



2022

ANNUAL REPORT

EFCOG'S MISSION

*Maximize DOE/NNSA mission success
by achieving management and
operational excellence.*

VALUE PROPOSITION

- A comprehensive network of leading companies partnering with DOE to:
 - promote safe, secure, and effective operations
 - develop, share, and advance innovative practices
 - deliver cost-effective solutions to challenges and issues
 - strengthen performance measurement and accountability
- Access to unmatched leadership and experience across member sites and companies
- A collective voice for DOE/NNSA contractors across missions, functions, and sites

NOTE FROM THE CHAIR



The Energy Facility Contractors Group (EFCOG) continued in 2022 to provide a vital service for the U.S. Department of Energy (DOE) by serving as a forum to improve operations and share lessons learned across the DOE complex. EFCOG and its member companies continued to enable DOE and the National Nuclear Security Administration advance their national security, clean energy and environmental remediation missions in a more efficient and effective manner, while also working to assist broader Administration goals in areas such as sustainability, environmental justice and diversity/equity/inclusion (DEI). These broader goals are not ancillary to DOE's core missions, but will be crucial to the Department's long-term success, and I am proud of the continued strong collaborative relationship EFCOG has maintained with DOE and NNSA across this wide spectrum of issues.

Over the course of this year, EFCOG assisted DOE and NNSA in a number of macro-topics impacting industries across the board, including the impacts of inflation and supply chain disruptions. I am especially pleased with the work EFCOG did this year to assist DOE in one of its more pressing long-term challenges, hiring and maintaining a diverse and inclusive next-generation workforce. This is an especially imperative issue for programs like the Office of Environmental Management (EM), whose work stretches out for decades into the future. EFCOG worked with EM this fall on inaugural EM workforce summit, and from that EM has already taken several actions, including guidance to assist contractors in establishing workforce development programs and in developing long-term hiring projections.

EFCOG also provided important insight and advice to aid DOE and NNSA in a variety of initiatives, from safely maintaining the nation's nuclear stockpile to ensuring efficient and effective operations of the national lab complex to tackling radioactive waste management challenges. EFCOG has begun assisting NNSA in implementing its new Enhanced Mission Delivery Initiative to improve operations across the nuclear weapons complex. EFCOG realized another year of success in delivering on our **top strategic priorities** for the year, including:

- Safe, Secure and Effective Operations
- Ensuring Long-Term Availability of Critical Equipment, Supplies and Infrastructure

- Assuring That Projects are Completed on Cost and Schedule
- Evolving Enterprise Recruiting and Retention Approaches to Realize DEI Priorities
- Utilizing Operating Approaches to Realize Sustainability, Clean Energy and Reuse Goals

As anyone familiar with EFCOG knows, the bulk of the actual work is done through our collection of Working Groups, and I want to extend my thanks to those of you who take the time to contribute your expertise and knowledge through your participation. This year saw the creation of new Working Groups to assist DOE and NNSA in key areas such as communications, operations and sustainability and environment. EFCOG's set of working groups has had real and tangible impacts to improving DOE's missions this year, including by:

- Establishing cyber security best practices
- Conducting a ransomware exercise at Los Alamos National Laboratory
- Implementing commercialized project approaches at NNSA and EM sites
- Facilitating collaboration among EM sites with large volumes of reactive sodium wastes to understand disposition options and available technologies
- Updating EM's inventory of challenging wastes to aid with risk mitigation
- Providing training on new Executive Order requirements for federal sustainability through bi-monthly webinars
- Creating a framework to support the DOE complex in reducing carbon emissions and working to meet decarbonization goals
- Assisted the facilitation of DOE's transition to a zero-emission fleet and improve overall fleet management practices

I was especially heartened that in 2022 we largely resumed holding in-person meetings for the working groups and other EFCOG events. While EFCOG was able to successfully transition during the COVID-19 pandemic to virtual meetings, there are advantages to in-person events to help foster and strengthen connections and engagement. Last year, EFCOG was able to support events such as the National Cleanup Workshop, working with EM and the Energy Communities Alliance; and the re-launched House Nuclear Cleanup Caucus briefing series, working with the Energy, Technology and Environmental Business Association (ETEBA) and the Nuclear Energy Institute. I'm looking forward to our opportunities to get together in person in 2023, including the EFCOG Annual Meeting on June 21-22 in Washington, DC; and the National Cleanup Workshop on Sept. 11-13 in Crystal City, VA.

This report summarizes the accomplishments of the working groups in 2022 and lays out initiatives and deliverables for this year. The full accomplishments, as well as the full work plans, are available on the EFCOG website.

The past year vividly demonstrated again the value EFCOG provides to DOE and NNSA in their vital missions across the country. I want to thank the EFCOG Board of Directors for their full support, and to thank you and your member companies for your participation.

