

EFCOG Safety Working Group FY 2022 Annual Work Plan (October 1, 2021 – September 30, 2022)

Purpose

This document contains the Energy Facility Contractors Group (EFCOG) Safety Working Group (SWG) FY 2022 Annual Work Plan (AWP). The approved AWP provides authorization for EFCOG members within the various subgroups to work on activities identified in the AWP. It is intended that all deliverables identified in this AWP be completed during the fiscal year, however some activities may push into FY2023 due to changing priorities or other unforeseen circumstances, as occurred in FY2020 -FY2021 due to the COVID-19 pandemic. As a result, dates are generally not provided for deliverables.

Some Subgroups/Task Teams have identified group meetings and teleconference meetings in the work plan; other groups did not. While not consistently identified in the plan, all groups/teams meet or otherwise engage periodically throughout the year; some face-to-face meetings are projected to resume in FY2022.

Working Group Mission and Scope:

The EFCOG SWG is chartered to support member companies in attaining and maintaining the highest levels safety and regulatory performance in the operation of Department of Energy (DOE)/National Nuclear Security Administration (NNSA) facilities/projects. The SWG will achieve this by:

- Advocating for strong, effective implementation of Integrated Safety Management (ISM) across departmental activities.
- Seeking out, developing, and promoting best management and operating practices.
- Facilitating the exchange of operating experiences and information on safety/regulatory programs and their effectiveness, and designing studies and developing position and technical papers to inform DOE/NNSA regulations and directives processes where appropriate.
- Providing DOE/NNSA and member companies with access to a network of subject matter experts.
- Identifying opportunities to save and/or avoid costs in the implementation of safety and regulatory programs while assisting member companies implement effective safety and regulatory programs through peer reviews and consultations; and
- Arranging for training and awareness workshops to enhance the competency of safety professionals.

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To accomplish its mission, the SWG is subdivided into 7 Subgroups that are listed below, and associated Task Teams (which are both standing and ad hoc). The AWP is organized by Subgroup:

- Engineering Practices
- Integrated Safety Management
- Nuclear & Facility Safety
- Quality Assurance
- Regulatory & Enforcement
- Sustainability and Environment
- Worker Safety & Health

“Safety,” as it relates to the scope of the Working Group, is inclusive to the Department’s implementation of an Integrated Safety Management Systems (ISMS). Safety includes a number of related functions such as worker safety and health, industrial hygiene, nuclear and facility safety, criticality safety, fire protection, radiological protection, environmental protection, work planning and control, quality assurance, contractor assurance, engineering processes, and related regulatory programs.

FY2022 strategic focus areas identified by the EFCOG Board that are addressed in the Plan are:

1. Safe, Secure, and Effective Operations
2. Ensuring the Long-term Availability of Critical Equipment, Supplies, and Infrastructure
3. Assuring that Projects are Completed on Cost and Schedule
4. Recruit, Develop and Retain the Right People to Ensure Future Mission Needs are Met

Approved by: *Signature on file* Date: November 23, 2021
Jan Preston
Safety Working Group Chair

Approved by: *Signature on file* Date: November 23, 2021
Garrett Smith
Director, (AU-30)
Office of Nuclear Safety
Department of Energy, Safety Working Group Liaison

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| Activity(s) | Benefit(s) | Deliverable/Key Milestone(s) |
|--|--|---|
| 1.0 Engineering Practices (EP) Subgroup | | |
| <p>EP-22-01 Develop Best Practice for Implementing Configuration Management in a Building Information Model (BIM) environment</p> | <p>As technology advances in how facilities are designed, constructed, and operated, the traditional methods associated with engineering configuration management practices are challenged. This Best Practice will establish high level guidance on how CM is conducted in a BIM environment while interfacing with traditional procedures/processes, business systems, organizational structures, and associated skill sets.</p> | <p>Publish Best Practice on providing guidance for how BIM interfaces with traditional CM procedures/processes, business systems, organization structures, and skill sets.</p> |
| <p>EP-22-02 Provide Constructive Feedback on Needed Enhancements/Updates for Next Revision of DOE-STD-1189-2016, <i>Integration of Safety into the Design Process</i></p> | <p>The experience of the Engineering Practices Subgroup members in implementing this Standard may provide valuable insights for consideration in the next revision of this Standard.</p> | <p>Consolidated input from the EPSG regarding the potential improvements needed or items that should be considered in the next revision. Also, for this Standard, what lessons learned can be developed regarding the use of Appendix G, <i>Analysis of Potential Design Upgrades</i>, as a review of the Major Modification process.</p> |
| <p>EP-22-03 Provide Constructive Feedback on Needed Enhancements/Updates for Next Revision of DOE-STD-1066-2016, <i>Fire Protection</i></p> | <p>The experience of the Engineering Practices Subgroup members in implementing this Standard may provide valuable insights for consideration in the next revision of this Standard.</p> | <p>Consolidated input from the EPSG regarding the potential improvements needed or items that should be considered in the next revision.</p> |
| <p>EP-22-04 Provide Constructive Feedback on Needed Enhancements/Updates for Next Revision of DOE-STD-3024-2011, <i>Content of System Design Descriptions</i></p> | <p>The experience of the Engineering Practices Subgroup members in implementing this Standard may provide valuable insights for consideration in the next revision of this Standard.</p> | <p>Consolidated input from the EPSG regarding the potential improvements needed or items that should be considered in the next revision.</p> |

