

Kennedy Substation Anode Bed Replacement

Scope:

Due to proximity concerns with a natural gas pipeline, JEA would like to replace its existing shallow anode bed and rectifier with a vertically oriented, electrically remote, deep well anode bed and new rectifier. The site has limited room clear of underground obstructions. Site visits are recommended and will be accommodated by JEA.

Details:

JEA to provide:

1. Access to site.
2. De-energization/Tagging of equipment in work area.

Contractor to provide:

1. Installation of a new 80V/20A rectifier with 6 coarse and 6 fine tap settings.
2. Vertical boring of the well, deep enough to contain an anode bed comprised of 10 LIDA 2.5cm X 100cm MMO anodes or similar. Approximate well depth of 350ft. The anode closest to the surface should be no less than 175' deep. Well to be furnished with concrete traffic box with cast iron lid. Flush or slightly above finished grade.
3. Anodes to be backfilled with Loresco SC-3 coke breeze or similar. Well can be backfilled with sand or similar once all anodes are covered sufficiently.
4. 10 anode junction box located near anode bed fitted with type RS shunts. Anode cables from well to junction to be in conduit. Box to be hot dip galvanized. Mounted to galvanized channel post or similar in concrete base.
5. Anode bed connections to be made of #6 dual extruded KYNAR/HMWPE cable.
6. Installation of a new negative lead from the anode junction box to rectifier approximately 200' away. #6 cable as described above in 1" conduit. Note: All trenching inside the substation will need to be hand dug. See photo for estimated route.
7. Replacement of existing shunt box with new hot-dip galvanized shunt junction box with room for 8 structure leads +1 rectifier lead. 10A/50mV shunts to be used for each structure. Existing structure leads to be re-used in new shunt box.

8. All drilling mud/oil should be vacuum excavated. All waste generated during project to be disposed of by the contractor.
9. AMPP Cathodic Protection Specialist (CP4) must be on site for duration of the project.
10. As-built diagrams showing location of anode bed, rectifier, and cables. Bill of materials included.

Questions about scope can be sent to Ryan Swartz (swarrc@jea.com)

