DESIGN CRITERIA

1. Related Sections: Section 26 05 00 applies.
2. Summary: Cathodic protection is required for all buried or submerged ferrous structures (piping, valves, fittings, tanks, and the like).
   A. If extensive cathodic protection is required, the construction contractor shall retain the services of a qualified individual who is either a) a Professional Engineer Licensed in Corrosion Engineering, or b) accredited by the National Association of Corrosion Engineers as a Corrosion Specialist or Corrosion Technologist in cathodic protection. The qualified individual shall design and oversee the installation and testing of the cathodic protection systems, and certify at the conclusion of the work that the systems are installed and operating properly. The qualified individual shall also evaluate and mitigate any cathodic interferences that may arise on either existing or new utility lines or other metallic structures on the project site as a result of this construction.
   B. If only minor cathodic protection is required, the construction contractor shall provide the cathodic protection using packaged anodes, applied along with the installation of the protected structures.
3. Structures to receive cathodic protection must be coated with an electrically insulating coating resistant to the environment in which it is to be installed. Specifiers should include the coating requirement in the specifications for each structure to be protected.
4. Structures to receive cathodic protection must be electrically continuous over their entire length. Mechanical joints such as unions, flanges and dresser couplings do not ensure electrical continuity, and so will require bonding jumpers. Specifiers should include the bonding requirements in the specifications for each structure to be protected.
5. Structures to receive cathodic protection must also be electrically isolated from other conductive structures in contact with the earth or water, unless the other structures are also cathodically protected. Specifiers should include this requirement in the specification for each structure, using insulated couplings, unions or flanges, or insulating saddles, etc., to accomplish the required isolation.
6. Identify the structures that are to be cathodically protected on the Construction Documents. Edit DeCA Guide Specification 26 42 13, Cathodic Protection, as required for the individual project scope and materials included in the design. Follow the editing notes included as "hidden text" in the guide specification in determining whether the "minor" or "extensive" specification paragraphs are to be used. Do not include Section 26 42 13 if there is no underground utility work in the project, or if it is certain that there will be no ferrous materials subject to underground or underwater corrosion.

END OF SECTION