The east and west transuranic surveillance gloveboxes are used for material inspections and packaging. They were placed into service in 2014.

Zero Power Physics Reactor Facility

Fuel Fabrication, Nuclear Material Management, Nonproliferation Activities

General Information

The Zero Power Physics Reactor (ZPPR) is a nuclear facility at Idaho National Laboratory's Materials and Fuels Complex. The reactor portion of ZPPR was operated by Argonne National Laboratory-West between 1969 and 1992. In 1992, the ZPPR reactor was placed into nonoperational standby. The ZPPR reactor and auxiliary equipment have since been removed from the facility. The current capabilities of the ZPPR facility include storage, inspection, and repackaging of transuranic elements and enriched uranium. The facility also provides suitable areas and material handling capabilities to support homeland security material detection experiments and the training of military and first responders to deal with nuclear materials.

The ZPPR facility consists of a workroom, cell area, and material storage vault. Current facility activities are material inspections and packaging in the workroom/vault, National and Homeland Security testing and detection training in the cell area, and transuranic and uranium material storage in the vault. This includes routine activities conducted in the ZPPR vault/workroom to monitor and maintain the integrity of the ZPPR fuel plates and other fissile materials in storage.

Key Equipment:

- Workroom hood
- East and west transuranic surveillance glovebox
- Vault storage for special nuclear material
- Cell area with very low radiation background environment

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Zero Power Physics Reactor Facility

Technical Information

Zero Power Physics Reactor (ZPPR) is a Hazard Category 2 nuclear facility that consists of a workroom, cell area and material storage vault. The workroom houses the equipment utilized for material inspection and repackaging. The cell area is used for experiment and detection training for various customers, including National and Homeland Security. The vault contains and supplies materials used for programs in multiple facilities at the Materials and Fuels Complex and other Idaho National Laboratory locations.

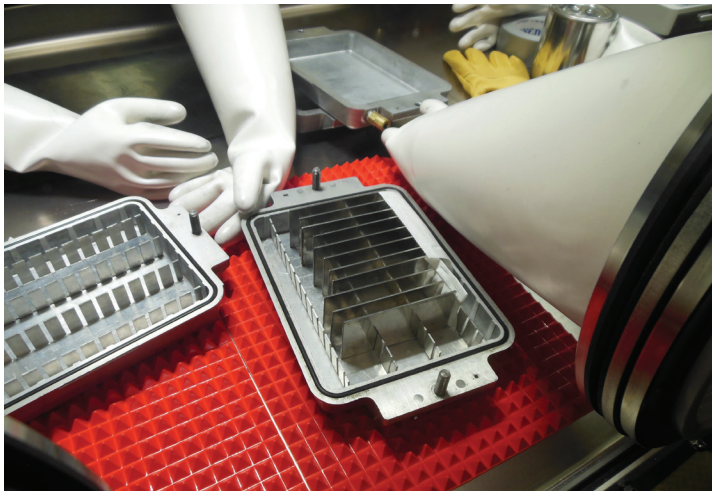
Basic Capabilities:

- Transuranic and enriched-uranium materials storage
- Transuranic and enriched-uranium material inspection/repackaging
- Transuranic and enriched-uranium material handling for experiments/training

Key Instruments:

- Transuranic surveillance glovebox line
- Vault storage
- Cell area that can be reconfigured as necessary for experiment/training activities

The Zero Power Physics Reactor was placed in nonoperational standby in 1992, and has since been dismantled, which frees the space for nuclear material storage, inspection, and repackaging.



ZPPR operators performing material inspections in the transuranic surveillance glovebox.

For more information

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