Sincerely,

Michael Lempke
Chair, Energy Facility Contractors Group

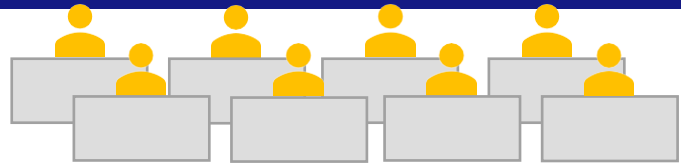
EFCOG ANNUAL REPORT

The EFCOG organization arose from an initiative by contractor executives to work together to improve operations across the DOE complex; and a challenge from DOE leadership to tackle common problems facing DOE sites and laboratories. That remains the core of our mission today – to maximize DOE/NNSA mission success by achieving management and operational excellence. EFCOG has grown to an organization that has over 110 member companies representing the prime contractor community, as well as the small business community, that support the DOE/NNSA operations.

During decades of service, EFCOG has continued to demonstrate the value of partnership across the DOE complex by working collaboratively with DOE/NNSA at the headquarters and field level. In 2022, EFCOG continued to be productive in supporting these partnerships through Board and Working Group interactions to assure that EFCOG was working on the highest risks and most important issues for the DOE complex. Through these interactions, EFCOG accomplished mission milestones and, more importantly, maintained the safety of our most important resource --- our workforce.

BOARD OF DIRECTORS

The Board of Directors, comprised of senior executives from member companies, is elected by the Executive Council and serves as the governing entity for EFCOG’s day-to-day



operations. In 2022, we continued to work with DOE on several major efforts including, recommendations on COVID Return to Work/Return to Full Operations protocols, analyzing inflation impacts to site operations, analyzed complex-wide glovebox needs and identified actions to ensure n-time delivery, established cyber security best practices and conducted an inaugural workforce summit with DOE-EM.

In September 2022, we co-sponsored, with the Energy Communities Alliance (ECA) and DOE-EM, the eighth annual National Cleanup Workshop. Last year’s event was in-person, which allowed for a continuing dialogue on the top issues facing the DOE cleanup program.

FISCAL YEAR 2022 BOARD OF DIRECTORS

Chair	Michael K. Lempke	Huntington Ingalls Industries
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	Robert Wilkinson	Hanford Mission Integration Solutions
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WORKING GROUPS

EFCOG continues to function through a set of 10 working groups and task teams each tightly aligned with their DOE sponsor:

- Communications
- Cybersecurity
- Operations
- Project Delivery
- Safeguards & Security
- Safety
- Supply Chain (Task Team)
- Sustainability & Environment
- Training
- Waste Management

These Working Groups include subject matter experts, leaders, and managers from across DOE's programs, laboratories, and sites. This year the Working Groups produced focused best practices developed from across the enterprise, issued numerous white papers and recommendations, and supported DOE in the review, updating, and improvement of a broad range of DOE Orders, standards, and guides. In all these efforts, we maintained a focus on achieving excellence in a manner that is practical, implementable, cost-effective, and sustainable. The key 2022 accomplishments of these groups, as well as information on planned 2023 activities, are summarized below. More detailed description of Working Group activities, as well as membership of the groups, can be found on the EFCOG website.

During the past year, the EFCOG Working Groups focused on numerous critical initiatives. The Working Groups utilized teleconferences and meetings to exchange information and lessons learned. Each Working Group performs its activities consistent with a charter approved by the Board of Directors.

A Chairperson oversees the direction of each Working Group. Working Group membership includes individual subject matter experts supporting particular focus areas. The 2022 Working Group Chairs (and their member company affiliations) are shown below. DOE and NNSA Headquarters and Field Sponsors provide advice, information, and support.



2022 WORKING GROUP LEADERSHIP

WORKING GROUP	EFCOG CHAIR	DOE LIAISON and DOE & NNSA POCS
Cybersecurity	Bridgitte Mase, Chair (BGS)	Jeanne Beard (DOE)
Project Delivery	Amy Basche, Chair (MSA)	Paul Bosco (DOE)
Safeguards and Security	H. Ray Hubbs, Jr., Chair (Y-12)	Mark Hojnacke (DOE AU)
Safety	Jan Preston, Chair (Fluor Federal Services)	Kevin Dressman (DOE EHSS-10)
Sustainability & Environment	Catherine Hurley, Co-Chair (Argonne National Laboratory) Suzanne Belmont, Co-Chair (National Renewable Energy Laboratory)	Josh Silverman (DOE)
Training	Shayne Eyre, Chair (Battelle Energy Alliance)	Gabe Pugh (DOE EA)
Waste Management	Renee Echols, Chair (Firewater)	Douglas Tonkay (DOE EM)

2022 ACCOMPLISHMENTS AND 2023 PLANNED ACTIVITIES

PROJECT DELIVERY WORKING GROUP

The Project Delivery Working Group (PDWG) is chartered to leverage the expertise and experience of DOE contractors to address challenges and achieve improvements in project delivery across the DOE complex. The PDWG’s purpose is to seek out, promote and share the best practices and processes for successful project delivery at DOE facilities. This will be achieved through contractor subject matter experts and professionals from across the DOE complex working together, and in partnership with DOE, to implement initiatives that strengthen and advance the development, management, and delivery of projects (and project-like activities). The PDWG portfolio includes those broad-based, interrelated elements across the project lifecycle critical to successful project delivery. Areas of focus and collaboration include:

