EFCOG’S MISSION
Promote excellence in all aspects of the operation, management, and integration of DOE facilities in a safe, environmentally sound, efficient and cost-effective manner.

VALUE PROPOSITION FOR EFCOG CUSTOMERS
EFCOG is committed to the achievement of DOE’s goals through performance excellence by partnering with DOE and its stakeholders in a collaborative and trusting environment. We provide an integrated, forward-looking contractor view on topics of common interest. We facilitate multiple forums for open communication, provide constructive feedback, and propose solutions that result in continuous improvement.

VALUE PROPOSITION FOR EFCOG MEMBERS
EFCOG offers members a leveraged opportunity for involvement with DOE leadership through a relationship of mutual trust. We provide a forum for sharing lessons learned, solving cross-cutting problems, and creating best practices. Our goal is to enhance mission accomplishment through continuous improvement of performance and productivity.

Cover photo: Demolition of the 100 Area K-West Reactor Water Treatment Basin at the Hanford Site, using American Recovery and Reinvestment Act funds

Copies of this annual report will be posted on the EFCOG website. For additional hard copies of the report, please contact the EFCOG website administrator at 760-745-1733.

EFCOG.ORG
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NOTE FROM THE CHAIR

The fiscal year ending September 30, 2009 was one of outstanding accomplishment for the Energy Facility Contractors Group (EFCOG), thanks to strong support from the Department of Energy (DOE) and our member companies. EFCOG continued to focus on both broad-based support to key DOE policy initiatives and on providing support to individual programs in key areas.

In 2009, EFCOG addressed mission critical issues in the DOE complex in areas related to safety, security, waste management, project management, infrastructure management, contractor performance assurance, energy efficiency, quality assurance, engineering, and human capital. Our membership increased during FY 2009 to 66 companies by the end of FY 2009, providing an extensive resource base to address issues and share lessons learned across the DOE complex. We welcome the new FY 2009 member companies to EFCOG – 3M, AnovaWorks, CH2MHill Plateau Remediation Company, North Wind, SLAC National Accelerator Laboratory, and Washington River Protection Solutions – and look forward to those new member companies’ contributions and participation in the years ahead.

As clearly stated in its charter, EFCOG’s objectives are to promote, coordinate, and facilitate the active exchange of successful programs, practices, procedures, lessons learned, and other pertinent information of common interest which have been effectively utilized by DOE contractors; the objective is to enhance operational excellence and cost effectiveness for continual performance improvement by other contractors. EFCOG’s primary goal continues to be to work safely and cost effectively throughout the DOE complex, sharing best practices and lessons learned. EFCOG continually benchmarks operating performance in related industries (e.g., the commercial nuclear and chemical industries), and maintains a close working relationship with other groups such as the Institute of Nuclear Power Operations, the Project Management Institute, and the Nuclear Energy Institute. The positive impact of EFCOG contributions can be magnified by sharing experiences and information through a broad membership of DOE contractors.

2009 ACCOMPLISHMENTS

The majority of EFCOG’s activity is conducted by its Working Groups. The 13 Working Groups chartered during 2009 are comprised of representatives from EFCOG member companies, working in cooperation with DOE counterparts, to address critical issues throughout the complex. Background information, activities, FY 2009 accomplishments, and FY 2010 plans for the Working Groups are described in this report. The 13 current Working Groups are shown in Table 1.

Demonstrating the level of EFCOG activity, more than 1,000 subject matter experts participated in a range of activities through the various EFCOG groups (i.e., Working Groups, Subgroups, Task Teams, Steering Committees, Board of Directors, etc.) throughout 2009.
During 2009, EFCOG held more than 74 Working Group meetings, major teleconferences, and other activities focused on the above areas. A comprehensive listing of activities, accomplishments, and future plans for each Working Group is contained in the “Working Group Reports” section of this report. Some of the major accomplishments of the Working Groups during FY 2009 included:

- completing the initial phase of the joint EFCOG-DOE safety culture task to assist DOE in improving integrated safety management implementation, by recommending a set of associated focus areas and associated attributes for implementation on a pilot basis
- providing feedback to DOE on its Corrective Action Plan to address the findings of the April 2008 Root Cause Analysis Report on Contract and Project Management issues – a critical effort to have DOE removed from the General Accounting Office “high risk” list
- supporting DOE’s initiative to implement the new DOE Standard 1189, “Integration of Safety into the Design Process by collecting and providing lessons learned
- upgrading and updating the EFCOG “Best Practices” website – which provides a single reference point for all contractors and the DOE – plus the posting of twelve additional best practices, such as in the qualification of inspection and test personnel, construction techniques, qualifications for suppliers of structures, systems, and components important to safety, and pollution prevention/waste minimization incentivisation
- providing safety education and training through vehicles such as the 19th annual safety analysis workshop, the safety basis workshop, and the 11th annual chemical management workshop, as well as studying how to minimize injuries and illness for the protective forces
- maintaining a fully-functional D&D Knowledge Resource Center as a front-line effort to disseminate best practices; the Center includes a D&D hotline and an associated website
- providing a forum for contractors to discuss implementation of the American Recovery and Reinvestment Act of 2009 (ARRA), including contract matters, safety, and accelerated demolition techniques of excess facilities
- supporting DOE’s Office of Environmental Management in its efforts to update and streamline its requirements and implementation guidance covered in the decade-old DOE Order 435.1,
“Radioactive Waste Management”, including planning and execution of a complex-wide review of past and present implementation practices in the field

- continuing several significant efforts to address current and future contractor human capital issues, such as baselining the health and productivity of the current workforce, identifying management and operating contractor policy issues, and collaborating with the National Nuclear Security Administration’s People Team initiative to identify a method for assessing contractor critical skill needs

- maintaining a Center of Excellence for electrical safety and developing tools that will assist in electrical safety performance tracking and hazard analysis; and completing the revision of the electrical safety handbook for use across the complex

- supporting DOE’s Federal Management Program through efforts such as providing feedback on and reviewing of draft guidance for the revised Order 430.2B, “Departmental Energy, Renewable Energy, and Transportation Management”, and sharing lessons learned on energy efficiency, water use reduction, and sustainable building goals

- continuing to provide strong focus on meeting the DOE safeguards and security management challenges by enhancing the protection of special nuclear material, classified matter, property, and cyber systems – through efforts such as completing the development of a security peer review process and field testing the process at three sites, and completing work with the NRC on the joint Nuclear Materials Management and Safeguards System

- completing a survey of DOE contractors concerning the cost of responding to solicitations, and providing feedback to DOE for possible streamlining of the procurement process

- completing the initial tasks in support of DOE’s Office of Environmental Management Corporate Quality Assurance (QA) Board to help strengthen the flow-down of QA requirements such as graded approaches, commercial grade dedication process, and supplier availability and evaluations

- continuing efforts with the Project Management Institute to understand better the value of project management in research and development programs, with preparation of a draft white paper focused on implementation within DOE

- assisting DOE in its response to the Defense Nuclear Facilities Safety Board (DNFSB) recommendations, such as 2008-1, “Safety Classification of Fire Protection Systems”, with emphasis on developing improved design and maintenance criteria for sprinkler system design and water supplies, and 2009-1, “Risk Assessment Methodologies at Defense Nuclear Facilities”

- conducting two peer reviews of Price-Anderson Amendments Act and worker safety and health programs at DOE sites to improve compliance and implementation

- compiling a comprehensive waste volume database to assist DOE’s Office of Environmental Management in determining available waste treatment and disposal capabilities versus projected needs from ongoing and planned ARRA cleanup projects

- placing a strong focus on addressing key infrastructure issues including improved asset utilization, deferred maintenance, alternate financing, effective performance metrics, and work management

- continuing efforts to improve contractor performance assessment programs focused on moving from an “event driven” to an “assessment discovered” approach throughout the DOE complex – such as the maturing development of leading indicators for contractor performance, and conduct of multiple benchmarking visits and independent assessments across the complex

- continuing efforts to support DOE’s Office of Health, Safety, and Security in collecting and sharing lessons learned in the implementation of the recently revised 10CFR835, “Occupational Radiation Protection”, and other efforts to improve the existing set of safety
FUTURE VISION

In 2010, EFCOG will continue to work in partnership with DOE focusing on mission critical items in all program areas and striving to improve our performance in the areas of safety, project management, security, engineering, energy usage, acquisition management, human capital, performance assurance, quality assurance, waste management, and infrastructure management. EFCOG’s partnership with DOE helps to assure that issues are identified and prioritized for action. For example, at the start of FY 2010, EFCOG developed an ARRA Project Team jointly with DOE’s Office of Environmental Management to focus efforts to aid ARRA project execution and also developed an “ARRA Hot News” link which contains ARRA-related documents and presentations, and additional links to DOE and other federal web sites. EFCOG encourages recommendations from DOE, and our members, on areas where EFCOG might add value. EFCOG also envisions a close collaboration with DOE’s Office of Engineering and Construction Management in the coming year as that office continues to take the lead in completing the DOE multi-pronged efforts to address DOE-wide contract and project management weaknesses, as well as upgrading its existing program assessment and reporting system.

Close dialogue with oversight/regulatory organizations, including the DNFSB, DOE’s HSS, and the NRC, will be maintained to assure that our members are aware of emerging safety and regulatory issues. In addition, EFCOG will continue to exercise our collaborative relationship with other industry groups, such as with the Project Management Institute and the Association for Advancement of Cost Engineering, for new opportunities for information exchange, lessons learned, and training. Finally, we will also continue to focus on how EFCOG might be made more valuable to DOE and our member companies.

CONCLUDING REMARKS

Just as we have all experienced firsthand throughout 2009, the year ahead is certain to continue to bring changes and new challenges throughout this Administration, Congress, and the DOE complex. As the DOE culture on safety and regulatory oversight, contracting, and management evolves, EFCOG must evolve has well to best serve DOE and the contractor community. You have my commitment that EFCOG will continue to remain strongly aligned with DOE to assure maximum value to DOE and to meet any and all new challenges. We remain steadfast in our focus on continuously improving our performance.

I encourage all EFCOG members and DOE counterparts to actively participate in EFCOG initiatives. EFCOG’s ability to improve performance within the DOE complex is directly related to the active and positive participation of our members and DOE counterparts.

EFCOG’s Board of Directors and membership look forward to working with you throughout the coming year.

Pamela A. Horning
Chair, Energy Facility Contractors Group
INTRODUCTION AND OPERATIONS

Over the past 19 years, DOE contractors have worked together through EFCOG to disseminate common solutions to problems (along with lessons learned and best practices), improving operations throughout the Department of Energy (DOE) complex. The benefits derived from this approach include improvements in safety and security; lower costs by sharing data and other resources; direct cost savings, or cost avoidance, by sharing successful processes, procedures and technical information; and effective execution of programs and projects results when common problems are addressed jointly. As its operations have matured, EFCOG continued to seek opportunities to work with DOE to address critical issues as they evolve.

Executive direction for EFCOG comes from a 15-person Board of Directors elected from the Executive Council. The Executive Council is comprised of an appointed representative from each of the member companies. The work of EFCOG is most frequently carried out by subject matter experts in Working Groups formed and chartered by the Board with specific objectives and deliverables. Each Working Group has an EFCOG Board Sponsoring Director, as well as one or more DOE (including the National Nuclear Security Administration, or NNSA) counterpart Sponsors.

Working Groups may create Subgroups or Task Groups (or Teams) to concentrate on a specific aspect of the Working Group’s overall purpose. Subgroups have a charter and operate for an indefinite period of time to cover a major subject area within the purview of the sponsoring Working Group. Task Groups are usually formed within a Working Group to address a single issue in a defined timeframe with clearly prescribed deliverables. Working Groups provide an annual report to the Board of Directors. These are incorporated as part of this report. Working Groups will not engage in lobbying, or take public positions opposing DOE on issues, regulations, DOE Orders, etc.

In 2009, EFCOG achieved tangible results in the areas of acquisition management, contractor assurance, decontamination and decommissioning (D&D)/facility engineering, energy efficiency and infrastructure management, engineering practices, environment/safety/health, human capital, integrated safety management/quality assurance, project management, safety analysis, safeguards & security/regulatory, and waste management. Twelve best practices were promulgated and posted on the EFCOG Best Practices web site during FY 2009 for use DOE complex-wide to help improve performance and worker safety while reducing costs. During FY 2010, the 13 Working Groups have committed to prepare as many as 25 additional best practices.

EFCOG key activities, or work products, and achievements for 2009 by Working Group included the following:

ACQUISITION MANAGEMENT

- Completed the documentation and published the results of the survey of DOE prime contractors concerning the cost of responding to DOE solicitations; presented the results at the Waste Management 2009 Symposium
- Provided a forum for members to discuss implementation of the American Recovery and Reinvestment Act (ARRA) of 2009, and assisted in developing appropriate contract clause language to support expeditious contract amendments
- Initiated a review of applicable training for contracts professionals for possible improvements
- Began an assessment of “Work For Others” requirements within DOE for applicability to Department of Defense acquisition regulations
**Contractor Assurance**

- Continued development of an approach to formulate leading indicators in contractor performance, and factored in the perspectives and insights of the Defense Nuclear Facilities Safety Board (DNFSB)
- Shared information on contract assurance system implementation, correction action effectiveness, contract requirements flow-down, and effective use of lessons learned and operating experience programs, based on the results of numerous site benchmarking visits and independent assessments across the complex
- Supported implementation of line oversight of contractor assurance system performance measures through a pilot with the National Nuclear Security Administration (NNSA)
- Provided feedback to the DOE Office of Health, Safety and Security (HSS) to on a guide for review of corrective action plans
- Assisted the Office of Science’s national laboratories in the development of an updated contract assurance approach

**D&D and Facility Engineering**

- Identified and developed solutions to problems stemming from accelerated execution of ARRA project involving decontamination and decommissioning (D&D) of excess facilities
- Developed D&D informational products to assist in continued federal support for D&D projects
- Continued to operate the fully-functional D&D Knowledge Resource Center as a front-line effort to disseminate best practices; the Center includes a D&D hotline and an associated website — an extension of the existing successful as-low-as-reasonably-achievable (ALARA) hotline set up and maintained by the ALARA Center at the Hanford Site, Washington

**Energy And Infrastructure**

- Supported the development of and issuance by DOE’s HSS of a revision to DOE Order 433.1, “Maintenance Management at Nuclear Facilities”
- Prepared and submitted a white paper on “Review of Sustainment Modeling as a Tool for Developing Infrastructure Investment Budgets in DOE” to DOE program offices
- Initiated efforts to support the Transformational Energy Action Management group and FEMP in DOE’s implementation of the new Executive Order 13514, “Federal Leadership in Environmental, Energy, and Economic Performance”
- Posted numerous documents and data concerning lessons learned related to energy efficiency, water use reduction, and sustainable building goals to the EFCOG web site

**Engineering Practices**

- Provided lessons learned regarding implementation of the DOE Standard 1189, “Integration of Safety into the Design Process”
- Supported DOE in DOE Order 420.1B, “Facility Safety”, as applied to the cognizant system engineer program
- Provided support for the revision to DOE-STD-3024, “Content of System Design Descriptions”, and for the purpose of developing best practices for the identification, technical evaluation, procurement, and dedication of commercial grade items
- Continued to help DOE’s HSS in the development of a new standard to provide guidance on design of safety instrumented systems
• Best practices were posted for engineering calculations, safety equipment list, and fire protection criteria for leased non-nuclear facilities
• Assisted DOE in its response to DNFSB 2008-1, “Safety Classification of Fire Protection Systems”, including support in developing design and maintenance criteria for sprinkler system design and water supplies classified as safety significant and safety class; also supported DOE in the update to DOE-STD-1066-99, “Fire Protection Design Criteria”, including initiation of efforts to address fire protection design as it relates to confinement ventilation systems
• Initiated development of a good practice or guide/standard for testing and commissioning of facilities at DOE sites
• Raised awareness of effective pressure safety programs (requirements and features) via a new SharePoint website

**ENVIRONMENTAL SAFETY AND HEALTH**

• Completed the revision of the Electrical Safety Handbook, and maintained the associated Electrical Safety Center of Excellence; held the annual Electrical Safety Workshop in Pasco, Washington
• Co-sponsored the 11th Annual Joint EFCOG/DOE Chemical Management Workshop, focused on chemical safety leadership, leading indicators, chemical lifecycle management, “green” chemical management, and nanotechnology
• Contributed three best practices, including proper use of automated external defibrillators, industrial safety & hygiene practices for ARRA work, and electrical arc flashes
• Developed 22 proposed changes to next year’s revision cycle of National Fire Protection Association 70E, “Standard for Electrical Safety in the Workplace”
• Collected and shared lessons learned in the implementation of the recently revised 10CFR835, “Occupational Radiation Protection”; recommended a consistent complex wide approach of implementing 10CFR835 on the issue of isotope plutonium-241, especially as it relates to radiological postings, controls, and surveys; initiated development of a consistent complex-wide approach of implementing recently amended 10CFR835 requirements of neutron quality factors
• Supported DOE in implementation of the "independent verification" radiological surveys requirements of the proposed DOE Order 458.1, “Radiation Protection of the Public and the Environment”, which is replacing DOE Order 5400.5 (same title)
• Organized an exposure assessment task group to review a draft DOE-Headquarters Exposure Assessment Technical Standard. The task group will continue working to provide technical support and assistance to HSS as they continue developing this technical standard

**HUMAN CAPITAL**

• Initiated efforts to identify a method for assessing contractor critical skill needs by leveraging the current NNSA “People Team” initiative; received feedback on a set of survey questions and revised attributes for piloting within EFCOG, with fire protection engineers being targeted for the first pilot.
• Identified an option to addressing management and operating contractor labor demands over the next five to ten years through use of a periodic, independent Department of Labor survey grant
• Developed strategic proposal for examining complex-wide training issues common to contractors and labor unions; an ad hoc team was assembled and a recommendation has been submitted to the EFCOG Board of Directors for review and approval
• After review of the EFCOG website with a focus of improving the strategic branding and message for the contractor community, a proposal was submitted to the EFCOG Board of Directors for review and approval

INTEGRATED SAFETY MANAGEMENT AND QUALITY ASSURANCE
• Completed the initial five tasks in support of DOE’s Office of Environmental Management (EM) Corporate Quality Assurance (QA) Board on top issues, with focus on flow-down of QA requirements (e.g., graded approaches to requirements application, supplier availability and evaluations, commercial grade dedication process, and line management understanding of QA and oversight responsibilities)
• Completed, through the EFCOG/DOE safety culture pilot, the preliminary set of recommendations to assist DOE in improving integrated safety management implementation by developing a consensus set of safety culture principles and implementation practices; the recommended focus areas (with associated attributes) judged to offer the most impact on safety for contractor implementation and evaluation were leadership, employee/worker engagement, and organizational learning
• The EFCOG Best Practices website was updated and upgraded as a single reference point for DOE and contractors
• Initiated tasks in support of NNSA’s QA improvement initiative, in the areas of construction QA lessons learned and NQA-1 implementation
• Expanded the supply chain common audit program
• Developed guidance on a graded approach of QA practices for non-safety software
• Conducted a work planning and control site assessment visit to identify areas of improvement
• Continued training sessions in support of the Occurrence Reporting and Processing System

