Office of Nuclear Safety and Environmental Assessments Protocol for Identification of Topical Areas for Enterprise-wide Targeted Nuclear Safety Assessments
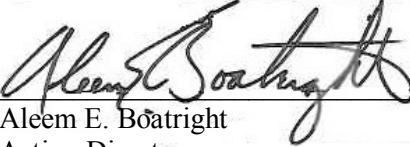
PROTOCOL – EA-31-03
Revision 0

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Office of Enterprise Assessments
U.S. Department of Energy

**Office of Nuclear Safety and Environmental Assessments
Protocol for Identification of Topical Areas
for Enterprise-wide Targeted Nuclear Safety Assessments**

September 2020

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1.0   PURPOSE

The purpose of this protocol is to define the process for the Office of Nuclear Safety and Environmental Assessments (EA-31) to collect and systematically analyze accessible nuclear safety data to support risk-informed* identification, selection, and analysis of targeted nuclear safety assessments across the U.S. Department of Energy (DOE) enterprise. The goal of this process is to identify, analyze, and recommend prioritized oversight activities that address the most significant nuclear safety vulnerabilities.

2.0   APPLICABILITY

This protocol applies to nuclear safety assessment selection and analysis activities performed by EA-31 personnel.

3.0   REQUIREMENTS

3.1.   General Process

The topical area selection and analysis process is conducted by an EA-31 Topical Area Selection Team (TAST), as assigned by the EA-31 Director. Using the process, the EA-31 TAST analyzes available data relating to the potential assessment topical areas (ATAs) listed in Attachment 1. ATAs are areas that have importance to nuclear safety, and which EA-31 has the responsibility to periodically assess. As noted in Attachment 1, ATAs that have an assigned Federal subject matter expert (SME) (i.e., safety design basis**, construction quality, fire protection, and conduct of engineering) and ATAs that are cross-cutting in nature, will typically be excluded from further analysis using this process. Federal SMEs and assessment teams dedicated to collecting and analyzing data for given ATAs, and routine inclusion of additional ATAs in a variety of other assessments, render the deep dive analyses of these ATAs unnecessary, and the remaining subset of ATAs are listed in Attachment 2 for scoring. (Note that Attachment 1 will be periodically reviewed to ensure that it remains appropriately inclusive.)

Attachment 2, which implements a weighted decision tool, is populated using the methodology discussed in Section 3.3 to process data from available sources, such as previous EA assessment results, Occurrence Reporting and Processing System (ORPS) reports, Defense Nuclear Facilities Safety Board (DNFSB) issues, EA-10 Enforcement actions, and other potential factors that can adjust ATA priorities. Based on the scores determined from this data-driven process, the ATAs shown in Attachment 2 are prioritized for further evaluation through deep dive analyses.

The deep dive analyses examine additional site-specific information, as well as perform detailed analysis of the individual items that comprised the initial data set. Performance trends and specific events (ORPS reports), as well as additional information from line management oversight, are evaluated to identify the most relevant areas of the ATA and candidate DOE sites for performing subsequent targeted assessments. The deep dive analysis deliverables identify specific sites that warrant potential targeted oversight assessment. This deliverable is provided to EA-30 management for review and approval as an enterprise targeted assessment topic. Follow-on operational planning is conducted by the EA-31 Resource Loading and Integration Team (RLIT). The ATA selection process and weighted decision tool are illustrated in Figures 1 and 2, respectively.

* "Risk-informed" is defined in this protocol as *A decision making approach whereby conclusions drawn from an assessment of past performance, hazards involved, and the likelihood and consequences of accidents are considered together with other factors to make decisions that better focus contractor and Federal oversight attention on design and operational issues commensurate with their importance to public health and safety.* [NNSA SD226.1B §9.m]

