



## PROJECT PROFILE

### UDM TRANSPORTATION SYSTEM

#### CLIENT CHALLENGE

GE Nuclear has provided advanced and sophisticated technology for the nuclear energy industry 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 by GE Nuclear to provide product and machine design for supporting the CANDU nuclear industry in tooling, equipment and in the handling of irradiated materials.

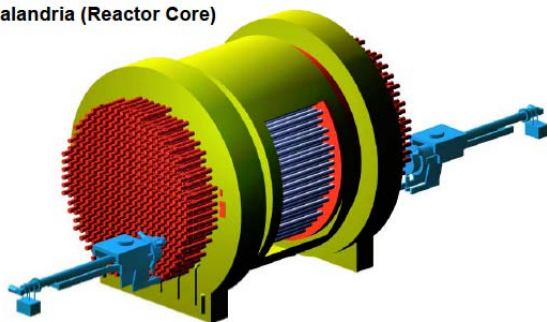
#### TYPICAL PROJECT

One of the projects undertaken was the development of a Universal Delivery Machine (UDM) Transportation System for CANDU reactors. Over the course of the 12 month project, design requirements were developed to meet stringent Testing Machine interface conditions, including its installation on the fuelling machine bridge, transportation and movement within confined areas using existing equipment that wasn't originally intended to handle the weight and configuration of the Testing Machine. The 30,000 lb Testing Machine was required to be transported through a hatchway to the fuelling machine bridge in the reactor vault. The UDM was required to meet stringent design requirements, be non-self propelled and was required to be maneuvered by forklift. The completed Transportation System consists of three main assemblies: Transporter, Spreader Beam and Counterweight Cart.

#### NUCLEAR ENGINEERING

Palladium Product Development & Design continues to provide ongoing engineering services to the Nuclear industry and several of the same personnel (some with over 20 years industry experience) are active with continued upgrades and product improvement programs. Working with reactor core technologies and fuel handling and transportation systems are design and engineering competencies provided by Palladium today.

Calandria (Reactor Core)



Fuelling Machine