PROJECT MANAGEMENT
• Continued to support DOE Office of Engineering and Construction Management’s with feedback on five of the eight corrective measures in DOE’s Corrective Action Plan being implemented to address the findings of the April 2008 Root Cause Analysis Report on Contract and Project Management
• Initiated efforts to address emerging construction management issues in the areas of fixed price subcontracting, qualified vendors, and acquisition/execution strategy planning
• Continued efforts with the Project Management Institute to understand better the value of project management in research and development programs; made progress in completing a project management white paper focused on DOE research and development programs
• Continued to provide feedback to DOE on its effort to update the Project Assessment and Reporting System (PARS)
• Supported implementation across the complex of contractor earned value management systems, with focus on effective yet workable surveillance and recertification processes

SAFETY ANALYSIS
• Held two key workshops: 1) the 19th annual Safety Analysis Workshop, and 2) Safety Basis Workshop to discuss and disseminate information and training on safety-basis related activities, applications, and documentation
• Initiated activities to advance integration of activities related to criticality safety, such as determining the role of criticality safety in hazard categorization of DOE nuclear facilities
• Continued to analyze and support implementation complex-wide of DOE Standard 1189, with focus on a new training module for piloting on a field project
• Coordinated delivery of safety analyst training with the DOE Safety Basis Academy and the National Training Center
• Initiated the review and provided feedback on DNFSB 2009-1, “Risk Assessment Methodologies at Defense Nuclear Facilities”
• Established an interest group in the area of hydrogen safety to develop a common approach to address hazards associated with hydrogen generation in radioactive waste process streams, and related flammable gas issues

SAFETY AND SECURITY REGULATORY
• Conducted two peer reviews of Price-Anderson Amendments Act (PAAA) and worker safety/health programs at DOE and NNSA sites
• Continued a forum of interacting with the DOE’s HSS Office of Enforcement to discuss PAAA, worker safety/health, and classified information security issues, including lessons learned from recent enforcement actions, enforcement conferences, program reviews and other interactions with the DOE Office of Enforcement.
• Also participated in the DOE Office of Enforcement Annual Coordinator training, with a shift in the focus of the training from being largely directed at “new” coordinators to being largely directed at “experienced” coordinators as a forum for on-going refresher training

SAFEGUARDS AND SECURITY
• Identified methods to enhance the ability to better identify problem areas, activities, days of the week, hours of the day, pre-work preparations, etc. and take proactive steps to minimize injuries and illness to protective force employees
• Completed development of a security peer review process in coordination with HSS to provide a method for participating contractors to better manage their implementation of 10CFR824, “Procedural Rules for the Assessment of Civil Penalties for Classified Information Security Violations” – specific to information protection; the process was field tested at three sites
• Completed the review the draft revised Impact Measurement Impact tables and provided recommendations to DOE.
• Conducted a review and comment on the “Draft NNSA Office of Defense Nuclear Security, Safeguards and Security Evaluation and Performance Assurance Program” implementation manual for the NNSA
• Finalized the report on the review of the Nuclear Material Management and Safeguards System, with recommendations for DOE and NNSA programs
• Shared lessons learned from DOE- Headquarters cyber security audits, and a cyber security system test & evaluation exercise conducted by DOE-Headquarters

WASTE MANAGEMENT
• Supported the DOE’s EM in its effort to conduct complex-wide reviews of the field’s implementation of DOE Order 435.1, “Radioactive Waste Management”, and the subsequent update of the Order
• Developed a white paper to allow waste generators to use the legacy-contaminated waste containers as a part of the waste form to allow more cost-effective disposal
• Supported EM in its successful execution of on-going and planned ARRA projects through identification of waste treatment and disposal capabilities versus needs
• Provided a recommendation to EM regarding guidance on waste characterization methodologies
The report that follows for FY 2009 is organized and presented as follows:

- information on EFCOG membership, on the Board of Directors, and on the Working Groups,
- individual reports on each of the 13 Working Groups, with information on their vision/purpose/objectives/scope, membership and organization, FY 2009 achievements, FY 2010 plans, effectiveness evaluations, lessons learned and recommendations, and
- summary-level information on the EFCOG website and EFCOG finances.
Membership in EFCOG has continued to grow. By the end of FY 2009, EFCOG included 66 DOE contractors. In the first 4 months of FY 2010, membership jumped up to 78 companies, including these new companies: ARES Corporation, Cavanagh Services Group, Envirotech, IBM, Innovations Group, Mission Support Alliance, Cienega Technical Services, Portage, Savannah River Remediation, SM&A, Technology Ventures Corporation, Time Solutions LLC, and Oak Ridge Associated Universities. EFCOG's member companies for FY 2009 are shown in Table 2. Appendix A at the end of this report lists these member companies and shows the EFCOG Working Groups that these member companies are participating in.

### TABLE 2.  2009 MEMBER COMPANIES

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Working Group Name</th>
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<tbody>
<tr>
<td>3M</td>
<td>Lawrence Berkeley National Laboratory</td>
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<tr>
<td>ABS Consulting, Inc.</td>
<td>Lawrence Livermore National Laboratory</td>
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<tr>
<td>Advanced Technologies and Laboratories</td>
<td>Lockheed Martin Information Technology</td>
</tr>
<tr>
<td>AnovaWorks, PLLC</td>
<td>Los Alamos National Laboratory</td>
</tr>
<tr>
<td>AREVA Federal Services</td>
<td>Merrick &amp; Company</td>
</tr>
<tr>
<td>Argonne National Laboratory</td>
<td>Midwest Research Institute</td>
</tr>
<tr>
<td>B&amp;W Pantex</td>
<td>National Security Technologies</td>
</tr>
<tr>
<td>B&amp;W Y-12</td>
<td>Navarro Research and Engineering</td>
</tr>
<tr>
<td>Babcock &amp; Wilcox</td>
<td>North Wind, Inc.</td>
</tr>
<tr>
<td>Bartlett Services, Inc.</td>
<td>Northrop Grumman Shipbuilding</td>
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<tr>
<td>Bechtel Group</td>
<td>Nuclear Fuel Services, Inc.</td>
</tr>
<tr>
<td>Bechtel National, Inc.</td>
<td>Pacific Northwest National Laboratory</td>
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<tr>
<td>Booz Allen Hamilton</td>
<td>Parsons</td>
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<tr>
<td>Brookhaven National Laboratory</td>
<td>Pro2Serve</td>
</tr>
<tr>
<td>Burns and Roe Enterprises, Inc.</td>
<td>S.M. Stoller Corporation</td>
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<tr>
<td>CDM Federal Programs Corporation</td>
<td>Sandia National Laboratories</td>
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<tr>
<td>CH2M Hill Plateau Remediation Co.</td>
<td>Savannah River Nuclear Solutions</td>
</tr>
<tr>
<td>CH2M Hill, Inc.</td>
<td>Schneider Electric</td>
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<td>CH2M-WG Idaho</td>
<td>Shaw Environmental &amp; Infrastructure, Inc.</td>
</tr>
<tr>
<td>CSC Applied Technology Division</td>
<td>SLAC National Accelerator Laboratory</td>
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<tr>
<td>Dade Moeller &amp; Associates</td>
<td>TerranearPMC, LLC</td>
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<tr>
<td>EnerX, LLC</td>
<td>Tetra Tech FW, Inc.</td>
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<tr>
<td>EnergySolutions, LLC</td>
<td>Theta Pro2Serve Management Company</td>
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<tr>
<td>Epsilon Systems Solutions, Inc.</td>
<td>TLI Solutions, Inc.</td>
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<tr>
<td>ESI International</td>
<td>URS Washington Division</td>
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<td>Fluor Government Group</td>
<td>UT-Battelle, LLC</td>
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<td>Vista Engineering Technologies, LLC</td>
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<td>Honeywell FM&amp;T, LLC</td>
<td>Wackenhut Services, Inc.</td>
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<td>Idaho National Laboratory</td>
<td>Washington Closure Hanford</td>
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<td>L&amp;L Associates, Inc.</td>
<td>West Valley Nuclear Services Company</td>
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</tbody>
</table>


The Board of Directors is elected by the Executive Council from their membership, and serves as the governing entity for EFCOG’s day-to-day operations. The Board added four new Directors during 2009, and met four times during the year to ensure that the activities of EFCOG are supportive of the overall objectives and are responsive to DOE’s needs. Under the leadership of the Board of Directors, EFCOG’s focus in the coming year is to continue to encourage other DOE contractors from all programs and all sectors to contribute to performance improvement and lessons learned activities. EFCOG’s Board of Directors as of the end of FY 2009 is shown in Table 3.

**TABLE 3. 2009 BOARD OF DIRECTORS**

<table>
<thead>
<tr>
<th>CHAIR</th>
<th>Pamela A. Horning</th>
<th>Babcock &amp; Wilcox</th>
</tr>
</thead>
<tbody>
<tr>
<td>VICE-CHAIR</td>
<td>Joseph R. Yanek</td>
<td>Fluor Corporation</td>
</tr>
<tr>
<td>VICE-CHAIR ELECT</td>
<td>Albert Konetzni, Jr.</td>
<td>EnergySolutions, LLC</td>
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<td>DIRECTORS</td>
<td>Juan Alvarez</td>
<td>Idaho National Laboratory</td>
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<td></td>
<td>Michael J. Bebon</td>
<td>Brookhaven National Laboratory</td>
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<td>Mark Fallon</td>
<td>CH2M HILL, Inc.</td>
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<td>William Gallo</td>
<td>AREVA Federal Services, LLC</td>
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<td>Thomas F. Gioconda</td>
<td>Bechtel Group, Inc.</td>
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<td>Peter M. Knollmeyer</td>
<td>Savannah River Nuclear Solutions</td>
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<td>Michael H. Schlender</td>
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<td>Patricia N. Smith</td>
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<td>Bruce Stanski</td>
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<td>Susan G. Stiger</td>
<td>Bechtel National, Inc.</td>
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<td>DIRECTOR EMERITUS</td>
<td>Dr. Dennis K. Fisher</td>
<td>Lawrence Livermore National Laboratory</td>
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<td>Lincoln E. Hall</td>
<td>L&amp;A Associates, Inc.</td>
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<td>Donald W. Pearman</td>
<td>Bechtel National, Inc.</td>
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During the year, the EFCOG Working Groups focused on numerous critical initiatives. The Working Groups utilized teleconferences and meetings to exchange information and lessons learned, including enhanced industrial/chemical and nuclear safety, improved project management, coordinated efforts on engineering standards and practices, increased energy efficiency, improved acquisition practices, improved maintenance and infrastructure management, sharing of D&D best practices, and compliance with Price-Anderson Amendments Act requirements. Each Working Group Chair has a charter approved by the Board of Directors. A Chairperson oversees the direction of each Working Group (with assistance from a Steering Committee). Working Group membership is comprised of individual subject matter experts interested in working on that particular focus area. A Sponsoring Director [shown as “Director” in Table 4 below] is the point of contact in EFCOG for advice and decision-making, while DOE and NNSA sponsors provide guidance, up-to-date information, advice, and support as required. EFCOG added the Waste Management Working Group at the end of CY 2008, and then two Working Groups were combined – Energy Efficiency and Infrastructure Management – into one new Working Group titled Energy and Infrastructure – during FY 2009. The FY 2009 Working Groups are shown in Table 4.

<table>
<thead>
<tr>
<th>WORKING GROUP</th>
<th>EFCOG CHAIR (DIRECTOR)</th>
<th>DOE &amp; NNSA SPONSOR(S)</th>
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<tr>
<td>Acquisition Management</td>
<td>Ami Peterson [Mike Bebon]</td>
<td>Ed Simpson, David Boyd</td>
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<tr>
<td>Contractor Assurance</td>
<td>Roland Knapp [Mike Schieler]</td>
<td>Martha Thompson, John Boulden III</td>
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<td>Deactivation &amp; Decommissioning/</td>
<td>Robert Richardella [Pete Knollmeier]</td>
<td>Paula Kirk</td>
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<tr>
<td>Facility Engineering</td>
<td>Lynwood Dukes [Juan Alvarez]</td>
<td>Peter O’Konski, Dino Herrera, Skye Schell, John Yates, Adam Pugh, Donna Green</td>
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<td>Engineering Practices</td>
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<td>Environmental Safety &amp; Health</td>
<td>Anthony M. Umek [Joseph Yanek]</td>
<td>Pat Worthington, Frank Russo</td>
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<tr>
<td>Integrated Safety Management/QA</td>
<td>Norm Barker [Al Konetzni]</td>
<td>Pat Worthington, Frank Russo</td>
</tr>
<tr>
<td>Project Management</td>
<td>Mark Sueksdorf [Tom Gioconda]</td>
<td>Paul Bosco, Bob Raines; Lowell Ely; Jack Surash Thad Konopnicki, Dan Lehman</td>
</tr>
<tr>
<td>Safety Analysis</td>
<td>Brad Evans [Pamela Horning]</td>
<td>Mark Blackburn, Jim O’Brien, Pranab Guha</td>
</tr>
<tr>
<td>Safety &amp; Security Regulatory</td>
<td>Bill Luce, Conard Stair [Greg Meyer]</td>
<td>Martha Thompson, John Boulden III</td>
</tr>
<tr>
<td>Safeguard and Security</td>
<td>Jimmie Mulkey [Mike Bebon]</td>
<td>Glenn Podonsky, Brad Peterson, Ted Wyka, Amy Whitworth, Martha Thompson, Steve Crowe</td>
</tr>
<tr>
<td>Waste Management</td>
<td>William Morrison [Susan Stiger]</td>
<td>Dave Michlewicz, Frank Marcinowski, John Lehr</td>
</tr>
</tbody>
</table>

TABLE 4. 2009 WORKING GROUPS
INTRODUCTION

Vision – The vision is to provide a forum in which the EFCOG membership and the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) acquisition programs can mutually achieve continuous improvement of the acquisition process and build mutual trust between the contractor community, and the DOE and NNSA staff.

Purpose - The Acquisition Management Working Group (AMWG) is established to facilitate the objectives of the EFCOG by enhancing the contract relationship between DOE, as well as NNSA, and contractor base, and by sharing best practices among the EFCOG membership.

Objectives - The AMWG is committed to the following objectives:

- Promote a win-win relationship with shared priorities and a common understanding of acquisition and contracting issues through effective communications
- Function as a forum to promote the sharing of contractor best acquisition practices
- Provide an industry perspective on proposed DOE and NNSA changes in contract requirements

Scope – The AMWG scope is defined as follows:

- The AMWG pursues continuous improvement of the DOE and NNSA acquisition systems as they relate to the planning, solicitation, awarding, and administration of prime contracts within the DOE complex.
- The AMWG will communicate with DOE and NNSA staff, and participate in DOE and/or NNSA initiatives relating to the acquisition systems.
- The AMWG will represent the EFCOG membership by assisting the DOE, NNSA and their staff in the identification of areas of improvement, the assessment of proposed policy/regulatory changes, the introduction of new or changed processes, and the gathering of information in support of any proposals or initiatives. Additionally, the AMWG will, from time to time, develop independent recommendations that serve to promote continuous improvement.
- The AMWG will, as appropriate, operate in concert with other industry groups where there may be overlapping interests, ensuring a cooperative effort.

MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

The AMWG has an extensive list of members on its roster, but usually 12-15 members attend meetings from the national laboratories and sites. The AMWG has 28 member companies listed on its roster as participating on the AMWG. The method of recruitment has been networking. Most recently, names have been provided to the AMWG Chair to contact possible prime contract members.
Additionally, the AMWG Vice-Chair has queried the EFCOG Board of Directors about small business recruitment and has received positive input. As a next step to increasing participation, the AMWG has been compiling a questionnaire to send to subcontractors to assess their interest.

**ORGANIZATION**

Leadership in the AMWG is comprised of:

Chair: Ami Peterson, Sandia National Laboratories

Vice-Chair: Kathy Vaselopulos, Babcock and Wilcox

Secretary: Vacant

EFCOG Sponsoring Director: Michael Bebon, Brookhaven National Lab

DOE & NNSA Sponsors: Edward Simpson, Director, Office of Procurement and Assistance Management; David Boyd, Director, Office of Acquisition and Supply Management, NNSA

There are no subgroups in the AMWG.

Succession planning will be established next year.

**ACHIEVEMENTS**

The AMWG held two face-to-face meetings and one teleconference during FY 2009:

- October 29, 2008  Washington, D.C.
- April 15, 2009  Sandia National Laboratories, Albuquerque, New Mexico
- July 22, 2009  Teleconference

Other achievements during the year included:

- Published the “Cost of Proposal Survey.” This 20-page document reflects interviews with 14 industry respondents and two proposal consultants. It was vetted in pre-publication form with NNSA and DOE, and edited by the EFCOG Board of Directors prior to publication. Results were presented during the Waste Management 2009 Symposium held in Phoenix, Arizona. There has been interest and follow-up from both DOE and NNSA concerning the survey results and next steps.
- Provided a forum to active members to discuss American Recovery and Reinvestment Act (ARRA) implementation. This assisted in crafting the contract clauses that have been imbedded in Section H of most prime contracts. It was important to know how others were handling this because it appeared that rules were being written on an as needed basis and requirements certainly were not clear. The AMWG has agreed to take responsibility for the EFCOG ARRA website.
- Initiated the review of applicable training for contracts professionals. One subcontract member of the AMWG is with a training company and is an excellent resource for perspectives on training.
- Provided a forum for contract and subcontract managers to share and exchange best practices in their respective areas.
- Started to assess the requirement for DOE “Work For Others” for the Department of Defense to meet all the requirements of the Defense Federal Acquisition Regulations. The AMWG is tracking waivers and following any pertinent Congressional action.
PLANNING FOR THE NEXT YEAR

Planned achievements for FY 2010 include:

- Relative to general assistance, the AMWG will provide, on an as needed basis, assistance in the form of reviews, comments, white papers, and any other general support related to acquisitions and contracts to the DOE Office of Procurement and Assistance Management, to the NNSA Office of Acquisition and Supply Management, to the DOE Environmental Management’s Deputy Assistant Secretary for Acquisition and Contract Management, and to the EFCOG Board of Directors.
- Regarding next steps for the “Cost of Proposal Survey”, the AMWG is planning an information session with DOE, NNSA, and members from the prime contractors to discuss face-to-face the contractors’ experience with other agencies and efficiencies that DOE and NNSA could pursue. A follow up to this might be some benchmarking of practices with other agencies, with the AMWG providing working support.
- Once the EFCOG ARRA website is developed, the AMWG will maintain currency of the documentation posted there. The AMWG will provide interpretation and suggestions for action, as needed.
- The AMWG is planning to send a questionnaire to targeted small businesses to assess their knowledge of and interest in EFCOG. Actions based on the questionnaire results will be decided by the EFCOG Directors. The AMWG will be happy to assist and participate in the Office of Small and Disadvantaged Business Utilization meeting next summer.
- The AMWG intends to develop a sample curriculum for contracts professionals.
- The AMWG could provide coordination and assistance in scheduling program evaluation and review techniques (PERT) reviews, and expertise as required.

The timeline for the above initiatives is generally for the next year, but if the scope of some of the work is increased, the timeline may get longer.

The AMWG anticipates two face-to-face meetings over the next year, and two teleconferences. AMWG leadership will attend EFCOG conferences as well.

EFFECTIVENESS EVALUATION

The AMWG has provided a forum for the sharing of information and the comparison of operating and business practices. Greater attendance would increase effectiveness and will be pursued over the next year. Additionally, the AMWG is exploring the next actions suggested by the cost proposal survey, and will partner with our customers so that it becomes a more valuable deliverable. ARRA implementation has been aided, for those who participated, with the exchange of implementation experiences.

