Table 1

Table 2

## TABLE 1

## NACE CERTIFICATION LEVELS FOR UST CORROSION PROTECTION

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|  |  | TRAINING/WORK EXPERIENCE IN  |
|--|--|--|
| (SECTION 2611  | NACE   | CORROSION CONTROL OF USTS TO OBTAIN NACE   |
| CCR)   | CERTIFICATION  | CERTIFICATION  |
| CORROSION<br>SPECIALIST<br>(Also, is defined as<br>corrosion expert by<br>USEPA)<br>(NACE certification is<br>required unless<br>person is a registered<br>PE with certification<br>or licensing in<br>corrosion control of<br>buried metal pipes<br>and tanks.) | Level 3<br>Cathodic<br>Protection (CP)<br>Specialist | <ul> <li>Cathodic protection (includes all areas of expertise under Cathodic Protection Specialist)</li> <li>Coatings and linings</li> <li>Metallurgy</li> <li>Plastics (non-metallic materials)</li> <li>Inhibitors (environmental treatment)</li> <li>Corrosion assessment</li> <li>Stray current or cathodic interference testing and analysis</li> <li>Corrosion control designs and recommendations</li> <li>Work /education experience is the same as for Cathodic Protection Specialist plus a Specialty Area Certification.</li> <li>System design and specifications</li> <li>Installation supervision</li> <li>System testing/commissioning</li> <li>Stray current/cathodic interference testing and analysis</li> <li>System maintenance</li> <li>Cathodic protection assessment</li> <li>Cathodic protection recommendations</li> <li>Analysis of cathodic protection feasibility</li> <li>Cathodic protection installation permits/licenses</li> <li>4 years CP work experience in responsible charge plus CP level 2 certification or equivalent training plus one of the following:         <ul> <li>8 additional years CP work experience plus 2 years post-high school training in math or science from an approved technical/trade school</li> <li>2 additional years CP work experience plus 4-years engineering or physical science degree</li> <li>Engineer-in-Training (EIT) registration or equivalent registration.</li> <li>Bachelor's degree in Engineering or physical science or physical science and an advance degree in engineering or physical science and an advance degree in engineering or physical science and an advance degree in engineering or physical science and an advance degree in engineering or physical science and an advance degree in engineering or physical science and an advance degree in engineering or physical science and an advance degree in engineering or physical science and an advance degree in engineering or physical scie</li></ul></li></ul> |

## TABLE 2NACE CERTIFICATION LEVELS FOR UST CORROSION PROTECTION

| SWRCB                  |            |   |
|------------------------|------------|---|
| DEFINITION             |            |   |
| (SECTION 2611          |            |   |
|                        |            | CERTIFICATION     Deform of advanced field tests and evaluate the results                                     |
| PROTECTION             | Cathodic   | <ul> <li>Verify stray current interference</li> </ul>   |
| TESTER                 | Protection | <ul> <li>Understand AC voltage and its mitigation</li> </ul>  |
| 120121                 | Technician | <ul> <li>Maintain advanced documentation and records, including</li> </ul>                                    |
|                        |            | data plotting   |
|                        |            | <ul> <li>Conduct and understand the importance or periodical</li> </ul>                                       |
| (NACE certification is |            | surveys, including IR Free readings and polarization  |
| not required;          |            | decay tests   |
| however, persons       |            | <ul> <li>Install, repair, modify and test rectifiers and component</li> </ul>                                 |
| noiding these NACE     |            | parts such as circuits  |
| viewed by SWPCP        |            | <ul> <li>Collect data on ER probes</li> <li>3 years CB work experience plus high school diploma or</li> </ul> |
| as fully meeting       |            | GED nlus CP level 1 certification or equivalent training  |
| regulatory             |            | -or-  |
| requirements.)         |            | 1 year CP work experience plus 4-year physical science  |
| ,                      |            | or engineering degree plus CP level 1 certification or  |
|                        |            | equivalent training   |
|                        |            | -or-  |
|                        |            | 2 years CP work experience plus 2-year post high school   |
|                        |            | training from an approved math or science technical/trade   |
|                        | Lovel 1    | School plus CF level 1 certification of equivalent training     Perform atmospheric corrosion inspections     |
|                        | Cathodic   | <ul> <li>Understand the basics of corrosion and cathodic</li> </ul>   |
|                        | Protection | protection theory   |
|                        | Tester     | <ul> <li>Conduct insulator tests and identify shorts in CP systems</li> </ul>                                 |
|                        |            | <ul> <li>Use test instruments to perform a variety of field tests and</li> </ul>                              |
|                        |            | take rectifier readings   |
|                        |            | <ul> <li>Install galvanic anodes and test</li> </ul>  |
|                        |            | <ul> <li>Read shunts and understand their use in rectifiers, bonds,<br/>and anedea</li> </ul>                 |
|                        |            | <ul> <li>Perform the periodic surveys such as structure to soil</li> </ul>                                    |
|                        |            | resistivity coupon tests offshore platform and riser  |
|                        |            | surveys, rectifier readings, and surveys of bonds and   |
|                        |            | diodes  |
|                        |            | Knowledge of reference cells and their installation, testing  |
|                        |            | and safety requirements   |
|                        |            | <ul> <li>Basic location mapping, report preparation and record</li> </ul>                                     |
|                        |            | Keeping   |
|                        |            | school diploma  |

## TABLE 2 (Continued) NACE CERTIFICATION LEVELS FOR UST CORROSION PROTECTION

| SWRCB<br>DEFINITION<br>(SECTION 2611<br>CCR)  | NACE<br>CERTIFICATION                | TRAINING/WORK EXPERIENCE IN<br>CORROSION CONTROL OF USTS TO OBTAIN NACE<br>CERTIFICATION   |
|---|--------------------------------------|--|
| CATHODIC<br>PROTECTION<br>TESTER  | Senior<br>Corrosion<br>Technologist  | <ul> <li>Installation supervision</li> <li>System testing and commissioning</li> <li>System maintenance</li> <li>Evaluation of system performance</li> <li>Eight years corrosion work experience, including four years in responsible charge,</li> <li>Or</li> </ul> |
| (NACE certification is<br>not required;<br>however, persons   | Corrosion                            | <ul> <li>Bachelor's degree in Physical Sciences or Engineering plus<br/>four years corrosion work experience in responsible charge.</li> <li>Installation supervision</li> </ul>   |
| holding these NACE<br>certification levels are<br>viewed by SWRCB<br>as fully meeting<br>regulatory<br>requirements.) | Technologist                         | <ul> <li>System testing</li> <li>System maintenance</li> <li>Installation work</li> <li>Routine inspections</li> <li>Preliminary data analysis</li> <li>Minimum of four years corrosion work experience</li> </ul>   |
|   | Corrosion<br>Technician <sup>1</sup> | <ul> <li>Routine system testing</li> <li>System maintenance</li> <li>Routine inspections</li> <li>Installation work</li> <li>Minimum of two years corrosion work experience</li> </ul>   |

NACE requires that a <u>Corrosion Technician</u> performing as a Cathodic Protection Tester must be directly supervised by a Corrosion Technologist, Senior Corrosion Technologist, Cathodic Protection Specialist, or Corrosion Specialist.

NOTE 1: A Corrosion Specialist is referred to as a Corrosion Expert by USEPA.

NOTE 2: NACE International Certification requires a combination of fulfillment of work experience and college education requirements as well as successfully passing a certification examination pertinent to the category of certification. All applicants must provide documented proof of acceptable work experience in the field of corrosion causes and mechanisms