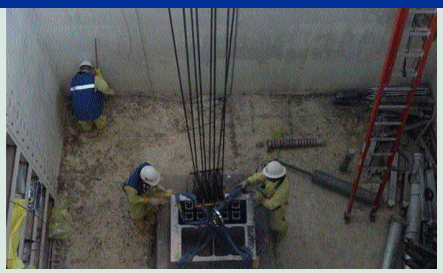
TAKE A CLOSER LOOK AT
Removing Internals Above the Core
PHASES 0, 1, 1A

Training on The Mock-Up Reactor



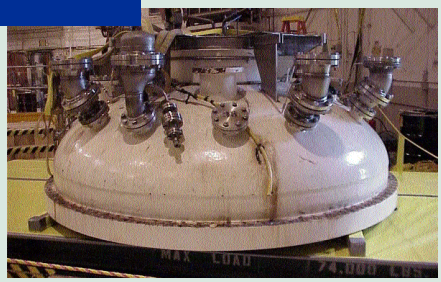
NASA used the 100-kilowatt Mock-Up Reactor - a near duplicate to the main reactor but having a very low-level radioactive environment - for training exercises leading to segmentation of the main 60-megawatt reactor. Further disassembly of the Mock-Up Reactor, shown right, was completed in early 2004.

Removing Horizontal Beam T ubes

Horizontal Beam Tubes - metal pipes running through the vessel wall up to the core box - contained higher amounts of radioactivity and were the first components removed using specially made remote tools to withdraw, cut and lift the tubes out of quadrant D and into a shielded waste container.

Opening the Reactor V essel

One of three 20-ton metal shrapnel shields covering the reactor lid was lifted off to cut a hole in the middle, then replaced to serve as an extra barrier - protecting workers from radiation exposure as they removed components from the reactor vessel.



The reactor pressure vessel head was removed and eventually cut, or segmented, into 3 pieces for packaging, shipping and disposal.

Removing Reactor Internals

Cameras in the reactor vessel provided real-time video of internals removal. An operator, shown left, helps guide the worker, shown right. The worker stood behind steel barriers and reached into the vessel using long-handled tools - keeping him a safe distance and minimizing the potential radiation dose.