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| Fire Protection (EP-FP) Task Team | | |
| EP-FP-22-01 Support pending revision to DOE-STD-1066, <i>Fire Protection</i> | It is anticipated that DOE-STD-1066 will be revised in FY21. The Fire Protection Task Team will support this effort as needed. | Support revision to DOE-STD-1066 as requested by DOE. |
| EP-FP-22-02 Publish White Paper on fire extinguisher inspection periodicity. | Currently, NFPA 10, <i>Standard for Portable Fire Extinguishers</i> , requires fire extinguishers to be inspected on a monthly basis. Publish a White Paper for moving inspections to quarterly. | Publish White Paper on moving inspection from monthly to quarterly. |
| Activity(s) | Benefit(s) | Deliverable/Key Milestone(s) |
| 2.0 Integrated Safety Management (ISM) Subgroup | | |
| Safety Culture (SC) Task Team | | |
| ISM-SC-22-01 Benchmark and identify Best Practices in Safety Culture process efficiencies, including DOE submittals (e.g., incorporating annual Safety Culture Sustainment and Improvement Actions in ISMS POMCs), Sustainment Plans, VPP annual assessments, etc. | Capture both Sustainment Plan Best Practices and the proposal to identify efficiencies with other deliverables | Publish results in a White Paper. |
| ISM-SC-22-02 Produce a Guidance Document for Safety Culture Practitioners on customer interface; workers, management, oversight, and other external interfaces | Establish uniform guidance for practitioners across the complex. | Issuance of Guidance Document. |
| Contractor Assurance System (CAS) Task Team | | |
| ISM-CAS-22-01 Risk-Based Oversight Planning | Provide Best Practices or Information Base for CAS risk-based assessment planning | Issue results by 9/30/22 |
| ISM-CAS-22-02 CAS Joint Interface Items with other EFCOG Groups | Identify overlaps and conflicts in ISM&QA-CAS effective implementation | Issue results by 9/30/22 |

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| ISM-CAS-22-03 Continue to Expand CAS Group to Wider Cross Section of the Complex | More complete CAS input and perspectives | Continuous improvement |
| ISM-CAS-22-04 Review and Prioritize CAS issues and opportunities | Identify problem areas in implementing CAS requirements | Establish priorities for FY2023 |
| Human Performance Improvement (HPI) Task Team | | |
| ISM-HPI-22-01 Collaboration with Work Planning & Control (WP&C) Task Team | Integration of HPI into WP&C | Generation of guidance for improvement on Pre-Job Briefs, Post Job Reviews, Integrating HPI into job planning. Pause/stop work, etc. |
| ISM-HPI-22-02 HPI for Knowledge Workers | Realize opportunities to break the myth where people believe that HPI does not apply to them as they perform no physical work | Issue adaptation for DOE complex from INPO 05-002, Rev 1: <i>Human Performance for Engineers and other Knowledge Workers</i> |
| ISM-HPI-22-03 HPI Messaging | Getting people to embrace and integrate HPI into daily work. Bringing INPO Practices into DOE environment as seek performance improvement | Generation of the following Best Practices adaptations from INPO: <ul style="list-style-type: none"> ○ Good Practice 07-006, Human Performance Tools for Managers and Supervisor – General practices for organizing, planning, monitoring, and feedback that promote excellence in Human Performance. ○ Good Practice 15-008, Achieving High Levels of Human Reliability - A practical approach to human performance. |

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| Work Planning & Control (WP&C) Task Team | | |
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| ISM-WP&C-22-01 Human Performance Improvement and WP&C | Provide Best Practices/ Guidance that incorporates HPI factors into WP&C practices | <ul style="list-style-type: none"> ○ Develop a Best Practice that provides HPI application examples for knowledge workers ○ Develop a Best Practice demonstrating how to embrace and integrate HPI into communications and messaging ○ Develop a Best Practice that provides examples of how to integrate of HPI into WP&C tasks |
| ISM-WP&C-22-02 Work Planning and Field Execution Delays | Minimize impacts of field execution delays | Identification of most common causes for delays during planning/work package preparation and during schedule execution and how to prevent them |
| ISM-WP&C-22-03 Worker Feedback to Planning | More complete CAS inputs and perspectives | Generation of tools to help improve feedback to the Planner and bridge the communication gap |
| ISM-WP&C-22-04 Technical Work Document (TWD) Changes | Streamline TWD change processes | Develop Best Practice(s) that address: major and minor changes, field revisions, and optimizes SME Involvement |
| 3.0 Nuclear & Facility Safety (N&FS) Subgroup | | |
| Accident Analysis (AA) Task Team | | |
| N&FS-AA-22-01 Develop a new ANS standard on aircraft analysis to be applicable to DOE and NRC facilities | Provide new calculation methods to replace outdated method provided in DOE-STD-3014. Consistently applied methods across the contractor community in the DOE complex. | Development of the new ANS standard is expected to take between one and two years. 09/30/2023 |

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| <p>N&FS-AA-22-02 Support biennial revision of DOE-HDBK-1224, <i>Hazard and Accident Analysis Handbook</i></p> | <p>Provide hazard and accident analysis methods to enhance the methods provided in DOE-STD-1224. Consistently applied methods across the contractor community in the DOE complex.</p> | <p>Resolution of the comments received; DOE-HDBK-1224 is out of Revcom and is currently in the comment resolution phase. AA task group personnel will continue to support DOE AU-31 in the resolution of the comments received via Revcom. 09/30/2022</p> |
| <p>N&FS-AA-22-03 Write a Best Practice to provide the basis for purge flow methodology related to the control of flammable mixtures during steady-state operations and during recovery after an upset condition</p> | <p>The purge flow Best Practice will provide a basis for purge flows to be developed using a consistent methodology across the contractor community in the DOE complex.</p> | <p>Best Practice issued by 09/30/2022</p> |
| <p>N&FS-AA-22-04 Write a Best Practice to provide the basis for methodology for assessing damage to waste containers</p> | <p>The Best Practice will provide a basis for pool fire analysis to be conducted using a consistent methodology across the contractor community in the DOE complex.</p> | <p>Best Practice issued by 09/30/2022</p> |
| <p>Criticality Safety (CS) Task Team</p> | | |
| <p>N&FS-CS-22-01 Develop a Best Practice on criticality safety calculations using Monte Carlo codes. This will include guidance on number of neutrons per generation, number of generations to run, and source convergence. This paper is being developed jointly with the ANS Nuclear Safety Criticality Division's Education Committee</p> | <p>Provide Monte Carlo methods to enhance the methods currently used at individual sites. Consistently applied methods across the contractor community in the DOE complex. Leveraging consistency with industry codes and standards. Human capital - Development of future workforce within DOE</p> | <p>Issue Best Practice – Criticality safety calculation methods using Monte Carlo codes by 09/30/2022</p> |

