



## INP Reference

### Nuclear Sintering Furnace - Power Generation

**LOCATION:** Aiken, SC, USA / Grenoble, France

**SYSTEM/TECHNOLOGY:** Sintering Furnace with Glove Boxes

**SERVICES:** Basic-engineering and pre-engineering, Detail engineering

**INDUSTRY BRANCH/TYPE OF PLANT:** Power Generation, Power plants

**CLIENT:** Furnaces Nuclear Application Grenoble (FNAG)

**PROJECT SIZE:** >USD 1,000,000

#### Project description

In 1999, the National Nuclear Security Administration (NNSA) signed a contract with a consortium, now called Shaw AREVA MOX Services, LLC to design, build, and operate a Mixed Oxide (MOX) Fuel Fabrication Facility. This facility will be a major component in the United States' program to dispose of surplus weapon-grade plutonium. The facility will take surplus weapon-grade plutonium, remove impurities, and mix it with uranium oxide to form MOX fuel pellets for reactor fuel assemblies. These assemblies will be irradiated in commercial nuclear power reactors.

The design of the facility is based on AREVA's MELOX and La Hague MOX facilities in France. The French have used MOX technology for almost two decades and currently supply MOX fuel to over 30 reactors worldwide. The facility will be built at the Savannah River Site (SRS) near Aiken, South Carolina.

#### Services INP

- Electrical Design of the complete sintering furnace with all attached glove boxes and skids according to NEC/NFPA/ASME/IEEE.
- INP used the existing French design and converted to a modern design in compliance with NRC regulations.
- INP collaborated with the end user, the operators of the French units and the French OEM for the new furnaces on a mutually acceptable design.

#### POINTS OF CONTACT

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