman*

DATE: 5/10/23

VII. CORROSION EXPERT'S EVALUATION (MARK ONLY ONE)

Date of CP Evaluation: _____

The evaluation shall be conducted and/or evaluated by a corrosion expert when: a) an inconclusive is indicated for any protected structure since both the local and the remote structure-to-soil potentials do not result in the same outcome (both pass or both fail); b) repairs to galvanized or uncoated steel piping are conducted or c) supplemental anodes are added to the tanks and/or piping without following an acceptable industry code.

☐ PASS	All protected structures at this UST facility pass the cathodic protection system evaluation 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 UST facility fail the cathodic protection system evaluation and it is judged that adequate cathodic protection has not been provided to the UST system (complete Section IX)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

CORROSION EXPERT'S SIGNATURE:

DATE:

****RETAIN A COPY OF THIS FORM FOR YOUR RECORDS****

AGENCY INTEREST NUMBER: 16476

VIII. CRITERIA APPLICABLE TO EVALUATION (MARK ALL THAT APPLY)

☒ 850 ON	Structure-to-soil potential more negative than -850 mV with respect to a Cu/CuSO ₄ reference electrode with the protective current applied. (This criterion is applicable to any galvanically protected structure).
☐ 850 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. (This criterion is applicable to those galvanic systems where anodes can be disconnected).
☐ 100 mV POLARIZATION	Structure tested exhibits at least 100 mV of cathodic polarization (This criterion is applicable to those galvanic systems where anodes can be disconnected).

IX. ACTION REQUIRED AS A RESULT OF THIS EVALUATION (MARK ONLY ONE)

☒ NONE	Cathodic protection is adequate. No further action is necessary at this time. Evaluate again 3 yrs from the date of this evaluation. (see section V for exceptions)
☐ REEVALUATION	Cathodic protection may not be adequate. Reevaluate during the next 90 days to determine if passing results can be achieved.
☐ REPAIR & REEVALUATION	Cathodic protection is not adequate. Repair/modification is necessary as soon as practical, but within the next 90 days.

X. DESCRIPTION OF UST SYSTEM EVALUATED

TANK	PRODUCT	CAPACITY	TANKS	PIPING	FLEX CONNECTORS STP	DISPENSERS
1	REG	10000	LINED STEEL	STEEL		
2	PREM	5123	FRP	STEEL		
3	DSL	5123	FRP	STEEL		
4						
5						
6						
7						

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

Provide detailed information about all modifications or repairs made to the cathodic protection system. Attach a detailed drawing of the UST facility and cathodic protection systems. Sufficient detail shall 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. At a minimum indicate the following: ALL TANKS, ALL PIPING, ALL DISPENSERS, ALL BUILDINGS AND STREETS, ALL ANODES AND WIRES, LOCATION OF CP TEST STATIONS, EACH REFERENCE ELECTRODE PLACEMENT (indicated by a code:1,2,T-1,T-2) CORRESPONDING WITH THE APPROPRIATE LINE NUMBER IN SECTION XIII OF THIS FORM.

☐ Supplemental anodes for metallic pipe (attach corrosion expert's design or documentation that industry standard was followed).

☐ Supplemental anodes for a sti-P³® tank (attach corrosion expert's design or documentation that industry standard was followed).

☐ Galvanically protected tanks/piping not electrically isolated (explain in "Remarks/Other" below).

Remarks/Other:

AGENCY INTEREST NUMBER: 16476

XII. GALVANIC (SACRIFICIAL ANODE) CATHODIC PROTECTION SYSTEM CONTINUITY SURVEY

This section shall be utilized to conduct measurements of continuity on UST systems that are protected by galvanic cathodic protection systems.

[illegible]

COMMENTS:

- 1 Describe the cathodically protected structure being demonstrated as isolated from unprotected structures (e.g. Premium Tank).
- 2 Describe the unprotected structure being demonstrated as isolated from the protected structure (e.g. premium tank fill riser).
- 3 Record the measured structure-to-soil potential of the cathodically protected structure {"A"} in millivolts (e.g. - 921 mV).
- 4 Record the measured structure-to-soil potential of the unprotected structure {"B"} in millivolts (e.g. - 915 mV).
- 5 Record the voltage observed between the protected and the unprotected structures when conducting point-to-point testing (e.g. 17 mV).
- 6 Document whether the test (fixed cell and/or point-to-point) indicated the protected structure was isolated, continuous, or inconclusive.