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| <p>N&FS-CS-22-02 Develop a White Paper on fissile gram equivalent or plutonium gram equivalent, advantages and disadvantages</p> | <p>Provide gram equivalent methods discuss to ensure proper consideration and use. Consistently applied methods across the contractor community in the DOE complex. Human capital - Development of future workforce within DOE</p> | <p>Issue White Paper – Fissile gram equivalent or plutonium gram equivalent, advantages and disadvantages by 09/30/2022</p> |
| <p>N&FS-CS-22-03 Develop an N&FS Guide on how to effectively share lessons learned across the complex, specifically how similar events could happen at other sites.</p> | <p>Improved sharing of lessons learned to contractors across the DOE complex. Human capital – Development of future workforce within DOE</p> | <p>Issue Guide – Effective sharing of lessons learned. 09/30/2022</p> |
| <p>Early Career (EC) Task Team</p> | | |
| <p>N&FS-EC-22-01 Implement formal mentoring program</p> | <p>Allow early career nuclear safety professional access to senior nuclear safety professionals Human capital – Development of future workforce within DOE</p> | <p>Issue Write Paper on results to-date of N&FS EC Mentoring Program. 09/30/2022</p> |
| <p>N&FS-EC-22-02 Complete 2 Fundamentals Papers for Early Career Professionals</p> | <p>Improvements to initial training for early career professionals across the DOE complex. Human capital – Development of future workforce within DOE <u>Potential Topics:</u> Regulations, Hazard and Accident Analysis, Consequence Analysis, Control Selection, TSRs, USQs, Accidents that Changed History</p> | <p>Complete 2 Fundamental Papers by 09/30/2022</p> |
| <p>N&FS-EC-22-03 Complete a Best Practice on early career rotation programs based on programs at various DOE sites and facilities</p> | <p>Provide a path and method for Early Career Nuclear Safety professionals with opportunities to experience and have exposure to different positions within the site or facility structure. Human capital – Development of future workforce within DOE</p> | <p>Issue Best Practice – Job Rotation Programs at various contractors and DOE across the DOE complex. 09/30/2022</p> |

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| Hazard Analysis (HA) Task Team | | |
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| N&FS-HA-22-01 Produce a Best Practice on de minimis values for tracking radioactive material | Consistent handling of trace amounts of radiological material in facilities across the DOE complex. | Issue Best Practice – De Minimis values for tracking radioactive material. 09/30/2022 |
| N&FS-HA-22-02 Best Practice/White Paper on use of HEPA filters for risk reduction in DSA/HA/AA | Define standard assumptions to use for risk reduction for HEPA in Safety Basis documentation. Consistently applied methods across the contractor community in the DOE complex. | Issue Best Practice or White Paper – Use of HEPA filters for risk reduction in DSA/HA/AA. 09/30/2022 |
| N&FS-HA-22-03 Best Practice/White Paper on Unmanned Aerial Vehicles (UAVs)/ Unmanned Aircraft Systems(UASs) treatment in Safety Basis documents | Define standard assumptions to use for UAVs/UASs treatment in Safety Basis documentation. Consistently applied methods across the contractor community in the DOE complex. | Issue Best Practice or White Paper – Unmanned Aerial Vehicles (UAVs)/ Unmanned Aircraft Systems(UASs) treatment in Safety Basis documents 09/30/2022 |
| Safety Basis (SB) Task Team | | |
| N&FS-SB-22-01 Write N&FS Guide on revised DSA annual update frequency implementation following the 10 CFR 830 rule change to DSA annual update requirements. | Consistency across DOE complex for the implementation of changes to DSA annual update requirements with upcoming changes to 10 CFR 830. | Issue N&FS Guide – Implementation of revised DSA annual update frequency. During 10 CFR 830 rule change implementation period, NLT 09/30/2022. |
| N&FS-SB-22-02 Write N&FS Guide on when facilities should upgrade to the new revisions of DOE-STD-1027, <i>Hazard Categorization of DOE Nuclear Facilities</i> . | Provide guidance and support consistency across DOE complex for the adoption of updated hazard categorization standards. | Issue N&FS Guide – Considerations and guidance on when to implement the upgraded DOE-STD-1027. During 10 CFR 830 Rule change implementation period, NLT 09/30/2022 |
| N&FS-SB-22-03 Produce a White Paper on the Safety Basis portion of DOE-HDBK-1230-2019, <i>Commercial Grade Dedication Application Handbook</i> , which will support EFCOG Engineering Practices and QA on revisions to the handbook. | Improved communication between EFCOG working groups/task teams, leading to revisions that better meet the needs of all disciplines. | Issue White Paper – Developing Safety Functions, Functional Requirements, and Performance Criteria with Commercial Grade Dedication in mind. 09/30/2022 |

