Cleanup

Mobile hot cell

2
SYSTEMS CURRENTLY DEPLOYED

12
YEARS OF OPERATIONAL EXPERIENCE

0
OVERPACK OR ATMOSPHERE CONTAMINATION

0
SURFACE CONTAMINATION OUTSIDE RETRIEVAL CELL

0
PERSONAL CONTAMINATION

The mobile hot cell technology was developed by Orano to provide nuclear waste retrieval and processing with a system providing most of the functions needed to safely dispose of mixed solid remote-handled waste.

Orano's ERFB mobile hot cells

Mobile hot cells have been developed and deployed by Orano to provide an alternative to large, fixed facilities with the revolutionary approach to bring the processing equipment to the waste instead of the opposite.
The system is a modular arrangement of transportable enclosures called modules, assembled and connected together to provide all the necessary process functions (retrieval, characterization, sorting, packaging, and shipping). Each module hosts a set of process functions and work stations. Combined with ancillary modules or skids which provide utilities functions like ventilation and electrical power supply, the whole system delivers the same mission as a fixed nuclear facility.

System mobility

The size of each module is compatible with road transportation so that the system can be disassembled and relocated to the different sites of operation, as close as possible to the location of the waste.

Process functions

- Waste retrieval
- Waste characterization
- Non-destructive assay (NDA): gamma spectrometry, active/passive neutron interrogation
- Non-destructive evaluation (NDE)
- Real-time radiography (RTR)
- Waste sorting and prohibited item remediation, size reduction
- Waste repackaging
- Waste shipping

Key features and benefits

- Brings the process to the waste generation site
- Small, mobile, flexible processing units
- Lower cost than large fixed concrete facilities
- Provides all necessary functions to enable direct final disposal following in-field treatment and packaging
- After being used to dispose of the waste, the system's capabilities can be further used to complete the storage site's cleanup

Orano's ERCF mobile hot cell

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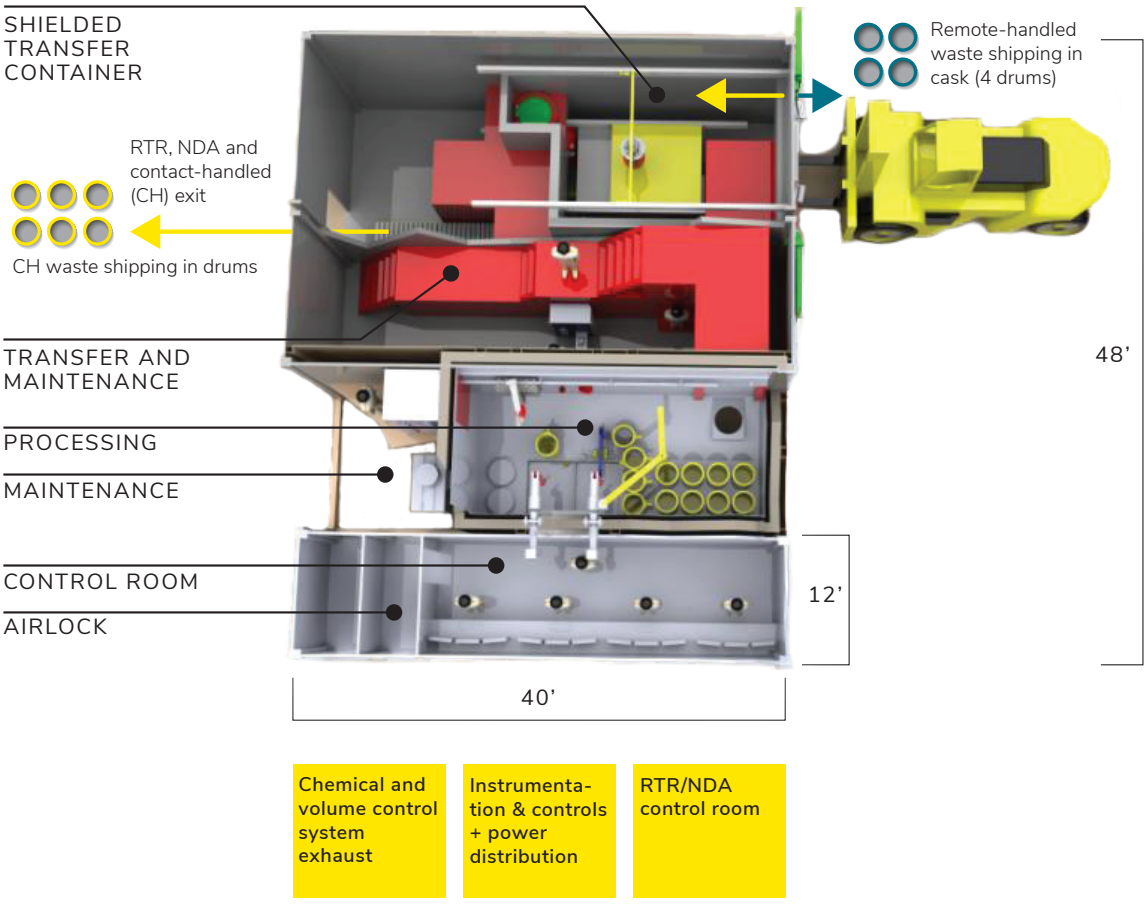
- Technology transferred to U.S. DOE application for remote-handled transuranic waste
- Eliminate generation site-to-processing facility transportation issues
- Relocatable and reusable equipment on different sites for different applications
- Equipment can be entirely qualified in cold tests before onsite deployment
- Limited onsite fabrication/construction activities with minimal impact on site operations
- Uniform safety analysis and licensing basis

Repackaging in mobile hot cell



Four modules and three support utility skids create a footprint of less than 2,500 square feet

orano