** Does not include safety basis maintenance ATA
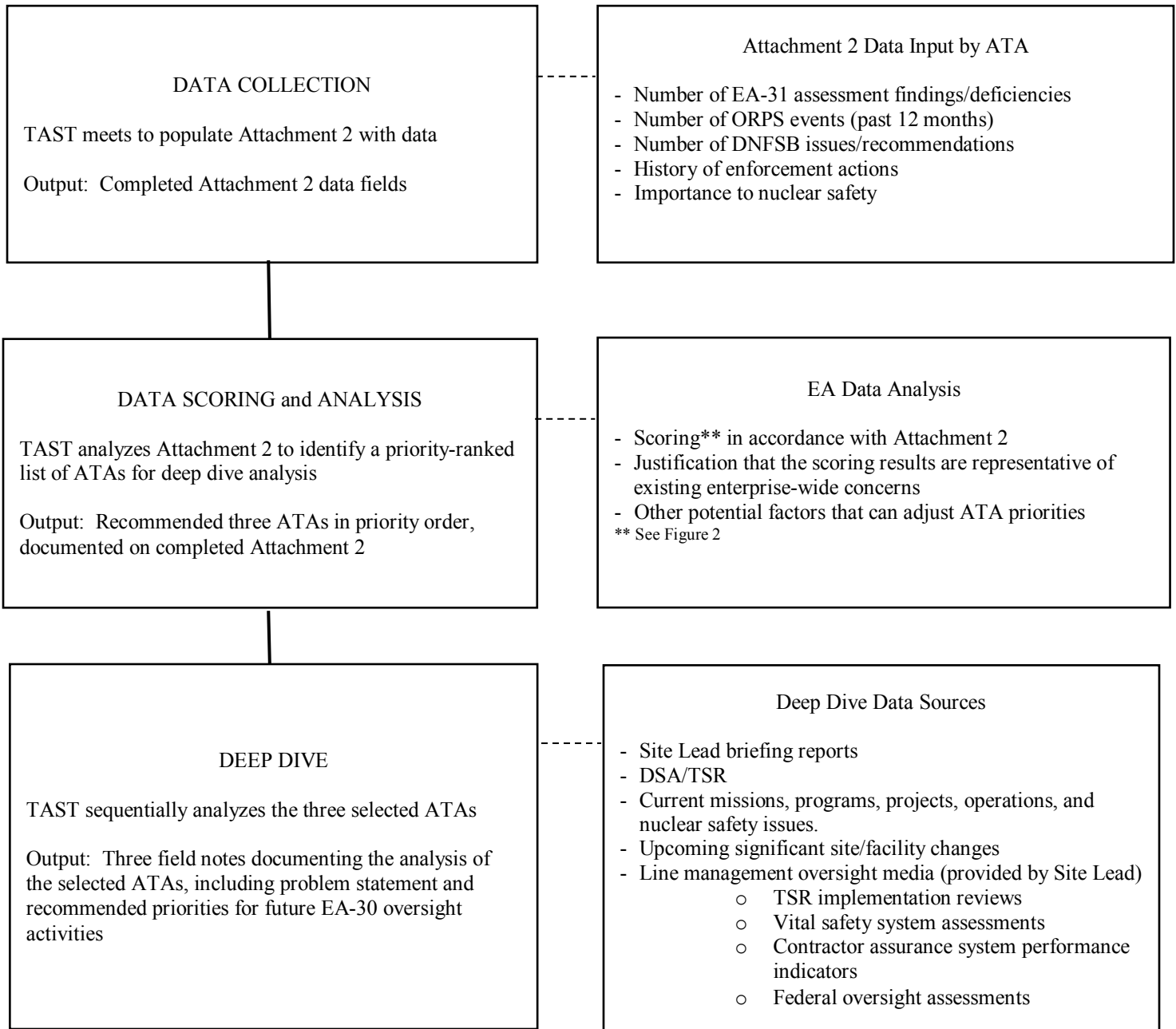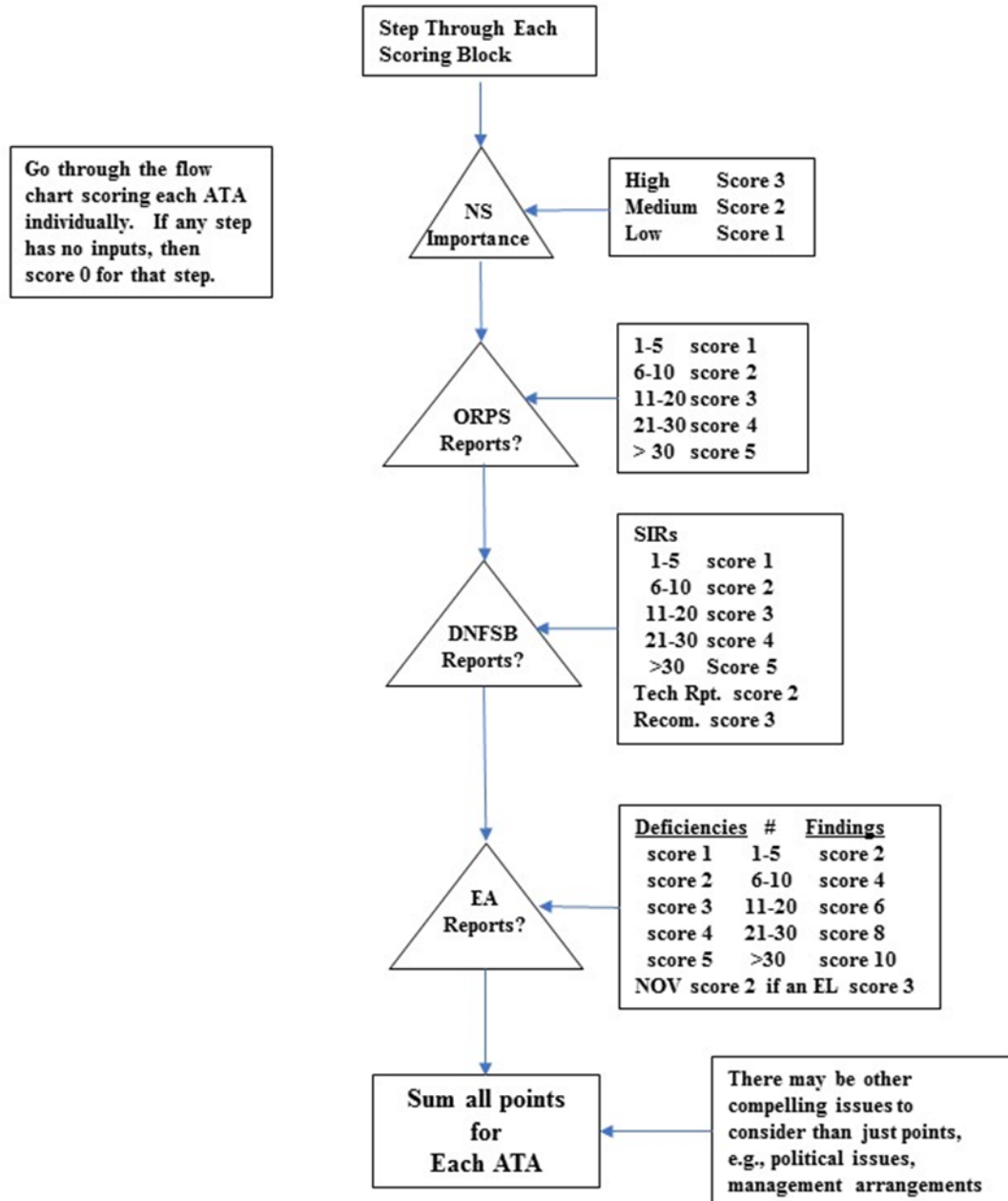
Figure 1. EA-31 Topical Area Selection

