

## NUCLEAR

### FUEL DESIGN

- Mechanical Design
  - Grids
  - Skeleton
  - Control Rods
  - Control Rod Drive Mechanism
  - Upper and Lower end fittings
  - Rod Ends
  - Leaf Springs
- Mechanical Analysis and Testing
  - Seismic
  - Structural
  - Thermal
  - Hydraulic
- Development Efforts
  - Reduction of fuel rod galling at assembly
  - Rod end fitting welding methods
  - Ceramic fuel rod cladding
  - Grid manufacturing
  - Reduce manufacturing cost of hold down springs
  - Fuel assembly growth modeling software
- Studies
  - Rod bow in nuclear fuel assemblies
  - Conceptual accident analysis
  - Control rod drive requirements

