

Fort Ord Ecobond® LBP Lead-Based Paint Conversion



Client: Fort Ord Reuse Authority
Location: Fort Ord, Marina, California
Date: 2002

New Technology

ECOBOND® LBP, a new environmental coatings technology, has been widely tested and deployed nationwide at former and operating military bases as well as by numerous municipal community redevelopment organizations and demolition contractors. ECOBOND® LBP technology benefits include:



- Enhanced environmental protection of the air, soils and workers during removal/demolition and elimination of RCRA hazardous waste generation.
- Significantly reduced cost as the coating is paint-like allowing for ease of application at a cost comparable to regular paint resulting in a typical barracks building cost of less than \$1,000 total cost including materials and labor to apply.
- Supports economic development by preventing the generation of hazardous waste, allows for recovery and reuse of materials and is readily deployable by local contractors.

Description

The patented ECOBOND® LBP technology is based on proven lead-phosphate chemistry in an innovative application to stabilize and convert lead in painted surfaces. ECOBOND® LBP treatment method uses a standard water based paint containing patented chemicals that, on a molecular level, react with the lead in the paint creating a lead-phosphate mineral, which is inherently stable. The coating can be applied by standard equipment, roller or spray, as a maintenance step prior to demolition providing the additional benefits of encapsulating the LBP and minimizing its dispersion into the air, soil and work zones during the demolition activities.

The U.S. Department of Defense used LBP on its buildings until the late 1970's. Thus, millions of buildings present a potential environmental lead hazard liability. Historically, there have been few economical and environmentally compliant choices for managing LBP hazards from abandoned buildings or buildings scheduled for demolition and disposal. Previously, either the LBP had to be removed or the building materials needed to be managed and disposed of as a regulated, hazardous waste.

“ECOBOND® [LBP] proved itself in a demonstration on 26 buildings at Ft. Ord. The product works and offers potential for future savings.”

-Stan Cook, Project Manager, Ft. Ord Reuse Authority

Upon application, ECOBOND® LBP converts building materials coated with lead based paint (LBP) into non-hazardous waste. This technology was utilized in full-scale application on twenty buildings undergoing demolition and waste disposal at a California BRAC facility. The Fort Ord Reuse Authority (FORA) faced demolition and disposal of 1,200 buildings (over seven million square feet) with LBP. MT2 was hired to deploy the ECOBOND® LBP conversion technology during the first phase of building demolition, which consisted of approximately 20 buildings and approximately 2,000-tons of building debris.



- Application of ECOBOND® LBP allowed the building debris to be disposed of as a non-RCRA hazardous waste.
- This produced a savings of \$500,000 if this building material had been disposed of as a hazardous waste.
- The project was completed with the oversight of the federal, state of California and local regulatory agencies
- The projected savings for demolition and disposal of the remaining Fort Ord buildings was estimated at over \$10 million.

KEY DATA

Problem: LBP coated building materials generate large volume of hazardous waste during demolition.

Remedy: In-place conversion of LBP coated building materials into non-RCRA hazardous materials

Project Value: \$100,000 for approx. 100,000 sq ft.

ADVANTAGES

- Avoids the generation of RCRA hazardous waste
- Applied in-place, and remains on surface during demolition
- Reduced lead particulate dispersion during demolition
- Savings of \$500 K