CCC&L

Federal Highway Research Project Comprehensive Project for Lead Construction Issues

Corrosion Control

Client/Owner: Federal Highway Administration
Project Location: Various sites in the United States; CCC&L Location in Grand Rapids, MI

CCC&L was able to investigate many issues involved in lead removal of steel structures with the funding from this grant. The objectives of this research were:

- To identify and evaluate available containment methods for removing lead-containing paint.
- To determine the design and operational criteria and develop concepts for negative-pressure containment systems.
- To identify and evaluate alternate cleaning methods and associated containment systems for productivity, degree of containment, and the job cost per square foot.
- To identify waste disposal sites, their capacities, and disposal costs.
- To identify and evaluate viable alternatives of disposal or use of blast residues as raw materials.
- To meet these objectives the following tasks were performed:
    - Identify the current problem elements impacting the removal, containment, recovery and disposal of lead-containing bridge maintenance waste.
    - Identify new technology, equipment, and methods that demonstrate significant potential for successful application to the problem of removing lead-containing paint from bridge structures in cost-effective and an environmentally acceptable manner.
    - Identify the current constraints, practices, methods and costs associated with the technology identified and assess their impact on bridge maintenance program.

Because CCC&L was able to erect an actual bridge at its location, various containments and environmental monitoring could be tested and observed under more controlled situations as well as at actual industrial painting sites.

In addition the various laboratory methods for determining lead in paint were evaluated in the CCC&L Environmental Laboratory.

The research concluded with the publication of an FHWA report, publication No. FHWA-RD-94-100, entitled "Lead-Containing Paint Removal, Containment, and Disposal."