

# Argonne National Laboratory JANUS Reactor Facility Decommissioning

Location:	Client:	Duration:	Scope:
Argonne National Laboratory Argonne, Illinois	Argonne National Laboratory	1996 to 1997	Test Reactor and Support Equipment Removal Oversight

Key members of REIN staff were responsible for the execution of a sole-source contract to provide field engineering support and project oversight on behalf of Argonne National Laboratory during the decontamination and decommissioning of the JANUS Reactor Facility. Project activities included:

- Preparation of programs, plans, and procedures to decontaminate and decommission (D&D) the entire reactor facility including auxiliary systems;
- Lead-based paint, asbestos, cadmium, and VOC (oil and grease) removal;
- Removal of activated lead and graphite;
- Lock out/tag out and removal of electrical systems;
- Disassembly, size reduction, and packaging as low-level waste, the reactor internals, core tank, and shield tank;
- Removal and packaging as low-level waste the concrete reactor bioshield;
- Removal and packaging as low-level waste miscellaneous support systems including graphite helium system, fuel storage tubes, sample transfer systems, spent fuel transfer cask, cooling tower, exhaust stack, and glove box;
- Decontamination of radiologically affected areas to “free-release” levels;
- Development and implementation of final survey approach, general survey plan, reference grid system, sample collection including chain of custody protocol, and compilation and interpretation of survey results, and delivery of final release survey status report.



## Project Performance Features:

- ✓ Field engineering and project oversight for reactor facility decommissioning and D&D planning.
- ✓ Establishment of final release survey methodology consistent with NUREG/CR-5849 and NUREG/1575 (MARSSIM).
- ✓ Oversight of radiological sampling and surveying through concluding survey activities.
- ✓ Radioactive and hazardous materials characterization and waste management.
- ✓ Compilation of project records and preparation of final reports to confirm accomplishment of project objectives for customer and regulatory agencies.
- ✓ Completion of project on schedule and within budget.