

# Los Alamos National Laboratory D&D of the Omega West Reactor

Location:	Client:	Duration:	Scope:
Los Alamos National Laboratory Los Alamos, New Mexico	AREVA (formerly Framatome ANP)	July 2002 to April 2003	Planning and Decommissioning of the Omega West Reactor and Ancillary Facilities

Key REIN personnel were responsible for a contract to perform all radiological demolition and decontamination activities associated with the decommissioning of the Omega West Research Reactor. Project activities included:

- Preparation of component removal and demolition operating procedures;
- Complete thermal removal of the reactor internals using remote plasma cutting methods as a predecessor to removing the tank and bioshield;
- Design and use of a shielded personnel work station placed on top of the reactor vessel during internals removal to achieve personnel ALARA;
- Design and deployment of secondary containment and HEPA filtration system to accommodate the use of large demolition equipment in the removal of the reactor and reactor systems;
- Thermal column segmentation and removal;
- Bioshield removal consisting of over 7,000 ft<sup>3</sup> of high density concrete, embedded lead shielding, and piping;
- Decontamination and demolition of reactor support systems;
- Decontamination of outlying rooms and structures;
- Packaging of all radioactive and mixed radiological and hazardous waste for transport and disposal.



## Project Performance Features:

- ✓ Reactor decommissioning planning, field operations management, oversight, and performance of Greater Than Class C (GTCC) reactor internals removal and reactor decommissioning activities.
- ✓ Implementation of innovative, practical approaches to solve complicated challenges. Specific examples include: design and fabrication of a shielded work platform to allow remote thermal segmentation of reactor vessel internals; reduction of the overall time required to demolish reactor tank and bioshield - actual demolition time was 75% less than baseline.
- ✓ Thermal segmentation and removal of reactor internals.
- ✓ Compilation of project records and preparation of final reports to confirm and document accomplishment of customer and regulatory agency project objectives.
- ✓ Actual project cost was \$2.1 M less than baseline target cost. This savings is a direct result of implementing alternate and innovative approaches to reactor vessel internals removal and bioshield and reactor tank demolition.