



**Information Systems Laboratories, Inc.**  
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**Energy and Space**

# CAPABILITY STATEMENT

ISL is a small business employee-owned technology development corporation specializing in the areas of energy independence, advanced nuclear applications, space exploration, undersea technologies, surveillance and tracking, cybersecurity, and advanced radar systems.

ISL's Energy Sector, provides comprehensive areas of support to the U.S. government ranging from safety analysis and assessment of complex engineering systems to the development of regulatory frameworks and evaluation procedures. All of this is complemented by a best-practices approach to work products, including software development.

ISL specializes in nuclear analysis, computer code development, and regulatory assistance. ISL focuses on the following areas: thermal-hydraulics, fuel-mechanical, point and 3D neutron kinetics, nuclear plant performance, accident analysis, operational transient analysis, containment analysis, hydrodynamic force calculations, and control system studies.

ISL has extensive experience in risk management and system safety, including programmatic and institutional risk management, risk-informed decision making (RIDM), continuous risk management (CRM), accident precursor analysis (APA), and probabilistic risk assessment (PRA).

## **Nuclear Regulatory & Research Services**

- NUCLEAR FACILITY LICENSING AND REVIEWS
- NUCLEAR SAFETY ANALYSIS
- REGULATORY FRAMEWORK DEVELOPMENT
- NUCLEAR QUALITY ASSURANCE CODE/SOFTWARE DEVELOPMENT & MAINTENANCE

## **Nuclear Systems Analysis**

- THERMAL HYDRAULICS
- NEUTRONICS
- RADIOLOGICAL
- FUEL PERFORMANCE
- DESIGN SUPPORT ANALYSIS
- SCALING AND ASSESSMENTS

## **Advanced Nuclear Reactor Concepts**

- NEXT GENERATION ADVANCED NUCLEAR
- SMALL MODULAR REACTORS (SMR)
- MICRO NUCLEAR REACTORS
- SPACE REACTOR CONCEPTS

## **Code Development / Software Development**

- CODE DESIGN, PROGRAMMING, MODEL DEVELOPMENT
- VERIFICATION & VALIDATION (V&V)
- NQA-1 CONFIGURATION CONTROL, AUTOMATION AND DOCUMENTATION

## **Waste Management and Tracking**

- NUCLEAR/HAZARDOUS MATERIAL INVENTORY TRACKING
- NUCLEAR/HAZARDOUS MATERIAL TRANSPORTATION SOFTWARE

## **Space Related Technologies**

- SPACE REACTOR DESIGN (POWER AND PROPULSION)
- TOOLS/SERVICES (SAFETY & RELIABILITY ANALYSIS)
- RISK MANAGEMENT ANALYSIS AND IMPLEMENTATION

## **Climate Adaptation & Carbon Sequestration**

- CLEAN FISSION ENERGY DESIGN CONCEPTS
- NUCLEAR DRIVEN CO2 SEQUESTRATION

## **Cyber Security**

- INSIDER THREAT – RISK MANAGEMENT

Certifications - NQA-1 Compliant Software | NQA-1 Compatible Processes | CMMI Level 3 Compliant

Customers Include: Government - NASA | US Navy | NRC | DOE | DOD | ONR | NWP | WIPP | National Laboratories | Horizon Nuclear | and various commercial clients.

For additional information about ISL's Energy & Space capabilities, please contact Jason Williams ([jwilliams@islinc.com](mailto:jwilliams@islinc.com)) and/or Peter Skangos ([pskangos@islinc.com](mailto:pskangos@islinc.com)).