spectrano

Nuclear engineering solutions

Engineering

Nuclear packaging and transport

Facilities and operations

Radiation protection

Decommissioning and dismantling (D&D)

Waste treatment and retrieval

Used fuel management

Equipment, system design and supply

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Who we are

Spectrano is a joint venture led by small business Spectra Tech, Inc. and partner Orano Federal Services LLC under the U.S. Small Business Administration (SBA) Mentor-Protégé program. Under the program, Spectrano can pursue small business set-aside contracts and can provide U.S. federal agencies with the experience of two companies who have extensive experience at sites across the country. We can apply extensive leadership and SME experience in key mission areas along with access to the latest generation of technology and cutting-edge nuclear industry innovation.

What we do

Spectrano is a diverse company that offers products and services related to both front and back ends of the nuclear fuel cycle. Spectrano provides engineering solutions for managing used nuclear fuel and radioactive waste and the ability to provide engineering, environmental, and nuclear services.

Our resources

Spectrano's resource pool is populated with a cadre of experts including experienced PhDs, engineers, designers, scientists, project management, contracts and procurement, and project support personnel in nuclear safety, quality, ES&H, and radiation protection and health physics. These functions ensure seamless execution of work and on-time, on-budget performance.

Our personnel have performed scopes of work for DOE sites nationwide including at Los Alamos National Laboratory, the Hanford site, Idaho National Lab (INL), Oak Ridge National Lab, and for the NNSA national security mission as well as management and operations for two NRC licensed sites, Fort St. Vrain Independent Spent Fuel Storage Installation (ISFSI) and the Three Mile Island Reactor 2 ISFSI at INL. We will fulfill small business requirements and provide large business experience.

Areas of expertise

Engineering

- Nuclear, chemical, mechanical, electrical, systems
- Emergency preparedness
- Validation and verification
- Commercial-grade dedication
- Research & development planning and execution
- Nuclear facility architecture and design
- Radwaste solutions
- Recycling technologies

Spectrano personnel have extensive DOE site experience

The Battelle Energy Alliance research reactor cask was designed, licensed, and fabricated by Orano

Nuclear packaging and transport

- Design, licensing and fabrication for packaging and transportation
- Storage, transportation, and disposal of radioactive materials
- Technology proficiencies:
  - Design/structural: SolidWorks, LS-DYNA-3D, ANSYS, Specialty Drop Analysis Codes
  - Thermal: SINDA/FLUINT
  - Shielding: MCNP5
  - Criticality: MCNP5, KENO V.a

Facilities and operations

- Environmental safety and health (ES&H)
- Nuclear and facility safety
- Criticality safety
- Reviews and assessments
- Quality assurance (including NQA-1)
- NRC licensing
- Safeguards and security

Radiation protection

- Radiological control technicians
- Radiological engineering
- Heath physics
- Dose assessments
- Radiation protection programs

Spectra Tech has a history of providing a multi-disciplined approach to address customers' emergent needs

Decommissioning and dismantling

- Cleanup and closure
- D&D waste management of various types of waste
- Facility characterization
- Waste retrieval and packaging
- Final shutdown, dismantling, and status surveys

Waste treatment and retrieval

- Waste retrieval
- Characterization for disposition
- Processing, reduction, and treatment

Used fuel management

- Material control and accounting (MC&A)
- Nuclear material
- Spent nuclear fuel
- Acceptable knowledge
- Waste certification

Equipment, system design and supply

- Fuel handling
- Remote maintenance
- Used fuel handling and systems
- Advanced reactor development