



PROJECT PROFILE

FUEL BUNDLE RECOVERY TOOL

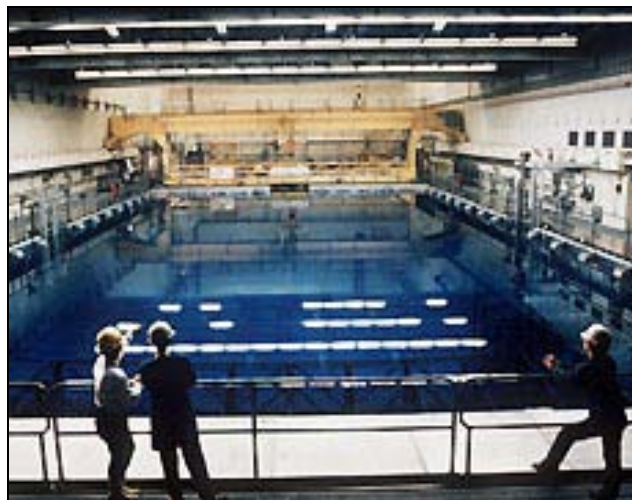
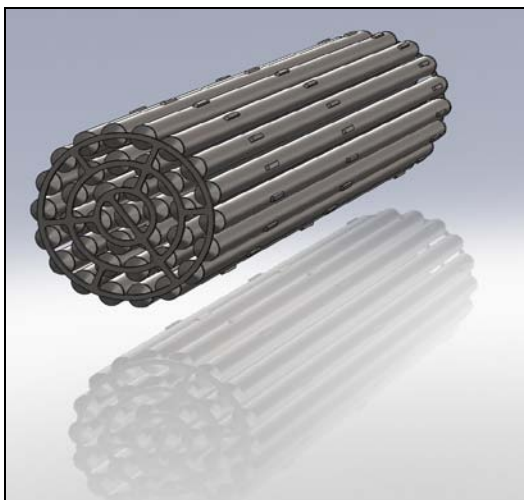
CLIENT CHALLENGE

GE Nuclear has provided advanced and sophisticated technology for nuclear energy for over five decades. Three main product lines support this capability: advanced reactor technologies, nuclear services, and nuclear fuel cycle. Prior to joining Palladium Product Development and Design several current Palladium personnel were retained to provide product and machine design for supporting the CANDU nuclear industry in tooling, casks and equipment in the handling of irradiated materials as outsourced engineering support for GE Nuclear.

PROJECT HIGHLIGHTS

One particularly sophisticated project was a Fuel Recovery System, undertaken by GE Nuclear out of Peterborough, Ontario. The duration of the Project was approximately 6 months.

The project objective was to develop a concept and design a tool to push a CANDU fuel bundle out of a transfer mechanism tube in the event that a bundle has become jammed, using a water hydraulic system. Special attention was required to ensure that the tool could operate in a radioactive environment. Other design considerations were: the specific attachment point located under 10 meters of water; suspension of the apparatus from a crane hook; to be guided by a machine operator; precisely locating the target bundle and hoisting mechanism. The entire system was designed to be impervious to a predetermined level of seismic activity.



NUCLEAR ENGINEERING

Palladium Product Development & Design continues to provide ongoing engineering services to the Nuclear industry and several of the same personnel are active with continued upgrades, material handling and improvement programs. Working with reactor core technologies and fuel handling and transportation systems are design and engineering competencies provided by Palladium today.