



Fuel Storage Requirements

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Changing the World's Energy Future

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NRIC

National Reactor
Innovation Center

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Fuel Storage Progress

- 2023
 - No fuel storage plan had been developed
- 2024
 - The shipping & receiving requirements are understood
 - A storage location has been selected and designated
 - The storage limitations are known and incorporated
 - The INL coordination & approval groups have been determined



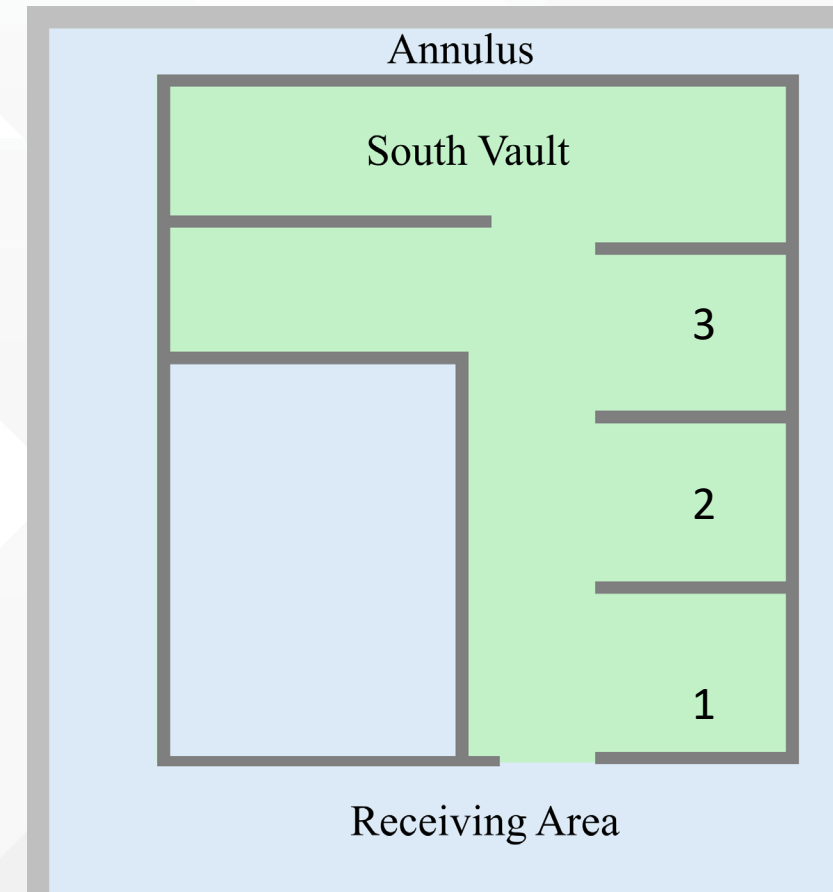


Shipping & Receiving

- Fuel composition, enrichment, fuel quantity per container, number of containers
- DOT certified containers
- DOT-NRC Certificate of Compliance
 - Container specific criticality safety index
- INL Safeguards witnesses the packaging and places tamper indication devices
- Packaging – INL is not responsible for packaging
 - packaging should be compatible with a standard forklift for unloading and handling
 - Disposition of shipping packaging (a.k.a. overpack) is required
- Cooperative Research and Development Agreement (CRADA) & Project Task Statement (PTS)

CPP-651

- Building CPP-651 is an approved unirradiated fuel storage facility
- The South Vault is approved for new fuel storage
 - Areas 1, 2, & 3 are designated for the NRIC microreactor fuel
- Facility limitations
 - Facility aggregate Criticality Safety Index (CSI)
 - Available floor space





Storage

- Storage Plan & Schedule
- Container certification expiration is typically 12 months.
 - If the certification expires then repacking the fuel is required
- Repacking is highly discouraged
 - preparation and approval process is >12 months
- Shipping empty containers
 - Storage plan must include shipping the empty fuel containers to a predetermine recipient





Coordination & Approvals

- NRIC – contract and planning
- Material Security Consolidation Facility (CPP-651)
- INL Safeguards
- INL Packaging & Transportation
- Fresh fuel (i.e., prefabrication) would require additional approvals and planning
- Early coordination is vital for success



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