

ENTERED

TA-21

MDA-B

Investigation/Remediation
Work Plan
Implementation
Work Stoppage

Beryllium discovered at Manhattan Project-era excavation

March 10, 2011



A control room video monitor shows jars of beryllium discovered at MDA B.

Worker protection program will be implemented

Work stopped last week inside one of four active digging enclosures at Material Disposal Area B, the Manhattan Project-era landfill on DP Road.

An excavator digging several feet below the surface uncovered about 15 glass jars containing shavings of a gray metal. Some of the jars were broken and the lids were rusty.

The excavation was taking place inside one of several large, sealed buildings (Enclosure 9) at the site, equipped with dust suppression and high-efficiency air filtration. The workers were all wearing protective suits with supplied air. A quick air sample confirmed that there was no airborne beryllium dust.

No material escaped

None of the material escaped the building, no workers were exposed, and there is no risk to the public. Work was immediately paused, and the metal shavings were sampled.

Two days later, an independent lab confirmed that the shavings are beryllium.

"We have a pretty robust process for dealing with anything unusual uncovered during excavation," said Kevin Finn, MDA B program manager. "Just as with some other unusual items we've found, the same processes, training, and questioning attitude worked."

Why beryllium is toxic

Beryllium is toxic because it can cause scarring and inflammation in the lungs, especially among people who have beryllium sensitivity. This is a condition in which the body's immune system tries to trap tiny beryllium particles in the lungs, causing scarring

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and making them incapable of getting enough oxygen. While most people do not have beryllium sensitivity, DOE has an extensive program to protect those workers who do.

The program includes, among other things:

- Blood tests to determine beryllium sensitivity
- Restricted access to areas where beryllium is used
- Respirators or supplied air and protective suits
- Training
- Labeling
- Alarms if ventilation systems fail

LANL is now implementing those requirements for Enclosure 9. Work continues in several other enclosures at MDA B.