DATA COLLECTION

TAST meets to populate Attachment 2 with data

Output: Completed Attachment 2 data fields

Attachment 2 Data Input by ATA

- Number of EA-31 assessment findings/deficiencies
- Number of ORPS events (past 12 months)
- Number of DNFSB issues/recommendations
- History of enforcement actions
- Importance to nuclear safety

DATA SCORING and ANALYSIS

TAST analyzes Attachment 2 to identify a priority-ranked list of ATAs for deep dive analysis

Output: Recommended three ATAs in priority order, documented on completed Attachment 2

EA Data Analysis

- Scoring** in accordance with Attachment 2
- Justification that the scoring results are representative of existing enterprise-wide concerns
- Other potential factors that can adjust ATA priorities
** See Figure 2

DEEP DIVE

TAST sequentially analyzes the three selected ATAs

Output: Three field notes documenting the analysis of the selected ATAs, including problem statement and recommended priorities for future EA-30 oversight activities

Deep Dive Data Sources

- Site Lead briefing reports
- DSA/TSR
- Current missions, programs, projects, operations, and nuclear safety issues.
- Upcoming significant site/facility changes
- Line management oversight media (provided by Site Lead)
    o TSR implementation reviews
    o Vital safety system assessments
    o Contractor assurance system performance indicators
    o Federal oversight assessments

Figure 2 TAST Scoring Process for Each ATA

Step Through Each Scoring Block

Go through the flow chart scoring each ATA individually. If any step has no inputs, then score 0 for that step.

NS Importance

High	Score 3
Medium	Score 2
Low	Score 1

ORPS Reports?

1-5 score 1
6-10 score 2
11-20 score 3
21-30 score 4
> 30 score 5

DNFSB Reports?

SIRs
1-5 score 1
6-10 score 2
11-20 score 3
21-30 score 4
>30 Score 5
Tech Rpt. score 2
Recom. score 3

EA Reports?

Deficiencies # Findings
score 1 1-5 score 2
score 2 6-10 score 4
score 3 11-20 score 6
score 4 21-30 score 8
score 5 >30 score 10
NOV score 2 if an EL score 3

Sum all points for Each ATA

There may be other compelling issues to consider than just points, e.g., political issues, management arrangements

3.2.   TAST Data Collection

Attachment 2 identifies ATAs that will be screened and considered as candidates for a deep dive analysis. Attachment 2 also provides the mechanism for a weighted screening of the inputs based on available data. Data inputs for ATAs include:

*   Importance to nuclear safety
*   Number of EA-31 assessment findings and deficiencies
*   Number of ORPS events using the Nuclear Safety Information (NSI) Dashboard (see Attachment 3)
*   Number of DNFSB issues/recommendations
*   History of enforcement actions.

The TAST will populate the data set values using EA-30 maintained Excel spreadsheets. Information on DNFSB technical reports and recommendations can be found on the DNFSB website.

