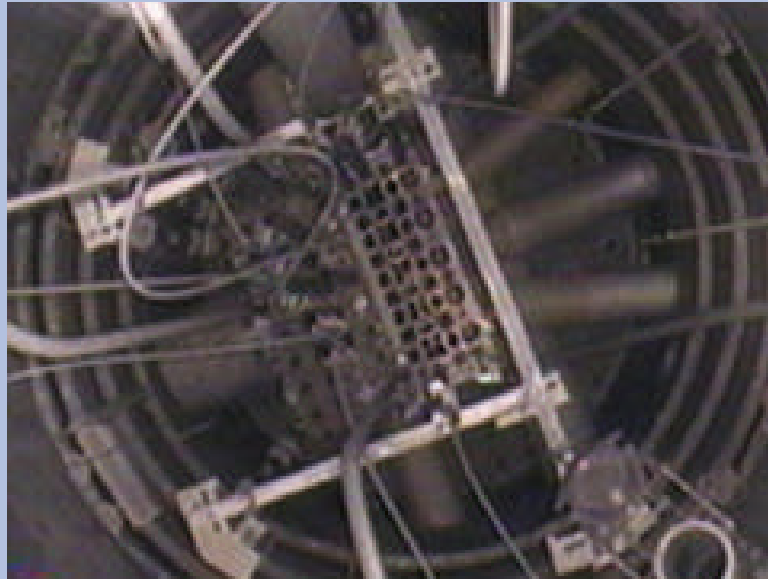


# Segmentation



This photo, taken before segmentation began, shows reactor internals inside the reactor tank.



Workers used remotely operated tools and video cameras while removing the reactor internals.



The project reached a major milestone in February, with the removal of the reactor core box.

## Segmentation

NASA is nearing completion of one of the Decommissioning Project's most important tasks:

### Segmentation Operations.

Workers have removed all internal components from the reactor tank and will soon finish cutting up the tank itself.

During 2004, NASA made five shipments of reactor internals to the Barnwell licensed disposal facility in South Carolina, with the final two coming in August. The removal, packaging and shipment of this low-level radioactive waste accounted for 97% of the radioactive inventory that remained in the Reactor Facility before decommissioning began. With very low radiation levels remaining in the now empty reactor tank, workers have been able to conduct Phase 4 of segmentation "cutting up the tank itself" directly, without the need for long-handled, remotely operated tools and shielding used in the earlier phases. Work on Phases 4 and 5 (demobilization of work stations) will be completed soon.



By June, workers had removed nearly all of the reactor internals. Standing inside the tank, a segmentation worker applies a compound to bind any loose contamination on the thermal shields, the last components they removed.



In July, workers began Phase 4 of segmentation, making the first cut on the reactor tank.



A steel liner containing segmented reactor internals is placed in a shipping cask (left). The cask sits on a flatbed truck as it leaves Plum Brook Station for the Barnwell licensed disposal facility in South Carolina.

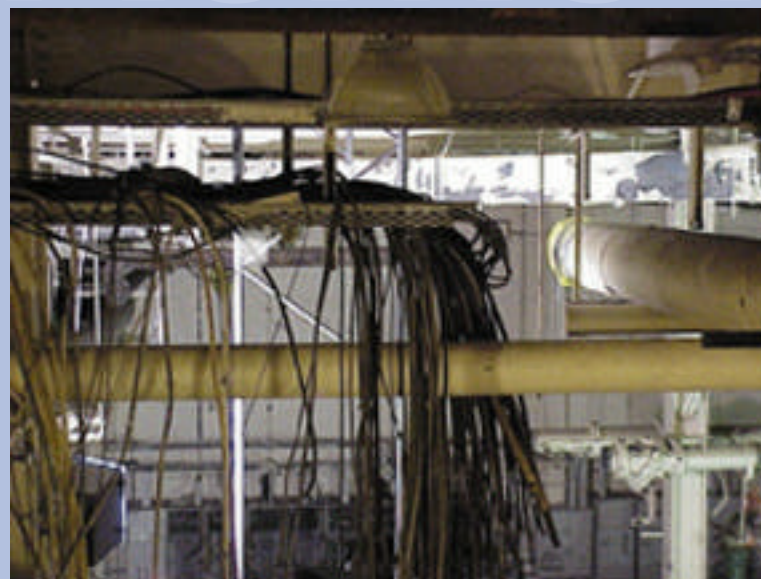


# Removal

## Fixed Equipment Removal Packaging and Shipping

Workers have removed, packaged and shipped more than five million pounds of low-level radioactive waste (LLRW) - mostly in the form of fixed equipment - from Reactor Facility buildings, stripping them to the bare walls. Fixed equipment includes pipes, wires, doors, stairs, railings and racks.

Workers packaged fixed equipment in a variety of strong tight containers, then shipped them by truck and train to the Alaron licensed reprocessing facility in Pennsylvania and the Envirocare licensed disposal facility in Utah.



Before and after: Workers removed wiring and piping (at left) from the Reactor Building



At the (-25) foot level of the Reactor Building, workers cut pipes down to the bare walls, leaving only stubs (left). They are also using this area to stage the packaging of cut pipes moved from other Reactor Facility buildings (right).



Workers load a box with fixed equipment.



Then prepare to move the equipment into an Intermodal container - designed to ride atop both trucks and trains



Truck leaving for shipment to Alaron and Envirocare.

Packaging & Shipping

# Asbestos Removal



Asbestos removal continues to be a Decommissioning Project priority. Workers have removed well over 90% of the asbestos remaining at the Reactor Facility.



Enclosures known as glove bags hang from pipes near the ceiling of the Reactor Building to prevent release of asbestos during removal operations.

# Demolition

NASA completed demolition of buildings without basements. In July workers demolished the Compressor Building, using hydraulic shears.