- Project Management
- Cost Estimating
- Scheduling
- Risk Management
- Acquisition Management
- Contract Management

- Project Peer Review Support
- Start-up, Testing and Commissioning
- Guide revisions
- DOE Areas of Interest

The PDWG focuses on practical and effective solutions to complex-wide challenges; promoting open communication and sharing of lessons learned and best practices; and leveraging inter-site and inter-contractor solutions to achieve enterprise-wide improvement while supporting cost-effective and efficient solutions. This will be achieved in a manner that maintains a priority on safety, compliance, and cost-effectiveness. There are two primary components to the PDWG: The Project Management Subgroup (PMSG) and the Acquisitions and Contracts Subgroup (ACSG).

The PMSG focus areas include project management, construction management, project controls, risk management, cost estimating, and project peer review support. Project Controls (PC) will focus primarily on earned value compliance in support of PM-30 and EM-5.22. These efforts will be integrated and supported by task teams and other working groups as necessary to provide solutions to improving project delivery across the complex.

The ACSG objective is supporting DOE customers and contractors in key areas of contracts and acquisition management. The intent of the subgroup is to provide a focal point for contracts and acquisition related tasks identified in the PDWG fiscal year work plan as well as providing continued support for efforts undertaken recently in areas like regulatory reform

The PDWG and its subgroups work plan activities will be accomplished through the collaboration of complex-wide SMEs.

2022 Accomplishments

- Provided collaborative earned value compliance support to the PM Oversight and Assessments (PM)/ (PM-30) and EM-5.22, as requested
 - Strategic Petroleum Reserve
 - LANL
- Provided ongoing support to PM-30 in roll-out of Integrated Project/Program Management (IP2M) METRR tool using EVMS through the Arizona State University (ASU) Study
- Supported DOE efforts in the development of DOE guides and revisions.
- Published Bias Awareness Training, Risk Management Guidance Crosswalk, Effective Management of Risk by Escalation and Weather Calendars in Risk Analysis
- Coordinated development of a best practice product on Risk Management approach in pre-CD2/3A activities
- Published monthly “Practitioner” Newsletter
- Provided candidates as requested for Project Peer Reviews

2023 Goals

- Continue to support DOE efforts in the development of DOE guides and revisions
- Provide review comments, support comment disposition/resolution, and implementation
- Continue to provide Project Peer review candidates based on DOE requests

- Understand DOE project path forward for Net Zero-Carbon free project execution
- Understand and document lessons learned from NNSA pilot projects using commercial practices for construction non-nuclear/non-hazardous facilities
- Leverage lessons learned from NNSA pilot of commercialized project approach and determine how to execute “commercial”-like projects at EM sites
- Focus on recruitment of PMs to the PDWG
- Follow-through in maturing the previous EFCOG Bias Management work by developing training material in a collaborative effort with the EFCOG that Training Working Group and piloting the training material and bias reduction techniques
- Develop a best practice that outlines the role of Risk Management in pre-CD-2/3A activities and provides consistent guidance
- Develop a paper on a Joint Confidence Level (JCL) - as well as the tools and procedures required to its applicability to projects of varying complexity and cost across DOE in general and EM in particular
- Facilitate implementation of the Integrated Project/Program Management (IP2M) METRR tool using EVMS
- Continue to provide collaborative earned value compliance support to the Office of Project Management Oversight and Assessments (PM)/ (PM-30) and EM-5.22, as requested
- Conduct Integrated Master Schedule (IMS) – Peer Reviews and provide Recommendations for IMS solutions to include:
 - Rolling Wave Planning
 - IMS Reasonableness
 - IMS Quality
- Subproject path forward (white paper from PC team) – Understand the Project Assessment and Reporting System driver - New Data Item Description for flat files, Integrated Project Management Review, Contract Funding Status Report in JavaScript Object Notation vice Comma Separate Values or MDB; Improve Data Integrity and Quality
- Continue supporting EVMS Compliance / Surveillance Reviews
- Commit to EFCOG Peer Review of METRR scoring
- Create a standard form for a CAP
- Continue working group internal and client communications, including publishing of monthly newsletter
 - PDWG internal communications
 - PDWG client communications
 - Publishing a Monthly Newsletter

SAFEGUARDS AND SECURITY WORKING GROUP

The Safeguards and Security Working Group (SSWG) is chartered to continuously improve Safeguards and Security (SAS) performance across DOE by focusing on the protection of Nuclear Material and Special Nuclear Material (SNM), sensitive information, classified matter, assets, and personnel. The SSWG adds value by bringing together the best and brightest DOE and industry SAS professionals to

analyze issues and develop cost-effective solutions that bring clarity and continuous improvement to the DOE missions.