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| <p>N&FS-SB-22-04 Issue Safety Basis Analysis Best Practices</p> | <p>Consistency in safety basis analysis and program implementation across the DOE complex.</p> | <p>Issue Best Practices on two of the following topics (or other topics as completed in FY):</p> <ul style="list-style-type: none"> ○ DSA Review Guidance ○ Moisture/Humidity Levels for Fires ○ Qualification Cards for Safety Analysts ○ Use of DOE-STD-550609/30/2022 |
| <p>N&FS-SB-22-05 Update the N&FS Subject Matter Expert list</p> | <p>Enables communication with nuclear & facility safety SMEs, stakeholders, and regulators to share lessons learned and Best Practices.</p> | <p>Update the N&FS Subject Matter Expert list and distribute it to the Steering Committee and DOE Sponsors. 09/30/2022</p> |
| <p>N&FS-SB-22-06 Write Lessons Learned from nuclear facilities that have implemented DOE-STD-1228, <i>Preparation of Documented Safety Analysis for Hazard Category 3 DOE Nuclear Facilities</i></p> | <p>Provide Guidance and consistency across DOE complex for the preparation of HC-3 DSAs.</p> | <p>Issue Lessons Learned document on use of DOE-STD-1128 for HC-3 DSAs. 09/30/2022</p> |
| <p>Unreviewed Safety Questions (USQ) Task Team</p> | | |
| <p>N&FS-USQ-22-01 Complete Best Practice on implementation of the revised rule and DOE G 424.1-1C, <i>Implementation Guide for Use in Addressing Unreviewed Safety Question Requirements</i>, in the site or facility USQ procedure following release of the revised 10 CFR 830.</p> | <p>Consistent implementation of the changes to DOE requirements relating to the USQ process resulting from changes to 10 CFR 830 and DOE G 424.1-1.</p> | <p>Issue Best Practice – USQ Process implementation with new rule and guidance. During 10 CFR 830 rule change implementation period, NLT 09/30/2022</p> |

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| <p>N&FS-USQ-22-02 Provide SME support to the DOE National Training Center for finalization of SBA-250 USQ Process Implementation Review</p> | <p>Ensure training that is consistent with the intent of the Rule and Guide. Consistently applied methods across the contractor community in the DOE complex.</p> | <p>NTC USQ Training Course vetted through pilot course. 09/30/2022</p> |
| <p>N&FS-USQ-22-03 Complete Best Practice on USQ applicability to safety software and SQA documentation.</p> | <p>Consistent implementation of the USQ process for safety software and SQA documentation across the DOE complex</p> | <p>Best Practice – USQ Process Applicability to Safety Software and SQA Documentation. 09/30/2022</p> |
| <p>4.0 Quality Assurance (QA) Subgroup</p> | | |
| <p>Policy and Procedures (P&P) Task Team</p> | | |
| <p>QA-P&P-22-01 Guide for EFCOG White Paper Development and Release</p> | <p>Create a guide for the various EFCOG groups for the development, approval, and release/posting process for White Papers. Currently no guidance exists on the topic and neither the process nor expectations are described, including points of contact, etc.</p> | <p>Issue Guide by 03/01/2022</p> |
| <p>QA-P&P-22-02 Guide/PowerPoint for new QA EFCOG members</p> | <p>Create a guide/PowerPoint for new (or potential) participants of the QA subgroup, introducing them to EFCOG in general and more specifically the QA subgroup. The guide will describe each QA task group and their topics and activities of focus, providing examples of previously delivered tasks. The goal is to give a sense of each group and help them decide which, if any, would be most beneficial. Additionally, the guide will describe the semi-annual meeting and let them know what to expect, the structure of the event, and opportunities for involvement.</p> | <p>Issue Guide by 06/01/2022</p> |

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| <p>QA-P&P-22-03 Best Practices for QA Metrics and Methods</p> | <p>Determine set of effective QA metrics and methods (e.g., data collection) applicable to the various facilities across the DOE complex, e.g., laboratory vs. nuclear. Focus will be on developing metrics and providing guidance on their collection, use/trending, and applicability (specific to facility type). Will additionally attempt to determine leading indicators which are particularly lacking at most sites.</p> | <p>Issue Best Practice by 07/01/2022</p> |
| <p>Procurement Engineering (PE) Task Team</p> | | |
| <p>QA-PE-22-01 Alternate Approach to Commercial Grade Dedication (CGD)</p> | <p>Develop White Paper with guidance on how to procure safety related purchases from suppliers who do not have a documented NQA-1 program without utilizing CGD</p> | <p>Publish guidance by 06/01/2022</p> |
| <p>QA-PE-22-02 Safety Related Purchases</p> | <p>Provide examples of safety related purchases from suppliers without an NQA-1 program</p> | <p>Publish examples by 09/01/2022</p> |
| <p>QA-PE-22-03 Implementation Examples</p> | <p>Compile implementation examples of NQA-1 2009a, Requirement 7, Para 200 through 600 / EPRI 5652 Rev. 1, Appendix F (specifically for suppliers that do not implement an NQA-1 program)</p> | <p>Best Practices of implementation to include:</p> <ul style="list-style-type: none"> • NLI/AZZ Quartaco Actuator • Invensys/Framatome – Controller • SRNS – Pave Connector • Avantech – Relatively Simple Items and Material |
| <p>QA-PE-22-04 Flow Down of Requirements</p> | <p>Flow down of QA requirements from DOE Prime Contractors to contractors; tailoring of NQA-1.</p> | <p>Best Practice by 05/01/2022</p> |
| <p>QA-PE-22-05 Procurement Engineer (PE) Training</p> | <p>Develop PE Training to include CGD training and broader procurement engineering training</p> | <p>Training available for use by 08/01/2022</p> |

