

N311. Emphasis on Contamination Control Brings MOOSE to FMC Superfund Site

In 1982, a contractor discovered hot spots of pesticide contaminated concrete within the Farm Machinery Corporation's (FMC) facility buildings. It was determined that the contaminants had bonded with the concrete and that future adverse health effects could occur through dermal contact.

It was decided to decontaminate the building through physical removal of the offensive concrete surfaces by scabbling, a well established scarification process. The conventional concrete removal procedures which involve design, construction, maintenance, and disposal of containments is very time-consuming and costly. The MOOSE, with its integrated scabbling head and High Efficiency Particulate Air (HEPA) vacuum system, was selected as the most effective tool for concrete remediation.

Although surface hardeners were used in the original concrete slabs to protect against their deterioration, the MOOSE was able to cut through the rough outer surface to remove a nominal 1/8 inch of concrete over a 10,000 square feet area. The onboard HEPA vacuum and waste packaging unit deposited all decontaminated concrete dust and debris into compact, 23-gallon drums situated just below the vacuum collection unit.

Since no chemical, water, or abrasive media were used in the scabbling process, waste generation was held to an absolute minimum. Moose started life in a nuclear power plant environment, scabbling floors and vacuuming. Its success with decontaminating a chemical environment is a good example of transfer of technology from one industry to another. The wider applicability of robots will be instrumental in not only making them cheaper, but also more robust and able to handle a multitude of environments and tasks.

For more, "Emphasis on Contamination Control Brings MOOSE to FMC Superfund Site," PENTEK Ink, pp. 1-2, August 1993. For further information, contact PENTEK Inc., (412)262-0725, 1026 Fourth Avenue, Coraopolis, PA 15108.