LESSONS LEARNED

The AMWG members have established valuable contacts and professional relationships with DOE and NNSA staff at many levels including senior management. These relationships are critical to enhancing the value of the AMWG. Particular emphasis has been and must continue to be placed on ensuring that the efforts and initiatives undertaken by the AMWG are aligned with the needs and expectations of the DOE and NNSA procurement executives to maximize the effectiveness of the AMWG and the value provided to the Government. The AMWG can and must continue to build its relationships with its DOE and NNSA sponsors. The AMWG continues to have opportunities to show them what can be done to assist them.
The AMWG must be responsive to the needs of its member organizations. Many complex issues arise during the year involving contracts and procurement. The members of the Working Group have significant experience and expertise in problem recognition, avoidance, and resolution in these subject areas. The Working Group can be and is of significant value to help educate, answer questions, and inform member companies of evolving issues and their potential impacts. AMWG members are getting better at helping each other, which in turn helps improve responsiveness to the needs of its DOE and NSSA sponsors. The informal networking that has developed among the AMWG participants allows to better share experiences and best practices.

There is a need to contact all AMWG member companies to optimize participation in the Working Group. Though the mix of prime contractor types is good, the participation should be larger. During the next year, the Working Group Chair will be contacting non-participants to update the membership roster and encourage participation.

**RECOMMENDATIONS**

It is believed that the AMWG has value for the member companies and DOE, and should be continued. There are times when attendance becomes precarious, but value appears to be gained by those who attend, since the Working Group has a strong core group of twelve or so attendees. The AMWG does not see the need for subgroups at this time. There may be a need for subgroups if issues arise that require more specific, longer-term attention. The Working Group thinks it would be helpful for the EFCOG Board of Directors to communicate to all members about broader participation on all Working Groups.

The AMWG needs to be more connected to some of the other Working Groups, especially in the area of responding to DOE or NNSA about contract provisions and penalties, or other topics that affect the contract itself. Whether these should be standing relationships, or as needed, there is certainly an opportunity to be more effective in terms of the entire EFCOG community. A discussion by the EFCOG Board of Directors about how to institute this, prior to a review of the final communication and a method to be included earlier in the response cycle, would be helpful to all members. The AMWG can work on a procedure, if EFCOG Board of Directors would like that first step taken.
CONTRACTOR ASSURANCE WORKING GROUP

CHAIR: ROLAND KNAPP, LOS ALAMOS NATIONAL LABORATORY
VICE-CHAIR: JANE FITZPATRICK, HONEYWELL FM&T (KANSAS CITY PLANT)

INTRODUCTION

Vision - The vision is to provide an exciting community for collaboration, sharing, learning and development of best practices and tools within performance management and contract assurance.

Purpose - The intent of the Contractor Assurance Working Group (CAWG) is to facilitate the collaboration between EFCOG and the U.S. Department of Energy (DOE) and the National Nuclear Security Administration (NNSA) to deploy performance-based contracting tools and systems that make the interface of federal oversight and contract administration with contractor management and performance more effective and efficient. The CAWG will coordinate with other federal and contractor groups that are working on contractor assurance systems (CAS), e.g., NNSA’s Line Oversight and Contractor Assurance System (LOCAS) Integration Council and the National Laboratory Improvement Council.

Objectives – the objectives of the CAWG are to:

- Promote, coordinate, and facilitate the active exchange of successful approaches to performance-based integrated management systems as well as lessons learned
- Identify, analyze and produce for distribution through DOE and NNSA important lessons learned that could accelerate the implementation of effective federal line oversight and contractor assurance systems
- Develop LOCAS case studies for future workshops and training courses

Scope – The scope of the CAWG is defined as follows:

- The area to be addressed by the Working Group is the use of performance-based contracting tools and systems to promote more effective and efficient interfaces of federal oversight and contract administration with contractor management and performance.
- The Working Group will facilitate interaction with other governmental and non-governmental organizations regarding application of performance-based contracting and performance-based integrated management systems in the DOE complex.
- The Working Group will communicate with other EFCOG and DOE and NNSA groups to avoid duplication of effort.
- While the Working Group will not lobby, advocate independent positions, or try to change DOE policy, performance-based contracting practices as applied to DOE missions may be discussed and suggestions for improvement made to the DOE.

MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

There are approximately 90 contractor representatives actively involved in this Working Group, which has more than tripled in membership since its inception three years ago. Members represent 24 member companies. The Working Group semi-annual meetings have been increasingly well attended and have received very positive feedback for having valuable, interesting presentations and
discussions and for being well organized. The positive feedback has encouraged more members to join the Working Group; hence the main way members have been recruited has been through word of mouth where CAWG members have encouraged new colleagues to join the CAWG.

**ORGANIZATION**

Leadership in the CAWG is comprised of:

Chair: Roland Knapp, Los Alamos National Laboratory

Vice-Chair: Jane Fitzpatrick, Honeywell F&MT (Kansas City Plant)

Secretary: Camilla Lopez, Los Alamos National Laboratory

During the year, several ad hoc teams have been formed to work on deliverables; however, no formal subgroups or task groups have been formed.

EFCOG Sponsoring Director: Mike Schlender, Pacific Northwest National Laboratory

DOE Sponsors: Martha Thompson, Office of Health, Safety, and Security (HSS), and John Boulden III, HSS

Formulation of a succession plan for the Working Group is just getting underway.

**ACHIEVEMENTS**

The CAWG achieved the following during FY 2009:

- Held two meetings in October 2008 and May 2009 in Washington D.C., and at Oak Ridge National Laboratory, respectively
- Held a joint meeting in May 2009 meeting with the Integrated Safety Management & Quality Assurance Working Group’s Feedback and Improvement Subgroup to address:
  - Complex-wide leading indicator application
  - Complex-wide integrated assessment planning practices
- Conducted site-to-site visits/benchmarking at numerous sites: Los Alamos National Laboratory, Oak Ridge Y-12 National Security Complex, Kansas City Plant, Pacific Northwest National Laboratory, Oak Ridge National Laboratory, Lawrence Livermore National Laboratory Hanford Site, and DOE-Headquarters
- Began initial engagement on benchmarking sessions with the Nuclear Industry Corrective Action Program Owners Group
- Conducted independent assessments of Los Alamos National Laboratory and Y-12 National Security Complex contractor assurance systems (CAS):
  - NNSA pilot assessment of the Los Alamos National Laboratory CAS (using the NNSA draft CAS Criteria Review and Approach Document)
  - Y-12 National Security Complex NNSA assessment
  - LOCAS peer assist review - March 2009

Los Alamos National Laboratory and NNSA have shared lessons learned from the initial site assessments.

- Worked development of an approach to defining/deriving leading indicators
- Provided DOE-Headquarters with consolidated CAWG feedback on a guide for HSS’s review of Corrective Action Plans
Held a round table on effective use of lessons learned/operating experience program
Initiated benchmarking of contract requirements flow-down.
Supported implementation of LOCAS performance measures as a pilot with NNSA
Developed initial group of best practices for review at the upcoming Fall 2009 Working Group meeting
Assisted the Office of Science national laboratories in development of an updated contractor assurance approach
Worked approach for an integrated rule-based assessment schedule
Actively participated in the HSS Safety Directive Project and the NNSA LOCAS effort

PLANNING FOR THE NEXT YEAR

Planned achievements for FY 2010 include:

- Continue joint/collaborative effort between CAWG and other EFCOG Working Groups
- Hold a joint meeting in November 2009 with the Integrated Safety Management & Quality Assurance Working Group’s Feedback and Improvement Subgroup
- Conduct a joint meeting in April 2010 with the Safeguard & Security Working Group and the Safety & Security Regulatory Working Group
- Publish five or more best practices on CAS-related topics
- Publish a white paper or best practice on “Elements of a Sound Contractor Assurance System”
- Develop a best practice or white paper on CAS self-assessment methodology
- Collaborate with DOE/site contractors on the Directives Reform Initiative
- Continue emphasis on site visits/sharing/benchmarking to generally improve CAS effectiveness
- Continue the development of leading indicators, with planned interface with the Defense Nuclear Facilities Safety Board
- Continue to work with NNSA on LOCAS improvements (including metrics)
- Develop methods to improve the use of lessons learned data and information to improve performance
- Develop approach to an integrated rule-based assessment schedule
- Develop approach to couple process management and metrics
- Align with DOE’s focus on methods for improving contractor performance and increasing efficiency
- Evaluate and promulgate key elements of a corporate governance model
- Consider an enhanced process-centered approach to performance improvement
- Evaluate a Performance Gap Analysis approach (focused on process improvements and management)
- Document generic approach for development of corrective action plans and effectiveness review plans

EFFECTIVENESS EVALUATION

The past year the CAWG has experienced a significant growth in members. The Working Group has been reaching out to other EFCOG Working Groups for collaboration and sharing. Site visits, invited peer reviews (assessments) of CAS, and sharing of ideas and approaches have proven beneficial to all involved in increasing the level of implementation and effectiveness at multiple sites.
LESSONS LEARNED

No problems/issues encountered have resulted in the formulation of lessons learned.

RECOMMENDATIONS

The Working Group should be continued in 2010. It may be beneficial for the Board of Directors to review the focus of all Working Groups to determine if they are all working to ensure that their activities complement the efficient and effective, safe and secure, execution of the mission in all cases. There is a need to help DOE remove barriers and to develop better processes as their focus shifts more in this direction.
DEACTIVATION & DECOMMISSIONING AND FACILITY ENGINEERING
WORKING GROUP

CHAIR: BOB RICHARDELLA, TIME SOLUTIONS
VICE-CHAIR: LANCE MEZGA, UNIVERSITY OF TENNESSEE-BATTELLE (OAK RIDGE NATIONAL LABORATORY)

INTRODUCTION

Vision - The Deactivation and Decommissioning (D&D) and Facility Engineering (DD&FE) Working Group provides leadership to focus on improving safety and reducing D&D life cycle costs across the Department of Energy (DOE) complex.

Purpose: The DD&FE Working Group’s intent is to facilitate the objectives of the EFCOG by partnering with the Office of Deactivation & Decommissioning and Facility Engineering in the Department of Energy’s (DOE) Office of Environmental Management (EM) in identifying and addressing key opportunities for improved performance in D&D safety and project execution across the DOE complex through application of experience, including lessons learned, and technology transfer.

Objectives - The DD&FE Working Group is committed to the following objectives:

- Promote, coordinate, and facilitate the active exchange of successful D&D programs, practices, procedures, technology and other pertinent information of common interest which have been effectively utilized by contractors and subcontractors for DOE facilities as well as in nuclear power plant decommissioning and other environmental cleanup scenarios
- Identify, analyze and produce for distribution through EM important lessons learned that could in a safe manner reduce life-cycle costs of EM’s D&D Program
- Develop D&D case studies for future workshops and training courses

Scope - The DD&FE Working Group scope is defined as follows:

- The area to be addressed by the DD&FE Working Group is facility D&D, including soil and groundwater remediation topics where they integrally relate to facility D&D.
- The DD&FE Working Group will facilitate interaction with outside agencies and organizations regarding application of D&D principles and methods in the DOE complex.
- Facilities will be covered from the point of ceasing their operating mission through their final declaration of cleanup status. However, activities during the operating mission that prepare for efficient and safe D&D when the mission ceases will be also be within the scope.
- The DD&FE Working Group will communicate with other EFCOG Working Groups to avoid duplication of effort.
- While the DD&FE Working Group will not lobby, advocate independent positions, or try to change DOE policy, D&D practices as applied to DOE missions may be discussed and suggestions for improvement made to the DOE.

MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

The DD&FE Working Group’s membership fell from 18 active participants to a low of 8 active
participants in March 2009. This drop in membership was due to contractor realignment at the operating sites and to the start of American Recovery and Reinvestment Act (ARRA) projects across the DOE complex. Through aggressive recruiting, the number has steadily risen and the DD&FE Working Group now consists of 22 active members. The members come from 14 member EFCOG companies, and represent the national laboratories and major DOE sites and projects in the complex.

ORGANIZATION

Leadership in the DD&FE Working Group is comprised of:

Chair: Bob Richardella, Time Solutions
Vice-Chair: Lance Mezga, University of Tennessee-Battelle (Oak Ridge National Laboratory)
Secretary: Kent Dorr, CH2M-Hill Inc.

There are no subgroups on this DD&FE Working Group, but there are 4 task groups or teams with leads follows:

- Best Practices Task Group Lead: Mike Auble, Lawrence Livermore National Laboratory
- ARRA Support Task Team Lead: Kent Dorr, CH2M-Hill Inc.
- D&D Knowledge Resource Center Implementation Task Team Lead: Bob Richardella, Time Solutions
- D&D Promotional Products Task Team Lead: Anne White, Bastet Technical Services

EFCOG Sponsoring Director: Pete Knollmeyer, Savannah River Nuclear Solutions

DOE Sponsor: Paula Kirk, EM

Regarding succession planning, the current DD&FE Working Group leadership was installed in March 2009. Terms are usually for one year, and the Vice-Chair normally succeeds the Chair.

ACHIEVEMENTS

With the DD&FE Working Group’s focus this fiscal year on these goals:

- improving the identification, dissemination and implementation of D&D Best Practices across the DOE complex, and
- identifying transformational changes that can be made to positively affect safety and the D&D baseline over the long term,

the DD&FE Working Group achieved the following during FY 2009:

- Four task groups or teams were formed to focus attention on the following initiatives:
  - Identification and development of solutions to problems that arise as a result of execution of ARRA-funded projects;
  - development of D&D promotional products with the goal to assure continued funding for D&D projects after ARRA funded projects are complete; and
  - establishing stronger technical support relationships with Florida International University (FIU) and the As Low As Reasonably Achievable (ALARA) centers, with the goal being to enhance the ability of these organizations to support the D&D community.
The progress made in accomplishing the DD&FE Working Group’s objectives was guided by interactions of the full DD&FE Working Group as follows:

- Held monthly telephone conferences
- Conducted in March 2009 the Winter DD&FE Working Group meeting in Phoenix, Arizona
- Conducted in August 2009 the Summer Working Group meeting in Idaho Falls, Idaho
- Held numerous Task Group and Team telephone conferences were also conducted

PLANNING FOR THE NEXT YEAR

The next meeting of the DD&FE Working Group is being planned to be held in conjunction with the Waste Management 2010 Symposium in Phoenix, Arizona in March 2010. The meeting will be held on Tuesday (March 11) of the conference, rather than Thursday as was the case last year, as a way to bolster attendance.

The DD&FE Working Group will sponsor a technical information exchange meeting for the general D&D community. Current plans are to have the meeting at a major construction equipment manufacturer’s plant in Illinois in the Spring. Demonstrations of demolition equipment will be provided and participants will have the opportunity to demo the equipment themselves.

The DD&FE Working Group will identify site points of contact and subject matter experts in D&D techniques. These individuals will support the FIU Knowledge Management data base development and be a resource to the help lines at the ALARA centers. The DD&FE Working Group is committed to developing up to six best practices during FY 2010.

The DD&FE Working Group will compile a primer for ARRA reporting based on the experience gained over the past year at the operating sites. This information will be made available to the Hanford ALARA center and the FIU Knowledge Management database project.

EFFECTIVENESS EVALUATION

The effectiveness of the DD&FE Working Group was impacted by a 60% drop in active membership as noted above. Membership has been increased significantly, and the DD&FE Working Group is back to working on tasks that will have positive impact on the D&D community.

LESSONS LEARNED

The DD&FE Working Group lost a significant number of members in the last 12 months. This was due to a number of factors, including realignment of the prime contractors at a number of sites resulting in reassignment of staff to other functions not related to D&D. In addition, initiation of the ARRA projects had a significant impact on the ability of DD&FE Working Group members to perform their assignments and remain active in the DD&FE Working Group. The lesson learned is that recruitment for the DD&FE Working Group must be an ongoing activity, every bit as important as completing the business of the Group.

RECOMMENDATIONS

The DD&FE Working Group should continue functioning in 2010, pursuing the plans described above as structured with Task Groups and Teams ensuring an on-going focus on specific initiatives.
ENERGY AND INFRASTRUCTURE WORKING GROUP

CHAIR: LYNNWOOD DUKES, SANDIA NATIONAL LABORATORY
VICE-CHAIR: JOHN CLYMO, LAWRENCE LIVERMORE NATIONAL LABORATORY

INTRODUCTION

Vision – The vision is to provide a forum in which continuous improvement can be achieved in all facets of energy management and infrastructure management across the DOE complex.

Purpose – The Energy and Infrastructure Working Group (EIWG) has been established to promote excellence in the execution of Department of Energy (DOE) missions by sharing best industrial practices, applying lessons learned and providing integrated recommendations to Department of Energy officials in the areas of energy and infrastructure management and modernization.

Objectives – the EIWG is committed to the following objectives:

- Enable the success of DOE missions in terms of high-quality energy and infrastructure management that supports program and project objectives in a cost-effective and safe manner
- Promote, coordinate, and facilitate the active exchange of successful energy and infrastructure management programs, practices, procedures, lessons learned, and other pertinent information of common interest to contractors and subcontractors for DOE facilities
- Enhance collaboration among DOE contractors and encourage early involvement of complex-wide experts, in order to maximize the probability of success of emergent or unique energy or infrastructure management initiatives
- Serve as a consensus board for emerging standards and guides proposed by DOE and for the interpretation and consistent application of existing DOE standards
- Promote employee development of participating companies’ energy and infrastructure management talent, by sharing management and technical information among Working Group participants through mechanisms such as workshops, task groups, and seminars

Scope – The EIWG scope includes the following:

- Activities will be in the areas of energy and sustainability, facility management, operations and maintenance, and work control that are associated with DOE facilities and real property.
- The EIWG will facilitate interaction with outside agencies and organizations regarding application of energy and infrastructure management principles and methods in the DOE complex.
- While the EIWG will not lobby, advocate independent positions, or try to change DOE policy, energy and infrastructure management practices as applied to DOE (and National Nuclear Security Administration (NNSA)) missions may be discussed and suggestions for improvement made to the DOE.

MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

The EIWG is the newest working group, being established in June 2009, merging 2 previously existing Working Groups: Energy Efficiency Working Group and Infrastructure Management Working Group.
Until June, the two latter Working Groups functioned independently. This merger was suggested by the DOE Sponsors to better enable integration of energy into infrastructure operations. The EIWG membership roster includes over 200 names with over 50 active members. An estimated 24 member companies participate in the Working Group and associated subgroups. Membership for subgroups is solicited through existing members of the Working Group or if needed through engagement of Working Group sponsors.

**ORGANIZATION**

Leadership in the EIWG is comprised of:

Chair: Lynnwood Dukes, Sandia National Laboratories

Vice-Chair: John Clymo, Lawrence Livermore National Laboratory

Secretary: Lanny Bates, Brookhaven National Laboratory

There are three subgroups currently established for the EIWG: Maintenance, Energy Efficiency, and Facility Management. The chairs for these subgroups are:

- Maintenance Subgroup Chair – Ed Williams, Sandia National Laboratory
- Energy Efficiency Subgroup Chair – Ernie Fossum, Idaho National Laboratory
- Facility Management Subgroup Chair – Paul Reynolds, Lawrence Livermore National Laboratory

A liaison relationship has been established with the DOE Transformational Energy Action Management (TEAM) group, sponsored by the National Laboratories Directors’ Council in an effort to integrate and align efforts related to energy usage. The Energy Efficiency Subgroup participates in the TEAM group conference calls and data call responses.

