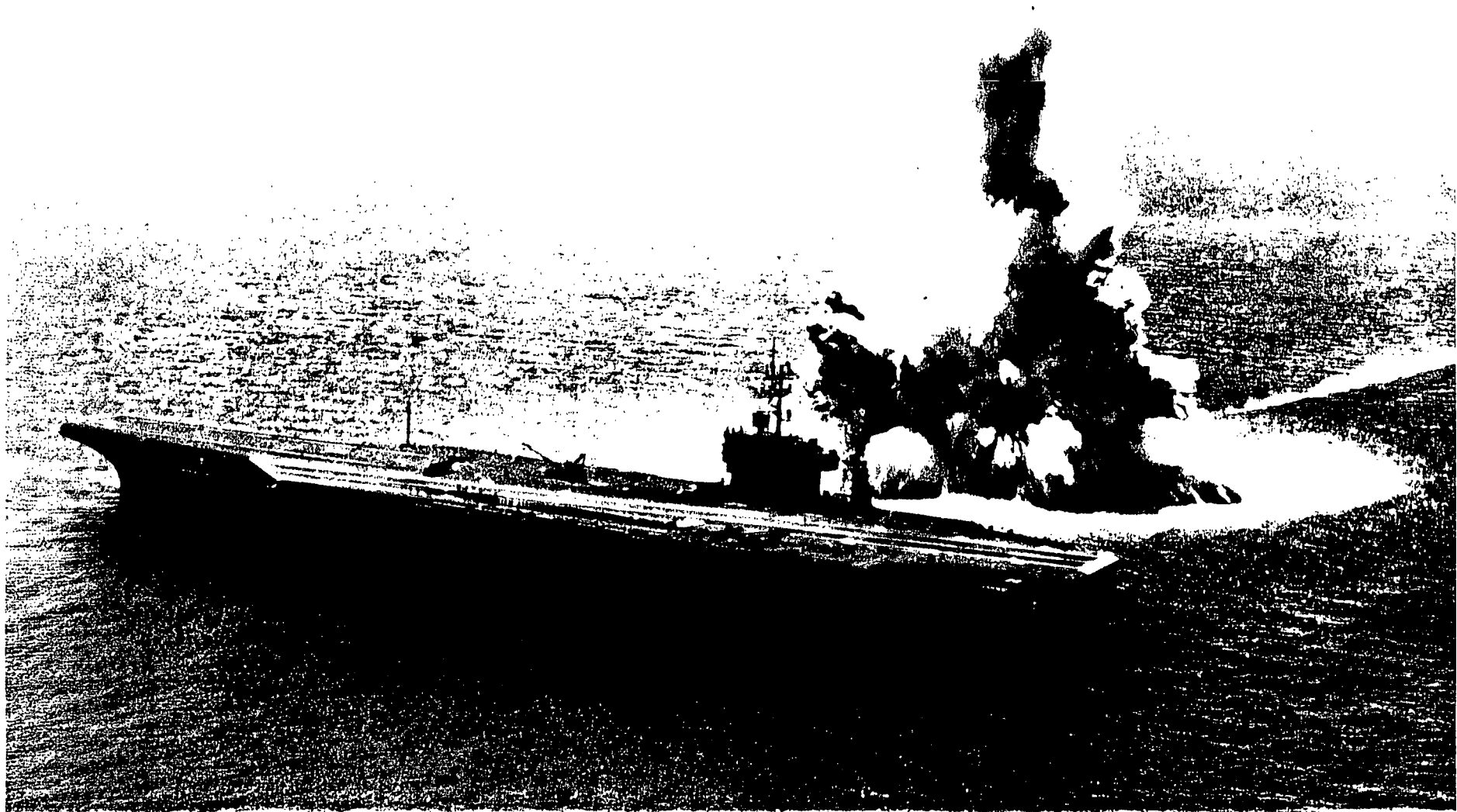


# Update on Naval Spent Fuel Disposal Work

**Don Doherty**  
**July 10, 2000**

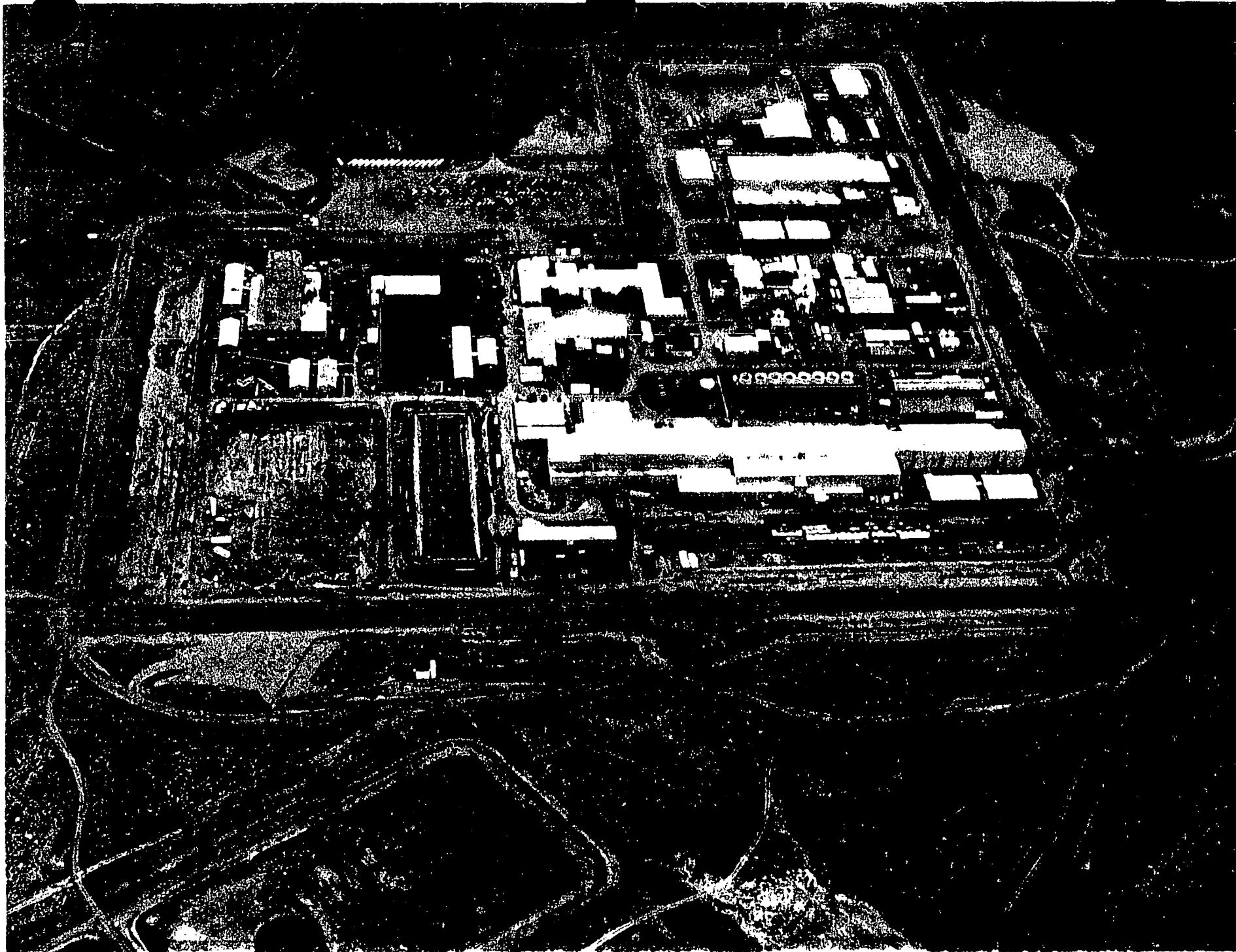
# Naval Spent Fuel and the Geologic Repository