3.3.   ATA Scoring, Analysis, and Prioritization

The scoring process provides a relative ranking of the ATAs based on point totals. This process enables the TAST to select the top three ATAs, based on the scoring. Scoring is accomplished by taking the raw data counts and applying the weighting factors identified in Attachment 2. These values are as follows:

*   Importance to nuclear safety (NS): Score 3 points for high, 2 points for medium, or 1 point for low
*   EA deficiencies: Score 1 point for 1-5 deficiencies, 2 points for 6-10 deficiencies, 3 points for 11-20 deficiencies, 4 points for 21-30 deficiencies, and 5 points for more than 30 deficiencies
*   EA findings: Score 2 points for 1-5 findings, 4 points for 6-10 findings, 6 points for 11-20 findings, 8 points for 21-30 findings, and 10 points for more than 30 findings
*   ORPS reports: Score 1 point for 1-5 reports, 2 points for 6-10 reports, 3 points for 11-20 reports, 4 points for 21-30 reports, and 5 points for more than 30 reports
*   DNFSB SIRs: Score 1 point for 1-5 SIRs, 2 points for 6-10 SIRs, 3 points for 11-20 SIRs, 4 points for 21-30 SIRs, and 5 points if more than 30 SIRs; Score 2 points for each applicable Technical Report, and 3 points for each applicable Recommendation
*   EA Enforcement actions: Score 2 points for each applicable NOV (Notice of Violation), or 3 points if it results in an Enforcement Letter (EL)
*   Other potential factors that can adjust ATA priorities.

The points associated with the various data categories are qualitative and only provide a relative weighting. For example, ATAs having 10 ORPS reports warrant more attention than 1 to 5 reports. Findings are of more concern than deficiencies. DNFSB Recommendations and Technical Reports are of more concern than SIRs. EA Enforcement Actions are violations of a specific CFR requirement and, therefore, are equivalent to a finding. The importance to nuclear safety is relative to the potential impact to hazards and controls in a nuclear facility.

Attachment 2 identifies the ATA ranking using the scoring methodology criteria. Once the numerical analysis is complete, the TAST can consider the impact of any of the identified factors in adjusting ATA priorities. Other potential factors that the TAST should consider in developing the final prioritization of ATAs may include DOE management interest in a particular ATA, recent media interest in a particular ATA, the history of recent deep dive analyses, EA assessment reports with no issues, or recent unusual issues in a particular ATA. The results are documented in the Attachment 2 table, and the TAST submits

the recommended three ATAs for management review. The TAST may request additional topical area SMEs and/or Site Leads to review the Attachment 2 recommendations prior to management submittal.

3.4.   Deep Dive Analysis

The deep dive analysis consists of a review of each of the inputs from the data sets by assigned SMEs. For example, each of the identified ORPS reports, DNFSB reports, or EA assessment findings should be reviewed to determine the significance and underlying causes for the identified issues. Specific emphasis should be placed on trends and identification of specific sites or facilities that would benefit from a targeted assessment. Line management oversight information from the identified sites should be reviewed to further inform the analysis. The line management oversight information includes TSR implementation reviews, the DSA/TSRs, performance indicators from the contractor assurance system, and Federal oversight assessments. The analysis should provide recommendations for selecting specific issues and locations for a set of targeted topical area assessments across the DOE enterprise. The analysis should also form the basis for determining the important issues or lines of inquiry to be addressed by assessment plans and CRADs, and specific sites that should be included. The output of each deep dive analysis is a field note documenting the results that identify the problem statement and recommends the topical assessment for enterprise-wide evaluation.

3.5.   Process Steps

Approximate Timeline	Actions
Week 0	**EA-31 management:** Assigns the TAST Lead and members
Week 2	**TAST:** 1. The TAST reviews the list of ATAs in Attachment 1 and documents the data set values listed in Attachment 2 using the following sources*: a. EA-30's EXCEL spreadsheet "*EA Assessment Report Findings/Deficiencies since 2015*" b. EA-30's EXCEL spreadsheet "*DNFSB Site Issues since 2015*" c. ORPS and NSI data**. 2. The TAST uses Attachment 2 and the weighted decision tool to determine in priority order the three ATAs to be evaluated using a deep dive. 3. The TAST briefs EA-30 management, resolves comments, and issues a prioritized list of three selected ATAs to be evaluated using a deep dive. * See O:\EA-31\Site Lead Data Sources. ** See the Attachment 3 job aid.
Week 3	**EA-31 management:** Assigns additional personnel to perform the deep dive analysis for the selected ATAs.

Approximate Timeline	Actions
Week 4 through Week 12	**TAST:** 1. The TAST conducts a deep dive analysis of the identified ATAs to determine specific issues that should be addressed, and specific sites or facilities that would benefit from the targeted assessment. 2. The deep dive analysis for each selected ATA: performs detailed analysis, identifies problem statement(s), and recommends targeted site(s)/facility(s) for assessments. Each deep dive analysis is documented in a separate field note for review and approval by EA-30 management. 3. The highest priority ATA field note is finalized and approved before proceeding to the next selected ATA. 4. The approved field notes are provided to EA-31 personnel (and subsequently to the RLIT for integration into the EA-31 annual schedule).
As needed	EA-30 coordinates with EA-1 to establish the enterprise-wise targeted assessment direction.