The SSWG is focused on enabling the successful execution of DOE missions and programs by promoting security practices that deliver cost effective, safe and secure outcomes. The Working Group is also intended to provide a forum for the active exchange of ideas, approaches and lessons learned among DOE management and contractors that enhances collaboration through the sharing of innovative technologies and methods.

The Working Group serves as a consensus board for emerging security directives proposed by DOE and for the interpretation and consistent application of existing DOE directives. The Working Group helps assure the goals of EFCOG and DOE are met through effective planning and execution and promotes continuous improvement and professional development by sharing information among contractors through vehicles such as websites, workshops, and subgroups.

2022 Accomplishments

In 2022, the Working Group focused on key areas to address current or emerging challenges and to deliver efficiency and effectiveness in the development of SAS Programs. New co-chairs were appointed for the SSWG and subgroups. Each subgroup conducted multiple conference call meetings to move forward with identified initiatives.

While DOE policy and NNSA Supplemental Directives allow the acceptance of appropriately analyzed and mitigated risks through the approval of Site or Facility Security Plans, the increasing global concerns for terrorist-related scenarios, active shooter/workplace violence, insider threats, and other low-level threats may create challenges in security risk assessment that uses a regulatory-driven basis to inform the calculation of S&S program effectiveness. This concept is valid for most aspects of S&S, from physical protection strategies, material inventory, and information protection. The sub-groups of the SSWG continue to focus analyzing these challenges, along with policy implementation and assistance with the identification of best practices for implementing a Site or Facility security program.

In 2022, the SSWG addressed the following issues:

- Information Security
 - TSCM Standardization of Job Requirements
 - TSCM Standardization of Facility Assessments
 - Began Work on Destruction of Media
 - Began Work on Marking in the Electronic Environment
 - Provided instrumental briefing to summarize new Controlled Unclassified Information requirements, how they are being implemented and how new requirements will affect other Security Programs and mission work.
- Material Control and Accountability
 - Initial planning started to develop a best practices guide regarding MC&A Measurement Equipment

- Activities continued on the development of an assurance guide on MC&A Performance Testing
- MC&A Shipping Authorization was completed containing a Shipper/Receiver template outlining blackout dates, required approvals and documents, and contact information.
- Continue development of an Inventory Best Practice Document
- Finalized Authorization to Ship Template
- Developed Catalog Barcode Readers Matrix
- Physical Protection
 - Work continued on a Civil Disobedience Response guide to assist protective force and physical security groups across the DOE complex in implementation of their own civil disobedience programs by offering material they can utilize as a baseline, or to augment their own responses.
 - Sought permission necessary to distribute the Department of Homeland Security “Planning & Response to an Active Shooter” guide to member companies
 - Integrated with Local Insider Threat Working Groups
 - Adopted Homeland Security’s Active Shooter Guide as a Best Practice
 - Developed Suspicious Packages and Explosives Response Best Practice

2023 Goals

- Information Security
 - Continue Development of Destruction of Media Best Practice
 - Present work on Marking in the Electronic Environment
 - Continue Performance Assurance Activities
- Material Control and Accountability
 - Develop Site-Specific Requirements for Shipments and Receipts
 - Develop Accounting Brochure
 - Develop Measurement and Measurement Control Guide
 - Develop Performance Assurance Guide
 - Develop Physical Inventory Guide
- Physical Protection
 - Finalize Civil Disobedience Best Practices Guide
 - Develop Industrial Best Practices Guide
- Program Planning and Management
 - Standardization of IOSC Programs (Assist with revision of orders and standard)
 - Establish Task Team for Local Insider Threat Working Group
 - Develop LITWG Best Practice Guide
- SSWG Joint Sub-Group Activities
- Update member database and subject matter expertise contact list
- Conduct Annual SSWG Meeting

WASTE MANAGEMENT WORKING GROUP

The Waste Management Working Group (WMWG) is chartered to leverage the expertise and experience of DOE contractors to seek out and promote the best management and operating practices,

cost effective technologies and disposal options for all waste streams generated at DOE facilities, whether destined for DOE or commercial facilities.

The WMWG is focused on complex-wide integration and technology transfer, while supporting cost effective and efficient waste options. This will be achieved in a way that enhances complex-wide communication and maintains a priority on safety, environmental stewardship, and security.

The WMWG membership has the technical expertise to provide recommendations on waste classification to the lowest disposition level that is acceptable for compliance with DOE Order 435.1 and other applicable regulations. Identifying alternative disposition pathways for the safe and cost-effective management of a large variety of radioactive and mixed (a combination of hazardous and radioactive) waste streams supports DOE's risk-based waste management strategy.

