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Date	**Location**
Tuesday, February 13th, 2024	**Zio Fraedo's Restaurant** 611 Gregory Lane, Pleasant Hill, CA. (925) 933-9091

Time: No Host Bar 5:30 pm • Dinner 6:30 pm • Program 7:15 pm

Cost: $10 AMPP members/non-members, and General Public

Please RSVP immediately by the Eventbrite. Cancellation deadline is Friday February 9th 2024. No-Shows waste our Chapter Money
Visit the Section Website at www.ampp-norcal.org

If you need additional information, please send the email to AMPPNORCAL@OUTLO OK.COM or Contact any Officers as listed

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TOPIC: COPPER GROUNDING CORROSION OF STEEL PIPE IN POWER PLANTS

SPEAKER: Mark Middleton
Calpine Corrosion Engineering Manager

ABSTRACT:

Power plants that provide electrical AC power for our power grid have adopted a policy of installing large copper ground grids for personal safety purposes. Grounding of cathodically protected piping has created challenging corrosion problems. When preparing to build a power plant, a cathodic protection design should be completed which will prevent corrosion of piping systems critical to operation of the plant or which contain hazardous material that could present a safety hazard if a corrosion leak occurs.

Interpretation of NACE/AMPP RP0169 criteria can be complicated. Taking a closer look the way corrosion criteria is interpreted can help operators to understand bi-metallic corrosion and the way it affects cathodic protection systems. This presentation will discuss the behavior of electrical currents when copper is bonded to steel and how corrosion activity can be arrested through electrical isolation. Case histories of corrosion damage to buried piping in power plants will be reviewed.

BIOGRAPHY:

Mark Middleton has been a NACE member since 1982 and is a Corrosion Specialist. He is NACE CIP, Pipeline IMP and Internal Corrosion Certificated. In 1993, he was Chairman of the Bay Area Section of NACE. He graduated from Morehead State University with a BS in Material Science.

For 24 years, He has managed Calpine's Corrosion Control Program for pipelines, gas fired power plants and geothermal power plants. Calpine's facilities include large volume of geographically separated sites with diverse corrosion design, operation and maintenance issues.