



Nuclear Operations Group (BWXT NOG)



NOG-L Uranium Processing and Research Reactor Capabilities

- **Supplier of Aluminum Clad, Plate-Type Fuel for the US High Performance Research and Test Reactors**
- **Manufactured Fuels for a Wide-Variety of Advanced Fuel Programs**
 - Uranium Oxide
 - Uranium Alloy
 - Uranium Carbide
 - Uranium Oxi-Carbide
 - Uranium Nitride
- **Manufactured Coated-Particle Fuel Applications**
 - Nuclear Rocket (SNTTP)
 - Gas-Cooled Reactor
 - Space Electric Power
- **Supplier of HEU/LEU Medical Isotope Targets**



- **Manufacturer of LEU Fuel Blocks for the TREAT Reactor**

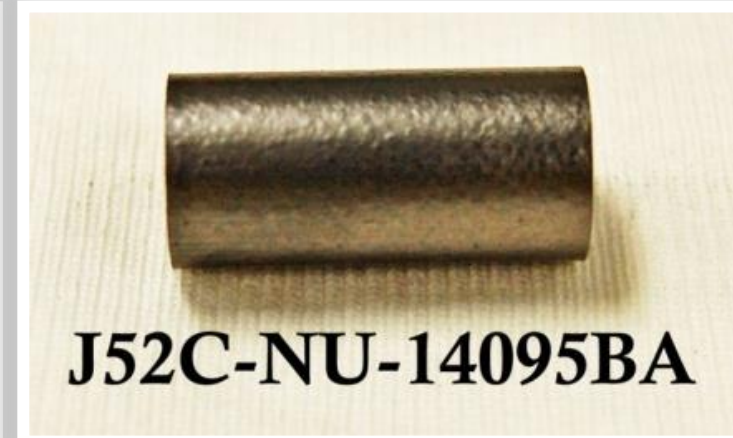
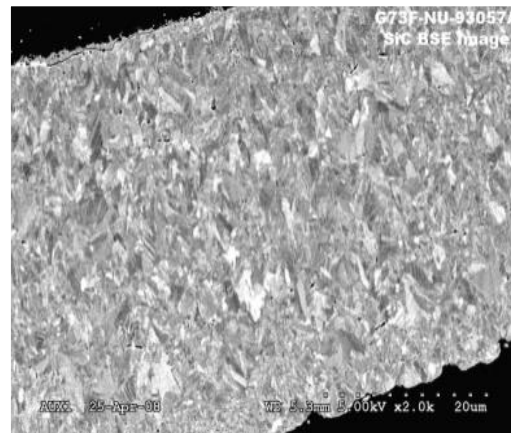
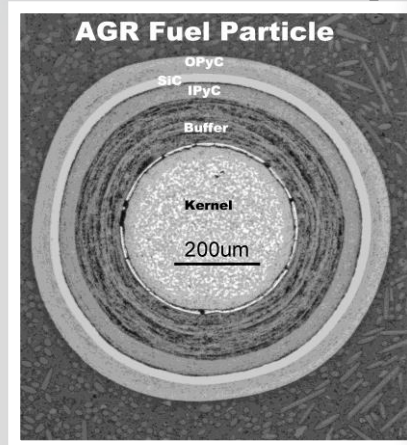


- **Manufacturer of LEU U-Mo Monolithic Fuel for US High Performance Research and Test Reactors**



NOG-L Current Advanced Fuel Work

- **Manufacturer of UCO TRISO Particles and Compacts for the AGR program**



- **Currently Manufacturing UCO TRISO Particles and Compacts for AGR 5/6/7 Experiments**

Challenges with Current Regulatory Framework

- **Fuel performance demonstration and qualification comprise long duration research and development (R&D) task required for design and licensing**
- **Fuel form needs to be demonstrated and qualified for service conditions enveloping normal operation and potential accident scenarios**
- **No definitive Roadmap for transition from experimental to commercial fuel**
- **Current Approach is based on LWR experience**

- **LEU Source Material-Greater than 5%**
 - No US commercial Source
 - Various fuel forms are needed
- **Shipping Container Licenses**
- **Nuclear Criticality Safety Modifications**



Thank you