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| QA-PE-22-06 Define Commercial Grade Dedication Method 4 | Translate guidance on CGD Method 4 found in EPRI 3002002982 for DOE/NNSA use | Issue guidance by 04/01/2022 |
| QA-PE-22-07 Commercial Grade Dedication Plans | Do a data call and facilitate a “safe space” for the sharing CGD plans, where auditors will not be gathering ammunition. | Complete by 07/01/2022 |
| Software Quality Assurance (SQA) Task Team | | |
| QA-SQA-22-01 Cloud-hosted Software Guidelines | Many commercial software tools are moving to a cloud-hosted platform in which the vendor serves up the application on a server they control that is accessible via the internet. This task will address security concerns, configuration control, testing, and the qualification process for software that is nuclear/radiological safety related. | Guidelines issued in Spring 2022 |
| QA-SQA-22-02 Graded Approach for DOE Order 414.1D | DOE Order 414.1D and previous versions require implementation of a graded approach to applying the Order requirements, but do not define the basis or parameters of that graded approach. The Task Team will outline a possible graded approach for software. | Graded approach published by 12/02/2021 |
| QA-SQA-22-03 Testing Spreadsheets | This task will create a White Paper on testing spreadsheets, including possible training slides on how to do so. | Issue White Paper by 06/30/2022 |
| QA-SQA-22-04 Toolbox Alternatives | Propose an alternative to the DOE Central Registry Toolbox and code qualification process. The product will be in the form of a procedure. | Issue Procedure by 09/30/2022 |

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| <p>QA-SQA-22-05 Software Standards and Orders</p> | <p>The Task Team will explore DOE policies, procedures, Orders, and international software standards to map what they say regarding software and how this affects how DOE Complex sites manage SQA.</p> <p>As part of this process, they will also explore the pros and cons of alternate standards to NQA-1-2008 for Software Quality Assurance.</p> | <p>Publish results by 06/30/2022</p> |
| <p>Supply Chain (SC) Quality Task Team</p> | | |
| <p>QA-SC-22-01 Master Supplier List (MSL) Cost Avoidance</p> | <p>Identify the DOE sites and potential MSL Administrators that could be using the MSL to identify cost avoidances; this will help increase the identification of additional cost avoidances.</p> | <p>Publish results by 06/21/2022</p> |
| <p>QA-SC-22-02 DOE Master Approved Supplier List (MSL) used by all DOE Sites (as appropriate)</p> | <p>Provide recommendations to develop and maintain a single list of approved suppliers for use at DOE EM facilities. As a minimum, the list should support EM facilities, but may include all of DOE.</p> <p>This list currently exists as the MSL. Currently not all DOE sites are using the MSL to identify evaluated suppliers. Some EM sites, NNSA sites, Office of Science sites, and the Nuclear Energy Site (INL) are not using the MSL.</p> | <p>Publish recommendations by 04/01/2022</p> |

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| <p>QA-SC-22-03 Suspect/Counterfeit Prevention Improvements</p> | <ol style="list-style-type: none"> 1) Support revision of DOE O 232.2A to address the fact that for legacy items the manufacture/supplier/vendor name is not available (The DOE Order currently requires the person who reports legacy S/CI to give the name of the supplier and other information that is impossible to provide). 2) Support revision of DOE O 414.1D, Attachment 3, page 2, 2.i needs to be revised to correct the link. | <p>Complete tasks by 03/01/2022</p> |
| <p>QA-SC-22-04 Foreign Nationals/Sources</p> | <ol style="list-style-type: none"> 1) Develop a guidance document for buying/purchasing Safety/Weapon item/parts/components from foreign suppliers or suppliers with foreign nationals. 2) Develop checklist questions to ask suppliers and a guidance document for how to address dissemination of information. | <p>Complete tasks by 09/30/2022</p> |
| <p>QA-SC-22-05 Expand the Nuclear Security Enterprise (NSE) Supply Base</p> | <p>Working with the SCMC to increase the supply base.</p> | <p>Complete tasks by 09/30/2022</p> |

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| 5.0 Regulatory & Enforcement (R&E) Subgroup | | |
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| <p>R&E-22-01 Build consensus within the contractor community on technical issues with impact to nuclear safety, worker safety & health, and security enforcement impact</p> | <p>Standard approach and implementation strategy to address key enforcement issues complex-wide</p> | <p>1) Develop a Best Practice to provide guidance for the effective integration of the Enforcement Program and the Classified Information Security programs.</p> <p>2) Develop a Best Practice for the review of lessons learned from across the complex. This Best Practice will focus on improved development and communication of lessons learned, including enforcement outcomes.</p> |
| <p>R&E-22-01 Improve Enforcement Coordinator knowledge of the Enforcement process and expectation</p> | <p>Enhanced understanding of Enforcement requirements and expectations enabling the development of stringer Contractor Programs.</p> | <p>Work collaboratively with members of the DOE National Training Center (NTC) and the DOE Office of Enforcement to convert the existing Enforcement Coordination classroom training to Computer Based Training.</p> |
| 6.0 Sustainability & Environment (S&E) Subgroup | | |
| <p>S&E-22-01 Leverage energy analytics to support energy and sustainability goals and support coordination with maintenance staff</p> | <p>Increase energy and water efficiency by working with energy managers and maintenance staff to collaborate in the use of energy analytics platforms in their energy management activities. Built upon FY21 success in creating a sense of urgency for teams to tackle a real-life improvement opportunity at their sites and sharing those Best Practices across the DOE complex.</p> | <p>Q1: Present key learnings from FY21 activities at December SESG meeting. Q2: Identify new strategies for leveraging energy analytics following issuance of new EO for Federal Sustainability. Q2-Q4: Meet quarterly to share additional Best Practices for energy analytics implementation.</p> |