EFCOG Sponsoring Director: Juan Alvarez, Idaho National Laboratory

DOE and NNSA Sponsors: Peter O’Konski, Office of Engineering and Construction Management; Dino Herrera, NNSA; Skye Schell, Energy Efficiency & Renewable Energy; John Yates, Science; Adam Pugh, Environmental Management (EM); and Donna Green, EM

With regard to succession planning, since this is the first year of operation for this combined Working Group, leads will continue in their roles for another year. It will be necessary to identify a Vice-Chair for the Maintenance Subgroup in FY 2010.

**ACHIEVEMENTS**

With establishment of the new EIWG in June, a teleconference was held in July 2009 with steering committee members to discuss the group’s objectives, new structure, and accept the new charter. It was agreed that the new EIWG would have three subgroups of Energy Efficiency, Maintenance, and Facilities Management. During the restructuring of the EIWG, it was determined that the Work Management Subgroup would be moved to the Integrated Safety Management & Quality Assurance Working Group.

The DOE Sponsors were actively involved in establishing the charter for the new EIWG and assisting with defining key deliverables for the next fiscal year.

A second meeting was held in September 2009 at the Chicago airport with steering committee
members to focus on topics of interest and FY 2010 deliverables from the EIWG. An FY 2010 Annual Plan was developed from this meeting. An Energy Efficiency Working Group teleconference was held in March 2009 to discuss ongoing activities and coordinate activities for attending the Federal Environmental Symposium in June with ten sites represented and three program sponsors from DOE-Headquarters.

A combined EIWG and Environmental Safety & Health (ESH) Working Group’s Environmental Subgroup meeting was held during the Federal Environmental Symposium, on June 4, 2009, in Bellevue, Washington to discuss ongoing issues with the energy policy and issues related to the potential for transitioning to a green house gas reduction baseline.

Activities worked this year by the three Subgroups have included:

- A white paper was developed by the Maintenance Subgroup on “Review of Sustainment Modeling as a Tool for Developing Infrastructure Investment Budgets in DOE” and submitted in September to DOE Sponsors and the EIWG Sponsoring Director.
- The Maintenance Subgroup provided support on development and issuance of a revision to DOE Order 433.1, “Maintenance Management at Nuclear Facilities” with the Office of Health, Safety, and Security (HSS).
- The Energy Efficiency Subgroup held a meeting at the GovEnergy Conference in August to discuss lessons learned, shared practices, and issues to address in FY 2010.
- Posting of numerous documents and information on EFCOG EIWG’s website for sharing of information and lessons learned. These best practices and suggestions provide information across the complex to further the agencies progress on energy efficiency, water reduction, and sustainable buildings goals.

The Energy Efficiency Subgroup made strides to remain well-integrated with the EFCOG Environmental Safety and Health Working Group’s Environmental Subgroup to ensure gap closure between the environmental management system DOE Order 450.1, “Environmental Protection Program” and the energy (DOE) Order 430.2B discussed above.

The Energy Efficiency Subgroup is currently working issues relating to the new Executive Order 13514, “Federal Leadership in Environmental, Energy, and Economic Performance” (issued October 5, 2009) and green house gas emissions reduction in concert with the TEAM group and FEMP in order to develop a path forward for the agency to meet the overarching and aggressive goals of this new Executive Order. Proposed approaches have been drafted and submitted through the TEAM Chief Operating Officer forum. Utilizing this approach, representatives from multiple sites and programs can be represented and present a unified approach to solving the DOE’s energy goals.

PLANNING FOR THE NEXT YEAR

Based on the EIWG’s Annual Plan, the planned achievements for FY 2010 include the following:

- The EIWG will update its organization chart and charter, and update the member roster.
- The Energy Efficiency Subgroup will perform a quad chart analysis of potential energy savings projects and classify projects from easy/large return to hard/low return from this analysis; the Subgroup will then develop a white paper guidance document for sites to use when determining the next best project to execute based on the quad chart analysis.
The Maintenance Subgroup will update the Sustainment Modeling white paper, send out for review, revise it based on comments, and then issue it for contractor use across the DOE complex.

The Facility Management Subgroup will perform a survey of space management practices across group members to determine how costs are recovered across space, what if any standards are in place for office space, and what measures are used to effectively manage space utilization.

The EIWG will poll its members for notable practices, lessons learned, and common issues to be addressed. Based on this Annual Plan, the EIWG anticipates developing one best practice during FY 2010.

The EIWG will review funding options (such as the use of energy savings performance contracts, capital asset line-item, central funding, etc.) for achieving energy goals and investigate the potential development of a white paper discussing these options, pros and cons, and recommendations from the group.

The EIWG will poll members for completed or ongoing renewable energy projects and sharing of business case justification for these projects.

The EIWG will organize a full Working Group meeting in March 2010 to coincide with the National Facilities Management & Technology’s conference in Baltimore, Maryland.

The EIWG will integrate efforts of the Energy Efficiency Subgroup with the TEAM group to leverage resources and produce singular approaches.

Another tasking that has been received by the EIWG is integration opportunities relating to energy goals and measurement efficiencies. The EIWG will seek out these opportunities during FY 2010 and beyond.

The value presented by addressing these issues will be a sharing of best practices to enable sites easy access to energy reduction initiatives that are proven, an assessment of how space is being managed within DOE, and a more integrated approach to energy management within the DOE.

**EFFECTIVENESS EVALUATION**

Delivery of the Sustainment Modeling white paper provided the EIWG DOE Sponsors with a path forward recommendation in support of appropriate maintenance budget projections. In addition, time spent by the Energy Efficiency Subgroup in disseminating information and recommendations to EIWG members provided invaluable timely information to sites in support of energy management programs. Vetting of guidance to be provided to sites is a valuable step in assuring that direction provided to the field is realistic, understood and implementable.

**LESSONS LEARNED**

As part of the consolidation of the two Working Groups and associated Subgroups, it was agreed that focusing in on a few deliverables is the best approach to using available sparse resources.

**RECOMMENDATIONS**

It is believed that this EIWG provides value to the sponsoring programs and should be continued to work the issues identified by the EIWG DOE Sponsors in the FY 2010 Annual Plan.

Discussions are ongoing with the Engineering Practices Working Group about transferring the Fire Protection Subgroup to the EIWG.
ENGINEERING PRACTICES WORKING GROUP

CHAIR: CHARLES KRONVALL, CH2M HILL PLATEAU REMEDIATION COMPANY
VICE-CHAIR: CHERRI DEFIGH-PRICE, PARSONS (SALT WASTE PROCESSING FACILITY)

INTRODUCTION

Vision – The vision is to provide a forum for continuous improvement in engineering-related areas of carrying out the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) missions.

Purpose - The purpose of the Engineering Practices Working Group (EPWG) is to promote engineering excellence in the execution of DOE missions by sharing best industrial practices, applying lessons learned and providing integrated recommendations to DOE officials and EFCOG contractor members.

Objectives – The EPWG is committed to the following objectives:

• Enable the success of DOE missions in terms of high-quality engineering that supports program and project objectives in a cost effective and safe manner
• Provide a forum for exchange of ideas, needs, and wants among the DOE complex-wide engineers that:
  o increases awareness and involvement of senior contractor management
  o increases awareness and involvement of senior DOE management
  o increases awareness and involvement of middle and line management
  o provides information bridges within the DOE, and
  o provides proactive, value-added recommendations to the DOE
• Promote, coordinate, and facilitate the active exchange of successful engineering programs, practices, procedures, lessons learned, and other pertinent information of common interest to contractors and subcontractors
• Enhance collaboration among DOE contractors and encourage early involvement of complex-wide experts, in order to maximize the probability of success for unique engineering projects.
• Promote employee development of participating companies’ engineering talent, particularly young engineers, by sharing management and technical information among EPWG participants through mechanisms such as workshops, task groups, and seminars

Scope - The EPWGs scope includes the areas of engineering practice that are associated with DOE facilities, programs, and capital acquisitions. Engineering practice is the application of engineering disciplines and processes as governed by national codes and standards, recognized quality standards, and DOE orders and regulations. This includes the application of engineering practices throughout the lifecycle of DOE facilities, including initial design and construction, commissioning, operation and maintenance, decommissioning, and closure.

MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

There are total of approximately 210 members in EPWG, including 60 members of the Working Group, and an additional 150 members in the eight Subgroups and Task Teams. Some EPWG members also participate in one or more of the Subgroups. 35 EFCOG member companies are represented on the EPWG.
ORGANIZATION

Leadership in the EPWG is comprised of:

Chair: Charles Kronvall, CH2M Hill Plateau Remediation Company

Vice-Chair: Cherri Defigh-Price, Parsons (Salt Waste Processing Facility, Savannah River Site)

Secretary: Tobin Oruch, Los Alamos National Laboratory

There are five subgroups and three task teams, with Chairs as follows:

- Fire Protection Subgroup Chair: Perry D’Antonio, Sandia National Laboratory
- Configuration Management Subgroup Chair: R. Scott Spencer, CH2M Hill Plateau Remediation Company
- Value Management Subgroup Chair: Richard Harrington, CH2M Hill Plateau Remediation Company
- Testing and Commissioning Subgroup Chair: Doug Messerli, Babcock & Wilcox Y-12
- Cognizant System Engineer Subgroup Co-Chairs:
  - Diane Cato, Washington River Protection Solutions
  - Fran Lemieux, National Security Technologies
- Pressure Safety Task Team Chair: Tom Etheridge, Oak Ridge National Laboratory
- Commercial Grade Item Dedication Task Team Co-Chairs:
  - Dennis Weaver, Bechtel National (Hanford Waste Treatment Plant)
  - Don Zinter, Washington River Protection Solutions
- DOE-STD-3024, “Content of System Design Descriptions” Task Team Chair: Cherri Defigh-Price, Parsons (Salt Waste Processing Facility, Savannah River Site)

EFCOG Sponsoring Director: Roy Schepens, Parsons

DOE and NNSA Sponsors: James McConnell, NNSA; Chip Lagdon, DOE Office of Environmental Management; Rick Kendall, Office of Nuclear Energy; and, James O'Brien, Office of Health, Safety, and Security (HSS)

The parent EPWG membership meets four times per year - twice via nation-wide teleconferences, and twice in person. At the meetings, task teams report on progress, completed focus areas are closed and new focus areas are discussed, new task teams are formed and pertinent lessons are shared. In addition, topical areas are selected for breakout sessions to take advantage of the face-to-face meetings for more interactive working level sessions versus only presentation formats during the meeting.

With regard to succession planning, EPWG elections for officers are held each year.

ACHIEVEMENTS

Requests were received from NNSA and DOE’s Office of Environmental Management, and from the EFCOG Board of Directors for support on several important initiatives. These included:

- Implementation lessons for DOE-STD-1189, “Integration of Safety into the Design Process”
- DOE Order 420.1B, “Facility Safety”, as applied to the cognizant system engineer program
- Identification of the need for commercial grade item program development and creation of a team to initiation program development
• Review of Guides to replace DOE Manual 413.3 in support of the relatively new DOE Order 413.3A, “Program and Project Management for the Acquisition of Capital Assets”
• Review of fire protection requirements for confinement ventilation system
• Development of fire protection best practices

These initiatives were completed in close cooperation with other EFCOG Working Groups, especially the Safety Analysis, Project Management, Energy and Infrastructure, and Integrated Safety Management & Quality Assurance Working Groups.

Two new Subgroups were formed during FY 2009 and chartered to share lessons and experiences: 1. the Testing and Commissioning Subgroup and 2. the Cognizant System Engineer Subgroup. Also, two new Task Teams were formed to support revision to DOE-STD-3024, “Content of System Design Descriptions”, and for the purpose of developing best practices for the identification, technical evaluation, procurement, and dedication of commercial grade Items. The Engineering Standards Subgroup and the Non-Nuclear Focus Task Team were disbanded during the year due to waning interest and lack of pressing issues relative to other areas.

Best practices were posted for:
• Engineering calculations (for example, depth and rigor or documentation, input and assumption identification, input and assumption management)
• Safety equipment list
• Fire protection criteria for leased non-nuclear facilities - to improve the content of fire protection in the scope, reduce confusion, and define roles and responsibilities for fire protection when negotiating leased space. The best practice provides a tool to help ensure that the DOE contractor’s leased facilities are more consistent and aligned to the appropriate level of fire protection to ensure the protection of workers, protection of government owned equipment to limits established by the DOE, and protection against unacceptable DOE program or mission interruption.

Actions undertaken by the EPWG to develop/compile additional best practice improvement recommendations and their status include cognizant system engineer documentation, including examples of system health reports, system performance monitoring and trending, system boundary documents, and system notebooks.

EPWG supported DOE’s HSS in the development of a new standard to provide guidance on design of safety instrumented systems. The standard is drawing from ANSI/ISA 84.00.01-2004, “Functional Safety: Safety Instrumented Systems for the Process Industry Sector” and is expected to be issued to DOE’s formal review process (RevCom) in the coming year.

EPWG previously agreed to evaluate development of a DOE-specific standard for safety electrical power in lieu of commercial nuclear power IEEE standards. Early efforts resulted in the development of a preliminary scope plan for the effort. The group subsequently developed a draft formal task plan for the effort. Loss of all key lead personnel on this effort to new company assignments and retirement has stalled the effort. An action from the October EPWG meeting is to resurrect the effort of this team.

The Fire Protection Subgroup continues to provide a forum for members to share information and lessons learned, discuss common issues, and to develop best practices. To support the efforts of the Subgroup, one meeting and monthly conference calls were held. The meeting was held in conjunction with the DOE/Contractor Fire Safety Workshop, June 22-26, 2009, to best use limited resources.
A DOE working group formed to respond to the DNFSB Recommendation 2008-1, “Safety Classification of Fire Protection Systems”, includes fire protection engineers from both DOE and contractors. The group developed design and maintenance criteria for sprinkler system design and water supplies classified as safety significant and safety class. The criteria included acceptable pipe schedules, fitting requirements, seismic bracing, and maintenance schedules. Single point failure tolerance design was included with design area and density requirements and sprinkler spacing of the sprinkler systems. Water supply reliability guidelines using redundant water supplies and risers were methods included in the DOE guidelines the working group developed. The guidelines are in the review process.

A small contingent of the Fire Protection Subgroup made an informational visit to FM Global to learn more about highly protected risk and how this concept can be better integrated into the contractor’s fire protection programs. DOE Order 420.1B requires the contractors to follow “highly-protected risk” concepts but this concept is not well articulated in the requirements nor consistently implemented in the contractor community. This visit was very productive and follow-on discussions with FM Global are planned with the DOE-Headquarters customer. This information is being evaluated to determine if it can be captured as a best practice.

The Fire Protection Subgroup has continued to share information on the development of leading indicators. Leading indicators are an important component of the Department’s contractor assurance system and a focus of the EFCOG Contractor Assurance Working Group. A broad set of indicators is being reviewed by the group for broader application and potential publication as a best practice. The EPWG has also been involved in some activities related to the update to DOE-STD-1066-99, “Fire Protection Design Criteria”, including initiation of efforts to address fire protection design as it relates to confinement ventilation systems.

The Testing and Commissioning Subgroup was commissioned at their December 2008 meeting. Members established the Testing and Commissioning charter and came to a consensus that a standard process should be established for testing and commissioning at the DOE sites. Further, the standard process should be generated by the Subgroup and then be submitted to the full EPWG for review and concurrence with a probable recommendation to establish it as a good practice (or have it issued as a standard/guide to one of the DOE orders). The Subgroup then assigned development of specific sections of this standard/practice to Subgroup members. Thus far, two of the sections have been drafted. The Subgroup Chair and the two sections authors initiated an initial peer review of the submittals. Once the reviews are completed, the two sections will be sent to the remaining Subgroup members for their input.

The Cognizant System Engineer Subgroup held its kickoff meeting in Denver, Colorado in April 2009. The Subgroup charter was approved, officers elected, and list of actions identified. Two more meetings were held, including one in May as part of the Annual DOE Facility Representative/Safety System Oversight workshop in Las Vegas, Nevada. Several candidate best practices were identified for further exploration, including one drafted on system health monitoring (as noted above) which is in final review.

The Value Management Subgroup held its annual meeting in conjunction with the Society of American Value Engineers International Conference in late June-early July in Detroit, Michigan. Updates from each site on value management studies completed and planned were discussed, as well as a proposed paper that defines how the systematic value management/value engineering approach can support the system engineering methodology and discipline.

The Pressure Safety Task Team continued its work to develop a standard understanding of the
requirements of an effective pressure safety program as required by the Worker Safety and Health Program, 10 CFR 851 Appendix A Section 4.0. A pressure vessel SharePoint site has been established for collaboration purposes. This team is working to raise awareness of pressure safety program aspects and quickly accelerate sites with relatively new programs to experienced, soundly-based programs. The Team met in September 2009 at the Oak Ridge National Laboratory, with special presentations on LANL’s Legacy Walkdown-Disposition Approach; PNNL-18696, “Pressure Systems Stored-Energy Threshold Risk Analysis”, and DOE Pressure Safety Manifold (SNL). The primary focus was a development effort of an Implementation Guide for Pressure System Safety as specified in 10 CFR 851 Appendix A.4 using the sections of 10 CFR 851 Section A.4 as an outline: 4a – The General Program; 4b – Codes and Standards; and 4c – Equivalency. A team presented draft sections for group discussion.

PLANNING FOR THE YEAR AHEAD

EPWG has the following initiatives planned for FY 2010:

- Follow-up activities related to health and safety assessments will be a key focus area for the EPWG. The EPWG is committed to preparing a minimum of three best practices, including some in this focus area. The actions and practices will be developed in concert with the HSS to achieve common expectations for system engineering programs. This will continue the theme of teaming with DOE to improve engineering effectiveness in the complex.
- Continue support to HSS for development of safety instrumented system standard. It is anticipated that the draft standard will be released into the DOE formal review process (RevCom) in the coming year.
- In the pressure safety area, plans include:
  - Continue interaction and information sharing;
  - Organize support for criteria for barrier design of pressure systems;
  - Seek HSS resolution of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code dates associated with 10 CFR 851; and,
  - Complete a draft of an Implementation Guide for Pressure System Safety as specified in 10 CFR 851 Appendix A.4 using the sections of 10 CFR 851 Section A.4 as an outline: 4a – The General Program; 4b – Codes and Standards; and 4c – Equivalency Sub-team
- Continue to support DOE in the implementation of DOE Standard 1189 in conjunction with the EFCOG Safety Analysis and Project Management Working Groups. This will include developing best practices on application and providing a revised draft of DOE-STD-3024 to HSS to address use in the integration of safety and design during project implementation.
- Continue to support NNSA and DOE on the development of a technical position to address actions appropriate for potential significant HEPA filter loadings under fire scenarios
- In the fire protection area, plans include:
  - Benchmark site Authority Having Jurisdiction (AHJ) programs, particularly looking at roles, responsibilities, authorities and accountabilities
  - Benchmark fire barrier penetration seal configuration management practices
  - Benchmark of site fire protection design criteria (international codes vs. National Fire Protection Association)
  - Develop and post Fire Hazards Analysis Tool Box
  - Develop updated fire protection system and equipment inspection, testing and maintenance recommended frequencies
- Revitalize the Configuration Management Subgroup; conduct meetings and/or phone conferences to set goals and complete actions. Goals previously established and planned
were:
  o Develop and issue configuration management best practices. Candidate topics include:
    ▪ Maintaining configuration management in work packages during decontamination and decommissioning (D&D)
    ▪ Version and formal change control during design
    ▪ Design deliverables at 30-60-90-100%
    ▪ Final design documents and system design descriptions as design tools and deliverables
    ▪ “As-built ”: definition (versus “as found”)
    ▪ Title III services by the original architect-engineer
    ▪ Software configuration management
    ▪ Vendor information (formats, control, cataloging)
    ▪ Major modifications to operating facilities – special considerations
  • Provide best practice documents for the creation, implementation, and maintenance of an Nuclear Quality Assurance-1 compliant commercial grade item dedication program
  • Re-vitalize the effort to develop DOE standards in lieu of IEEE standards for electrical power safety systems
  • Hold its next full EPWG meeting in Idaho Falls, Idaho on October 27-29, 2009

LESSONS LEARNED
A positive aspect of the EPWG and its Subgroups and Teams this year has been the continuation of increased communication among members. Members of EPWG are now routinely communicating, using the EPWG as a sounding forum, on issues that arise in their locations. In the Fire Protection Subgroup, for example, communication within the DOE fire protection community has substantially increased, resulting in very positive response to the Subgroup and its activities. A challenging aspect of the Working Group and its Subgroups and Teams is the great diversity among the various members in how Engineering, Configuration Management, Testing, Pressure Safety System design and operation, Commercial Grade Item Dedication, and Fire Protection activities are organized and executed at their sites. Working Groups need to keep this in mind, to ensure value is maintained for all its members. The EPWG website, and the very strong meeting minutes developed and distributed, are very positive communication tools used to distribute lessons learned and best practices to members.