4.0   RESPONSIBILITIES

Director and Deputy Director, Office of Environment, Safety and Health Assessments (EA-30)

- Provide management expectations for overall oversight strategies, ATA concerns, and enterprise nuclear safety issues
- Review and approve the prioritized list of three selected ATAs for deep dive analyses
- Brief EA-1 and provide direction for implementing enterprise-wide targeted assessments.

Director, Office of Nuclear Safety and Environmental Assessments (EA-31)

- Provides direction and resources to maintain data collection and evaluation tools current
- Designates the TAST Lead
- Assigns personnel to the TAST
- Reviews and approves TAST deliverables
- Considers lessons learned for potential process improvements
- Provide direction to periodically update this protocol base on TAST Lead lessons learned and experience gained with use of ORPS key word codes.

TAST Lead

- Consider relevant TAST lessons learned
- Coordinates with Site Leads for data to support the TAST analysis
- Provides direction to TAST members
- Ensures that ATA selection is timely, and subsequent deep dive analyses are conducted and documented in field notes
- Presents TAST's analysis results to EA management and personnel

- Documents and communicates lessons learned to the EA-31 Director.

TAST Members

- Perform and document assigned tasks
- Provide input and recommendations for TAST deliverables and lessons learned.

Site Leads

- Maintain operational awareness of site nuclear safety conditions and line management oversight sufficient to provide timely response to the TAST Lead's data request
- When requested, support selection of priority ATAs, deep dive analysis, and review TAST deliverables.

5.0 REFERENCES

- ORPS Database and Nuclear Safety Indicator Dashboard
- EA-10 Investigation Reports and Enforcement Letters (stored on EAShare)
- DNFSB website providing annual reports (https://www.dnfsb.gov/documents/reports)
- EA-30 Assessment Reports found on the EA Assessment Documents website (https://www.energy.gov/ea/listings/assessment-documents)
- DOE Order 226.1B, *Implementation of Department of Energy Oversight Policy*
- DOE Order 227.1A, *Independent Oversight Program*

Attachment 1: Description of Assessment Topical Areas

	Assessment Topical Area	Driver	Nuclear Safety Importance (note 1)	Examples of Concerns or Sub-Topics to be Evaluated	Definition	Examples – Reports
1	**Safety Basis – Safety Design Basis** (CSDR, PSDR, PDSA, SRL, SER) [Inclusion on this list is for completeness only. This ATA has a Federal SME with a dedicated assessment team. Conducting analysis or deep dive is a duplication of effort.]	EA Oversight Required by DOE O 420.1C §5.c Appropriations Act section 303	High or Medium	• Inadequate safety integration in design process, hierarchy of control implementation, nuclear safety design criteria, safety function, functional requirements or performance criteria evaluation, safety design basis development • Ineffective hazard and accident analysis and control selection to support design process. • Insufficient Federal project management oversight	Oversight of safety design basis for selected high hazard nuclear projects and major modifications as required by DOE-STD-1189-2016 (e.g., CSDR, PSDR, PDSA, SRL, SER) including development processes, hazard analysis, selection of controls, and Nuclear Safety System Design Criteria implementation of DOE Order 420.1C, Attachment 2 (CRD), Chapter I- Nuclear Safety Design Criteria. [See EA CRAD 31-29]	See multiple EA-31 reports on CSDR, PSDR and PDSA reviews.
2	**Safety Basis – Existing Facility Safety Basis Maintenance** - DSA/TSR Annual Updates, SER, upgrades to DOE-STD-3009-2014, USQ processes, TSR implementation verification reviews (IVRs) and assessments.	EA Oversight Required by DOE O 420.1C §5.c.	High or Medium	• Inadequate DSA/TSR, USQ program implementation • Insufficient DSA/TSR upgrade to DOE-STD-3009-2014 • Safety basis and engineering documents not updated to current NPH revisions. • Adverse trends in reported PISAs or TSR violations. • Insufficient contractor or Federal line oversight	Oversight of existing nuclear facilities safety basis upgrades or implementation: a. Annual or upgraded DSA/TSR changes, review and approval. b. Safety basis configuration management by USQ process c. TSR IVR or assessments [See EA CRAD 31-07 New/upgraded DSA, EA CRAD 31-35 HC-3 DSA, EA CRAD 31-22 SAC, EA CRAD 31-34 USQ]	• See EA-31 reports on DSA/TSR reviews • See HS-45 reports on line management TSR IVRs • No examples of EA SAC IVR since 2012.
3	**Construction Quality** (note 2) [Inclusion on this list is for completeness only. This ATA has a Federal SME with a dedicated assessment team.	No specific driver	Medium	• Ineffective procurement and receipt inspection, control of suspect/counterfeit items • Failure to construct per drawings or specifications, to maintain as-built	Compliance with design media, Procurement, QA Construction, testing and QA. [See CRAD 31-16 Steel, 31-17 Concrete, 31-31 Receipt Inspection]	See EA reports for WTP and UPF

