

# INSTACOTE



ENGINEERING SERVICES/ENVIRONMENTAL COATINGS

## **PROJECT PROFILE: Richard Hogue/Rock Neveau**

**Project:** Humboldt Bay Nuclear Power Plant

**Contractor:** PG&E, Humboldt Bay Reactor, Plant Decommissioning Project

**Date:** February, 2010 - Present

### **Scope of Work:**

Provide engineering planning and field support for application equipment and training of on-site personnel to stabilize contaminated ducts and BWR reactor components in support of plant decommissioning. Participate in strategy meetings with project management to determine best means approach for stabilizing reactor systems. Perform walkdowns and review of drawings with a deliverable of recommendations for engineered contamination controls. Train PG&E workers in the use of necessary equipment and methods to apply and deliver selected contamination control products. Provide field engineering guidance and technical support during application of stabilization coatings and structural foam.

### **Stabilization Methods and Materials:**

Wetting agent *CC WET*<sup>™</sup> prevented loose radiological particulates becoming airborne during demolition. . Use of this wetting agent provided a passive approach which prevented or reduced the potential to create an airborne problem. A remote fogging technology was used to stabilize the primary turbine and both primary, secondary heat exchangers and associated ducts. Wetting agents were also directly misted into primary coolant and steam condensate piping systems using garden sprayers.

A fixative coating *CC FIX*<sup>™</sup> was applied using both garden sprayers and airless sprayers to both external and internal reactor piping systems to permanently fixed loose contamination.

Structural foam *Autofroth*® was delivered into reactor ventilation ducts to control internal loose contamination during size reduction.

### **Application technique:**

The wetting agent *CC WET*<sup>™</sup> was applied using both garden sprayers and *Dynafoggers*® The fixative *CC FIX*<sup>™</sup> was applied using airless sprayers and garden sprayers. *Autofroth*® structural foam was delivered using BASF SL 330 foam system.

### **Results:**

Recommendations for engineered controls were implemented. The use of the fogging technology allowed for the reactor turbine and heat exchangers to be stabilized remotely. Both wetting agents and fixative were delivered in the ducts and pipes. Injection of the foam in to the ducts has been performed. To date decommissioning work on stabilized equipment and systems has generated no suspension of airborne radioactivity and no spread of radiological contamination.

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