Communication and teamwork with other Working Groups is improving. Several cross-cutting EPWG items of importance to DOE and its cadre of contractors are being worked. These afford opportunities to coordinate positions and develop strong teams within EFCOG.

Distribution of work assignments continues to be a challenge. As in most volunteer groups, it is difficult at times to get full participation in the group. Key members tend to bear the burden of the majority of assignments. In addition to assigning actions to staff present at meetings, efforts are being made to recruit additional support staff from member organizations that were not able to travel to the face-to-face meetings.

EFFECTIVENESS EVALUATION
The EPWG has been effective during the past year, most notably in supporting DOE in several major initiatives for the complex. The EPWG has been positively recognized by the DOE customers in these activities, demonstrating the benefit of the EFCOG and Working Group's close interaction with DOE. DOE recognition is reflected in the request for Working Group support on new initiatives. This interaction is increasing performance and effectiveness across the complex. The tasks being worked
on by the group are issues that are significant and the output of the EPWG is being used by member
companies to enhance engineering effectiveness. Strong cross EPWG interaction was evidenced
throughout the year on numerous initiatives discussed above. The adjustment of the face-to-face
meetings to include more interactive sessions versus presentations is an example of this. The year
saw creation of new Subgroups and Task Teams, disbanding of one Subgroup and one Task Team, re-
energization of some tasks and hibernation of others. In summary, the EPWG activities and
contributions in 2009 covered a broad spectrum of activities and the results were positively
recognized by DOE. Members are enthusiastic with respect to the 2010 planned activities and
significant contributions will be expected of EPWG.

RECOMMENDATIONS

Except as noted below, it is recommended that the EPWG and its Subgroups/Task Teams continue
their activities in support of DOE and the common interest of the contractor community in accordance
with the 2010 plans.

- The Pressure Safety Task Team should be chartered as a fully functioning Subgroup. A
  recommendation was made at the October EPWG meeting to upgrade the Task Team to
  subgroup status. What had originally been thought to be a short-term, limited focus topic has
  evolved to be more encompassing and justifies the more permanent status of subgroup
designation.

- The Value Management Subgroup should either be transferred to the Project Management
  Working Group or disbanded, with the Subgroup Chair person noted as a subject matter
  expert on the EFCOG website.

- The majority of the Fire Protection Subgroup initiatives have focused on maintenance and
  operations, rather than engineering design. Consideration should be given to assigning the
  Fire Protection Subgroup actions related solely to design issues, Inspection, testing and
  maintenance, and the role of the Fire Authority Having Jurisdiction, or transferring the Fire
  Protection Subgroup to the Energy and Infrastructure Working Group.

- A decision needs to be made related to the future of the Value Management Subgroup. Options include:
  - Continue with the Subgroup as a part of EPWG
  - Transfer the Subgroup to the Project Management Working Group
  - Disband the Subgroup and list the Chair person as a Value Management Subject Matter

The EPWG is available to help support other critical initiatives of the EFCOG Board of Directors and
DOE that may be identified during the upcoming year. To accomplish all tasks, robust member
company interaction and involvement on major activities and effective integration among various
Working Groups will be required.
ENVIRONMENTAL SAFETY AND HEALTH WORKING GROUP

CHAIR: ANTHONY UMEEK, SAVANNAH RIVER NUCLEAR SOLUTIONS
FIRST VICE-CHAIR: MIKE MADISON, ENERGY SOLUTIONS
SECOND VICE-CHAIR: PAT PADEZANIN, SAVANNAH RIVER NUCLEAR SOLUTIONS

INTRODUCTION

Vision – The vision of the Environmental Safety and Health (ESH) Working Group (ESHWG) is focused on supporting cost effective, efficient operation of Department of Energy (DOE) facilities while maintaining - as the highest priority - safe, environmentally sound, and secure operations through the ongoing exchange of information and corresponding improvement initiatives.

Purpose - The purpose of the ESHWG is to promote excellence in all aspects of environmental protection and safety and health for the member organizations. The ESHWG identifies, evaluates, and selects “best in class” ESH practices, procedures, and tools for deployment and application throughout the DOE complex.

Objectives – The ESHWG is committed to five primary objectives:

- Promote, coordinate, and facilitate the active exchange of successful programs, practices, procedures, tools, lessons learned, and other pertinent information of common interest that can be adapted to enhance ESH performance of all contractors in the DOE complex.
- Working with the EFCOG Board of Directors, identify and address issues of common interest, including initiatives to foster continuous ESH improvement.
- Through focused subgroups, promote cooperation and interchange information, as appropriate, within EFCOG and with other entities involved in similar activities (e.g., Occupational Safety & Health Administration, Institute of Nuclear Power Operations, National Enforcement Investigation/Investigations Center, etc.), while minimizing duplication of efforts.
- Focus on active personal exchanges of management and technical information among contractors.
- Interact with DOE in ways that produce value-added benefits for both DOE and the contractor community. This includes DOE sponsorship and participation in ESHWG activities, as well as participating in technical exchanges with DOE as appropriate.

Scope - The ESHWG scope is defined as follows:

- Activities will focus on work efforts, programs, and processes that are pertinent to promoting excellence involving Environment, Safety, and Health throughout the DOE complex. Other focus areas will be determined by the Board of Directors, in consultation with the DOE, when required.
- The ESHWG will facilitate the exchange of information through such vehicles as meetings, workshops, conferences, working groups, and written materials, and will document the results of various member-sponsored efforts in reports and position papers, including the EFCOG website.
While the ESHWG will not lobby, advocate independent positions, or try to change DOE policy, the Working Group will facilitate dialogue between DOE and member organizations for the purpose of understanding issues and initiatives of mutual interest.

MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

The ESHWG has approximately 175 active members, with representation from 30 of the EFCOG member companies.

ORGANIZATION

Leadership in the ESHWG is comprised of:

Chair: Tony Umek, Savannah River Nuclear Solutions
1st Vice-Chair: Mike Madison, EnergySolutions
2nd Vice-Chair: Pat Padezanin, Savannah River Nuclear Solutions
Secretary: Cynthia Williams, Savannah River Nuclear Solutions

The ESHWG has six Subgroups: Industrial Hygiene/Industrial Safety; Environmental; Occupational Medicine; Chemical Safety & Lifecycle Management; Electrical Safety; and Radiation Protection. The Chairs for these Subgroups are:

- Industrial Hygiene/Industrial Safety Subgroup Chair: Richard DeBusk, Lawrence Berkeley National Laboratory
- Environmental Subgroup Chair: Ross Fanning, Savannah River Nuclear Solutions
- Occupational Medicine Subgroup Chair: Jamie Stalker, Argonne National Laboratory
- Chemical Safety & Lifecycle Management Subgroup Chair: James Morgan, Savannah River Nuclear Solutions
- Electrical Safety Subgroup Chair: Mark McNellis, Sandia National Laboratory
- Radiation Protection Subgroup Chair: Jim Stafford, Savannah River Nuclear Solutions

The ESHWG also has four task groups, with Chairs or Leads as follows:

- Laser Safety Task Group Chair: Ken Barat, Lawrence Berkeley National Laboratory
- American Recovery and Reinvestment Act (ARRA) Task Group Chair: Kevin Kostelnik, Savannah River Nuclear Solutions
- Leading Indicators/Metrics Strategy Task Group Chair: Steve Prevette, Savannah River Nuclear Solutions
- Nanotechnology Task Group Lead: Mike Swain, Savannah River National Laboratory

EFCOG Sponsoring Director: Joe Yanek, Fluor Government Group

DOE and NNSA Sponsors: Pat Worthington, Office of Health, Safety, and Security (HSS); Frank Russo, National Nuclear Security Administration (NNSA)
ACHIEVEMENTS

The following summarizes the ESHWG accomplishments for fiscal year 2009:

- The DOE Electrical Safety Handbook was completed and submitted for the review and comment phase.
- The Radiation Protection Subgroup remained very active in 2009, with three task teams were formed to address timely issues as follows:
  - One team recommended a consistent complex wide approach of implementing 10CFR835, “Occupational Radiation Protection”, on the issue of isotope plutonium-241, especially as it relates to radiological postings, controls, and surveys. The team's efforts were recognized with an EFCOG teamwork annual award.
  - The second team initiated development of a consistent complex-wide approach of implementing recently amended 10CFR835 requirements of neutron quality factors.
  - The third team is tasked with working with DOE-Headquarters in implementing the "independent verification" radiological surveys requirements of the proposed DOE Order 458.1, “Radiation Protection of the Public and the Environment”, which is replacing DOE Order 5400.5 (same title).
- Contributed to EFCOG best practices through preparation of the following:
  - Publication on Performance of Electrical Arc Flash Calculations and Labeling
  - Proper use of Automated External Defibrillators
  - Industrial Hygiene & Safety Best Practice for ARRA Work
- The human capital crisis is an ongoing agenda item at each EFCOG meeting. Some progress can be seen with the growing number of colleges and universities. The chair of the Radiation Protection Subgroup was key in initiating the nation's largest undergraduate course in health Physics at Aiken Technical College located in Aiken, South Carolina.
- The Electrical Safety Subgroup developed 22 proposed changes to next year’s revision cycle of National Fire Protection Association 70E, “Standard for Electrical Safety in the Workplace”. They also developed multiple methods and materials in electrical safety training to meet new 70E requirements for hands-on demonstrated proficiency training.
- The Industrial Hygiene/Industrial Safety Subgroup organized an exposure assessment task group to review a draft DOE-Headquarters Exposure Assessment Technical Standard. The task group will continue working until the spring 2010 ESHWG meeting to provide technical support and assistance to HSS as they continue developing this technical standard.
- The Environmental Subgroup held a joint meeting with the Energy and Infrastructure Working Group in June during the Federal Environmental Symposium in Bellevue, Washington. The groups participated in a training session on “Implementation of a Sustainable Environmental Management System” sponsored by DOE.

A number of successful meetings were held in FY 2009. Highlights include:

- The ESHWG held its Fall meeting in Las Vegas, Nevada in October 2008, and its Spring meeting in March 2009 in Washington, D.C., in conjunction with the successful 11th annual Joint EFCOG/DOE Chemical Management Workshop held on March 10-12, 2009. This year’s workshop focused on chemical safety leadership, leading indicators, chemical lifecycle management, green chemical management and nanotechnology. This workshop attracted over 250 participants from across the DOE complex, with speakers from various federal agencies and private industries.
- Both meetings were supported by key external customers and well attended by EFCOG members. The use of video conferencing was very successful at the Spring meeting.
Attendance at this latter meeting exceeded 250 people.

- The Environmental Subgroup integrated with the Federal Environmental Symposium – West for its Spring semi-annual meeting. This afforded the Subgroup attendees the opportunity to also participate in this very informative and applicable annual Symposium.
- Two successful Occupational Medicine Subgroup meetings were held at in Las Vegas, Nevada and at Argonne National Laboratory, in the Fall 2008 and Spring 2009. Continuing education credits were awarded for those participating. Outcomes included:
  - Beryllium Lymphocyte Proliferation Test Interpretation Guidelines adopted by majority
  - Wellness Programming across the DOE complex presented programs that are best in complex and the Occupational Medicine Subgroup advocated support of wellness programming in the DOE complex to address not only health and productivity issues but health and safety issues in the DOE workers
  - Invited speakers from some of the DOE Former Worker Programs discussed the potential for augmentation of worker health by sharing information between active and former worker programs.
- The Electrical Safety Subgroup coordinated with the IEEE to hold its Spring meeting in conjunction with the IEEE Electrical Safety Workshop. They held the annual Electrical Safety Workshop in Pasco, Washington. The workshop was attended by 200 attendees from most sites and included presentations by internationally renowned electrical safety subject matter experts (SMEs) from the private sector and other government agencies.
- The Chemical Safety and Lifecycle Management Subgroup co-sponsored the successful 11th annual Joint EFCOG/DOE Chemical Management Workshop on March 10-12, 2009. This year’s workshop focused on chemical safety leadership, leading indicators, chemical lifecycle management, green chemical management and nanotechnology. This workshop attracted over 250 participants from across the DOE complex, with speakers from various federal agencies and private industries.

PLANNING FOR THE YEAR AHEAD

Planned achievements for FY 2010 include:

- The Fall 2009 ESHWG meeting will be held at the Nevada Test Site Office in Las Vegas, Nevada in early October 2009; this meeting will serve as a forum to host a substantial discussion related to worker health and safety regarding the ARRA project team organization, plans, and ongoing activities.
- The Spring 2010 ESHWG meeting will be in Washington D.C. to facilitate increased participation by DOE personnel.
- Completion and issuance of two best practices for the EFCOG website
- Continue to grow membership and sponsor four Task Groups:
  - ARRA Task Group to share lessons learned across the DOE complex on ARRA initiatives
  - Nanotechnology Task Group to support ESH issues while working to move it toward a Subgroup
  - Laser Safety Task Group to support ESH initiatives
  - Leading Indicators/Metrics Strategy Task Group to support work by the EFCOG Contractor Assurance Working Group
- Support integrated safety management related tasks and the EFCOG Integrated Safety Management (ISM) and Quality Assurance (QA) Working Group in areas such as:
  - Working with DOE and member companies in the implementation of Line Oversight and Contractor Assurance Systems
Hosting workshops in support of key DOE and contractor areas of focus including the
Annual DOE ISM Champion Workshop
Establish a liaison position at the ESHWG Chair level to integrate with the ISM&QA
Working Group.

- Support environmental initiatives, including integrating Executive Order 13514, “Federal
  Leadership in Environmental, Energy, and Economic Performance” across the complex
- Under the leadership of the Occupational Medicine Subgroup, sponsor the topics of wellness
  and performance indicators of safety to integrate with other EFCOG Working Groups and DOE
- Collaborate efforts with the EFCOG Human Capital Working Group
- Continue to support safety improvement initiatives in electrical safety, industrial hygiene and
  safety exposure monitoring, and radiological controls
- Support the September 2010 Integrated Safety Management Champions conference to be
  sponsored by the Savannah River Site

LESSONS LEARNED

To facilitate DOE and NNSA participation, at least one ESHWG meeting will be held in the Washington,
D.C. area. Subgroups will be encouraged to meet at the semi-annual ESHWG meetings, but some
Subgroups will benefit from joint meetings with industry groups. For FY 2010, the Electrical Safety
Subgroup may conduct a meeting in conjunction with the IEEE Electrical Safety meeting, and the
Chemical Safety and Lifecycle Management Subgroup will continue to sponsor the annual Chemical
Management Workshop. No one right solution is proposed, but continued emphasis will be applied to
ensure meetings and activities provide the best value to the members.

EFFECTIVENESS EVALUATION

During this year, the positive impact of the ESHWG to the customer was continued through the various
participating contractor operations. Sharing of ESH processes and practices, which were made
available for implementation at the various DOE locations resulted in cost savings to all EFCOG
member companies. Activities are focused around two central meetings where all members of the
subgroups can assemble at one place at one time. Use of DOE facilities has minimized meeting costs.
Focused workshops will also continue to be held at locations and in facilities convenient to the
business and in a cost effective manner to the customer in accordance with EFCOG operational
requirements.

Individual subgroup activities and sharing of operating experiences and best practices which filter
back to each member company continues to be seen as a “cost savings.”

Integration with other working groups provides the opportunity to leverage resources and has
benefited the ESHWG in 2009.

The ESHWG is establishing a position with responsibility to integrate with the ISM&QA Working Group.

RECOMMENDATIONS

The ESHWG and its Subgroups as currently organized should continue during FY 2010 with continued
support of the four Task Groups. The Working Group will pursue moving the Nanotechnology Task
Group to a Subgroup status.
HUMAN CAPITAL WORKING GROUP

CHAIR: JEFF JAY, SAVANNAH RIVER NUCLEAR SOLUTIONS
VICE-CHAIR: DIONE HEUSEL, CSC APPLIED TECHNOLOGY DIVISION (STRATEGIC PETROLEUM RESERVE)

INTRODUCTION

Vision – Create a human capital management system for the management & operating (M&O) contractors that provides the Department of Energy (DOE) a macro-view of human resource capacity and capability to sustain DOE mission readiness through the next decade.

Purpose - Promote strategically and systematically effective human capital management approaches to prepare EFCOG for successfully competing in the global knowledge economy of the 21st century, and advance strategic alliances between program and mission leaders and human resource professionals to preserve and sustain “People Readiness” initiatives crucial to energy workforce capability and capacity vital to U.S. national energy security.

Objectives – The Human Capital Working Group (HCWG) is committed to the following objectives:

- Measure effectiveness of human capital management performance
- Assess and evaluate qualitative and quantitative data regarding critical skill sets and institutionalize the approach within the EFCOG community in a manner that is predictive and timely in mitigating risks to the government sector
- Examine DOE program sectors and present annual results of predictive trends and recommendations of at-risk, mission critical skills based on projected demand and supply factors to the EFCOG and DOE community
- Align strategic human resource and mission management partnerships with industry best practices in human capital
- Communicate advanced transformational strategies and concepts applicable across EFCOG Working Groups and DOE programs that support innovative business approaches for sustaining a strong, well-educated and trained 21st century workforce

Scope – The HCWG is defined as follows:

- Facilitate exchange of information for purposes of understanding issues and initiatives of mutual interest with other EFCOG Working Groups and other governmental/non-governmental organizations regarding application of innovative approaches to human capital management
- Communicate with other EFCOG and DOE, including National Nuclear Security Administration (NNSA), groups to avoid duplication of effort, recognizing that other EFCOG Working Groups have related human capital initiatives underway
- Document its results in reports and position papers and provide them to other EFCOG Working Groups, the EFCOG Sponsoring Director and other Directors, and the EFCOG Executive Council

MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

Approximately 27 participants have taken an active role in HCWG activities during FY 2009,
representing 13 EFCOG member companies. Member recruitment occurs through other participating members and calls-for-membership in communications during EFCOG annual meetings. Through the DOE Environmental Management sponsor, the Working Group established liaison with the United Kingdom’s Nuclear Decommissioning Authority and their Critical Skills Academy Program.