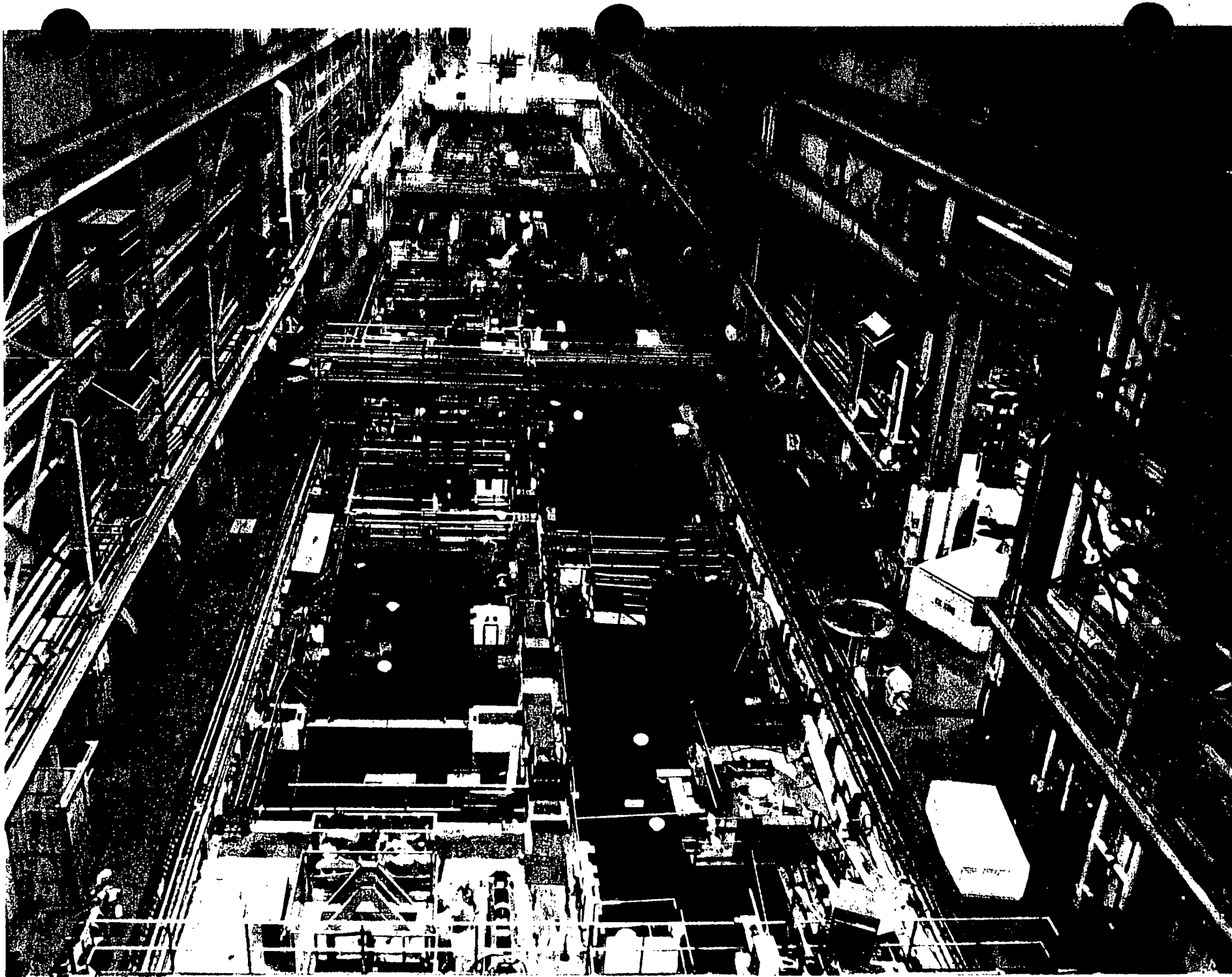
- Geologic repository critical to Navy's ability to continue to perform our national defense mission
- NNPP working closely with RW to ensure naval spent fuel is accommodated and properly represented
- Also working closely with regulators and reviewers (NRC, NWTRB, etc.) in support of repository effort
- Amount of naval spent fuel (2035) 65 MTHM, 4,400 metric tons, 900 cubic meters, 300 canisters

