



Southern Nuclear Student Opportunities

Southern Nuclear, a subsidiary of Southern Company (NYSE: SO), is a leader among the nation's nuclear energy facility operators and an innovator in advanced nuclear technologies. Southern Nuclear is an essential part of Southern Company's energy portfolio, operating over 8,200 MW across eight nuclear energy units in Alabama and Georgia at the Joseph M. Farley Nuclear Plant near Dothan, Ala., the Edwin I. Hatch Nuclear Plant near Baxley, Ga., and the Alvin W. Vogtle Electric Generating Plant near Waynesboro, Ga.

The company recently achieved commercial operation on Vogtle Units 3&4, representing an historic achievement for the nuclear industry and the country. Vogtle Units 3&4 are the first new nuclear units to reach commercial operation and be built in the United States in the last three decades. Southern Nuclear is a recognized leader in the industry in nuclear and fuel innovation, having been the first to deploy Accident Tolerant Fuels and winning over 10 consecutive Top Innovative Practice (TIP) Awards and eight EPRI awards.

For more than 40 years, Southern Nuclear has operated nuclear energy facilities at the highest levels of safety and reliability, generating carbon-free electricity for millions of homes and businesses. The company's headquarters is in Birmingham, Alabama.

Job Description:

Engineers within Southern Nuclear oversee the operations and maintenance of our nuclear plants including construction, design, plant performance monitoring, safety, reliability, troubleshooting, and project planning. They are part of the team ensuring current and newer nuclear technologies continue to be a source for clean, safe and reliable electricity.

Requirements: Minimum of 2.8 (3.0 for internship positions), Commitment of 3 alternating semesters (co-op positions only) and current authorization to work in the United States.

- **Majors:** Electrical, Mechanical, Nuclear, Chemical and Civil Engineers from ABET accredited institution.
- Power Systems coursework is desired
- Positions available vary by semester at the following **locations:**
 - Plant Hatch (Baxley, GA)
 - Plant Vogtle 1&2 (Augusta GA)
 - Plant Vogtle 3&4 (Augusta GA)
 - Plant Farley (Dothan, AL)
 - Corporate Headquarters (Birmingham, AL)

System engineers: ensure the reliability of assigned plant systems. They solve system and component problems, provide direct technical support for operation and maintenance, and plan long term performance improvements.

Program and component engineers: direct implementation of assigned programs and work processes. Typical assignments are fire protection, Equipment Qualification, in-service inspection, in-service testing, NRC Maintenance Rule compliance, MOV/AOV/Heat Exchanger/Check valve component programs, cable monitoring, instrument & controls, flow accelerated corrosion, and/or snubber testing.

Design engineers: duties include preparation / coordination of designs, calculations, drawings, cost estimates and schedules for plant modifications and retrofits. Work involves field walk downs for constructability and some construction coordination.

Reactor engineers: ensure the reliability of assigned plant systems. They perform fuel inspections and specifies fuel movement determinations, perform physics testing, support operations in control rod movements, conduct surveillance testing of reactor core, lead spent fuel audits, and perform reactor engineering calculations.

Digital I&C or Digital Design Engineers: Ensure configuration changes to the design of the AP1000 digital systems are high quality, budgeted, planned, scheduled, and implemented in a cost-effective manner. This position will provide Digital I&C support by preparing engineering calculations, performing engineering studies, developing cost estimates for design changes, reviewing vendor correspondence, performing conceptual design studies, performing design changes, performing design bases maintenance, performing equivalency determinations, as well as monitoring and providing technical recommendations and Long-Range Planning for assigned digital systems and components.

Cyber Security Engineers or Cyber Security Analysts: Provide technical leadership, execution, guidance, and monitoring of the Vogtle 3&4 Cyber Security Program. The Cyber Security Engineer/Analyst will also be tasked with maintaining programmatic aspects for site digital assets while interfacing with several departments including Site Security, Operations, Emergency Preparedness, and all engineering departments.

The **Nuclear Fuel & Analysis** department includes BWR Fuel Engineering, PWR Fuel Engineering, and Safety Analysis teams. SNC's corporate Fuel Engineering departments are responsible for nuclear fuel and core design, core management, operational support, reload safety analysis, and reload licensing to support our BWR and PWR nuclear units. SNC's corporate Safety Analysis provides plant support through performing analyses such as evaluations of containment response, radiological releases, and transient analyses on the entire

PRA Engineers: duties include developing inputs to perform risk-related engineering evaluations for Probabilistic Risk Assessment (PRA) models or risk informed application for Boiling Water Reactor (BWR) and Pressurized Water Reactor (PWR) nuclear plants. Examples of activities they perform include, but not limited to, supporting system notebook update, data update, human reliability analysis update, thermos-hydraulic analysis update, risk-informed applications update.

Regulatory Affairs Co-op/Interns: Provide assistance to nuclear licensing engineers and environmental specialists in preparing changes to licensing basis documents and environmental permits, including researching and reviewing regulation, engineering change request documentation and other technical documentation. Aid nuclear licensing engineers and environmental specialists in preparing regulatory analysis of plant issues. Provide assistance to nuclear licensing engineers during NRC inspections (as needed based on inspection schedule).

Engineers at Southern Nuclear may have opportunities to manage special projects. Also, engineers typically take key refueling outage assignments. Future developmental assignments in operations, maintenance, training, or quality assurance often prepare engineers for supervisory and management positions. Engineering assignments typically include on-call duty engineer and emergency plan response requirements. **Engineering co-op and interns** will be exposed to the same environment as a full time in any of the positions described above for Nuclear Generation.

Student Program Benefits: Insight into the making of energy – Hands on experience working in a plant environment – Meaningful work assignments and job shadowing in areas of interest – Multiple networking opportunities with senior leaders, managers, and current interns/co-ops – Health/Dental/Life Insurance – Tuition Reimbursement – Housing assistance at manager discretion – Paid Vacation/Sick Time and more.

We offer a competitive compensation package and relocation.

Southern Company is an equal opportunity employer where an applicant's qualifications are considered without regard to race, color, religion, sex, national origin, age, disability, veteran status, genetic information, sexual orientation, gender identity or expression, or any other basis prohibited by law.