ORGANIZATION

Leadership in the HCWG is comprised of:

Chair: Jeff Jay, Savannah River National Laboratory

Vice-Chair: Dione Heusel, CSC Applied Technology Division (Strategic Petroleum Reserve)

Secretary: Vacant

The Working Group has four subgroups: Strategic Planning, Human Capital Policy, Critical Skills, and Post-Docs, with Chairs as follows:

- Strategic Planning Subgroup Chair: Dione Heusel, CSC Applied Technology Division (Strategic Petroleum Reserve)
- Human Capital Policy Subgroup Chair: Jessica Pascual, Sandia National Laboratory
- Critical Skills Subgroup Chair: Tom Richey, Babcock & Wilcox Y-12 National Security Complex
- Post-Docs Subgroup Chair: Kris Culp, Lawrence Livermore National Laboratory

EFCOG Sponsoring Directors: Bill Gallo, AREVA; and, Pat Smith, Sandia National Laboratory (Livermore)

DOE Sponsors: Glenn Podonsky, Office of Health, Safety & Security (HSS) assisted by Mari-Jo Campagnone; Sandra Waisley, Office of Environmental Management (EM); Beverly Berger, NNSA; and, Bill Valdez, Office of Science (SC)

Other DOE officials that the Working Group is coordinating its efforts with include: Rita Franklin, Human Capital; Ed Simpson, Office of Procurement & Assistance Management; Arnold Guevara, DOE National Training Center; and, Pete Miller, Office of Nuclear Energy.

For the HCWG, succession planning will be determined based on upcoming discussions with DOE Sponsors and the EFCOG Board of Directors.

ACHIEVEMENTS

HCWG efforts have focused on strategic planning, human capital policy, and critical skills. Unfortunately, several areas hit plateaus due to changes in members and sponsors. Even so, achievements during FY 2009 included:

- Critical Skills – Progress was made to identify a method for assessing contractor critical skill needs by leveraging the current NNSA People Team initiative, as follows:
  - Regarding the survey tool, the HCWG received feedback on a set of survey questions and revised attributes for piloting with a subset of EFCOG Working Groups; fire protection engineers have been targeted for the first pilot.
  - The NNSA People Team initiative has been looking at critical skills within the weapons complex and the results appear to have more promise for applying to other critical skill sets; a formal report is in preparation for review and application within the EFCOG setting. An opportunity is evolving to work with Office of Science, Technology and Policy to
examine macro-critical skills issues within the DOE complex.

- The HCWG sponsored Admiral Hank Chiles, Chair, Defense Science Board Task Force on Nuclear Deterrence Skills, as a keynote speaker at the June 2009 EFCOG Annual Meeting as well as a human capital panel discussion showcasing the importance of technology and innovation in the recruitment and retention of the future workforce.

- The EFCOG Vice-Chair tasked the Working Group to develop a strategic proposal for examining complex-wide training issues common to contractors and labor unions; an ad hoc team was assembled and a recommendation has been submitted to the EFCOG Board of Directors for review and approval.

- The EFCOG Chair tasked the Working Group to review the EFCOG website as part of improving the strategic branding and message for the M&O community; a proposal was submitted to the EFCOG Board of Directors for review and approval.

- The HCWG had its first Working Group meeting in November 2008 at Sandia National Laboratory, with a focus on critical skills benchmarking and human capital contractor policy. Approximately 25 participated in this meeting. The meeting included:
  - First-hand tours/discussion on educational processes and critical skills interfaces with technology-based businesses - advanced technology academy, critical skills institutes, advanced manufacturing trades training program and post-doc professional development program
  - Identified an option to address DOE M&O labor demands over the next 5 to 10 years through use of a grant proposal for a periodic, independent Department of Labor survey
  - Refined the approach to address DOE O 350.1, “Contractor Human Resource Management Programs” policy issues to baseline the DOE complex with survey

- The HCWG Critical Skills Subgroup Vice-Chair conducted a meeting on December 1 and 2, 2008 with Sandia National Laboratory (both Albuquerque, New Mexico, and Livermore, California sites) and Lawrence Livermore National Laboratory post-docs to frame initial issues regarding effective recruitment and retention of M&O post-docs and prepare baseline benchmark for complex-wide review and application. This meeting established the initial framework of the Subgroup’s activities with priority on:
  - Determining a consistent pathway for post-docs to full employment
  - Centralizing oversight of post-doc program implementation
  - Defining post-doc position performance review criteria
  - Improving mentor/principal investigator interpersonal skills
  - Improving attraction attributes and professional development for post-docs in national laboratory settings

- The HCWG held its second FY 2009 meeting on March 3–5, 2009 during the Waste Management 2009 Symposium in Phoenix, Arizona. This provided an excellent exchange of information with attendees and international counterparts from the United Kingdom. The meeting focused on critical skills definition, policy and strategic branding, with approximately 15 members in attendance. As part of the meeting, a question and answer session with an executive panel discussion on emerging issues with DOE prime contractors was held. Also, the participants received a presentation from the Working Group’s international partners – the United Kingdom Nuclear Decommissioning Authority, the National Skills Academy, and the United Kingdom’s University of Manchester’s Nuclear Decommissioning Engineering program. The Working Group debated the critical skills definition offered by the NNSA sponsor, as the context of the definition is apparently resisted by weapons sites as a result of how critical skills are currently measured.

- On June 11 - 12, 2009, the Working Group Chair met with the following DOE Sponsoring Directors: HSS, EM, and SC, in Washington, D.C., and received important feedback:
SC has a substantial stake in human capital with 10 of 17 National Laboratories under their responsibility; they want to expand their collaborative efforts with the National Science Foundation and standardize curriculum for science, technology, engineering, and mathematics (STEM) education. They desire to establish an external consortium to look at strategic science issues and determine how to leverage strategic partnerships and infrastructure. SC is willing to work with EFCOG assuming science interests will be included with those of DOE and NNSA, and assigned a SC management official to interface with EFCOG.

EM emphasized expanded use of special assignments for contractors to support EM programs, and wanted to see more leveraged corporate “reach-back” capabilities for human capital strategy for national value-added solutions. EM warned that contractors asking for more funding in STEM/pipeline investment at some point will be a non-starter as budgets are stretched; major corporations will have to help paint the picture for Congress to listen; industry must prepare the appropriate message for Congress.

HSS emphasized human capital sustainability as the key to continued mission success by DOE.

On June 22 – 26, 2009, the HCWG held its third FY 2009 meeting during the EFCOG annual meeting in Washington, D.C, with 15 members participating. This meeting focused on reactivating human capital policy discussion with DOE’s Office of Procurement and Assistance Management (Office of Resource Management); the participants also discussed critical skills questionnaire being piloted with three EFCOG Working Groups.

The HCWG also participated in the DOE Integrated Safety Management Conference on August 25-27, 2009 in Knoxville, Tennessee, to discuss the employee health & wellness of current workforce initiative. Highlights include:

- Health and wellness of current workforce was identified as one of top four priorities by the Deputy Secretary during the conference.
- Argonne National Laboratory was the first DOE national laboratory to fund a related Harvard-based survey to baseline health and wellness of current workforce; recruitment of additional organizations and sites was initiated.
- It was recognized that this initiative can provide a real-time snapshot of health risks within defined sets of critical skills that may represent an unknown and unmonitored risk to operations and missions.

On September 24 – 25, 2009, the HCWG Chair and one of the EFCOG Sponsor Directors met with NNSA, SC, EM, and Procurement and Assistance Management to discuss related human capital issues and concerns within their respective programs, leading to the recommendations to the EFCOG Board of Directors as outlined at the end of this report.

**PLANNING FOR THE YEAR AHEAD**

Planned achievements for FY 2010 include:

- Strengthen partnership with DOE Sponsors and other DOE program office principals, through face-to-face meetings planned for December 2009 and June 2010, and assess unique needs of specific program areas.
- Reinvigorate the HCWG as follows:
  - Align the Working Group charter with DOE and NNSA human capital strategic objectives
  - Expand Working Group membership and establish liaisons with DOE and NNSA program offices
  - Leverage work from NNSA People Team initiative for EFCOG application
- Host at least two Working Group meetings before the annual EFCOG meeting in June, 2010
- Collaborate with other key EFCOG Working Groups - Project Management, Engineering Practices, Safeguards & Security, Contractor Assurance, and Acquisition
- Build on already-established standards and metrics for contractor application and guidance from the Office of Personnel Management (OPM) and the Human Capital Institute
- Post at least one best human capital practice to the EFCOG website
- Perform an assessment of the EFCOG website to enhance its appeal, usability, and connectivity to business and human capital objectives

LESSONS LEARNED

The HCWG charter and approach need to be reexamined and revised, in light of feedback from DOE and NNSA sponsors, as well as human capital standards set by OPM for federal agencies. The Working Group became aware of these OPM standards in September 2009. The OPM framework focuses on six strategic areas:

- Strategic Alignment
- Workforce Planning & Deployment
- Leadership and Knowledge Management
- Results-Oriented Performance Culture
- Talent
- Accountability

The HCWG charter and activities need to align with the latest OPM information and subsequent validation by DOE Sponsors. One lesson learned is that the HCWG and its Sponsors need to routinely collaborate externally with other agencies and professional organizations and regularly revalidate the basis for the HCWG – and be willing to make the necessary changes promptly when confronted with new information.

EFFECTIVENESS EVALUATION

The HCWG is strategically necessary to frame the current and future workforce needs for the M&O contractor community and the DOE missions they support. In FY 2009, the Working Group has been effective in communicating the broad importance of the topic in various sponsored venues and influenced examination of some of the institutional tools used by EFCOG, such as its website - in reflection of its potential use as a powerful information and media exchange, like its application as a social networking tool for a new, younger generation. However, the framework of the HCWG is not currently based on the OPM guidance; that has to be changed in FY 2010 if the Working Group is going to be successful in supporting the DOE in its own similar human capital framework.

RECOMMENDATIONS

The HCWG should continue in FY 2010, but upon approval by the EFCOG Board of Directors, revise the charter with new designated subgroups in light of the recent OPM guidance on human capital, as well as comments and validation by DOE Sponsors and other DOE officials with a vested interest in the strategic human capital management framework.

The EFCOG Sponsoring Directors should work with the Working Group Chair and DOE sponsors to construct an EFCOG human capital leadership configuration mutually agreeable to the respective DOE
program office, so each office has a person responsive to their agenda. Individuals should be familiar with programs of assigned offices and be aligned accordingly with SC, EM, HSS, Nuclear Energy, Procurement and Assistance Management, Human Capital, and NNSA, as a minimum. Once developed, the HCWG should submit the proposal to the EFCOG Board of Directors for review and concurrence.

The EFCOG Board of Directors should review human capital proposals submitted on the EFCOG website evaluation and strategic training initiative with contractors and labor unions, and either approve or disapprove.
INTEGRATED SAFETY MANAGEMENT AND QUALITY ASSURANCE WORKING GROUP

CHAIR: NORM BARKER, ENERGYSOLUTIONS
FIRST VICE-CHAIR: JOHN MC DONALD, WASHINGTON RIVER PROTECTION SOLUTIONS
SECOND VICE-CHAIR: SUSAN KIMMERLY, BECHTEL NATIONAL INC.

INTRODUCTION

Vision - The vision of the Integrated Safety Management (ISM) & Quality Assurance (QA) Working Group is to be recognized by both the Department of Energy (DOE) and EFCOG as a driving force for complex-wide performance improvement throughout the full spectrum of Integrated Safety Management and Quality Assurance activities.

Purpose - The purpose of the ISM&QA Working Group is to promote excellence in the development, implementation and validation of ISM and QA programs and processes by sharing information and lessons learned, and by facilitating the application of ISM information, techniques, and best practices at DOE (including National Nuclear Security Administration (NNSA)) sites.

Objectives - The primary objectives of the Working Group are to:

- Promote, coordinate and facilitate the active exchange of successful programs, practices, procedures, lessons learned and other pertinent information of common interest to ISM and QA
- Promote ISM and QA awareness and understanding by sharing management and technical information
- Facilitate integration of existing ISM and quality-related processes and work practices
- Identify streamlined techniques and best practices that enable cost-effective and accelerated implementation of validated ISM and QA processes and programs
- Facilitate coordinated contractor input to DOE on ISM and QA-related issues
- Provide an efficient mechanism for interfacing between DOE and senior contractor executives and subject matter experts responsible for development, implementation and continuous improvement of ISM

Scope - The scope of the Working Group is selected processes and activities directly associated with ISM system (ISMS) core functions and guiding principles such as:

- Feedback and improvement
- Assessment processes
- Causal analysis
- Corrective action processes
- Human performance improvement
- ISMS program management and integration
- Occurrence reporting
- Operating experience review
- Performance metrics/analysis
- Quality assurance policy & program
- Quality engineering
MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

Membership on the Working Group includes representatives from the majority of DOE sites, with approximately 150 active members from 38 EFCOG member companies.

To ensure the Working Group continued to include a focus on industry best practices and lessons learned, liaison membership has been established with the Institute of Nuclear Power Operations (INPO), the Defense Nuclear Safety Board (DNFSB), and the National Laboratories Improvement Council (NLIC). The Working Group has also established effective horizontal communications with the other key EFCOG Working Groups.

ORGANIZATION

Leadership in the ISM&QA Working Group is comprised of:

Chair: Norm Barker, EnergySolutions

1st Vice-Chair: John McDonald, CH2M Hill

2nd Vice-Chair: Susan Kimmerly, Bechtel National Inc.

Secretary: Connie DeGrange, Lawrence Livermore National Laboratory

The Working Group has four subgroups: Feedback and Improvement, ISM Program Management and Integration, QA, and Work Management, with associated task groups. The subgroups are chaired by:

- Feedback and Improvement Subgroup Chair: Patricia Allen, Washington Savannah River Company
- ISM Program Management and Integration Subgroup Chair: Roy Schepens, Parsons
- QA Subgroup Chair: Mike Mason, Bechtel National
- Work Management Subgroup Chair: Tim Flake, Savannah River Nuclear Solutions

EFCOG Sponsoring Director: Al Konetzni, EnergySolutions

DOE and NNSA Sponsors: Pat Worthington, Office of Health, Safety, and Security; and, Frank Russo, NNSA

Currently, succession planning is conducted by incumbent officers based on future anticipated vacancies. A Vice-Chair will typically move into the Chair position as the position becomes available, but not always. This allows for a flexible transition of openings in the Working Group.

ACHIEVEMENTS

Semi-annual ISM&QA Working Group meetings in FY 2009 were held at the Nevada Site Office in Las Vegas, Nevada on November 18-20, 2008, and at the Oak Ridge National Laboratory Conference Center in Oak Ridge, Tennessee on May 5-7, 2009. Attendance at the semi-annual meetings...
averaged approximately 150 personnel. A Training and Communications Forum is provided the first
day of each meeting covering topics such as hot topics, human performance improvement (HPI), and
Nuclear Quality Assurance (NQA)-1 training.

Periodic conference calls were held to discuss priority ISM issues and share lessons learned. One
strategy session was held with DOE sponsors at the annual DOE ISMS Conference in August in
Knoxville, Tennessee. The Working Group leadership team supported this conference by supplying
track leads, reviewing abstracts, and general meeting support.

Improvements were made to the EFCOG Best Practices website which provides a single reference
point for all contractors and the DOE. The Best Practice Enhancement Initiative applied significant
effort into improving the best practices process during the year.

The Work Management Subgroup was transferred from the newly formed Energy and Infrastructure
Working Group and integrated into the ISM&QA Working Group during 2009.

Continuing support was provided to the DOE Occurrence Reporting and Processing System (ORPS)
group on lessons learned.

The Working Group continued liaison efforts with INPO, DNFSB, and NLIC.

The Contractor Assurance Working Group and the ISM&QA Working Group initiated two joint sessions
during the year to identify scope boundaries and share ideas for focus over the next year.

A number of specific activities were completed during FY 2009 including:

- The EFCOG/DOE Safety Culture task pilot was conducted over the past year with the expected
  completion of this task in early 2010. The task’s goal was to develop a consensus set of
  safety culture principles and implementation practices, so that through the ISM continuous
  improvement the existing safety culture could be improved building on operating experience
  from similar industries such as the domestic and international commercial nuclear and
  chemical industries. The focus areas (with associated attributes) recommended as those
  judged to offer the most impact on safety for contractor implementation and evaluation were:
  leadership, employee/worker engagement, and organizational learning. EFCOG also
  supported the August DOE ISMS Conference in the safety culture track and encouraged
  participation by the pilot facilities.