The WMWG is comprised of four Subgroups:

- Challenging Waste
- Decontamination and Decommissioning
- Packaging and Transportation
- Transuranic Waste

2022 Accomplishments

- Updated challenging waste inventory information for DOE-EM to facilitate planning and risk mitigation
- Facilitated collaboration among sites (Hanford, Idaho, and Oak Ridge) with large volumes of reactive sodium wastes to understand disposition options and available technologies
- Joined the DOE HQ PFAS Working Group that has been established to develop DOE's PFAS Road Map. First emerging contaminant of concern within this group of chemicals is firefighting foam (AFFF), which has been banned for disposal without prior authorization.
- Provided a communication forum for the Nevada National Security Site (NNSS) to discuss non-compliances and information specific to new Waste Acceptance Criteria (WAC) revision requirements
- Established a transuranic (TRU) waste communication hub that collects and shares best practices for waste minimization and repackaging and certification of waste streams with potentially non-conforming items (e.g., rags with nitric acid) to ensure compliant and efficient utilization of the Waste Isolation Pilot Plant (WIPP)
- Supported DOE in the design and deployment of Shielded Container Assemblies (SCAs) for remote-handled (RH-TRU), including forecasts for production and discussion of performance criteria
- Reconstituted the Decontamination & Decommissioning (D&D) Subgroup that is focused on improved D&D approaches, including pre-demolition/post-cleanup judicious use of facility power, and interface with former building workers for insights into building uses and hazards

2023 Goals

- Continue waste management technical support, including identifying alternative disposition pathways to DOE for high-level Waste (HLW), low-level Waste (LLW), mixed low-level waste (MLLW), and TRU wastes streams
- Further TRU waste community sharing through building on the newly established WIPP communication hub
- Support new SCAs for RH-TRU. Support the EM Carlsbad Field Office in resuming emplacement of RH-TRU waste.
- Continue support on challenging waste stream characterization, treatment, and disposition pathway identification. This includes a continued focus on reactive wastes and emerging contaminants (e.g., PFAS and 1-4 Dioxane).
- Provide technical support for revision of DOE Order 435.1.
- Establish a Packaging & Transportation Lessons Learned Program for inconsistency of procedures and risk associated with blocking and bracing, and new vehicle auto braking that can result in load shifts during transport.

TRAINING WORKING GROUP

The Training Working Group (TWG) is intended to drive efficiency and effectiveness in training conducted for DOE. The TWG takes a leadership role in leveraging collaborative initiatives that support training. It also assists in identifying areas of improvement around proposed policy or regulatory changes, new or changed processes, and providing subject matter expertise for training initiatives across the complex.

2022 Accomplishments

Conducted annual meeting. This year's event, conducted virtually, pulled in 266 instructors, instructional designers, training coordinators, and training managers from 49 organizations across the DOE complex. The meeting was held over three days and featured 35 presenters covering wide-ranging topics such as worker safety & health, virtual design, LMS implementation, NIEHS partnership, and virtual conferencing tools. Participant feedback was overwhelmingly positive with many appreciating the timely, focused information and ability to make connections

Continued monthly learning opportunities that focus on specific topics and allow individuals to share their best practices and get feedback. This year's sessions included,

- May 23, 2022 – The Training Working Group Goals and Call for Collaboration (TWG Leads)
- June 13, 2022 – CARDS Overview and Demonstration (NTC and BNL)
- July 11, 2022 – A New Onboarding Experience (LLNL)
- August 8, 2022 – How to Handle Brain Drain: Knowledge Transfer and Retention (Ames, Hanford, NNS)

- September 12, 2022 – Webex for Training User Group (Webex Customer Success Manager supporting the Federal Government users)
- October 17, 2022 - Needs of a New Generation of Learners: Mentoring (Hanford, LANL, BNL, NNSS)
- November 11, 2022 – Creating MicroLearning (SRS)

Increased awareness of the National Training Center Reciprocity program within the EFCOG TWG membership. The annual plan for 2023 will include small efficiencies to gain better traction within the contractors on the value in reducing redundancy of training and leveraging lessons-learned from the JLON project.

2023 Goals

- Continue to deliver best practices through frequent learning sessions highlighting key topics to training organizations.
- Raise awareness of inefficiencies throughout the complex due to lack of training material and record sharing.
- Maintain and grow the Reciprocity Certification program
- Conduct the Training Working Group Annual Meeting
- Launch task teams to focus effort on Diversity, Equity, and Inclusion in Learning, Learning Technology value at DOE facilities, and Workforce Development

SAFETY WORKING GROUP

The EFCOG Safety Working Group (SWG) helps member companies attain and maintain the highest levels of Integrated Safety Management (ISM) performance in the operation of DOE/NNSA facilities and projects. “Safety,” as it relates to the scope of the Working Group, includes a number of related functions such as nuclear and facility safety, engineering practices, radiological protection, criticality safety, fire protection, work planning and control, worker safety and health, industrial hygiene, environmental protection, human performance, quality assurance, contractor assurance, and related regulatory programs.

