



Senior Corrosion Engineer

## Randy J. Geving, PE

Randy Geving has over thirty years of corrosion engineering experience in the water, wastewater, and oil & gas industries. Mr. Geving is a Registered Professional Corrosion Engineer and has served as engineering manager and lead project corrosion engineer for numerous water infrastructure projects. He has extensive experience in the design and installation of cathodic protection systems, condition assessment of metallic pipelines and concrete reinforced structures, metallic component failure analysis, and metallurgical materials selection for hydro processing and water/wastewater facilities.

### Project Experience:

#### Failure Analysis / Condition Assessment

Responsible for assessing condition and/or cause of failure of pipelines, tanks, steel reinforced concrete and other components. The analysis consists of field inspections and tests ranging from ultrasonic thickness measurements, pit depth readings, soil analysis, and cathodic protection measurements, and coating assessment. All test data, observations, conclusions and recommendations to prevent future failures are provided to the client in a report.

- **Coachella Valley Water District - Corrosion Assessment Of Ductile Iron Water Main**
- **City of San Diego - 31 Potable Water Pipelines**
- **City Of Oceanside - Morro Hills No. 2 Reservoir**
- **Jurupa Community Services District – 18-Inch Steel Force Main**
- **City of San Diego – Programmatic Sewer Force Main**
- **City Of San Diego - North City To San Vicente Pipeline**
- **City of Vista - Buena Vista Pump Station/Jefferson Street Bridge**
- **Eastern Municipal Water District - TVRWRF Rotary Drum**
- **Goleta Water District - El Camino Well Downhole**

#### Corrosion Program Management/Program Review

Responsible for defining, implementing and maintaining Municipality cathodic protection programs. Work includes reviewing and evaluating all existing corrosion control facilities for both piping and reservoirs, as well as defining and prioritizing future corrosion protection and monitoring needs to preserve the integrity of the systems.

- **Olivenhain Municipal Water District**
- **Leucadia Wastewater District**
- **Otay Water District**
- **Ramona Municipal Water District**
- **San Dieguito Water District**
- **Santa Fe Irrigation**
- **Vallecitos Water District**
- **Rainbow Municipal Water District**
- **City of Sunnyvale**
- **Santa Margarita Water District**

#### Cathodic Protection Data Collection/Analysis/Corrosion Support

Responsible for conducting data collection and analysis of new and existing

### YEARS OF EXPERIENCE

34

### YEARS WITH FIRM

13

### EDUCATION

B.S., Metallurgical Engineering,  
California Polytechnic State University,  
San Luis Obispo, 1987

National Association of Corrosion  
Engineers (NACE Int'l)

- Cathodic Protection Theory

### CERTIFICATIONS

California Registered Corrosion  
Engineer No. CR-1060

NACE Int'l:

- CIP Level 1, No. 28714

Confined Space Entrant/Attendee

### PROFESSIONAL AFFILIATIONS

National Association of Corrosion Engineers  
(NACE Int'l)

cathodic protection systems on buried metallic pipelines and steel storage tanks. Newly installed facilities are inspected and tested to ensure compliance with project design documents. Testing on existing facilities identifies areas which require remedial measure in order to achieve or maintain the desired level of corrosion protection. Follow-up testing is often required to troubleshoot areas of low protection. This testing includes electrical continuity testing and stray current interference testing along selected reaches of pipeline.

- **City of Oceanside - Guajome Reservoir Waterproofing Project**
- **City of Oceanside - Mesa Drive 24-inch Pipeline**
- **City of San Diego - Catalina Standpipe Replacement Project**
- **City of San Diego - Cathodic Protection of Critical Mains Project**
- **City of San Diego - Pacific Highlands Ranch PR Station**

#### **Cathodic Protection Design**

Responsible for designing new and retrofit cathodic protection systems for buried metallic pipelines and aboveground water storage tanks. Designs, galvanic anode and impressed current, take into account soil conditions, coating options, power availability and other parameters in order to achieve the most cost effective means of long term corrosion protection in accordance with nationally accepted standards.

- **South Coast Water District - Submersible Pump Cathodic Protection Design**
- **City of San Diego - NCW Reclamation Plant Expansion**
- **City of San Diego - City Pure Water Facility**
- **City of San Juan Capistrano - Calle Pinon Pressure Reducing Station Replacement Project**
- **Olivenhain Municipal Water District – Rancho Santa Fe Road Cathodic Protection Retrofit**

#### **Corrosivity Assessment**

Conduct in-situ corrosion assessments along pipeline alignment or project site to determine aggressiveness of soil to buried metallic utilities. Assess stray current interference risk from foreign utilities. Review project geotechnical data, including soil sample analysis data pertaining to soluble salt content, pH and resistivity. Provide client with summary report which includes all pertinent data, conclusions and recommendations in order to minimize the risk of future leaks on utilities due to external corrosion.

- **Coachella Valley Water District – North Shore Water Main**
- **Coachella Valley Water District – Reservoir 4602-2**
- **City of San Diego – North City Pure Water Facility Expansion**
- **City of San Diego – Otay 2<sup>nd</sup> Pipeline Phase 1, 2, and 3**
- **City of San Diego – Cielo and Woodman Pump Station**
- **City of Corona – Home Gardens Water Transmission Pipeline**
- **City of Ontario/Upland - Pipeline Project**
- **City of Poway – Liguori Reservoir**
- **Jurupa Community Services District - 24-inch Force Main Project**

#### **Thermal Resistivity Assessment**

Testing is conducted in the field or in a laboratory from samples of soil varying densities and moisture contents. Testing is conducted in general accordance with the standard method ASTM D5334-08 which calculates thermal resistivity by monitoring the dissipation of heat from a line heat source. Data and conclusions are provided to the client in a summary technical memo.

- **Solar Gen II Project**
- **Imperial Valley Solar Company 2 - Solar Farm project**
- **Imperial Irrigation District - Highline Substation project**
- **Dixieland Solar East & West Project**

More Experience Available Upon Request