- Completion of the initial five tasks by the EFCOG-EM QA task force in support of the EM QA
  Corporate Board including
  - Flow-down of QA requirements
  - Adequacy and qualification of NQA-1 suppliers
  - Commercial grade dedication
  - Graded approach to QA in procurement
  - Line managers understanding of QA and oversight

- Supported DOE EM audits

- Initiation of two tasks for the new NNSA-EFCOG QA Improvement Initiative
  - Construction QA lessons learned
  - Baselining NNSA QA implementation status of NQA-1

- Established roles and responsibilities of the quality engineer (QE) function
  - Developed QE roles and responsibilities training
  - Developed flow chart of procurement and QE interface

- Developed a QA attributes matrix
• Defining the differences in safety vs. non-safety quality-effecting activities
• Expanded supply chain common audit program
  o Developed audit schedule which included the performance of 12 audits
  o Accumulated the lead auditor certifications for each lead auditor who participated in the 2009 audits
  o Continued to stabilize the audit format
  o Worked with EM to develop a plan for performance and funding of joint DOE/contractor audits
• Supported DOE lessons learned efforts
• Initiated a Software QA Task Group
  o Developed guidance on graded approach of QA practices for non-safety software
  o Reviewing complex software products for commonality
• Initiated activities within the new Work Management Subgroup
  o Conducted a Y-12 National Security Complex assist visit to assess implementation of work planning and control attributes for activity level work
  o ORPS reporting – categorized work planning and control issues
  o Conducted work planning and control assessors peer review training for assist visits
  o Worked on incorporating the work planning and control Criteria Review & Approach Document (CRAD) into the DOE-Headquarters ISM Phase II verification template
  o Aided DOE sites to expand ISM/work planning and control concepts beyond maintenance
  o Revised the joint contractor audit schedule to reflect needs and to obtain commitments from the contractors
• Developed a draft integrated assessment plan
• Evaluated need for a guidance document for developing “Leading Indicators”
• Conducted training sessions on ORPS
• Supported, as requested, the DOE-Headquarters Occurrence Reporting Program Manager through the ORPS Task Group activities; the ORPS Task Group reviewed study results of DOE recurring-type ORPS reports from 2003-2007 to address several areas including: are there any positive or negative trends; what causal analysis methods are used within the complex; what is the frequency of human performance cause coding & couplets; are any novel corrective actions being implemented across the complex; and, determining if “R” reports minimize the risk of recurrence within the project as well as across the complex
• Continued support of DOE in the implementation of DOE Order 210.2, “DOE Corporate Operating Experience Program”
• Shared lessons learned on effective transition activities and ISM verification actions
• Shared lessons learned on development of EM QA metrics

**Planning for the Next Year**
The ISM&QA Working Group identified the following activities for FY 2010:

• Completion of the Safety Culture task pilot
• Two Working Group meetings are scheduled over the next year in the Fall (November 3-5, 2009 at the Nevada Site Office, Las Vegas, Nevada) and Spring 2010. At least one conference call with Working Group leadership per quarter is planned
• Continue the Training and Communications Forum, focused on hot topics and HPI tools training
• Completion of the HPI Tool Kit task
• Completion of two best practices for posting on the EFCOG website, including a best practice
for the consolidation of annual ISMS related reports

- Continue support to EM on quality improvement projects:
  - EM EFCOG vendor qualification audits
  - EM QA improvement next set of QA issues
  - Support EM audits
- Continue support to NNSA on quality improvement projects
- Issue a white paper on quality control hold and witness points during performance of maintenance
- Review and focus QA priorities in areas of software QA and quality control/inspection
- Pilot the Integrated Assessment Plan
- Evaluate the use of the DOE ORPS database in mining the information for use in prioritizing assessments, management activities, and corrective action strategies
- Continue to collaborate with the Contractor Assurance Working Group
- Continue to support the DOE-Headquarters Occurrence Reporting Program Manager through the ORPS Task Group activities
- Continue to support DOE in the implementation of DOE Order 210.2
- Support the September 2010 DOE ISM Champions Conference in Augusta, Georgia
- Identify key process elements within engineering, procurement and construction to ensure that quality requirements are appropriately identified, flowed down in procurements and installed in accordance with previously identified quality control acceptance criteria
- Expand the supply chain common vendor audit program
  - Revise the common commodities and suppliers listing providing a bases on contractors needs
  - Develop base QA audit requirements for each site needs (e.g., NQA-1)
  - Develop a central database for managing the supply chain audit results
  - Update supplier evaluation procedure on lessons learned identified during the joint contractor audits that have already been performed.
  - Develop an electronic management database where audit information can be stored and available to other contractors.
  - Research and recommend a set of performance metrics for use by the complex
  - Evaluate a graded approach
- Post the QA program and attributes matrices on the EFCOG website
- Establish a set of draft QA program performance metrics
- Complete software QA projects
  - Define differences in safety versus non-safety software
  - Review complex software products for commonality
  - Develop software quality engineering guidelines for the development and support of software supporting research
  - Publish software QA work products on the EFCOG website
  - Complete white paper on application of DOE Order 414.1C, “Quality Assurance”, to non-safety software
  - Publish software QA practices for deterministic algorithms
- Continue working with other DOE sites to expand work planning and control beyond maintenance
  - Increase contractor participation for the Work Management Subgroup
  - Establish DOE sponsorship for the Work Management Subgroup
  - Conduct two work planning & control assist visits of the Nevada Test Site and Lawrence Livermore National Laboratory
o Consolidate work planning & control CRADs
o Categorize work planning & control issues across complex by ISMS core function (through
ORPS), develop metrics, and trend data
o Expand HPI tools into work planning & control

The ISM&QA Working Group will continue collaborating with other EFCOG Working Groups in FY 2010
as follows:

- Continuing focus on the interface between contractor assurance and feedback and improvement.
  This will provide more focus with clear lines of responsibility between the Contractor Assurance
  Working Group and the ISM&QA Working Group.
- Continue collaboration with the Engineering Practices Working Group and the Project
  Management Working Groups on:
  o Flow-down of technical and product quality
  o Requirements - management and construction quality

**EFFECTIVENESS EVALUATION**

During this year, the positive impact of the Working Group to the customer was continued through the
various participating contractor operations. Sharing of ISM and QA processes and practices, which
were made available for implementation at the various DOE locations resulted in cost savings to all
EFCOG member companies. Activities are focused around two central meetings where all members of
the subgroups can assemble at one place at one time. Use of DOE facilities has minimized meeting
costs. Focused workshops will also continue to be held at locations and in facilities convenient to the
business and in a cost effective manner to the customer in accordance with EFCOG operational
requirements.

Individual subgroup activities and sharing of operating experiences and best practices which filter
back to each member company continues to be seen as a “cost savings.” A few examples of activities
which have provided visible results for EFCOG and DOE are provided below.

There is great positive interest in safety culture related activities around the complex, with DOE, the
DNFSB, INPO, and the American Nuclear Society. Evidence of this is the large number of high quality
papers presented at the annual DOE ISM Conference, and interest by various organizations in the
products of the Safety Culture task team. This effort has been characterized as “taking ISMS to the
next level” and should be associated with continuing safety and operational performance
improvement in the complex.

Related to safety culture is the area of Human Performance Improvement. Interest continues to grow
at Working Group meetings, training sessions, and other industry forums in this area. EFCOG has
provided leadership for the complex in this area and continues to expand the awareness and
application of the associated principles and tools.

The ISM&QA Working Group activities in the QA area are filling a need created by increasing attention
to QA activities by DOE. The Working Group meetings provide a forum to address key issues identified
by EM and NNSA on improving quality assurance program results particularly in appropriate
application of NQA-1 to nuclear projects.
LESSONS LEARNED

Regarding the Best Practice Enhancement Initiative, there is great benefit from putting significant effort into improving the “Best Practices” process during the year. Clear roles and responsibilities for the program owner with regular updates are necessary.

The Working Group identified the following objectives that need continuing focus to ensure products provide the most value to DOE and EFCOG participants:

- DOE buy-in and resources available to support initiatives
- Communication with other EFCOG Working Groups on interface issues
- Need to clearly identify objectives between EFCOG Working Groups
- Provide a balanced set of activities at EFCOG meetings that includes training, information exchange, and activities to address common DOE and EFCOG priorities

RECOMMENDATIONS

The ISM&QA Working Group should continue in FY 2010. There continues to be a great deal of overlap between the Feedback and Improvement Subgroup and the Contractor Assurance Working Group. This has been discussed between groups. The recommendation of the ISM&QA Working Group leadership team is to review the charters of each group, revise them as necessary to clarify respective scope boundaries, and to provide better focus for each group to improve understanding of when joint activities are warranted versus carrying out separate efforts.
INTRODUCTION

Vision - The strategic vision of the Project Management Working Group (PMWG) is to enhance project management capability and execution to meet Department of Energy (DOE) critical mission requirements in a way that delivers:

- More reliable performance
- More cost effective delivery
- The capability to sustain performance in the future

Purpose - The purpose of the Working Group is to promote project management excellence in the execution of Department of Energy (DOE) programs by sharing best industrial practices, applying lessons learned and providing integrated recommendations to DOE.

Objectives – The PMWG is committed to the following strategic objectives:

- Provide a multi-year and multi-site contractor and DOE perspective on efforts to continually improve project execution and to maximize the probability of success of projects for the entire DOE complex, including the National Nuclear Security Administration (NNSA), such as enhanced collaboration among contractors and encouragement of early involvement of experts
- Institutionalize the PMWG as a “go to” source of effective, proven cost estimating, project and construction management processes and tools, which can be used by any (large or small) project management and construction management organization responsible for executing DOE work
- The PMWG will promote the on-going assessment of organizational and project performance, focused on driving timely corrective action to prevent failures, and active exchange of successful project management programs, practices, procedures, lessons learned, and other pertinent information of common interest
- The PMWG will support EFCOG and member company initiatives in the human capital arena, focusing on program and project management functions, such as training through workshops, task groups, and seminars

Scope – The PMWG scope is based on the Project Management Institute’s definition of project management, which includes integration management, scope management, time management, cost management, quality management, human resource management, communications management, risk management, and procurement management, as well as industry standards and DOE regulations.

MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

The membership of the Working Group has remained steady over the last year and there has been periodic, planned involvement from the current field project managers in the Working Group’s
activities. Using lessons learned from work with NASA counterparts, the PMWG has continued a practice of case study presentations at its semi-annual meetings to encourage establishment of working networks for knowledge sharing. This approach has been well received by both the PMWG members and the field project managers. Overall membership is about 65, with an average of 25-30 active members at any given point in time. The Working Group has representatives from 38 of the EFCOG member companies.

**ORGANIZATION**

The leadership of the PMWG is comprised of:

**Chair:** Mark Sueksdorf, Lawrence Livermore National Laboratory

**1st Vice-Chair:** Bob Miklos, Idaho National Laboratory

**2nd Vice-Chair:** Clay Jones, URS Washington Division

**Secretary:** None

There are two subgroups, with Chairs as follows:

- Cost Estimating Subgroup Chair: John Baker, Idaho National Laboratory
- Construction Management Subgroup Chair: Rick Bradford, Bechtel National Inc.

**EFCOG Sponsoring Director:** Tom Gioconda, Bechtel National Inc.

**DOE and NNSA Sponsors:** Paul Bosco and Bob Raines, Office of Engineering and Construction Management (OECM); Jack Surash and Lowell Ely, Office of Environmental Management (EM); Dan Lehman, Office of Science (SC); and, Thad Konopnicki, NNSA

With respect to succession planning, the Working Group operates with a two-year succession cycle and the current leadership has been in place for approximately one year.

**ACHIEVEMENTS**

Consistent with the strategic objectives of the Working Group, the focus in FY 2009 was on supporting DOE initiatives to enhance project management capability and to increase sharing of project management knowledge across our membership. Key highlights of work in FY 2009 include:

- DOE continues to implement a Corrective Action Plan (CAP) intended to address systemic project management deficiencies (identified in an earlier Root Cause Analysis initiative) that have resulted in DOE remaining on the Government Accountability Office “High Risk” agency list for many years. PMWG has been working closely with OECM to provide input on the corrective measures from the contractor perspective and support the two year implementation plan. At the PMWG’s December 2008 Winter meeting, hosted by National Security Technologies and Northrup Grumman in Herndon, Virginia, DOE’s corrective measures targeted for implementation in 2009 were discussed and group members assigned as point contacts for support. Four of the overall eight measures in the CAP were discussed:
  - **Improve Project Front-end Planning:** Supported implementation guidance for the Project Definition Rating Index, Technical Readiness Levels, and program vs. project criteria
  - **Enhance Federal Project and Contract Management Workforce:** Reviewed and provided suggestions on the guidance for a federal staffing model and associated resource plan
- **Align and Integrate Budget Profiles and Project Cost Baselines:** Supported establishing front-end loaded incremental funding profiles and plan for “full funding” of projects up to $50M.

An additional corrective measure was targeted for implementation mid-year and the Working Group took action to support the effort:

- **Improve Project Risk Assessment, Communication and Management:** Identified best practices to assess and manage project risks from project inception through completion. This effort was briefed to the PMWG at its Summer meeting.

- On an annual basis, OECM organizes a DOE Project Management Workshop. At the PMWG Winter meeting, OECM requested the Working Group prepare a panel discussion to present at the 2009 Workshop. A panel was assembled under the leadership of the PMWG Vice-Chair and presented the PMWG charter and 2009 initiatives to the DOE and contractor audience. The panel discussion was well received and generated broader interest in the Working Group’s initiatives.

- The Cost Estimating Subgroup held its annual meeting and workshop on May 6-7, 2009, hosted at Idaho National Laboratory. The workshop was well attended with a good cross section of approximately 25 representatives from the contractor community and DOE-Headquarters and field offices. The topics focused on the current initiatives from the Office of Cost Analysis. The discussions covered the proposed DOE Cost Estimating Order, CFO Standard Operating Procedure, updated DOE escalation rates, development of a central cost database, proposed standardized cost accounts and planned rollout of cost estimating/analysis training. The discussions helped to clarify the expectations and interactions between the Office of Cost Analysis and the Working Group. In addition to supporting the DOE initiatives, the Subgroup’s 2009 initiatives included exploring methods to share estimating resources between contractor sites and developing communication tools to support effective collaboration.

- As a planned initiative in 2009, PMWG formed a new subgroup to address emerging issues related to construction management. There had been a subgroup within the previous Infrastructure Management Working Group with a similar charter and it was agreed that the topic had a strong tie with project management and should be consolidated. The Construction Management Subgroup prepared a new charter that was approved by the EFCOG Board of Directors in March 2009. The Subgroup had its first meeting in Richland, Washington on May 27, 2009 hosted by the Waste Treatment Project. The Subgroup had 12 members either in attendance or by teleconference. The composition included contractor representatives from many of the sites with the largest active major construction and corresponding DOE sponsor representatives. The Subgroup brainstormed on the most relevant issues to pursue as initiatives in 2009. The three topics that were selected and teams assigned to prepare plans to address:
  - Fixed price subcontracting
  - Acquisition/execution strategy planning
  - Lack of qualified vendors

The Subgroup reached out to work with the Integrated Safety Management & Quality Assurance Working Group on topics of mutual interest, including the vendor qualifications and
concerns on construction quality control performance. They also sought out connections with the Construction Industry Institute to access a broad knowledge base in addressing the topics.

- The PMWG’s Summer meeting was hosted by CH2M Hill in Denver, Colorado on July 21-22, 2009. The meeting was well attended and included several presentations on lessons learned from active projects in various DOE sites. A representative from DOE’s National Renewable Energy Laboratory provided an overview of the laboratory and shared some success stories on using alternate construction contracting methods. The Working Group also discussed American Recovery and Reinvestment Act (ARRA) project execution issues and held breakout sessions to brainstorm ways to help projects be successful with the aggressive schedules and multiple metrics of success.

- A sub-team completed the 65% draft of a white paper on “Project Management in the R&D Environment”. The group held additional benchmarking sessions with the Project Management Institute and other DOE/federal sites to identify additional best practices. The draft was presented at the Summer meeting and planned final reviews in conjunction with a visit to Stanford’s project management program prior to being sent out for Working Group review.

- The Working Group continued collaboration with the Human Capital Working Group on human capital initiatives. The energy industry workforce is 5-10 year older than general industry. Retention rates are less than 50% in the first 3 years at the DOE sites. The Human Capital Working Group has been actively collaborating with DOE on recruiting and retention issues to promote a positive ‘brand’ for the energy industry. The PMWG’s participation allows representation of the project/program management profession and is providing updates to consider as the contractors and sites plan for continuity and succession.

- The PMWG continued to provide implementation support for earned value management systems (EVMS) via the EFCOG EVMS website and by providing cross site support for certification review preparation and follow-up for corrective actions. The effort defined a workable surveillance and recertification process, including contract transition, and worked closely with OECM to provide feedback as DOE completed initial EVMS certification and began recertification.

- As the rollout of DOE-STD-1189, “Integration of Safety into the Design Process” began, the Working Group initiated an effort to identify best practices and good examples of the new analysis and documentation required by the standard. The Working Group reached out to the Safety Analysis Working Group on training initiatives and lessons learned. This effort is expected to continue in 2010 as there weren’t many implementation examples to evaluate for this new requirement.

- DOE is in the process of replacing its Project Assessment & Reporting System (PARS) in support of a corrective measure on project oversight. PARS was hastily deployed roughly ten years ago as an enterprise reporting tool and has been plagued with numerous limitations and performance problems. The Working Group participated in the Integrated Project Team to provide contractor input as the replacement tool PARS II completed the planning phase and began pilot deployment. This initiative is expected to continue through 2010 as the new system is fully activated and deployed.

PLANNING FOR THE NEXT YEAR

A key focus of the PMWG in FY 2010 will be continued collaboration with DOE on the implementation of the Root Cause Analysis CAP. The remaining corrective measures targeted for implementation are:
• Improving project risk assessment, communication and management
• Improve project oversight and management
• Improve adherence to project management requirements

Several of the corrective measures are still in the process of implementation and the Working Group will remain involved with the cross program teams and OECM, NNSA, EM, Chief Financial Office, and the Office of Procurement and Assistance Management as they complete implementation of the various measures. The phased implementation will continue into 2011, according to DOE’s current schedule.

DOE has initiated an update of Order 413.3A, "Program and Project Management for the Acquisition of Capital Assets" and has reached out to the Working Group to participate on the Order re-write team. This will be a significant effort and an initiative that the Working Group will support in 2010.

The aggressive implementation of the ARRA represents an opportunity for project management support. Sharing information and lessons learned on ways to manage the rapid buildup and work-off of the projects as well as the multitude of stakeholders and myriad scoreboards is likely to be an important initiative in the coming year.

In 2010, the Cost Estimating Subgroup will continue to support and partner with the DOE Office of Cost Analysis as it implements measures to improve independent government cost estimating. Initiatives expected during the year include the completion of the DOE Cost Estimating manual, deployment of cost analysis training, development of the DOE project cost database, and actions to address any other emerging cost estimating issues. The Subgroup will plan to hold an annual workshop with date and location to be determined.

The Construction Management Subgroup will complete plans for their top three initiatives. They will continue to partner with the Integrated Safety Management & Quality Assurance Working Group and gather data as they prepare to report out and provide deliverables.

The PMWG plans to hold its Winter meeting on December 10-11, 2009 in Washington D.C. and refine the initiatives and group agenda for 2010. A Summer meeting will be held in the June – July timeframe involving updates on initiatives and field project managers sharing lessons learned. From these information exchanges, the Working Group is committed to prepare one best practice for submittal to the EFCOG website on project management and construction management.

**EFFECTIVENESS EVALUATION**

Significant strides have been made in the improvement of project management within the DOE enterprise and it remains an area of continued emphasis within the current Administration. There continues to be recognition of the value in connecting the contractor community of practice with the owner oversight and management. The PMWG has been at this nexus and continues to add value for both the membership and more importantly, the DOE customer and their many stakeholders. The group has an active membership and should continue to function well with both the Cost Estimating and Construction Management Subgroups.

**LESSONS LEARNED**

During FY 2009, the Working Group identified the following lessons learned:

• The value of connecting with other EFCOG Working Groups and industry trade organizations
was recognized. Many of the issues facing project management are not unique to DOE and involving other groups brings a diversity of views, lessons, and resources that strengthen solutions.

- As the Working Group worked on the 2009 initiatives, it became clear that having customer representatives from the key elements (NNSA, SC, EM, OECM) and contractor representatives from corresponding sites was critical to effectively responding to complex wide issues. The diversity of project management implementation within the different business lines needed to be taken into consideration as the enterprise wide project management issues are addressed.

- The importance of the Working Group’s website maintenance as a key communication tool has become more apparent and will require more routine attention.

RECOMMENDATIONS

The PMWG should continue in FY 2010, along with its two Subgroups.
SAFETY ANALYSIS WORKING GROUP

CHAIR: BRAD EVANS, PACIFIC NORTHWEST NATIONAL LABORATORY
VICE-CHAIR: ROB MCKEEHAN, UNIVERSITY OF TENNESSEE-BATTLE (OAK RIDGE NATIONAL LABORATORY)

INTRODUCTION

Vision - The Safety Analysis Working Group (SAWG) will be the prime nuclear safety resource of the Department of Energy (DOE) community to foster ideas, advance initiatives, and team with contractors and DOE to develop and implement effective and efficient initiatives, solutions, and programs in the area of safety analysis.

Purpose - The SAWG promotes excellence in nuclear safety applications and programs throughout the DOE and National Nuclear Security Administration (NNSA) community with a primary focus in the area of safety analysis.

