



**US Army Corps
of Engineers®**

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**QUESTIONS AND ANSWERS
LUCKEY SITE (OHIO)
FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM
(FUSRAP)**

May 2017

1. How does the U.S. Army Corps of Engineers ensure the cleanup process for the Luckey Site is safe for the public and the environment now and in the future?

During the cleanup, transport, and disposal of contaminated material, Corps contractors are:

- a) Required to follow all required federal and state environmental and health and safety regulations for this site.
- b) Required to prepare technical work plans which detail the specific means and methods used to conduct the cleanup, which are reviewed and accepted by the Corps.
- c) Required to establish contamination control measures to ensure that contamination is not spread to non-impacted areas and have a monitoring program to prove the effectiveness of these controls for air, water, soils, and all tools, machinery, and people performing the cleanup. Rigorous quality assurance oversight is performed by the Corps to ensure work plan procedures are followed per the contract scope of work, safety standards, and work plan activities.

2. What does the Corps do to ensure a disposal facility is safe for the public and the environment now and in the future?

FUSRAP wastes are only disposed in facilities properly licensed and/or permitted to receive them. The Corps Radiation Safety Support Team inspects and audits waste treatment and disposal facilities to ensure these safety standards are met for FUSRAP wastes. This will include an independent evaluation of the facility including a rigorous review of past facility performance, its operational safety record for workers and the environment, and its compliance with all applicable regulatory and permit license conditions.

The Corps and its contractors will coordinate with the appropriate state regulators during the disposal process. In regard to potential FUSRAP material disposal at the US Ecology facility (Wayne Disposal, Inc. [WDI]) in Belleville, Michigan, Corps' health physicists, engineers, and scientists have participated in numerous informational meetings with municipal, county, and state government representatives.

3. Why was WDI selected as one of the two disposal sites for Luckey Site material?

WDI was identified by the Corps' remedial action contractor based on the Corps' evaluation that the facility is safe and properly permitted to receive the low-activity radioactive waste stream expected to be generated at the Luckey Site and other FUSRAP sites.

4. What is the material that the Luckey Site plans to send to WDI?

The material is primarily soil contaminated with beryllium, lead, and naturally occurring radioactive materials (radium, thorium, and uranium). These radioactive materials are known in the industry as Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM). WDI routinely accepts TENORM from commercial sites for disposal.

5. How will the contaminated materials be safely disposed of to protect human health and our environment for future generations?

Soils will be placed in secure steel shipping containers lined with large sealed bags. Trucks will haul the containers directly to the disposal facilities where the sealed liner bags will be removed and placed directly within the landfill cell. Trucks and containers will be properly labeled and handled in accordance with U.S. Department of Transportation regulations. WDI is permitted to receive material from the Luckey Site and is responsible for complying with all permit requirements that are established by the Michigan Department of Environmental Quality.

6. What is the specific level of contamination of the Luckey Site waste?

The estimated exposures to facility workers and members of the public from the disposal of FUSRAP wastes are well below federal and state limits and would be a small fraction of the annual dose that a person in the U.S. receives. The estimated annual dose to a future on-landfill resident (2.4 - 7 millirem) is in the range of a typical chest x-ray (3 - 10 millirem).

Based on in-situ sampling, the soils exhibit the following waste characteristics:

- Average beryllium concentrations of 228 ppm (parts per million)
- Average lead concentration of 199 ppm
- Average activity of the TENORM is 18 picocuries per gram (pCi/g) of radium-226

7. How much contaminated waste is being shipped for disposal at WDI from the Luckey Site?

It is anticipated that a significant portion of the 130,000 cubic yards of material that is being excavated from the Luckey Site could be disposed at WDI. The number of truckloads (estimated at up to 5-8 per day), contamination levels, and shipping frequency and duration will vary throughout the project lifecycle.

8. When is contaminated waste scheduled to be transported from the Luckey Site to the WDI?

The Corps anticipates that excavation and shipment of contaminated materials from the Luckey Site will begin in the fall of 2017.

9. How long will it take to safely dispose of the materials from the Luckey FUSRAP Site?

The Corps anticipates it will take at least 10 years to complete the cleanup at the Luckey Site subject to future national FUSRAP funding levels.