



**NSA**<sup>®</sup>

*Proven • Effective • Solutions*

**NUCLEAR SAFETY  
AND LICENSING**

**2001-2011**

*Celebrating 10 years of  
engineering excellence  
and exceeding client  
expectations.*

## CORPORATE OVERVIEW

**Nuclear Safety Associates (NSA)** launched in 2001 and in just a little over a decade has become an industry leader in fields related to nuclear safety.

From its earliest days, NSA was uncompromising in its commitment to hiring only the most qualified engineers and scientists in the industry. As a result, NSA quickly developed a reputation throughout the nuclear industry for providing innovative solutions, a high level of client satisfaction and for enabling client success. NSA has expanded its initial core capabilities in nuclear criticality safety to include other disciplines required to define and defend the safety basis for nuclear operations including: nuclear facility safety, chemical and radiological consequence analysis, risk assessment, readiness, and licensing. In 2008, NSA marked a significant milestone in its strategic direction and growth with the addition of two new business lines, *safeguards & security and design engineering*.

Today, NSA offers clients turnkey capabilities to perform safety-related work for the nuclear facility lifecycle, from conceptual design through construction, operations, and ultimately, to decontamination and decommissioning. In response to rapidly evolving political and technological environments, NSA's Safeguards & Security Services business has become the company's fastest growing sector, providing security services to a diverse pool of commercial and government clients.

NSA offers engineering excellence and client customization through four business sectors:

- Nuclear Safety and Licensing
- Readiness Assurance and Operations Management
- Safeguards & Security
- Design Engineering

A privately held company with more than 100 employees throughout North America and with plans to expand into Europe and Asia, NSA serves a broad client base within the U.S. Department of Energy (DOE), the commercial nuclear industry, the public utilities sector and, is well positioned for expansion into new public and private markets.

## OUR EXPERIENCE IN NUCLEAR SAFETY AND LICENSING

NSA has extensive experience assisting clients in all phases of nuclear safety and licensing. A few of our clients include: Nuclear Fuel Services, Westinghouse Electric Company, Shaw AREVA MOX Services, B&W Y-12, Bechtel Energy Alliance at Idaho National Lab, Fluor B&W Portsmouth, BBWI for the Advanced Mixed Waste Treatment Plant, all nuclear fuel manufacturing operations in the U.S., uranium enrichment facilities and source material operations.

## NUCLEAR SAFETY AND LICENSING

NSA is an industry leader in nuclear safety and licensing technologies. Our vast experience includes support for new build, operating facilities, and D&D, and spans NRC-licensed fuel cycle facilities and reactors as well as DOE reactor and non-reactor nuclear facilities. NSA's long list of accomplishments includes key support to the first Integrated Safety Analysis (ISA) approved by the NRC under 10CFR70 and full scope responsibility for the first ISA for a facility licensed under 10CFR40. In the DOE sector, NSA has produced numerous Documented Safety Analyses (DSAs), written the supporting TSRs and procedures, and performed many USQD evaluations.

### OUR SERVICES

- **Criticality Safety**
  - Design support and safety integration
  - Facility operations at both commercial fuel fabrication facilities and DOE non-reactor nuclear facilities
  - Safety basis document integration
  - Packaging and transportation (SARP)
  - Criticality accident alarm system design, analysis, and implementation
- **Nuclear Facility Safety**
  - Write DSA's, TSR's, and procedures
  - Perform consequence analyses
  - USQD evaluation
- **Integrated Safety Analysis**
  - Coordination and management of the ISA
  - ISA and ISA summary document development
  - Hazards identification and evaluation
- **Licensing and Permitting**
- **Radiation Protection and Shielding**
  - Deep penetration shielding analysis
  - Criticality incident detection and alarm system placement
  - Source term generation, air dispersion modeling, and calculating dose to the public
  - Packaging and transportation (SARP)
- **Reactor Safety**
  - Core reload safety analysis
  - Chapter 15 safety analysis
- **Probabilistic Risk/Safety Analysis**
- **Chemical Safety**
- **Fire Protection Engineering**
- **Risk and Consequence Analysis**



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***For information about NSA's Nuclear Safety  
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