The FY2022 SWG was composed of the following Subgroups:

1. Engineering Practices
2. Integrated Safety Management System (ISMS)
3. Quality Assurance (QA)
4. Nuclear & Facility Safety (N&FS)
5. Regulatory & Enforcement
6. Sustainability & Environment
7. Worker Safety & Health (WS&H)

The SWG was revamped at the end of the year to include the following Subgroups for 2023:

1. Contractor Assurance System (CAS)
2. Integrated Safety Management System (ISMS)

3. Quality Assurance (QA)
4. Regulatory & Enforcement
5. Worker Safety & Health (WS&H)

2022 Accomplishments

- Published two best practices guides to improve understanding and consideration of hazards associated with lockout applications; and support independent review and execution of work with the potential to impact the facility to the extent that a Limited Condition of Operations might be entered
- Published a Safety Culture Practitioners Resource Guide to serve as a reference for practitioners
- Continued collaboration to develop a white paper on Anticipating and Mitigation of Operational Upsets
- Continued collaboration to incorporate Human Performance Improvement (HPI) concepts to improve pre-job briefs, post-job reviews, job planning, pause/stop work, etc.
- Issued a white paper on Risk-based Assessments, expanding the current knowledge base on integration and assessment planning with a focus on using risk assessment tools and enterprise-level risks to inform the planning process, integration between contractors and DOE, and increased identification of strengths
- Provided SME support to the DOE National Training Center for finalization of SBA-250 USQ Process Implementation Review; as well as SME support by serving as instructors to assist in teaching SBA-250
- Published best practices on Unmanned Aerial Vehicles Unmanned Aircraft Systems Processes for DOE Nuclear Facilities and the Management and Control of Less Than Hazard Category-3 Nuclear (Radiological), Non-Nuclear, and Industrial Facilities
- Provided guidelines to support the movement of commercial software to a Cloud-Hosted platform. The guidelines address security concerns, configuration control, testing, and the qualification process for software that is nuclear/radiological safety-related
- Issued a proposed alternative to the DOE Central Registry Toolbox and code qualification process
- Continued work on a White Paper for an alternate approach to Commercial Grade Dedication; and continued development of standardized Procurement Engineer training
- Continued work to increase the availability of potential suppliers to support both new projects and maintenance of existing operations
- Continued development of a Best Practice for QA Metrics and Methods; focus is on developing metrics and providing guidance on their collection, use/trending, and applicability
- Provided four training sessions on new Executive Order requirements for federal sustainability and promoted best practices to the Subgroup's members through bi-monthly webinars
- Created a framework to support the DOE complex in reducing carbon emissions and working to meet DOE decarbonization goals

- Developed a recommendation paper for AU-11 on the adoption of the International Commission on Radiological Protection's eye dose limits considering the described factors as well as costs to implement.
- Provided a formal report to DOE AU that provided recommendations for selecting the most appropriate psychological tests to facilitate detection of possible indications of significant psychopathology in HRP candidates to meet the requirements established in 10 CFR 712
- Developed a Laser Accident/Incident/ Lessons Learned database to improve laser safety enterprise-wide
- Completed benchmarking on interpretation of Class 1 laser enclosure requirements shop

2023 Goals

As noted above, the SWG was re-organized and refocused at the end of FY2022: three Subgroups were outplaced, CAS was elevated to a Subgroup, and the concept of Communities of Practice to facilitate networking and staff/leadership development was implemented. The SWG's primary FY2023 goals will include institutionalizing these changes to assure EFCOG resources are effectively focused on tasks with the potential for high impact to the DOE/NNSA contractor community.

CYBERSECURITY WORKING GROUP

The Cybersecurity Working Group (CSWG) assists member companies attain and maintain excellence in all aspects of Cybersecurity operations and management of DOE facilities through the consistent exchange of information, best practices, and corresponding improvement activities. The CSWG achieves this by:

- Leveraging the expertise and experience of DOE contractors to address challenges and achieve improvements in cybersecurity
- Advocating for strong, effective implementation of Integrated Cybersecurity Management across DOE activities
- Developing, and promoting best management and operating practices;
- Improving the effectiveness of boundary authorization packages for achieving and maintaining the Authority to Operate (ATO) and achievement of Cybersecurity readiness processes across contracts by working together, exchanging information, and sharing best practices and lessons learned
- Improving the effectiveness of risk management and cyber resilience, and associated processes by developing tools, practices, guidance, and recommendations for compliance and directive changes – where appropriate and as supported by Contractor and DOE line management
- Providing real-time support for cyber related emergent issues in the form of ideas, tools, resources, etc.
- Interfacing with various intelligence associated organizations and industry providers to promote cooperation, information exchange, and as appropriate, minimization of duplication of effort

- Interfacing with key DOE managers (both headquarters and field) on varying concepts, practices, and concerns associated with Cybersecurity needs and processes to enable better understanding of customer needs and concerns
- Interfacing with other external organizations on varying concepts, practices, and concerns associated with Cybersecurity processes and risk management
- Promoting transparent communications across group members and DOE
- Facilitating the exchange of operating experiences and information on Cybersecurity programs and their effectiveness, and designing studies and developing position and technical papers to inform DOE where appropriate
- Providing DOE and member companies with access to a network of subject matter experts
- Identifying opportunities to save and/or avoid costs in the implementation of Cybersecurity and regulatory programs while assisting member companies implement effective Cybersecurity and regulatory programs through peer reviews and consultations
- Arranging training and awareness workshops to enhance the competency of Cybersecurity professionals and collaborative workshops

The working group is focused around the following key areas of Cybersecurity: Industrial Control Systems/Distributed Control Systems/SCADA; IoT & Smart Technologies; Risk Management & Governance; Addressing Remote Work Challenges; Technology and Tools; and Cloud Security.