XIII. GALVANIC (SACRIFICIAL ANODE) CATHODIC PROTECTION SYSTEM SURVEY

[illegible]

- 1 Designate numerically or by code on the site drawing each local reference electrode placement (e.g. 1,2,3..., T-1, T-2, P-1, P-2,... etc.).
- 2 Describe the structure that is being tested (e.g. plus tank, premium piping, flex connector, etc.).
- 3 Describe where contact with the structure that is being tested is made (e.g. plus tank @ test lead, diesel piping @ dispenser 5/6, etc.).
- 4 Describe the exact location where the reference electrode is placed for each "local" measurement (e.g. soil @ plus tank STP, soil @ dispenser 5/6, etc.).
- 5 Record the structure-to-soil potential measured with the reference electrode placed "local" in millivolts (e.g. – 865 mV)
- 6 Record the structure-to-soil potential measured with the reference electrode placed "remote" (copy voltage that was obtained during continuity survey)
- 7 Indicate whether the tested structure passed or failed the – 850 mV "on" criterion based on the interpretation of the test data.

7 of 7

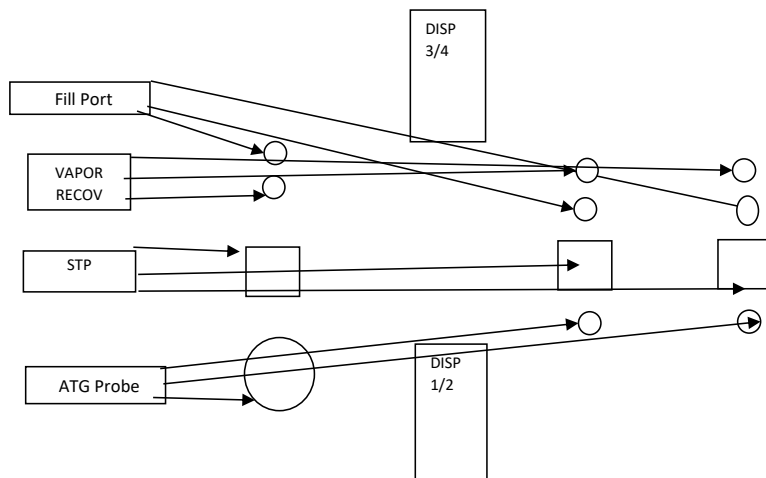


316 W Indiana Ave.
Chesterton, IN 46304

SITE DIAGRAM

Test Location Information	
Name and FID #	SUNOCO #16476
Address	1911 US HWY 50
City/State/Zip	BEDFORD, IN 47421
Contact	
Phone	812-278-9155

DATE AND TIME	5-10-23 7:55-10:25
WEATHER	50 SUNNY
COLLECT/INVOICE	COLLECTED
CLIENT EMAIL	
Testing Company Information	
Name	Midwest Tank Testing
Address	316 W Indiana Ave.
City/State/Zip	Chesterton, IN 46304
Phone	800-975-1436
Tech Name	Ryan Hartman
Cert #	02-6669





INDIANA HOMELAND SECURITY



Underground Storage Tank

RYAN A HARTMAN
606 JACOB DRIVE
WESTVILLE, INDIANA

STATE/PERMIT #
UC201511138C

ISSUE
05/26/2022

EFFECTIVE
05/27/2022

EXPIRATION
03/03/2024

DISCIPLINES

☐ Installation or Retrofitting

☐ Decommissioning Closure

☒ Cathodic Protection

☐ Decommissioning Removal

☒ Testing

The attached testing was completed at this site by an IDHS certified technician.

Technician's Signature: _____


Ryan Hartman



316 W. Indiana Ave.
Chesterton, IN 46304
(800) 975-1436
Serving the Midwest Since 1990