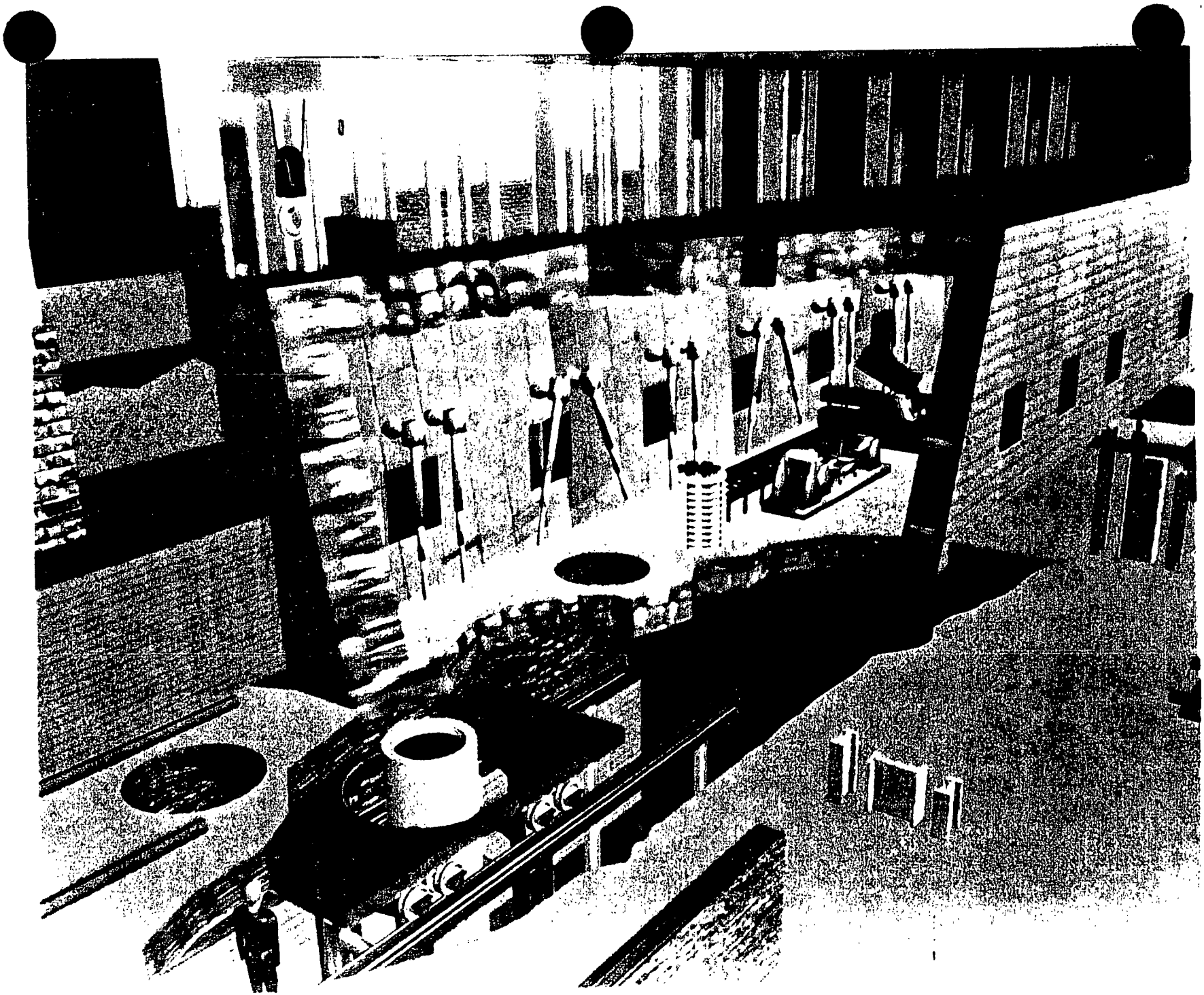


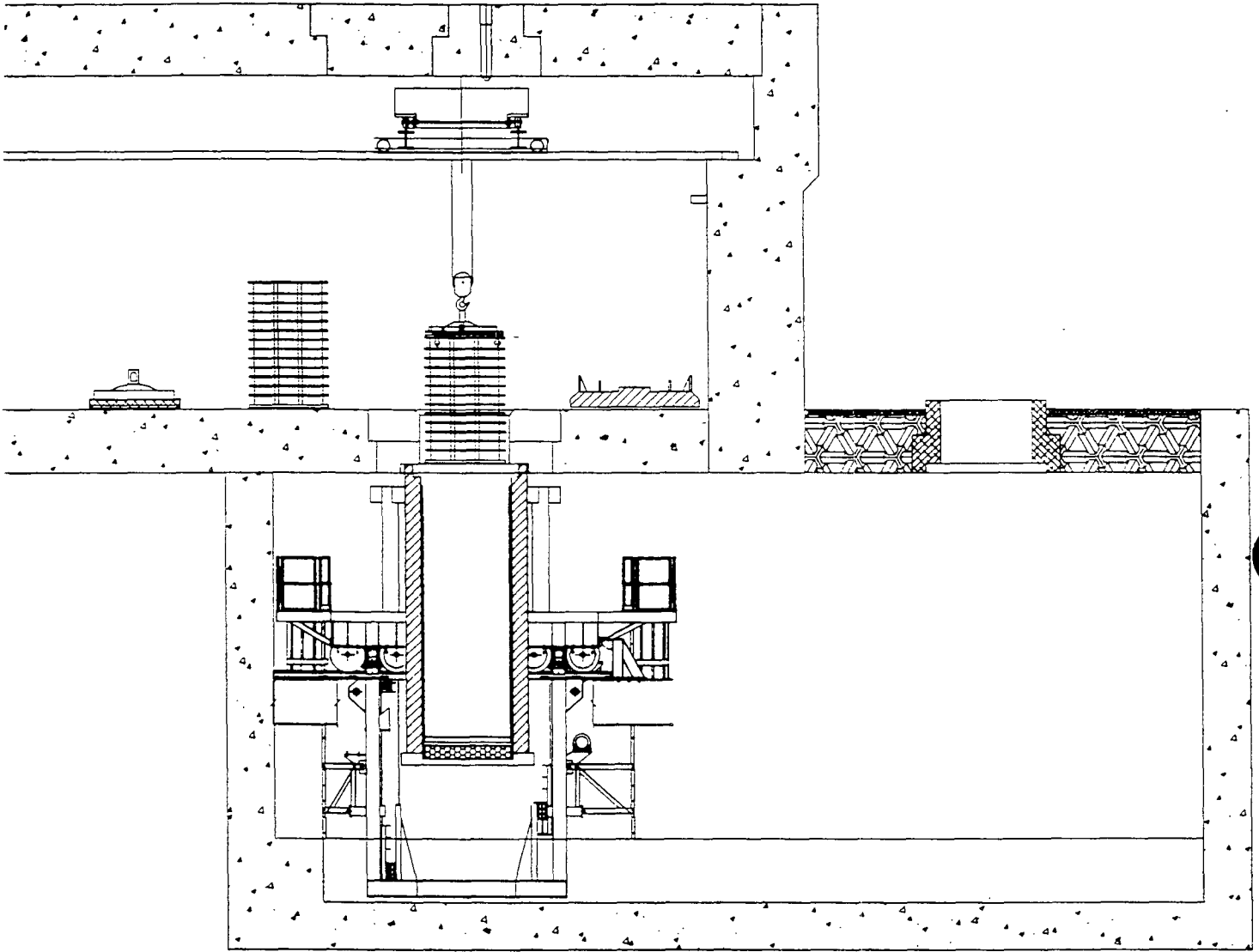
# Naval Spent Fuel and the Geologic Repository