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| <p>S&E-22-02 Improve compliance with Guiding Principles for Sustainable Buildings across DOE Complex</p> | <p>Increase capabilities of sites to incorporate Guiding Principles into facility and infrastructure projects by expanding knowledge base and developing tools and resources. Leverage Best Practice from sites that are meeting or exceeding the federal requirement and share with those sites who are struggling to meet the requirement.</p> | <p>Q1: Document feedback from Sites following issuance of Guiding Principles checklist/tool and prioritize list of improvements. Q2: Share lessons learned on use of Checklist to wider SESG community in a bi-monthly webinar. Q3: Provide revised checklist (as appropriate) to SPD to incorporate into DOE Dashboard.</p> |
| <p>S&E-22-03 Best Practice sharing to improve energy and water efficiency in High Performance Computing</p> | <p>High Performance Computing (HPC) will result in significant increase in energy and water use at DOE sites. Multi-disciplinary teams have been identified as a key Best Practice to bringing together a diverse group at a site to help improve energy & water efficiency and resilience in HPCs.</p> | <p>Q1: Summarize key lessons learned from DOE sites with HPC in developing a multi-disciplinary team to identify, prioritize and implement efficiency activities identified at SC19 and share to SESG community via webinar. Q2-4: Focus on one Best Practice and further develop documentation to promote the tools, strategies and activities to advance that Best Practice. Group to evaluate Best Practices and select the one to focus on (data visualization, multi-disciplinary improvement teams, continuous commissioning, etc.)</p> |

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| <p>S&E-22-04 Support Sustainable Climate Ready Sites Program with AU-21</p> | <p>Environmental and sustainability performance varies across the DOE complex with some locations excelling in some areas but also struggling with others at the same time. The Sustainable Sites Initiative seeks to provide motivation by recognizing sites for both incremental progress towards environmental and sustainability performance measures.</p> | <p>Q1: Support AU-21 with the launch of the Pilot Program for SCRS by providing input on implementation materials and helping to communicate the program at their respective sites. Q2-3: Support AU-21 with review of information submitted from Pilot Program Sites and provide input on how to address comments received from Pilot sites.</p> |
| <p>S&E-22-05 Support DOE complex in reducing carbon emissions and working to meet DOE de-carbonization goals.</p> | <p>To achieve DOE's goals for reducing carbon emission and working towards a net zero carbon economy by 2050, DOE sites must accelerate activities that we know work, develop longer-term plans for decarbonizing heating systems and prepare to implement technologies in the future that are not commercially available today. Early investigation, planning and coordination cross DOE sites will create efficiencies and lead to quicker and larger impact on meeting decarbonization goals.</p> | <p>Q1: Establish a core team from SESG to participate in this work team and coordinate / interface with the DOE Pilot Site Net Zero Emissions Group and ensure coordination and not duplication. Q2. Develop a planning tool to document the overall process and strategy for the development of a campus de-carbonization roadmap. Q3: Identify a sub-list of key decarbonization strategies that would be most effectively implemented at the DOE complex level and present to AU-21 and SPD sponsors.</p> |

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| 7.0 Worker Safety & Health (WS&H) Subgroup | | |
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| Radiation Protection (RP) Task Team | | |
| <p>WS&H-RP-22-01 Provide recommendations to AU-11 on adoption of International Commission on Radiological Protection (ICRP) Lens of the Eye dose limits</p> | <p>Sponsor Initiative: This issue has the possibility of greatly affecting the current external dose monitoring schemes, work planning requirements and protective equipment use.</p> <p>The costs possibly incurred by a change would be significant to the Complex and must be carefully considered before adoption.</p> <p>This initiative is continuing from FY21 and is being worked by a subgroup that was established to develop a recommendation paper to AU-11.</p> | <p>Provide a recommendation paper to AU-11 on adoption of the ICRP eye dose limits.</p> |
| <p>WS&H-RP-22-02 Assist the DOE National Training Center (NTC) in their effort to build consistent radiological worker training programs to be used Complex-wide.</p> | <p>NTC is working with the AU-11 SMEs to develop recommended changes to support DOE policy and guides addressing DOE radiological training expectations.</p> <p>By providing inputs from practitioners, EFCOG RP can help NTC build training programs/materials and DOE to formulate expectations that are practicable, meet operational needs, facilitate reciprocity recognition, and that are more likely adopted by sites, thereby saving them from having to develop on their own.</p> <p>This is an activity that is performed annually to assist NTC in their efforts to build consistent radiological worker training programs.</p> | <p>Continue to provide personnel to participate in NTC training development efforts. Regularly report progress at EFCOG meetings. Training materials that should be updated will be identified and technical support will be provided to help NTC revise those training materials.</p> |

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| <p>WS&H-RP-22-03 Provide formal direction and support for the “Air Monitoring Users Group” (AMUG) to benefit all sites in the complex.</p> | <p>The AMUG existed for many years as an ad-hoc committee. It is composed of mostly DOE personnel from various sites who are experts in the field of HP Air Monitoring instrumentation. Their work generates useful information about instrument selection, application, reliability, etc.</p> <p>By formally providing direction to this committee, EFCOG RP can leverage their expertise to help solve common monitoring problems and gain invaluable shared collected knowledge, efficiency, and cost savings.</p> | <p>Report AMUG progress at EFCOG meetings.</p> <p>Develop and approve the AMUG charter to facilitate AMUG performance.</p> |
| <p>WS&H-RP-22-04 Monitor and Assess Impacts Presented by the On-Going Pandemic</p> | <p>Ability to assess COVID impacts on significant operational areas such as staffing initiatives and professional development, in-field work, and training and qualification.</p> | <p>TT Members are expected to report on impacts and actions take at each semi-annual TT meeting. These will be discussed and analyzed by the TT to identify possible corrective actions or need for formal analysis by an assigned subcommittee.</p> |
| <p>WS&H-RP-22-05 Develop and disseminate lessons learned from COVID-19 response</p> | <p>Sponsor initiative: Capture and share lessons learned from the complex radiological response to COVID-19 such as exemption relief and remote learning</p> | <p>Collect lessons learned from membership and disseminate to complex.</p> |
| <p>Electrical Safety (ES) Task Team</p> | | |
| <p>WS&H-ES-22-01 Develop & publish materials for May 2022 Electrical Safety Month</p> | <p>Provide training materials on one or more topics addressing electrical safety issues that are timely and pertinent for the DOE Complex.</p> | <p>Topics to be selected in 1st quarter FY22</p> |