2022 Accomplishments

- Established multiple cybersecurity best practices associated with remote work
- Conducted a CSWG Workshop
- Updated the secure platform in a FedRAMP tenant of Azure Government for conducting the collaborative workshop and online discussion forum.
- Began establishing subgroups for CSWG.
- Created the development site for the EFCOG Cybersecurity Center of Excellence.
- Worked on integrating Cybersecurity in the Safety and Quality Assurance Framework.
- Established best practice documentation for key areas.
- Facilitated Cybersecurity awareness through distribution of current threats and current events.
- Completed a best practice guide for Cybersecurity Metrics.
- Established the ICS/Critical Infrastructure Subgroup.
- Participated in planning and execution of Ransomware preparation and response exercise for LANL.
- Conducted an EFCOG CSWG session for the 2022 DOE Cybersecurity Conference

2023 Goals

- Finalize initial subgroups for key topic areas
- Change the format for the annual CSWG Workshop to a set of shorter segment workshops conducted throughout the year to improve continuity and focus.
- Launch the EFCOG Cybersecurity Center of Excellence

- Continue working on the framework for integrating Cybersecurity into the Safety and Quality Assurance process
- Participate in additional planning and execution of Ransomware preparation and response exercises
- Participate in the Continuous Monitoring reviews
- Continue collaboration in the CSWG discussion forum to facilitate key topic discussions, generate best practices, and share information
- Develop best practices and additional action items to further cybersecurity capabilities across sites
- Prepare an EFCOG CSWG session for the 2023 DOE Cybersecurity Conference
- Create and make available vendor neutral white papers on key topic areas
- Create and make available best practice guides for key topics

SUSTAINABILITY AND ENVIRONMENT WORKING GROUP

The Sustainability and Environment Working Group (SEWG) promotes excellence in meeting DOE's strategic sustainability and environmental performance goals by sharing information, operational experience, best practices, and lessons learned. The SEWG promotes integration and facilitation by partnering across the contractor community and with DOE to facilitate implementation at the local site level.

2022 Accomplishments

- Provided training on new Executive Order requirements for federal sustainability and promoted best practices to the SEWG members through four bi-monthly webinars
- Convened quarterly peer-sharing calls to discuss best practices for data analytics that leverage energy analytics to support energy and sustainability goals and support coordination with maintenance staff
- Developed and shared the Excel based Guiding Principles checklist with the full SEWG to help improve compliance with Guiding Principles for Sustainable Buildings across DOE Complex. Sites are currently utilizing the checklist and feedback will be collected in FY23 to support tool revisions and update
- Promoted best practice sharing to improve energy and water efficiency in High Performance Computing (HPC)
- Hosted presentations on energy and water efficient technologies, heat reuse, energy dashboards, and analytics & continuous commissioning
- Completed deep dive analysis on best practices for heat reuse.
- Supported the Sustainable Climate Ready Sites (SCRS) Program with EHSS-21; Recruited working group members to participate in the EHSS-21 pilot of the SCRS program and provided feedback on program elements and improvement opportunities.

- Created a framework to support DOE complex in reducing carbon emissions and working to meet DOE decarbonization goals. Gathered information from members on challenges and resources needed for DOE sites to achieve decarbonization and net zero emissions goals.
- Coordinated with DOE Net Zero Labs Pilot to promote educational opportunities for DOE sites.
- Helped to facilitate DOE's transition to Zero Emission fleet and improve overall fleet management practices.
- Promoted best practices for safe and efficient laboratories. In partnership with FEMP, formed a working group with active participation by 30-50 members of cross-functional National Laboratory staff (industrial hygiene, facilities, safety, sustainability, and more).

2023 Goals

- Develop a new charter and governance framework that formalizes the structure of the SEWG as working group with appropriate subgroups.
- Develop resources that educate DOE sites on strategies to effectively advance and implement decarbonization efforts through policy, technology, staffing structure, and financial mechanisms.
- Continue webinars and presentations that share lessons learned, highlight successful projects, tools, and resources that support DOE overarching goals related to sustainability.
- Identify a pathway forward to improve DOE site achievement of broad sustainability and environmental goals that ensure integration with existing working groups and resources available.