	Assessment Topical Area	Driver	Nuclear Safety Importance (note 1)	Examples of Concerns or Sub-Topics to be Evaluated	Definition	Examples – Reports
	Conducting analysis or deep dive is a duplication of effort.]			design media configuration control, to adequately evaluate and control design changes or non-conformances • Inadequate quality control, construction testing, component checkout and system operational testing.		
4	**Conduct of Engineering** Design criteria compliance, System design documents, Configuration Control, Design Drawing/As-built conformance, and updates and maintenance. [Inclusion on this list is for completeness only. This ATA has a Federal SME with a dedicated assessment team. Conducting analysis or deep dive is a duplication of effort.]	EA Oversight Required by DOE O 420.1C §5.c	Medium	• Weaknesses in cognizant system engineer programs • Inadequate design margin management • Failure to meet single failure design criteria, design in accordance with applicable codes and standards, establish or maintain code of record, maintain up to date "as built" design media, adequately evaluate and control design changes or non-conformances • Insufficient independence, redundancy, or separation of safety class related equipment • Deficiencies in design calculations • Inconsistencies between safety basis documents and as-built facility design basis • Unqualified engineering personnel • Ineffective Federal line oversight.	**Cross-cutting Topical Area See CRAD 31-13:** Oversight of operability of nuclear facility active safety SSCs as required by DOE Order 420.1C, Attachment 2 (CRD), Chapter V including cognizant system engineer program, configuration management, operations and maintenance, CSE qualification. Chapter I including integration of safety with design & nuclear facility design. 10 CFR 830.122 Criterion 3 [Quality Improvement], Criterion 6 [Design Control], Criterion 7 [Procurement], DOE Order 226 [Federal Oversight]	See multiple EA reports (2016-2019)

	Assessment Topical Area	Driver	Nuclear Safety Importance (note 1)	Examples of Concerns or Sub-Topics to be Evaluated	Definition	Examples – Reports
5	**Criticality Safety Program**	EA Oversight Required by DOE O 420.1C §5.c.	Medium	• NCS program does not comply with DOE O 420.1C and ANS 8 standards • Inadequate NCS evaluations and specification of controls • Failure to establish, implement, or maintain NCS control procedures • Adverse trends in NCS control violations or infractions • Insufficient qualified staff to support fissile operations	Self-explanatory [See CRAD 31-30 NCS]	See EA reports for INL (BEA) and TA-55 Fissile Material Handling restart.
6	**Fire Protection Program** [Inclusion on this list is for completeness only. This ATA has a Federal SME with a dedicated assessment team. Conducting analysis or deep dive is a duplication of effort.]	EA Oversight Required by DOE O 420.1C §5.c.	Medium	• Inadequate fire hazard analysis, life safety codes implementation, design and installation of fire protection systems, safety functional classification, inspection, testing and maintenance, compensatory measures during system impairments, training and qualification, fire protection procedures including pre-incident plans. • Failure to follow fire protection procedures • Ineffective control of combustibles and flammables limits, ignition sources, hot work or coordination of offsite resources. • Insufficient facility assessments	Oversight of FPP as defined by DOE Order 420.1C, Attachment 2 (CRD), Chapter II which includes FPP requirements, administration, design process, protection threshold, life safety, operational implementation, emergency response, FHA, facility assessments, wildland fire management, AHJ, Engineering reviews, and federal oversight. [See CRAD 31-12 FPP]	See multiple EA reports (2012-2019)

