DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF

Contracting Division

September 8, 2003

Planholders:

1. Reference is made to Solicitation No. DACA63-03-B-0008, FY 03 PN 19960, Upgrade Water Systems, Fort Bliss, Texas.

2. Enclosed are answers to contractor questions that were submitted to this office for the referenced solicitation.

3. This enclosure is for information purposes only and is not a part of the Invitation For Bid.

Sincerely,

Richard D. Feller
Contract Specialist

Enclosure

Cathodic protection, Specification 13110

Q1. Section 1.2 Submittals, SD-06 “Test Reports” and 1.3.6 “Summary of Services”. Close interval surveys and stray current tests are normally performed on electrically continuous pipelines, not PVC pipe systems with iron pipe fittings. Please clarify the intent for this project.

A1. There are some continuous ductile iron and steel pipelines in the project.

Q2. Section 1.2 Submittals, SD07 “Certificates”. A corrosion expert is specified for all testing, construction observations, classroom training, etc. A corrosion expert is design as a NACE International Corrosion or Cathodic Protection Specialist or Texas PE with training and education dealing with corrosion and cathodic protection. The work required for the cathodic protection consultant is work that is normally performed by NACE Corrosion Technicians or Technologist at considerably less cost to the contract than an engineer or Corrosion Specialist. Can a person accredited by NACE International as a Technician or higher rating perform the fieldwork under the office supervision of the PE or Corrosion Specialist?

A2. The government will determine acceptability of qualifications after award.

Q3. Section 1.3.2 “Contractor’s Modifications” and 3.2.2 “Anode Installation” specifies a magnesium anode life of 25 years. Section 1.3.4 “Anode and Bond Wires: specifies full protection over a 30-year life. Magnesium anodes systems are normally designed for a theoretical 20-year life and an actual design life of 15 years. Adding more magnesium does not extend the life of the anodes, they will self corrode due to the impurities in the anode material. Please clarify the design life of the anode system.

A3. This is a COE standard specification.

Q4. Section 1.3.4 “Anode and Bond Wires” specifies bonding the iron parts of the system for electrical continuity. Does this include the follower rings on mechanical fittings such as a gate valve or 90 Fitting?

A4. Iron bolts will provide electrical continuity between fitting and follower ring.

Q5. Section 1.3.8 “Tests of Components” now shows no testing to be performed on any of the installed cathodic protection systems. The last line of that paragraph says ““Components requiring cathodic protection shall include but not be limited to the following.” There are no components. Should that sentence have included the word test, after the word protection?

A5. See Amendment 0004

Q6. Section 2.2.5 “Backfill Shields” are specified to cover the completed exothermic welds. The last two sentences of the paragraph seem to specify coating the mechanical joints using Kraft paper joint cover and poured-in hot coal-tar enamel. Is the intent of this is to completely cover a fitting? If so, we are concerned about the safety, environmental, and health issues when applying a hot applied coal-tar enamel coating, plus the costs in material, equipment, and manpower. There are suitable cold applied asphalt coating designed for ductile and cast iron fittings that have been successfully in use for more than twenty years.

A6. This is a COE standard specification. Alternates may be considered during the submittals process.

Q7. Section 2.2.8 “joint and Continuity Bonds” and specification section 02510A “Water Distribution System”, section 2.3.3 “Bonded Joints” are in conflict with each other. Please clarify the correct wire size for continuity bonding. Section 2.2.8 also refers to two bond wires between each structure. Please provide a detail to clarify the intent of the specification.

A7. This is a COE standard specification. The A/E recommends the use of Section 13110 requirements (the more rigid requirement).

Q8. Section 3.1.1.c specified a minimum of four readings for each isolated component that requires testing. This requires the use of a portable reference electrode. One set of readings (base line, on and immediate off) taken using the permanent reference electrode will prove or disprove the effectiveness of the installed system per a and b of the referenced specification section.

A8. Testing should follow the specifications unless approved otherwise by the government during construction.

Q9. Section 13.5 “Surge Protection” The ductile iron pipe in the optional areas are to be connected to the existing cast iron pipe to the well head. For cathodic protection to work, isolating fittings such a style 79 Dresser coupling should be used. Will surge protection be required at these locations?

A9. This is not properly referenced to cathodic protection. We believe the question to be related to the manifold replacement at Tobin Wells. The design connection between new and existing piping is via solid sleeve with mechanical joints. Therefore there should be no electrical continuity.

END