Research and Development – A Lead Paint Decision Tree

CCC&L

Corrosion Control

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US Army Corps of Engineers
Engineer Research and Development Center

Decision Tree for Lead-Based Paint Hazard Control and Abatement for Steel Structures

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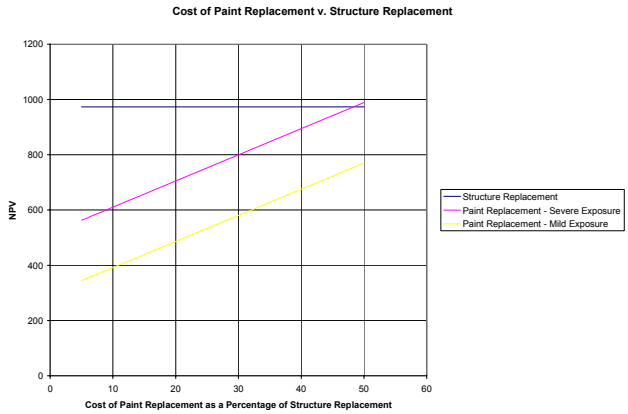

Client: Department of Defense - US Army Corps of Engineers

A decision tree was developed to provide support for Army personnel tasked with making decisions related to lead paint management for steel structures. The decision tree, using binary recursive partitioning, yields eight different outputs on 24 branches using only eight criteria. All but one output requires the user to perform an additional economic analysis to ascertain the most cost-effective decision. Outputs for paint removal and replacement include paint removal methods as well as applicable surface cleanliness and containment standards. Successful application of the decision tree requires the user to be knowledgeable about steel structures and coatings, and to have access to specific data about the target structure and its location. The tree is presented graphically as branches showing the logic flow for each decision. The tree is also easily programmable on a desktop computer using the "logical IF" function found in standard business spreadsheet programs.