Agenda – 3 Day

STI/SPFA Cathodic Protection Tester Certification Course

DAY 1

1.	1. INTRODUCTION				
	a.	Introduce speakers, review class book, review agenda			
	b.	Exam pass/fail			
	C.	Expectations for certification			
2.	FUNDAMENTALS OF CORROSION				
	a.	Define corrosion terms			
	b.	Corrosion examples			
	c.	Galvanic and electrolytic corrosion			
	d.	Galvanic series of metals			
	e.	Equipment: reference cells, voltmeters, etc			
	f.	Equipment calibration			
3.	LAB A	– Metal to Electrolyte potentials			
4.	4. CATHODIC PROTECTION TESTING				
	a.	Reference Cell Placement			
	b.	Making electrical connection to tanks and other equipment			
	C.	Structure to soil potential readings			
5.	SACRAFICIAL CATHODIC PROTECTION SYSTEMS				
	a.	Fundamental corrosion cell			
	b.	Sti-P3 system			
6.	LAB B	– Sacrificial Anode CP			
7.	LOCAL	AND REMOTE READINGS			
	a.	What do they mean			
	b.	Why are they important			
	c.	Minimum number of readings per structure			
	d.	Stainless steel			
8.	LUNCH	(on your own)	NOON		

1:00 PM

9. RETURN TO CLASSROOM

DAY 1 AFTERNOON

10. CONTINUITY/ISOLATION TESTING

a. Fixed Cell Moving Ground

11. LAB C - Fixed Cell Moving Ground Continuity Test

12. CRITERIA

a. -850 mV ON criteria

13. MEET AT GALVANIC SYSTEM SITE

2:30 PM

- a. Safety
- b. Galvanic site testing
- c. Fixed/Cell Moving Ground and True Remote
- d. Discuss supplemental anodes/soil resistivity/current requirement test

DAY 2

1. REVIEW WHAT WE LEARNED AT GALVANIC SITE

8:00 AM

2. SPECIAL CASES OF GALVANIC – FLEX CONNECTORS

- a. Isolation from other structures
- b. Sumps
- c. Using 100 mV polarization criterion when testing galvanic systems

3. REVIEW OF GALVANIC SYSTEMS

4. IMPRESSED CURRENT CP

- a. Rectifiers
- b. Comparison of design vs galvanic systems
- c. Anode materials

5. TESTING IMPRESSED CURRENT SYSTEMS

- a. Measuring rectifier outputs
- b. Shunts

6. LAB D - Rectifier Outputs

7. IMPRESSED CURRENT CATHODIC PROTECTION TESTING

- a. Instant off readings
- b. Reference cell placement
- c. Number of readings

	b.	100 mV polarization, criteria graph				
10.	LUNCH	(on your own)	NOON			
11.	BACK I	N CLASSROOM	1:00 PM			
12.	2. CONTINUITY TESTING					
	a.	Point to Point for Impressed Current				
13.	LAB F –	Continuity Testing				
		Point to Point				
14.	MEET A	AT IMPRESSED CURRENT SITE	2:30 PM			
	a.					
	b.	Structure to soil setup				
		Rectifier review small groups				
	d.	Anode junction box review (if installed)				
	e.	Point to Point from rectifier negative				
DAY 3						
1.	REVIEW	WHAT WE LEARNED AT IMPRESSED CURRENT SITE	8:00 AM			
2.	ADDITI	ONAL FIELD TESTS				
	a.	Temporary bond connections				
2		Amperage operating percentage of design criteria WORK AND CP FORMS				
J.	I AI LIN	NORK AND CLIONING				
4.	FIELD T	ROUBLESHOOTING METHODS				
	a.	Soil resistivity				
		Current requirement				
	c.	•				
	d.	R972 Supplemental Anodes				
5.	SUMM	ARY AND REVIEW				
6.	LUNCH	(TAKEOUT on your own)	11:00 AM			

8. LAB E – Impressed Current CP Testing

9. IMPRESSED CURRENT CP CRITERIA a. -850 mV polarization

7.	RETURN TO CLASS	11:30 AM
8.	QUESTIONS ABOUT ANY SUBJECT COVERED DURING CLASS	
9.	EXPLANATION OF EXAM AND GRADING	
10.	START EXAM	12:30 AM