WORKING GROUP INFORMATION

Please see the links below for detailed 2022 plans, deliverables, Best Practices, Lessons Learned and other relevant documents for each of the Working Groups.

Cybersecurity WG: <https://efcog.org/cybersecurity-working-group/>

Project Delivery WG: <https://efcog.org/project-delivery/>

Safeguards & Security WG: <https://efcog.org/safeguards-security/>

Safety WG: <https://efcog.org/safety-working-group/>

Sustainability & Environment: <https://efcog.org/sustainability-working-group/>

Training WG: <https://efcog.org/training/>

Waste Management WG: <https://efcog.org/waste-management/>

EFCOG FISCAL YEAR 2022 FUND ACCOUNT SUMMARY

October 1, 2021 – September 30, 2022

Beginning Balance as of 10-01-21		\$ 700,677.00
<u>Receipts</u>		
FY-2022 Memberships & Renewals	\$ 271,375.00	
FY-2023 Memberships & Renewals	\$ 230,500.00	
Annual Meeting Member Sponsors	\$ 13,100.00	
Interest	\$ 3,011.00	
Total Receipts	\$ 517,986.00	
<u>Disbursements</u>		
Support Service Contractor		
Longenecker & Associates, Inc.	\$ 301,991.00	
Total Disbursements	\$375,731.00	
Net income as of 09-30-22	\$142,255.00	
Ending Balance/Management Reserve as of 09-30-2022		\$842,932.00

RENEWED MEMBERSHIP FOR FY2022

Accelerant Solutions	General Dynamics Information Technology	NAC International
Acuity International, LLC	Hanford Mission Integration Solutions	Navarro Research and Engineering
Advanced Technologies and Laboratories Int'l	HBE Consulting Solutions, LLC	Neptune and Company, Inc.
Alliance for Sustainable Energy, LLC (NREL)	HDR, Inc.	NFT
Amentum	HealthWorks Medical, LLC	North Wind Group
American DND, Inc.	HGL	*nStone
AMS Corporation	Holtec Government Service	Nuclear Waste Partnership LLC
APTIM	Honeywell Federal Solutions	Oak Ridge Associated Universities
Argonne National Laboratory	Honeywell FM&T (f/k/a Honeywell)	Oak Ridge Technologies
Atkins	HPM Corporation	Orano Federal Services LLC
AVANTech LLC	HukariAscendent	Pacific Northwest National Laboratory
AzTech International, Inc.	Humphreys & Associates, Inc.	PAE Inc.
Babcock Services, Inc	Huntington Ingalls Industries	Parsons Government Services
Banda Group International, LLC	I.C.E. Service Group, Inc.	Parvati Consulting LLC
Bechtel National, Inc.	Idaho National Laboratory	Project Enhancement Corporation
Booz Allen Hamilton	*IEI	Samos Advisors LLC
Boston Government Services, LLC	Innovative Technology Partnerships, LLC	Sandia National Laboratory
Brookhaven National Laboratory	INTERA Incorporated	Sargent & Lundy
BWXT Technical Services Group, Inc.	IONEX Research Corporation	Savannah River Nuclear Solutions
CDM Smith	Jacobs Engineering Group	Savannah River Remediation LLC
CH2MHILL BWXT West Valley, LLC	JGMS Government Services, LLC	Skookum Contract Services
ClearPlan LLC	Juno Management Professionals	SLAC National Accelerator Laboratory
Cogent Security Consulting LLC	Kiewit Power Constructors	SOC LLC
Consolidated Nuclear Security, LLC	Lawrence Berkeley National Laboratory	Spectra Tech, Inc.
Constellis	Lawrence Livermore National Laboratory	Strata-G, LLC
Curtiss-Wright Nuclear/Qualtech NP	Leidos	Strategic Management Solutions, LLC
DevonWay, Inc.	Lemma Technical Services	Studsvik, Inc.
DLE Technical Services, LLC	Los Alamos National Laboratory/Triad	Swift & Staley
elecTrain	Los Alamos Technical Associates, Inc.	TechSource-inc.com
Fermi National Accelerator Laboratory	Management Solutions, LLC	TerranearPMC, LLC
Fire & Pump Service Group	MarCom LLC	UCOR
Firewater Associates LLC	Merrick & Co.	University of California
Fluor Federal Services	*Michael Baker Int'l	UT-Battelle
Fluor Idaho	Mirion Technologies Inc.	Veolia Nuclear Solutions
Fluor-BWXT Portsmouth LLC	Mission Support and Test Services	Washington River Protection Solutions
Four Rivers Nuclear Partnership	MPR Associates, Inc.	Waste Control Specialists LLC
GEM Technologies Inc.	MS Technology Inc.	Westinghouse Government Services
GEM Technology International, Corp.	N3B	

*New EFCOG Member Companies

EFCOG MEMBER COMPANIES

By the end of FY 2022, EFCOG membership included 114 DOE contractors. EFCOG welcomes the following new companies:

IEI

Michael Baker Int'l

nStone