222-S* Laboratory

Operating Unit #8

- Located directly south of REDOX, one of Hanford’s plutonium-processing plants.
- Began operations 1951, during the Cold War, to support work at REDOX.
- Now supports cleanup work for most of Hanford.

The permit does not regulate the entire laboratory, just four areas:
- 219-S Tank System.
- 222-S Dangerous and Mixed Waste storage area.
- Room 4-E storage area.
- The northern portion of Room 2-B storage area.

Where does the waste come from?

The permitted parts of 222-S handle chemical wastes, liquid organic wastes (from daily lab operations), waste oil from vacuum pump systems, elevator blower fans and continuous oilers, and miscellaneous wastes like rags, paper, towels, and gloves from Hanford.

Where does the waste go?

Most liquid wastes go to the double-shell tanks. Other liquid wastes are disposed at other permitted facilities. Solid wastes are disposed as mixed wastes in the permitted Hanford burial grounds.

How does this part of the permit differ from the usual?

Typical dangerous waste permits have dangerous waste management in one specific place. At 222-S, there are four places.

Today, 222-S supports most of Hanford

*Official name is now “222-S Dangerous and Mixed Waste TSD Unit” to clarify that the permit doesn’t regulate the entire laboratory. (TSD: Treatment, Storage, and Disposal)

What’s the risk?

Most of the risk is from the liquids in Tank 219-S, which go to the double-shell tanks. The permit protects with strict rules for management of waste in containers and tanks.