	Assessment Topical Area	Driver	Nuclear Safety Importance (note 1)	Examples of Concerns or Sub-Topics to be Evaluated	Definition	Examples – Reports
7	**Nuclear Maintenance Management Program**	EA Oversight Required by DOE O 433.1B §5.b.(5).	Medium	• Safety related equipment failures • Maintenance backlog management issues • Inadequate use of predictive, preventive, and responsive maintenance processes, coordination and management of system configuration, system impairments and temporary modifications, post maintenance testing, master equipment list, maintenance procedures, maintenance management program, safety SSC aging management program, facility condition inspections • Training and qualification issues • Poor maintenance QA-QC program	Oversight of nuclear maintenance management programs as defined by DOE Order 433.1B which includes administration, master equipment list, maintenance process, maintenance types, procedures, training & qualification, configuration management, procurement, maintenance tool & equipment control, suspect & counterfeit items, history, aging degradation & technical obsolesce, seasonal preservation, performance measures, facility condition inspection, post maintenance testing [See EA CRAD 30-06 NMMP]	See EA report on LANL maintenance of safety SSCs and programmatic equipment.
8	**Conduct of Operations** [Inclusion on this list is for completeness only. This ATA is normally addressed by other ATA CRADs. Conducting analysis or deep dive is a duplication of effort.]	EA Oversight Required by DOE O 422.1§5.c	Medium	• Inadequate procedures, organization or administration, communications, abnormal event or condition investigation and trending, equipment/system status control and tag outs; discipline in approaches and practices for control areas; control of inter-related processes or systems • Weaknesses in shift routine or operating practices including shift turnovers and staffing	Oversight of conduct of operations as defined by DOE Order 422.1 includes organization/administration, shift routines/operating practices, control area activities, communications, on-shift training, abnormal events/trend investigation, notifications, equipment/system status control, lockout/tagout, independent verification, logkeeping, operations turnover, interrelated process control, required reading, timely orders, technical procedures, operator aids, component labeling [See EA CRAD-30-02 CoO]	See EA reports on SWPF and WIPP.

	Assessment Topical Area	Driver	Nuclear Safety Importance (note 1)	Examples of Concerns or Sub-Topics to be Evaluated	Definition	Examples – Reports
				• Failure to follow procedures including unauthorized field changes or work arounds • Training and qualification issues and required reading • Improper equipment labeling or operator aids. • Logkeeping deficiencies		
9	**Radioactive Waste Management**	EA Oversight Required by DOE M 435.1-1 Chapter I, §2.C.(2)-(3)	Low	• Improper characterization, monitoring, packaging or labeling, handling or treatment, storage or disposal of radwaste • Inadequate or non-compliance to waste management program or procedures • Radwaste training and qualification issues • Receiving facility Waste Acceptance Criteria violation • Inadequate waste form physical stability or chemical compatibility to comply with the disposal performance assessments.	Oversight of HLW, LLW & TRU waste management programs implementation including waste management basis, waste contingency/corrective actions, acceptance, generation, operational planning, characterization, certification, transfer, packaging & transportation, storage, treatment, disposal, monitoring, closure, site evaluation and facility design. [See EA CRAD-31-11: LLW Management, EA CRAD 31-33, Waste Characterization, Packaging & Shipping]	See multiple EA reports (2019-2020)
10	**Safety System Management**	EA Oversight Required by DOE O 420.1C §5.c.	High/ Medium	Issues related to the operability of TSR level active safety systems	**Cross-cutting Topical Area See CRAD 31-15**: Oversight of operability of nuclear facility active safety SSC including cognizant system engineer program, configuration management, conduct of operations and maintenance, QA,	See multiple EA reports (2012-2019)

	Assessment Topical Area	Driver	Nuclear Safety Importance (note 1)	Examples of Concerns or Sub-Topics to be Evaluated	Definition	Examples – Reports
					Feedback & improvement, surveillance & testing and Federal SSO	
11	**Packaging and Transportation** (Does not include OST operations)	No specific EA driver	Low	Data assigned to this topical area are limited to issues regarding the packaging and transportation of radioactive materials other than radioactive waste.	Oversight of hazardous material packaging and transportation safety implementation as defined by DOE 460.1D which includes implementation of 49 CFR 171-180], off-site [49 CFR 40, 171-180, 350-399, 200-268], NNSA and DOE Certification Officials for off-site radioactive material packaging, HMP&TS quality assurance, lessons learned, training and qualification programs. [No EA CRAD]	No examples of EA reports on HMP&TS implementation
12	**Shutdown facility risk management**	EA Oversight Required by DOE O 420.1c(5)c for CSE program [configuration management], DOE O 433.1B 5.b.(5)	Medium	• Inadequacies of shutdown facility characterization, hazard classifications, surveillances, maintenance, and controls. • Unrecognized degradation of facility SSCs.	**Cross-cutting Topical Area (See EA CRAD 31-36)**: Shutdown facility risk management including safety basis, engineering, configuration management, surveillance & maintenance, facility condition inspections, fire protection and federal oversight.	See EA Report on SRS shutdown facility risk management.
13	**Training & qualification** (note 3) [Inclusion on this list is for completeness only. This ATA is normally addressed by other ATA CRADs. Conducting analysis or deep dive is a duplication of effort.]	EA Oversight Required by DOE O 426.2 §5.b.(5).	Medium	Data associated with staffing selection, training, qualification, and certification	Oversight of personnel, selection, training, qualification, or certification program implementation as defined by DOE O 426.2 [no EA CRAD]	See EA Reports on T&Q assessments (Hanford-2020, SRS-2019))

