



Nuclear Safety

Associates

An Industry Leader in DOE Facility Safety Support

DOE FACILITY SAFETY

NSA IS AN INDUSTRY LEADER in helping clients establish a rigorous safety basis for nuclear operations that is consistent with applicable regulatory requirements. NSA has extensive experience working in both the DOE and NRC regulatory environments. We support new design and construction projects, operating facilities, and nuclear facility decontamination and decommissioning.

Safety Basis Development, Review, and Implementation

- Prepare and review Documented Safety Analyses (DSAs) in accordance with DOE-STD-3009 and other applicable requirements;
- Perform hazard evaluations and accident analyses to support DSA development, including facility hazard categorization, hazard identification and screening, hazard evaluation, radiological and chemical consequence assessment, control identification, and supporting analyses;
- Perform nuclear criticality safety evaluations and fire hazard analyses to support DSA development;
- Perform Natural Phenomena Hazards (NPH) performance categorization of facility structures, systems, and components (SSCs)
- Perform USQ determinations;
- Perform independent technical reviews of DSAs and TSRs prior to submittal to the regulator for approval;
- Support Facility Safety Program development and improvement initiatives;
- Perform Implementation Validation Reviews (IVRs) to ensure adequate TSR flowdown in the field.

NSA's staff expertise extends to a variety of process operations, including spent fuel handling and reprocessing, liquid waste processing, uranium and plutonium recovery and stabilization, packaging and transportation, waste repositories, a wide variety of operations associated with weapons production, and space and security power system development.

DOE Safety Basis Experience:

- Revision of the DSA for the Fuel Conditioning Facility at the Idaho National Lab to meet 10CFR830 and DOE-STD-3009
- Supported Development of the DSA for the SNL Sodium Debris Bed Material Treatment Project.
- Support DOE/EM in establishing a Standard Review Plan for DOE Review Teams related to design and construction projects.
- Perform independent technical reviews to provide assurance that safety basis documents meet the technical and administrative requirements of 10 CFR 830, B&W Y-12 management requirements, and documented lessons learned.
- Develop and implement initiatives to support improvement of Safety Basis documents and processes, e.g., Technical Safety Requirements templates.
- Support the Safety Analysis Compliance and Oversight Manager in the development or revision of procedures related to the Safety Basis process.

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- Support the generation, revision, and update of Safety Basis documents and their supporting technical documents. These documents include, but are not limited to, Documented Safety Analyses, Safety Analysis Reports, Safety Basis Supplements, Technical Safety Requirements, Unreviewed Safety Question Determinations, Design Analysis Calculations, technical reports, and other safety-related documents.
- Perform IVRs to ensure TSR controls are properly implemented by operations prior to declaring the safety basis effective.

Quality Assurance

The NSA Quality Assurance Program is compliant with the requirements of ISO 9001-2000, NQA-1, 10CFR50 Appendix B, CSN 286.2, and 10CFR830. NSA strives for continuous improvement in the quality of its products and services. NSA accepts 10CFR21 reporting requirements.

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EXPERIENCE

Staff Expertise

NSA staff members are experts at DOE facility safety/safety basis support, and compliance with:

10CFR830	DOE Order 420.1B
DOE-STD-3007	DOE-STD-1020
10CFR835	DOE Order 425.1C
DOE-STD-3009	DOE-STD-1027

OUR CLIENTS

Our Clients for Facility Safety Support include:

Battelle Energy Alliance (BEA) • B&W Y-12
Link Technologies • Department of Energy
CH2MHill Washington Idaho
CH2MHILL Plateau Remediation Company
Sonalysts • Fluor Hanford • SAIC • AECL