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| <p>WS&H-ES-22-02 Review and revise BP 194, DC Arc-flash Calculator for consistency with IEEE 1584-2018, Guide for Performing Arc Flash Calculations and with the latest information on photovoltaic system faults</p> | <p>Improve the ability of DOE Contractor electricians and electrical SMEs to evaluate, understand, and mitigate the electrical arc-flash hazards present in photovoltaic power systems. Continued from FY21: The tool is being expanded to include additional information that will be useful to users.</p> | <p>Because photovoltaic power systems have unusual characteristics when compared to other direct-current power sources, a new section of the BP 194 Arc-flash Calculator will be published to help accurately evaluate and mitigate these hazards.</p> |
| <p>WS&H-ES-22-03 Develop and Publish Best Practice for Capacitive System Grounding Sticks</p> | <p>Grounding sticks have been used for decades at DOE laboratories and sites to remove stored hazardous energy from capacitors. Most labs and sites have developed this technology and procedures for using these sticks in-house. Capturing the most effective designs and procedures Complex-wide will reduce risks at all DOE laboratories and sites. Continued from FY21.</p> | <p>Distribute Best Practice for Capacitive System Grounding Sticks.</p> |
| <p>Laser Safety (LS) Task Team</p> | | |
| <p>WS&H-LS-22-01 Develop and Publish a Benchmarking Report on High-Power Laser Operations</p> | <p>High power laser operations are spreading across the complex and there are no real guidelines on their use. This activity will continue from FY21 to reflect recent advancements in the field.</p> | <p>Present findings at the 2022 DOE LSO Workshop and publish completed report to the EFCOG-LSTT web page.</p> |
| <p>WS&H-LS-22-02 Develop a DOE Laser Near Miss & Accidents Database</p> | <p>Though DOE does track these items, they are not easy to find. Creating a database helps to easily navigate the items. Continued from FY21; progress to date includes compiling near miss events into an Access database which also includes Lessons Learned and ORPS reportables from 1999 to the present.</p> | <p>Publish to the EFCOG-LSTT web page.</p> |

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| <p>WS&H-LS-22-03 Benchmark additional control requirements from ANSI Z136.1-2014 and Revise “<i>Guidance on Laser Safety Requirements</i>” documents to include these benchmarking efforts</p> | <p>Have collected all previous ones and put together into a DOE Laser Safety Best Practices document. Continuing to build on this helps to ensure a uniform interpretation of the standards. This new document will be called DOE Laser Safety Guide/Handbook. Continued from FY21; much progress was made in FY21 and the product is expected to be complete in 1QFY22.</p> | <p>Publish and provide to AU-11 a White Paper containing recommendations for meeting the reporting requirements of FDA Notice 25 (part of Policy Clarification #D20-09-001).</p> |
| <p>WS&H-LS-22-04 Publish benchmarking efforts for Class 1 laser enclosure requirements</p> | <p>Though a Class 1 laser product is defined in the Federal Laser Product Performance Standards and the ANSI Z136.1, there are many interpretations of this rule. This study helps to ensure uniform interpretation by DOE sites. The benchmarking was completed in FY21 and a checklist and presentation have been developed for dissemination to the 2022 DOE LSO Workshop.</p> | <p>Present findings at the 2022 DOE LSO Workshop and publish completed report to the EFCOG-LSTT web page.</p> |

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| <p>WS&H-LS-22-05 Benchmark laser protective eyewear (LPE) use across the DOE complex.</p> | <p>One of the largest issues with the use of administrative controls is laser protective eyewear. This will ensure that the Best Practices are shared across the Complex and more uniform safe practices are implemented.</p> <p>Areas of concentration should include:</p> <ul style="list-style-type: none"> • The use of multiwavelength protection in a single filter (When does VLT become a hazard?) • The use of multiple filters in a single lab (How are multiple types of LPE filters, including alignment eyewear, in a single lab/facility controlled?) • Identification of proper LPE where specific wavelength/OD coverage is not printed on LPE by vendor <p>Continued from FY21; results will be presented at the 2022 DOE LSO Workshop since the 2021 LSO Workshop was cancelled due to COVID.</p> | <p>Present findings at the 2022 DOE LSO Workshop and publish completed report to the EFCOG-LSTT web page.</p> |
| <p>WS&H-LS-22-06 Perform a crosswalk of the ANSI Z136.1 for Safe Use of Lasers to the newly released ANSI Z136.8 for Safe Use of Lasers in Research and Development</p> | <p>The ANSI Z136.1-2014 is used at the DOE Labs for flow down of controls into specific ES&H Manuals. The Z136.8 is more applicable for R&D work, but the initial release was not deemed an adequate standard in a previous crosswalk.</p> <p>Continued from FY21; will be presented at the 2022 DOE LSO Workshop and the 2023 International Laser Safety Conference since these events were cancelled in 2021 due to COVID.</p> | <p>Publish report to the EFCOG-LSTT web page and submit abstract to present findings at the 2022 DOE LSO Workshop and the 2023 International Laser Safety Conference.</p> |