	Assessment Topical Area	Driver	Nuclear Safety Importance (note 1)	Examples of Concerns or Sub-Topics to be Evaluated	Definition	Examples – Reports
14	**Quality Assurance** (note 3) including: - line and Federal oversight - CAS implementation - lessons learned and issues management	EA Oversight Required by DOE O 414.1D 5.e.(3) Contractor Assurance – DOE O 226.1B§5.d(5)	Medium	• Inadequate safety oversight by DOE Headquarters line organizations and field offices, and/or contractors. • Inadequacies of contractor oversight processes including self-assessments, independent assessments, and CAS implementations • Inadequate development and application of nuclear safety related performance metrics • Inadequate programs, procedures or practices for issues management, or lessons learned including evaluations, dissemination, tracking and trending, utilization in process improvements. • Inadequacies of incident investigation and causal analysis processes • Inadequacies or ineffective implementation of corrective actions management processes	Self-explanatory [see EA CRAD 30-01 CAS; no EA QA CRAD]	No specific EA report that focuses on QA program implementation.

Notes for Attachment 1:

Note 1: Determination of High is based on Hazard Category 1 or 2 (with safety class controls), and Medium is based on Hazard Category 2 (without safety class controls).

Note 2: Some of these topics will depend on site specific status of projects. Assessment activities may be determined based on Site Lead recommendations.

Note 3: Some topics such as conduct of operations, line oversight, issues management, and training and qualifications are cross-cutting and will likely be included as part of all cross-cutting assessments. If specific weaknesses are identified consistently across the complex, then a topic-specific targeted assessment may be warranted.

Attachment 2: Assessment Topical Area Scoring Results (to be completed each cycle)

	Assessment Topical Area	Priority Importance to Nuclear Safety[1]	Number of EA Report Findings/ Def (Last 5 years)[2,3]	Number of ORPS Reports (1 year)[4]	DNFSB Site Issues (Last 5 years)[5]	EA-10 Enforcement issues (Last 5 years)[6]	Score	Analysis Basis Notes **Other Potential Factors that can Adjust ATA Priorities**	Result (OUT or IN)
A	**Safety Basis** - Safety Basis Maintenance	High/ Medium							
B	**Criticality Safety Program**	Medium							
C	**Nuclear Maintenance Management**	Medium							
D	**Radioactive Waste Management**	Low							
E	**Safety System Management**	High/ Medium							
F	**Packaging and Transportation**	Low							
G	**Shutdown Facility Risk Management**	Medium							
H	**Quality Assurance**	Medium							

Recommended Top Three ATAs (based on scores and other relevant factors):

Priority 1 ATA –

Priority 2 ATA –

Priority 3 ATA –

Other Factors that can Adjust ATA Priorities (outside of quantitative scoring):

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[1] Score 3 points for high **importance**, 2 points for medium importance, or 1 point for low importance

[2] Score 1 point for 1-5 **deficiencies**, 2 points for 6-10 deficiencies, 3 points for 11-20 deficiencies, 4 points for 21-30 deficiencies, and 5 points for > 30 deficiencies

[3] Score 2 points for 1-5 **findings**, 4 points for 6-10 findings, 6 points for 11-20 findings, 8 points for 21-30 findings, and 10 points for > 30 findings

[4] Score 1 point for 1-5 **ORPS**, 2 points for 6-10, 3 points for 11-20, 4 points for 21-30, and 5 points if > 30 reports

[5] Score 1 point for 1-5 **SIRs**, 2 points for 6-10, 3 points for 11-20, 4 points for 21-30, and 5 points if > 30 reports; applicable Technical Reports 2 points each; Recommendations 3 points each

[6] Score 2 points for each **NOV** or 3 points if it turns into an EL

NOTE: Other Factors that can Adjust ATA Priorities are not scored but are identified for prioritization consideration as the ATA scoring sheet proceeds to the deep dive analysis

Attachment 3: Job Aid: ORPS Reporting Criteria and Potentially Applicable Key Word Codes

	Assessment Topical Areas	Applicable ORPS* Reporting Criteria	Potentially Applicable ORPS Key Word Codes**
A	Safety Basis Maintenance	3B(1), 3B(2), 3A(1), 3A(2), 3A(3)	
B	Criticality Safety Program	3C(1), 3C(2), 3C(3), 3C(4)	
C	Nuclear Maintenance Management Programs	none	01O
D	Radioactive Waste Management	none	11N
E	Safety Systems Management	4B(2), 4B(3), 4B(4), 4A(1), 4A(2), 4C(1), 4C(2), 4C(3)	
F	Packaging and Transportation	8(2) 8(3) 8(4) 8(5) 8(6) 8(7) 8(8) 8(9) 8(1)	
G	Shutdown Facility Risk Management	none	05F, 03A, 12E, 08O
H	Quality Assurance	none	14C, 14I, 14K, 14J

  * The current occurrence reporting criteria is contained in DOE Order 232.2A Chg 1 [10-4-2019], Attachment 2
  ** The current ORPS Key Words Codes List is located online: https://orps.doe.gov/orps/orps.asp# under dropdown menu "*Help/Tutorial*".