- Robust naval spent fuel - designed for operation in warships - results in waste form well suited for disposal
- Naval spent fuel contribution to overall repository radionuclide release will be small
- Plan to begin loading naval spent fuel into dry storage in October 2001
- Objective is for canisterized naval fuel to meet requirements for disposal in a repository, as they are developed, such that once canisters are loaded, bare fuel will not need to be handled again



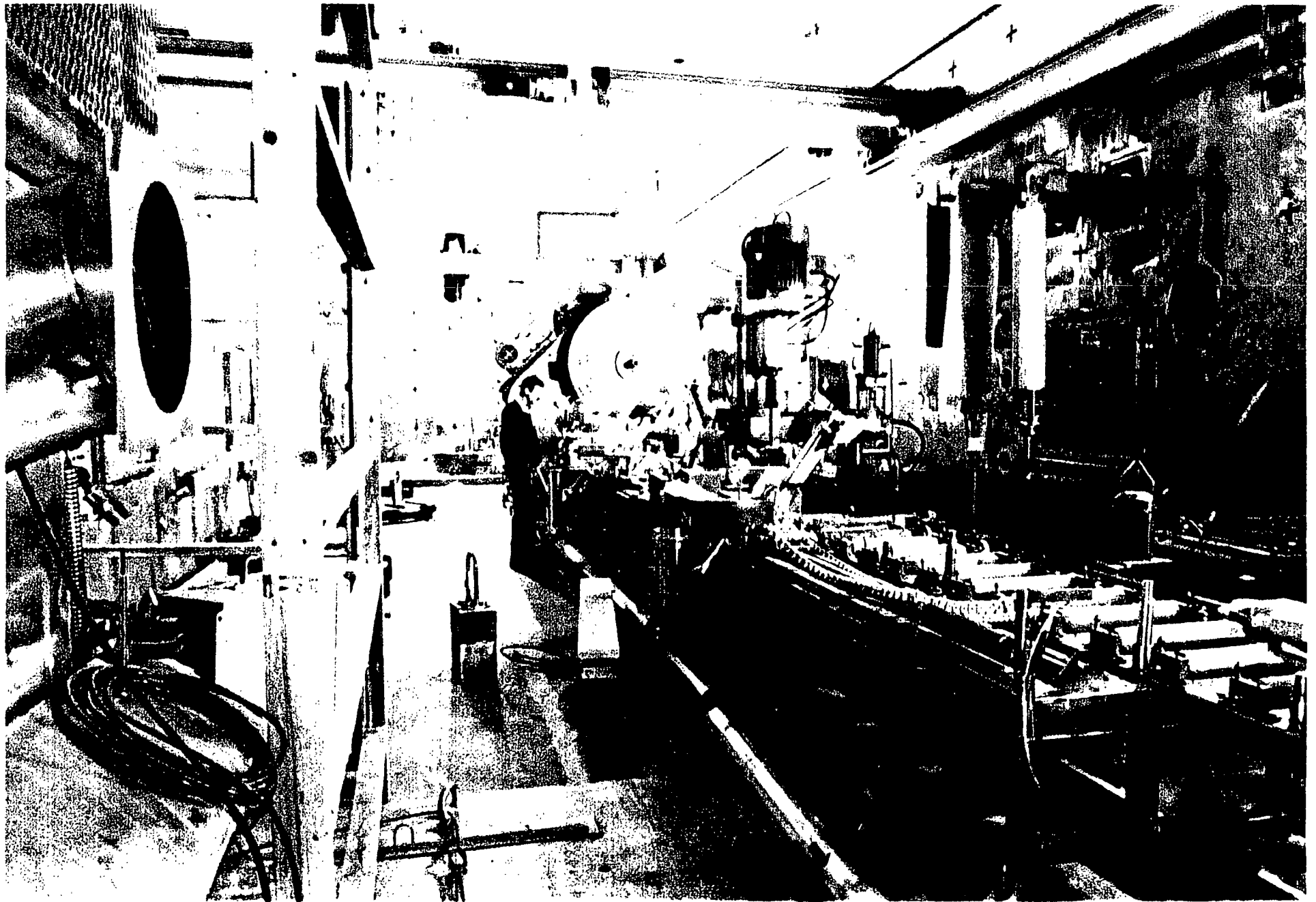






Canister is translated under the Dry Cell. The shield plug and empty fuel baskets are lifted into the Dry Cell.