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| <p>WS&H-LS-22-07 Benchmark the impacts of COVID-19 for laser operations. This includes eyewear sharing, sanitizing, fogging issues; also the impact of conducting OJT and supervision, especially for new laser workers</p> | <p>Each individual Lab was forced to blaze their own path in restarting laser operations under COVID controls. This benchmarking effort will allow the sharing of lessons learned and Best Practices for COVID-19 across the Complex. Continued from FY21; will be presented at the 2022 DOE LSO Workshop since the 2021 LSO Workshop was cancelled due to COVID.</p> | <p>Publish report to the EFCOG-LSTT web page and present findings at the 2022 International Laser Safety Conference.</p> |
| <p>WS&H-LS-22-08 Update the DOE Laser Worker Training Course with support of DOE NTC. Updates will include corrections noted by students along with upgraded graphics, animations, etc.</p> | <p>This course is used by most of the individual DOE Labs as their primary laser safety training. Since introduction, the course has allowed easy reciprocity for visiting laser workers to each of the different DOE facilities.</p> | <p>Course released by DOE NTC and then repackaged into each individual DOE Lab's Computer Training Program.</p> |
| <p>Industrial Hygiene and Safety (IH&S) Task Team</p> | | |
| <p>WS&H-IH&S-22-01 Benchmark implementation of the new OSHA Silica Standards (continuation of FY19, #7.19)</p> | <p>OSHA has promulgated two new standards related to silica – 29 CFR 1910.1053 and 29 CFR 1926.1153; one for general industry and one for construction. How these standards are implemented across the complex is important for consistency and ease of implementation. Continued from FY21.</p> | <p>Issue White Paper on implementation of the new standards.</p> |
| <p>WS&H-IH&S-22-02 Issue White Paper on lead contamination criteria: challenges; application to work planning & execution; sampling & monitoring approaches; and use of tiered levels (continuation of FY19, # 7.9)</p> | <p>Provides consistency on interpretation and implementation of lead standards. This activity was initiated in FY21 with the development of a draft White Paper. Continued from FY21 to engage subject matter experts in the review of the White Paper to support its finalization and issuance.</p> | <p>Issue White Paper presenting position on lead contamination surfaces.</p> |

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| <p>WS&H-IH&S-22-03 Develop Physical Agents Threshold Limit Value (TLV) Technical Standard for Heat Stress</p> | <p>Heat Stress TLVs: Provide guidance on the application and implementation of a portion (i.e., heat stress) of the American Conference of Government Industrial Hygienists (ACGIH) Thermal Stress TLV.</p> <p>The guidance document will include:</p> <ul style="list-style-type: none"> • requirements and changes in the TLV, • identification of low and high-risk activities, • information for workers, • how to perform a detailed heat stress analysis for work activities, and • information on physiological monitoring techniques. <p>This activity has been modified to develop a Technical Standard vs. a guidance document.</p> | <p>Develop DOE Technical Standard on Heat Stress Management based on TLVs</p> |
| <p>WS&H-IH&S-22-04 Develop Best Practices for Improved IH/Occ Med Coordination (continuation of FY19, # 7.7)</p> | <p>Provide Best Practices to ensure excellence in communication between Occupational Medicine SOMD/providers and Industrial Hygiene program/field.</p> <p>Continued from FY21; expanded to include presentation of Best Practices at technical conference to highlight recommendations.</p> | <p>Issue Best Practices posted on the EFCOG website.</p> |

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| <p>WS&H-IH&S-22-05 Provide input to DOE to develop a DOE Technical Standard on chemical management.</p> | <p>Develop updated content based on current, appropriate regulations and guidance documents, e.g., National Fire Protection Association (NFPA) 400 “Hazardous Materials Code”, the Occupational Safety and Health Administration (OSHA) Hazard Communication standard 29 CFR 1910.1200, and other applicable reference documents.</p> <p>With the issuance EFCOG Guidance document on chemical storage and chemical storage training in FY21, this activity will be initiated in FY22 with a goal of completion in FY23.</p> | <p>Issue DOE Technical Standard that will become the foundation for implementation across DOE in FY23.</p> |
| <p>HRP Designated Psychologists (HDP) Task Team</p> | | |
| <p>The HDP TT is a newly formed TT and FY22 work activities have not been finalized as of yet. Charter for the HDP TT has been developed and membership solicitation is underway. HDP TT FY22 objectives will be developed as issues are identified, DOE sponsor interactions and needs identification occurs and Complex issues and needs are identified by TT Members.</p> | | |
| <p>Occupational Medicine (OM) Task Team</p> | | |
| <p>WS&H-OM-22-01 Publish White Paper regarding guidelines on the use of medical and recreational marijuana and cannabidiol (CBD) products at DOE sites</p> | <p>Provide a standardized approach to the use, reporting, medical review of drug test results, and required follow up in workers using medical/recreational marijuana or CBD products. Continued from FY21.</p> | <p>Issue White Paper in FY22.</p> |
| <p>WS&H-OM-22-02 Develop and publish a Best Practice on recommendations for key medical self-assessments</p> | <p>Provide a standardized approach to medical self-assessments for onsite clinics to evaluate medical services provided to DOE and contract workers. Continued from FY21.</p> | <p>Issue standardized assessment form Best Practice for EFCOG sites in FY22.</p> |
| <p>WS&H-OM-22-03 Develop a process for site-to-site peer reviews</p> | <p>Provide a formal process for requesting an outside peer consultation between medical facilities/DOE sites with regard to medical issues.</p> | <p>Develop a formal written process in FY22, along with supporting documents including a sample agreement form, which will include agreed-upon assessments and outcome deliverables</p> |

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| <p>WS&H-OM-220-4 Work with the IH&S Technical Task Team to determine follow-on activities on the OSHA silica standards and benchmarking efforts</p> | <p>Standardize approach to the implementation and medical evaluation of silica workers across the DOE Complex under the OSHA standards for crystalline silica workers due to the unique nature of the standard.</p> | <p>Issue White Paper on implementation of the new standards in FY22.</p> |
| <p>WS&H-OM-22-05 Work with Human Performance Improvement (HPI) Task Team on psychological effects of COVID-19 on the workforce to include recommendations on addressing stressors</p> | <p>Evaluate the possible psychological effects of COVID-19 on the DOE workforce and look for ways to address these stressors prior to them affecting workers' well-being and health. Evaluate the stresses creating possible additional, unrecognized hazards among the workers.</p> | <p>Issue White Paper/Media presentation for the DOE complex workforce in FY22.</p> |