



Lead Paint Removal Project on Aircraft Carrier

Year-long renovation project included heavy metal, lead paint removal



Project Description

The USS Roosevelt aircraft carrier, CVN-71, was undergoing a major renovation. After nearly 25 years of service, the USA's nuclear aircraft carriers undergo a 3-year maintenance period to refuel their nuclear reactors, upgrade and modernize combat and communication systems, and overhaul the ship's hull, mechanical and electrical systems. This is called a Refueling and Complex Overhaul (RCOH).

During an American Nimitz Class carrier's 50 year life span, it has 4 Drydocking Planned Incremental Availabilities and 12 Planned incremental availabilities. It has only one RCOH, however, which is the most significant overhaul the ship receives during its 50-year life span.

For Waco's part in the overhaul, the paint originally used on the decking was comprised of lead, cadmium, and other heavy metals. The paint had to be removed as part of the renovation project and the lead contaminants required a licensed contractor.

Waco was hired as a sub-contractor specifically to remove the heavy metal paint coatings from the deck in preparation for laying down new flooring. The project began with lead paint removal from six berthing compartments and grew to seventy-five compartments spanning nearly a full year.

Normal protective efforts were taken to regulate and isolate the areas being renovated. Compartments were barricaded using polyethylene sheeting, and fans were used to create negative pressure preventing air from going out of the protected areas. Paint removal tools, including needle guns and deck crawlers equipped with Hepa filters, were used to remove the thick paint coatings and capture the residue. Angle and side grinders with abrasive pads were used in tight areas. Any remaining paint residue was then cleaned up with rags and vacuums, and bagged for disposal.

Unique Project Challenges

- 1 The nature of the project required compliance with several OSHA regulations, which caused extra challenges around worker safety, productivity, and time scheduling.
- 2 The project grew from 6 to 75 compartments, and the logistics associated with moving personnel and equipment throughout a large ship required precise planning in order to stay on schedule. Eighteen change orders occurred due to the expanded project scope.

Why Waco was chosen – experience, reputation and licensed personnel

Waco's experience and reputation doing this kind of work in a shipyard was a significant reason Waco got the job. The challenges associated with working in complex and confined spaces require a unique expertise that Waco has developed over the years. In addition, Waco's overall reputation and extensive resume of successful lead paint removal projects was of great value to the general contractor. Confidence that Waco could apply an adequate number of trained and licensed personnel, along with a commitment to complete the project within the tight timeframe were also influential in Waco winning the project.

Summary of Results

Rex Luzar, Waco Vice-President, was Project Manager on this project. He, along with Waco's trained and licensed personnel were able to complete the project in the scheduled time, providing the general contractor with clean, renovation-ready compartments for the next set of contractors. Waco was the first trade on the project, and while the size of the project grew immensely, the Waco team was able to modify its project plans and deploy more resources to complete the renovations without causing any delays. The project was completed on-time with no workplace injuries.

Project Scale

Heavy-metal paint removed from more than 75,000 square feet of decking in 75 different compartments

Total project spanned nearly a year in total

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