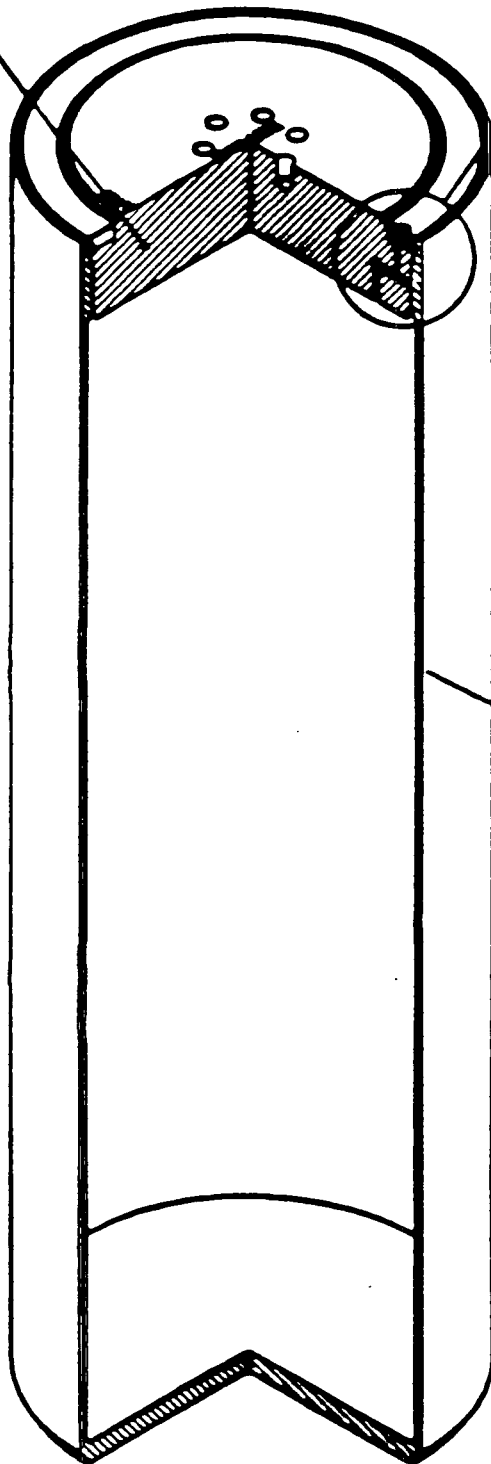




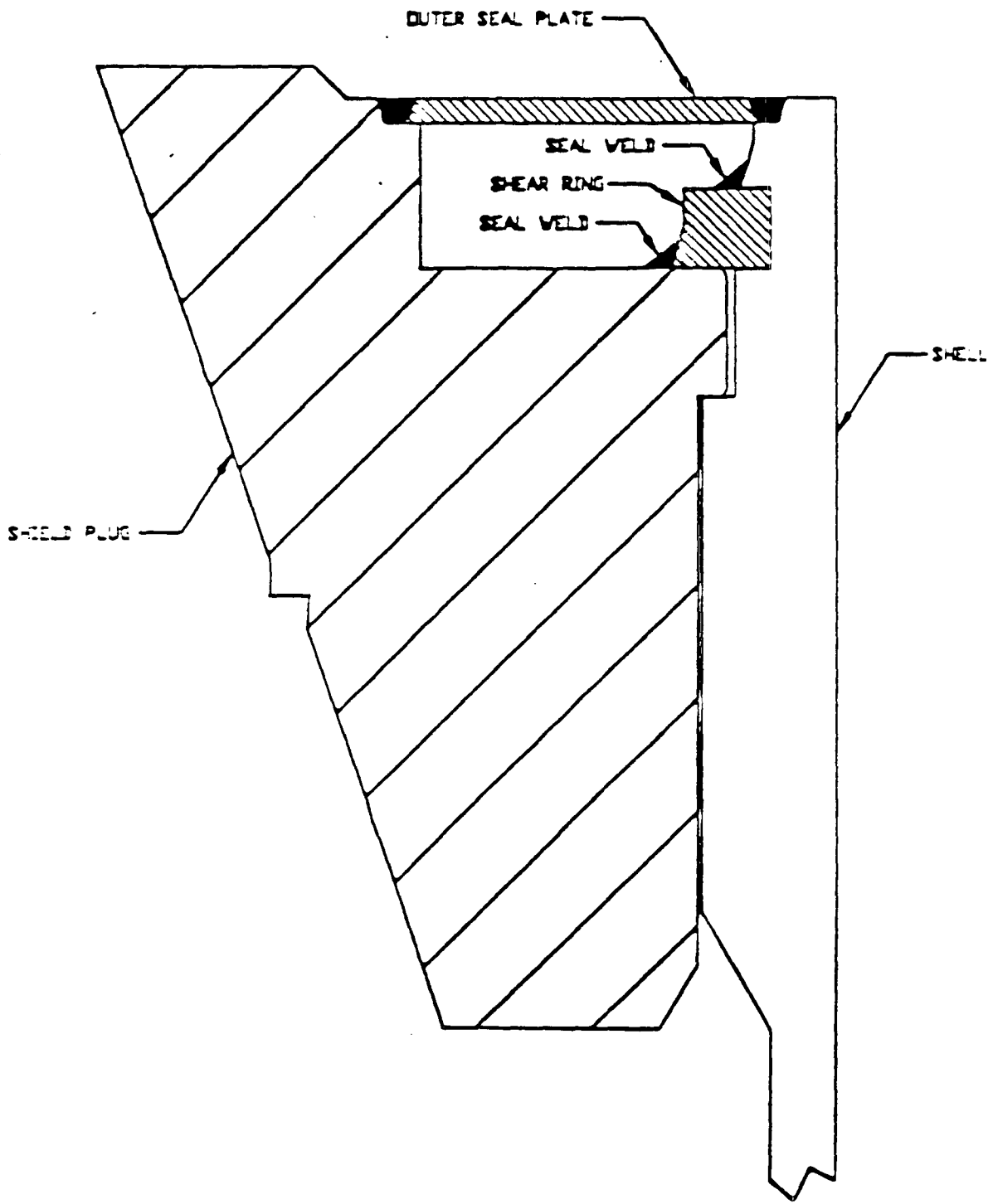


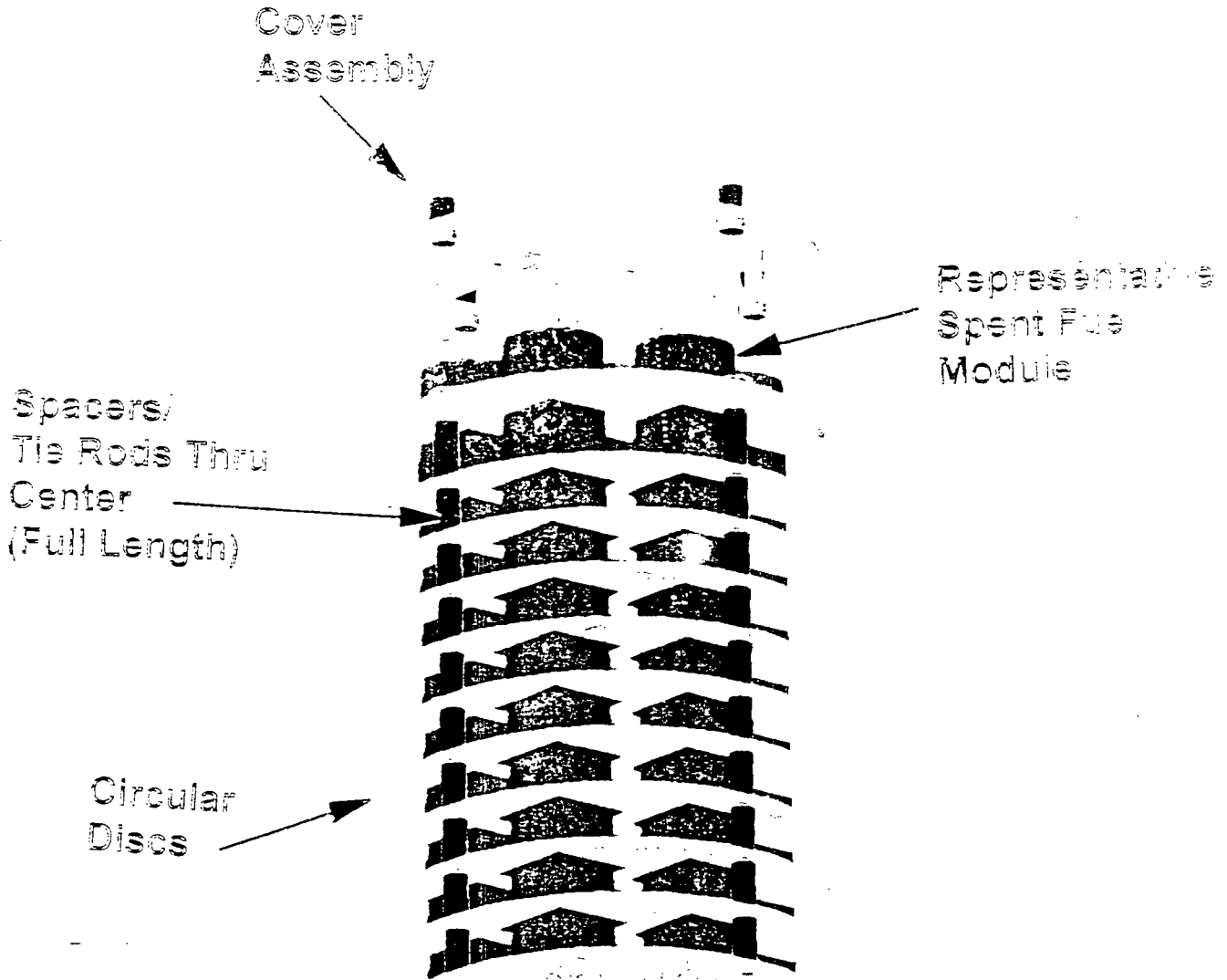
**Shield Plug**

**Closure Assembly**

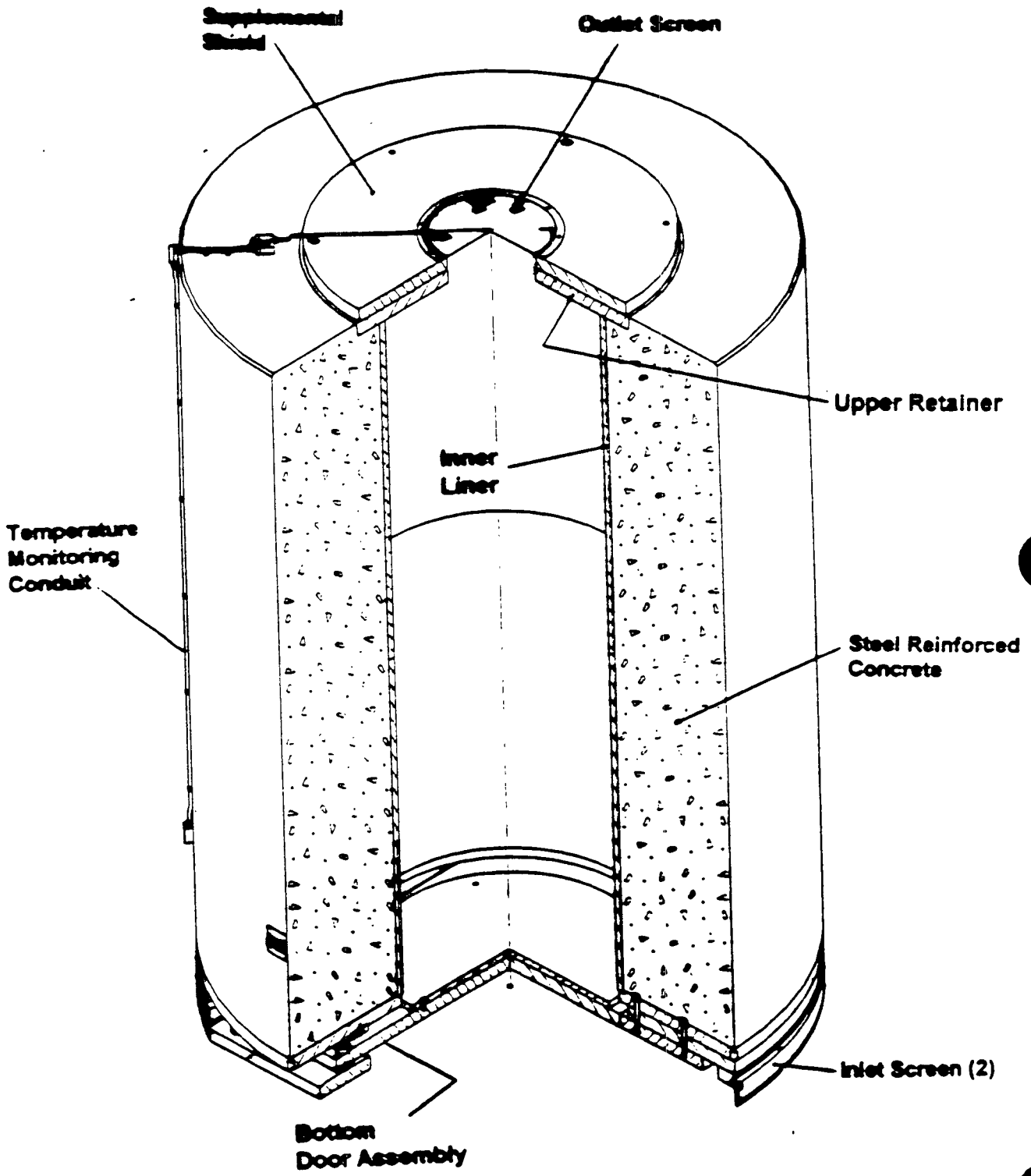


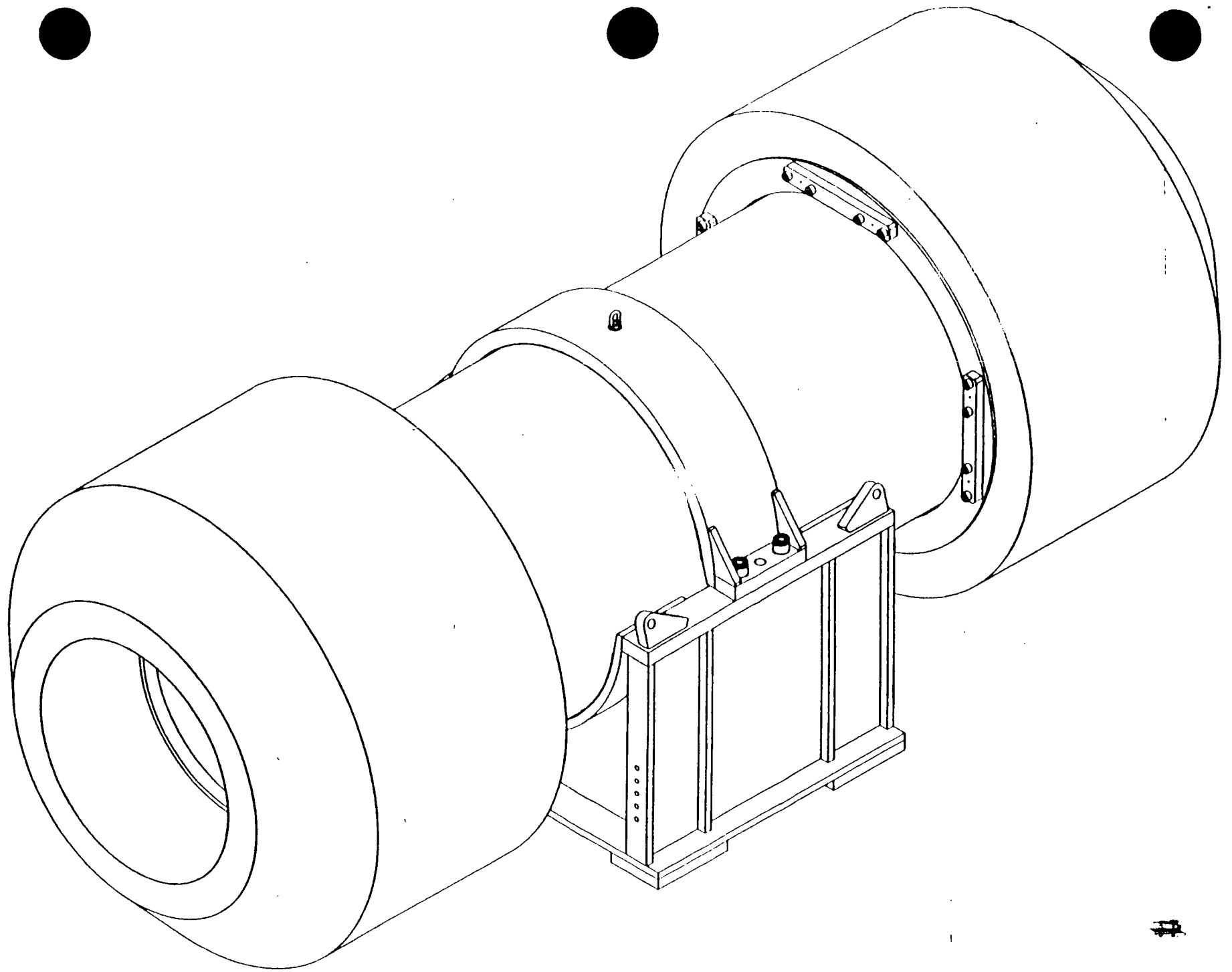
**Shell Assembly**

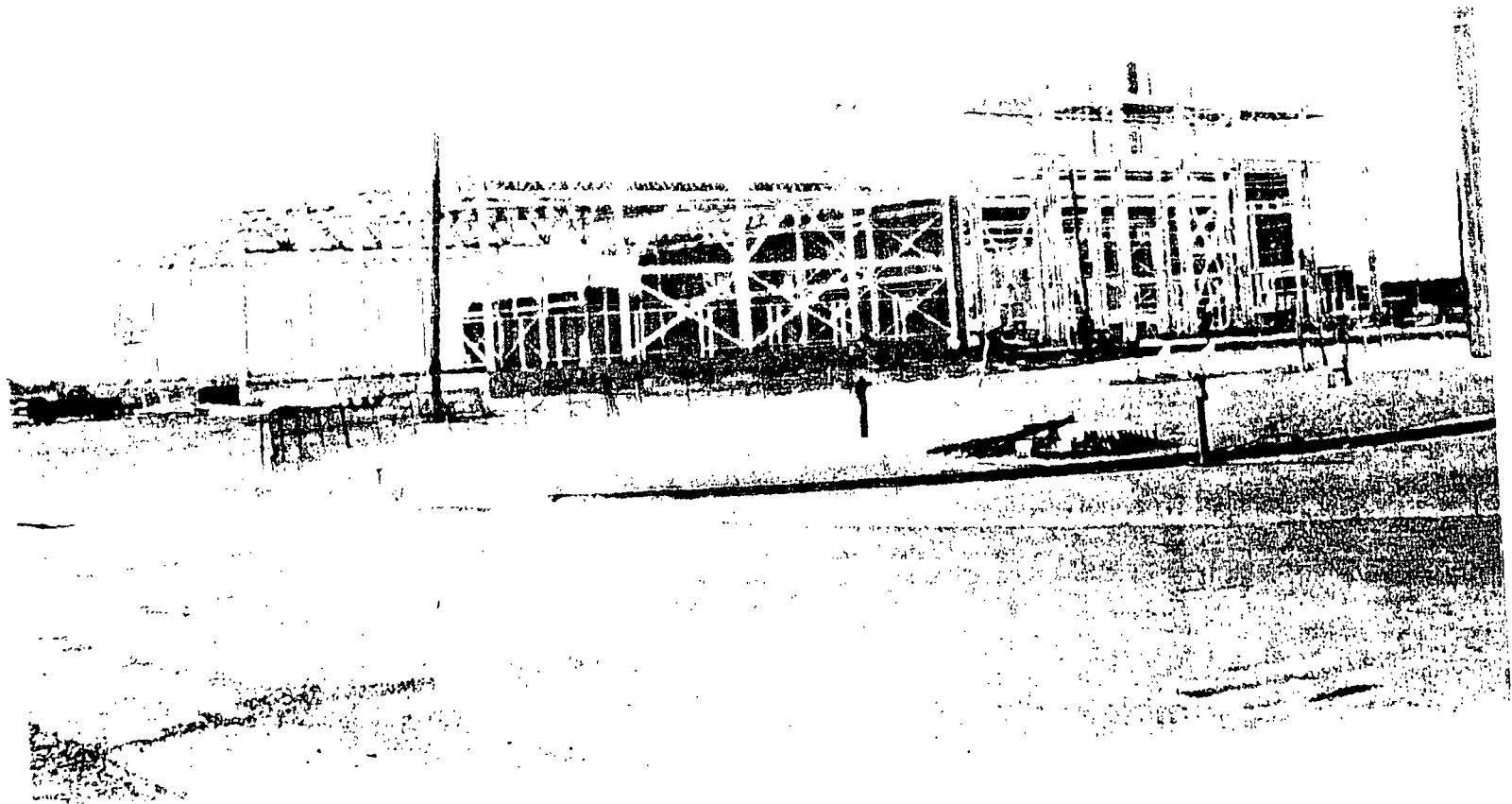




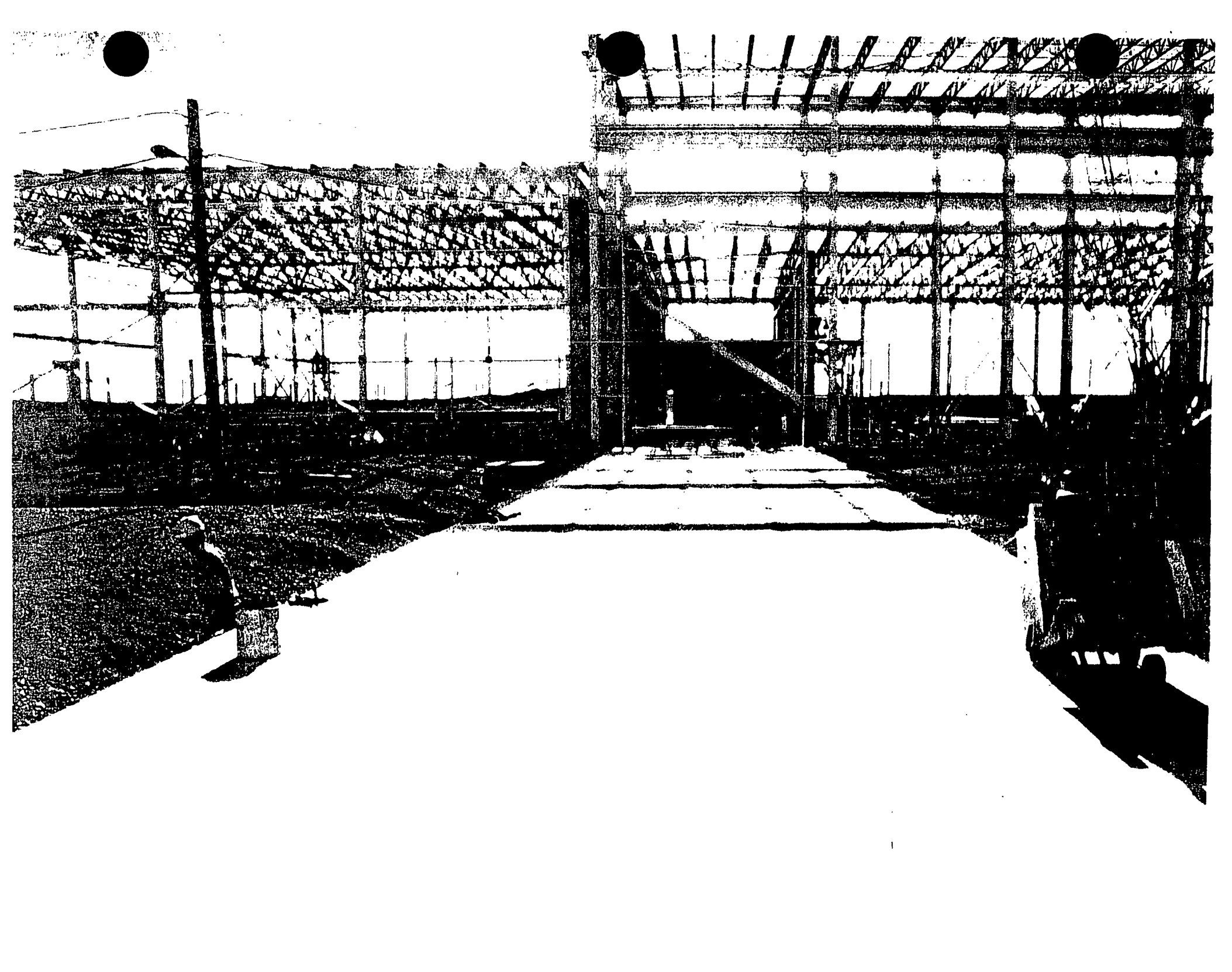
**Basket - Reference Design**











# Naval Spent Fuel Canister System

- Equipment design and procurement status:
  - **Canister** (316L stainless steel) - contracts for initial units placed 10/99 for 10/00 delivery
  - **Basket** (stainless steel and Zircaloy) - contract for initial units placed 1/00 for 11/00 delivery
  - **Storage overpack** (reinforced concrete and stainless steel) - contract for on-site fabrication of initial units at NRF placed 1/00 for 2/01 delivery
  - **Transportation overpack** (stainless steel) - final design currently at NNPP for approval, plan to procure initial units 10/04