Objectives - The SAWG is actively involved and integrated with contractor and DOE customers to:

- Establish initiatives and programs to advance nuclear safety throughout the DOE complex
- Prioritize initiatives and programs through the SAWG Steering Committee
- Facilitate initiatives and programs through subgroups and task teams
- Investigate safety analysis strategies, leverage experiences, and share lessons learned
- Maintain networking and interfaces using current technology
- Provide a forum to effectively accomplish activities and conduct business
- Train safety analysts, engineers, and managers

Scope - The SAWG scope encompasses the following:

- Hazard and accident analysis applications in support of safety analyses
- Safety documentation development for nuclear and hazardous facilities, projects, and activities
- Training of managers, engineers, scientists, and subject matter experts in these applications and requirements
- Technical exchange of information, experience, and lessons learned

MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

The membership of the SAWG has approximately 80 participants, and includes representatives from 22 EFCOG member companies representing over 15 DOE and NNSA sites, national laboratories, and contractors that support their work. Relationships have also been developed with Environmental Protection Agency and Nuclear Regulatory Commission staff, and with the American Nuclear Society. During the year, over 250 people participated in SAWG activities. Managers, engineers, scientists, and subject matter experts are welcome to attend SAWG workshops and training, participate in subgroup activities, and become active members.
ORGANIZATION

Leadership in the SAWG is comprised of:

Chair: Brad Evans, Pacific Northwest National Laboratory
Vice-Chair: Rob McKeehan, University of Tennessee-Battelle (Oak Ridge National Laboratory)
Secretary: None

The SAWG has four Subgroups - Accident Analysis, Criticality Safety, Safety Basis, and Unreviewed Safety Question, as well as a training liaison function, and a hydrogen safety interest group. The Chairs of the four Subgroups are:

- Accident Analysis Subgroup Chair – Mukesh Gupta, URS Washington Division
- Criticality Safety Subgroup Chair – Kevin Carroll, Lawrence Livermore National Laboratory
- Safety Basis Subgroup Chair – Bonnie Shapiro, Sandia National Laboratory
- Unreviewed Safety Question Subgroup Chair – Mark Mitchell, Lawrence Livermore National Laboratory

EFCOG Sponsoring Director: Pam Horning, Babcock & Wilcox

DOE Sponsors: Mark Blackburn, Office of Health, Safety, and Security (HSS); Jim O’Brien, HSS; and, Pranab Guha, HSS

Currently succession planning for the SAWG is managed by the SAWG Steering Committee, with officers nominated by the Steering Committee and elected annually. The officers normally serve no more than two annual terms.

ACHIEVEMENTS

In FY 2009, SAWG achievements included the following:

- The Safety Basis Workshop was held in Albuquerque, New Mexico in October. Over 100 participants contributed to workshop panel discussions and presentations on several topical issues:
  - DOE-STD-1189, “Integration of Safety into the Design Process”, Implementation Panel
  - Independent Validation Review Panel
  - Revision of DOE-STD-3024, “Content of System Design Descriptions”
  - Design of safety class and safety significant instrumented systems
  - Chemical hazards and documented safety analysis
  - Criticality Safety Control Selection Panel
  - Specific Administrative Controls Panel
  - Safety analyst training
- The 19th annual Safety Analysis Workshop was held in Las Vegas, Nevada on May 8-14, 2009. The workshop provided training, technical presentations, and panel discussions to the 150+ participants from across the DOE complex. The workshop is unique in that it is the only national forum of its type, bringing together many significant policy makers, line managers,
analysts, trainers, reviewers and approvers of DOE safety basis-related activities, applications, and documentation. Over 100 people attended training in the following areas:

- Analytical modeling techniques overview
- Hazard evaluation techniques II
- Control selection for technical safety requirements
- Specific administrative controls
- Risk analysis fundamentals
- Radiological Safety Analysis Computer program version 7.0 (RSAC 7) for modeling dose consequences of a release of radionuclides to the atmosphere
- Integration of safety with design
- Unreviewed safety question (USQ) refresher course

Details about these training courses as well as the technical sessions, panel discussions, and invited speakers at the workshop are located at http://www.nstec.com/efcog/.

- A new Criticality Safety Subgroup was established to advance integration of activities undertaken by DOE-Headquarters, DOE field elements, DOE contractors, and the American Nuclear Society (ANS). The Subgroup’s primary areas of focus in 2009-2010 are: 1) the integration of criticality safety and safety basis practices as provided by ANS Standards, DOE Orders, and DOE Standards, 2) determining the role of criticality safety in hazard categorization of DOE nuclear facilities, 3) recommending revision of DOE-STD-3007, “Guidelines for Preparing Criticality Safety Evaluations at Department of Energy NonReactor Nuclear Facilities”, and 4) participating with the DOE Office of Environmental Management at the Nuclear Criticality Safety Improvement Workshop.

- The SAWG training of DOE-STD-1189, “Integration of Safety into the Design Process”, was converted into a version appropriate for DOE to pilot for a project in the field. The SAWG also supported delivery of that pilot training at Los Alamos National Laboratory.

- Supported key DOE Initiatives in the areas of specific administrative controls (closeout of a DNFSB item), independent validation reviews (development of new DOE guidance), and update of DOE Guide 424.1-1A (to be released in 2010).

- Established liaison with the DOE Safety Basis Academy at Los Alamos National Laboratory and the DOE National Training Center in Albuquerque, New Mexico, to coordinate delivery of safety analyst training, maintain a course schedule on the EFCOG webpage, and provide classes at the Safety Analysis Workshop.

- Initiated participation with the DOE Nuclear Safety Research and Development Coordinating Group and hosted a panel discussion at the 2009 Safety Analysis workshop to identify potential areas of research and provide status of these activities since this effort was last undertaken in 2005.

- Initiated review and feedback on DNFSB Recommendation 2009-1, “Risk Assessment Methodologies at Defense Nuclear Facilities”.

- Established an interest group in the area of hydrogen safety to develop a common approach to address hazards associated with hydrogen generation in radioactive waste process streams, and related flammable gas issues. A group charter was developed and an initial set of conference calls among interested individuals have been initiated to coordinate the activities of the group.


- Developed a white paper in the area of “Evaluation of the Safety of the Situation” in support of the update of DOE Guide 424.1-1A.
PLANNING FOR THE NEXT YEAR

The SAWG including its Subgroups will hold periodic teleconferences (normally monthly) to coordinate work, track actions, and discuss emergent issues and concerns. Face-to-face meetings are held at least twice per year and of each Subgroup at least once per year. Planning for FY 2010 includes the following activities:

- Expand upon a pilot project undertaken by management of the Y-12 National Security Complex at Oak Ridge, Tennessee for the development and implementation of the “Expert-Based” USQ process. This pilot has demonstrated significant cost savings in the performance of the USQ process without compromising effectiveness.
- Continuing DOE-STD-1189 implementation activities, including:
  - Revise SAWG training based on DOE pilot course and deliver to project managers, design engineers, and safety analysts at a variety of venues, including the 2010 Safety Analysis Workshop, and at contractor locations (e.g., the Waste Isolation Pilot Plant in Carlsbad, New Mexico)
  - Support revision of DOE Directives and Technical Standards to incorporate DOE-STD-1189 principles, including
    - DOE G 420.1-2, “Guide for the Mitigation of Natural Phenomena Hazards for DOE Nuclear Facilities and NonNuclear Facilities”
- Hold the 2010 Safety Basis Workshop in Albuquerque, NM. Areas of focus will include the USQ process improvements, nuclear criticality safety deliverables, hazard categorization process, and hydrogen safety. Deliverables from the workshop will be tracked by the SAWG or assigned to a subgroup.
- Hold the 20th annual Safety Analysis Workshop in Knoxville, Tennessee on April 24-29, 2010. The theme for the workshop is “Streamlining for Safety and Risk Performance.”
- Support implementation of DNFSB Recommendation 2009-1 and provide review and feedback on potential applications
- Interface with the DOE Nuclear Safety Research and Development Coordinating Group to continue initiative to identify and prioritize areas of nuclear safety research and development activities
- Complete work on the DOE Safety Software Expert Working Group “Toolbox Code” validation and verification effort
- Work with DOE to develop revisions of the following four cost-saving initiatives throughout the DOE complex:
  - DOE Guide 424.1-1A related to USQs (supporting innovations such as the Y-12 National Security Complex pilot study improvements to the USQ process)
  - DOE-STD-3007, to integrate common safety basis and criticality safety practices
  - 10 CFR 830, Section 830.203, “Unreviewed Safety Question Process” (long-term strategy to reform the USQ process at the source)
  - DOE Standard on hazard categorization (long-term strategy to reform the hazard categorization process at the source)
- Continue support for development of a Technical Standard on Design of Safety Class and Safety Significant Instrumented Systems
- Continue to work with the EFCOG Engineering Practices Working Group in supporting the

- Develop one or more EFCOG best practices based on the above planned activities

**EFFECTIVENESS EVALUATION**

The SAWG continues to be a very effective Working Group as evidenced throughout FY 2009 by its widespread base of participation at its events, training, and technical sessions. It has materially contributed to the development of the DOE-STD-1189 training, the DOE USQ Guide (DOE 424.1-1A), and formal DOE guidance on the independent validation review process. It continues to provide direct contributions to members in the form of addressing emergent issues and concerns, and is an ongoing resource to DOE and NNSA in the area of nuclear safety and safety analysis applications.

**LESSONS LEARNED**

In response to identified additional needs of SAWG members, EFCOG member companies, and workshop participants, the SAWG has augmented its focus over the past several years toward training of safety analysts, engineers, managers, and subject matter experts. As more “stove-piped” processes become integrated in support of more efficient delivery of programs and requirements, more staff whose primary expertise lies outside the traditional realm of safety analysis requires continuing training and professional exposure to contemporary hazard and accident analysis expectations.

**RECOMMENDATIONS**

Based on the ongoing value of the SAWG to the DOE community, the Working Group should continue, along with its current suite of subgroups and other groups. Further, the SAWG recommends the following initiatives remain priorities:

- A prime area of innovation with the potential to provide substantial, tangible improvement to DOE operations is the “expert-based” USQ process - the SAWG will propose leveraging the experience at the Y-12 National Security Complex to other sites
- Continued focus on DOE-STD-1189 implementation activities
SAFETY AND SECURITY REGULATORY WORKING GROUP

CO-CHAIRS: WILLIAM LUCE, SAVANNAH RIVER NUCLEAR SOLUTIONS, AND CONARD STAIR, BABCOCK & WILCOX Y-12 NATIONAL SECURITY COMPLEX

INTRODUCTION

Vision - The vision of the Safety and Security Regulatory Working Group (SSRWG) is to provide timely and meaningful support to assist contractors in meeting the Department of Energy (DOE) goal to improve nuclear safety for workers and the public, occupational safety and health for workers, and the protection of classified information at DOE facilities.

Purpose - The purpose of the SSRWG is to enhance communications and cooperation with the DOE Office of Health, Safety, and Security’s Office of Enforcement and to promote excellence at DOE facilities through the understanding and implementation of nuclear safety, worker safety and health, and classified information laws and regulations; information sharing; and application of lessons learned.

Objectives - The objectives of the SSRWG are to:

- Provide planning and actions necessary to achieve the overall objectives of EFCOG in the area of nuclear/radiological safety, worker safety and health, and classified information security regulatory activities
- Promote, coordinate, and facilitate the active exchange of programs, practices, procedures, lessons learned, and other pertinent information on safety and security regulatory activities
- Provide an avenue for communications to and from the DOE Office of Enforcement on matters of enforcement programs, expectations, clarifications, complex-wide issues, and guidance
- Promote training and learning on safety and security regulatory activities by sharing of management and technical information among DOE contractors through mechanisms such as workshops, task teams, and conferences

Scope - The primary focus of the SSRWG is on nuclear/radiological safety, worker safety and health, and information security in the context of DOE enforceable regulations throughout the entire life cycles of facilities and activities. Relationships to other laws and regulations (e.g., Department of Transportation regulations) are included in the scope of the SSRWG to the extent necessary to assist in the understanding of the relationships and interfaces. Coordination with other EFCOG Working Groups is appropriate and encouraged, especially where the technical aspects of the other Working Groups relate to DOE enforceable regulations. Areas that can benefit from focused and coordinated contractor attention include the following:

- Safety and security compliance assurance, including noncompliance reporting
- Conduct of enforcement investigations, conferences, and program reviews
- Graded or tailored approaches to safety and security regulation implementation, including appropriate benchmarking activities
- Working relationships with regulatory counterparts (e.g., DOE Worker Safety and Health (WS&H) Coordinators and DOE-Headquarters Office of Enforcement personnel)
MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

Membership in the SSRWG is currently at approximately 90 individuals representing 41 EFCOG member companies. The EFCOG member companies not represented are generally those with little or no direct Price-Anderson Amendments Act (PAAA)/WS&H reporting or liability issues.

For the most part, the PAAA/WS&H Coordinators, Coordinator alternates, and staff from each of the company sites within the DOE complex are a part of the SSRWG membership. Additionally, subject matter experts in the area of quality assurance, radiation control, safety analysis, root cause analysis, worker safety and health, regulatory compliance, legal matters, project management, and program management are important members of the SSRWG. Some of the members are also members of other EFCOG Working Groups (most notably the Integrated Safety Management and QA Working Group and the Environmental Safety and Health Working Group).

ORGANIZATION

Leadership in the SSRWG is comprised of:

Co-Chair: Conard Stair, Babcock & Wilcox Y-12 National Security Complex
Co-Chair: William Luce, Savannah River Nuclear Solutions
Secretary: None

The SSRWG has one Subgroup - Peer Review – with the following Chair:

- Peer Review Subgroup Chair: Debbie Jenkins, University of Tennessee-Battelle (Oak Ridge National Laboratory)

EFCOG Sponsoring Director: John (Greg) Meyer, Babcock & Wilcox Pantex

DOE Sponsor: John S. Boulden III, Office of Health, Safety, and Security (HSS)/ Office of Enforcement; and, Martha Thompson, HSS/Office of Enforcement

Regarding succession planning, SSRWG leadership positions serve two-year terms. However, a number of leadership positions are extended at the discretion of the EFCOG Sponsoring Director, if the individual continues to provide on-going leadership support to the SSRWG and if the individual desires to continue in the leadership role. The tenure of the Co-Chairs will continue to be split to ensure leadership continuity and experience, such that only one of the Co-Chairs is replaced in any given year. In addition, it continues to be appropriate that the Co-Chairs come from site contractors that are not funded through the same DOE Program Secretarial Office.

ACHIEVEMENTS

The SSRWG held two working sessions during FY 2009; one was on October 20-22, 2008 at the Oak Ridge Y-12 National Security Complex, and the other was in Las Vegas, Nevada on April 15-16, 2009. Both meetings were very productive. At both meetings, extensive presentations and discussions were held on PAAA, WS&H, and classified information security issues, including lessons learned from recent enforcement actions, enforcement conferences, program reviews and other interactions with the DOE Office of Enforcement. Attendees continually comment that this portion of these meetings is extremely valuable offering candid feedback on preparing for matters of escalated enforcement
The Spring 2009 meeting was fully coordinated with the DOE Office of Enforcement Annual Coordinator training. This proved to be very effective in permitting experienced contractor coordinators to participate in the training sessions with new contractor and DOE coordinators and to readily offer insights, respond to a variety of questions, and support breakout sessions associated with the training. Current interest is to shift the focus of the training from being largely directed at “new” coordinators to being largely directed at “experienced” coordinators as a forum for ongoing refresher training. The balance of the Spring meeting included discussions of a variety of topics, including “de minimus” reporting, normalized occurrence data, “self-identified” noncompliance definition and guidance, trending, perspectives from the DOE Office of Enforcement representatives, and a status update from the Peer Review Subgroup.

The other significant activity of the SSRWG during FY 2009 was the publication of peer review results of member company PAAA and WS&H programs, led by the Peer Review Subgroup. The Peer Review Subgroup has been scheduling and coordinating reviews with interested contractors. Following the three reviews completed in 2008, two additional reviews were completed in FY 2009. The reports are posted on the EFCOG website, following agreement by the contractor requesting the review. It was anticipated that one of the 2009 reviews would involve a joint effort with the DOE Office of Enforcement in an integrated program review. Timing for such a joint effort in 2009 did not prove to be appropriate and this will again be considered in 2010.

PLANNING FOR THE NEXT YEAR

During FY 2010, the following activities are planned:

- In the Fall 2009, the SSRWG will conduct a full Working Group meeting at Pacific Northwest National Laboratory on October 13-14, 2009, and in the Spring, the SSRWG will conduct a Working Group meeting (tentatively scheduled for April 2010 at the Nevada Site Office) in conjunction with the DOE Office of Enforcement Annual PAAA/WS&H/Security Coordinators training. This joint session will permit the Working Group to continue its special emphasis on its already effective working relationship with the DOE Sponsor. Tentative plans are to conduct a portion of this meeting as a joint session with the EFCOG Contractor Assurance Working Group and the Safeguards and Security Working Group.
- The SSRWG will develop one best practice based on its activities to date and proceed to get it posted on the EFCOG website.
- Depending on the specific requests from contractors to conduct peer reviews at their sites, the Peer Review Subgroup will support those requests in 2010. It is expected that three to five reviews will be conducted with perhaps one review being a joint effort with the DOE Office of Enforcement as part of their planned program reviews in FY 2010. The Peer Review Subgroup will also undertake an activity to update the program checklists to eliminate some duplication, to incorporate relevant aspects from the results of the completed DOE Office of Enforcement program reviews, and to integrate classified information security into the checklists.
- Based on reviews and research conducted in 2009, recommendations are expected to be provided to the DOE Office Enforcement associated with further guidance on what is (or should be) considered a “self-disclosing event” (an event not afforded full credit for enforcement mitigation purposes).
- Two additional areas represent continuing areas of interest and will receive some level of effort by the SSRWG. These areas are in relation to the following:
Techniques for trending areas of PAAA and WS&H non-compliances with an interest in the methods that can be used to make decisions on the need for further actions.

Areas that might benefit from some form of periodic or ongoing training either in conjunction with the annual training already conducted by the Office of Enforcement or as a more focused element of each Working Group meeting.

The SSRWG plans to continue its interaction and coordination with other EFCOG Working Groups. Many of the past SSRWG activities and products were the result of supporting efforts with other EFCOG Working Groups and these interactions have proven successful. As stated above, a joint session is tentatively planned with the EFCOG Contractor Assurance Working Group and the Safeguards and Security Working Group for the Spring of 2010.

**Effectiveness Evaluation**

The SSRWG continued its excellent interaction with the DOE Office of Enforcement during 2009. Over the last four years, the SSRWG enhanced its partnership with DOE by restructuring meetings to effectively deal with key issues and hot topics important to both DOE and the contractor community. In particular, the efforts of the SSRWG are geared toward overall support of the DOE desire to move the enforcement program from an “event-driven” to an “assessment-driven” process.

**Lessons Learned**

The SSRWG has traditionally held a “contractor only” session on the first day of its Fall and Spring Working Group meetings with considerable focus on contractor lessons learned from enforcement actions, enforcement letters, and program reviews. Contractor lessons learned presentations are posted to the SSRWG portion of the EFCOG website and thus are broadly disseminated. Subsequent sessions at each meeting are then joint sessions with DOE participants. This long standing arrangement continues to be viewed by attending members as very effective in ensuring candid communications of some enforcement matters that can be sensitive to those presenting.

The SSRWG continues to benefit from a strong DOE Sponsor and the commitment from the entire DOE Office of Enforcement to the Working Group’s success and effectiveness. Participation by the EFCOG Sponsoring Director over the last four years continues to demonstrate, to both DOE and to the EFCOG members, a positive and proactive commitment from the EFCOG Board of Directors to the continued viability of the SSRWG.

**Recommendations**

Based on the continued effectiveness of the SSRWG, it is clear that the SSRWG should be continued into the foreseeable future. It is an example that typifies and exemplifies the intent and purpose of the EFCOG charter and the overall purpose of its planned mission and goals. The SSRWG will continue to monitor and report on its effectiveness and will adjust its approach, when necessary, to satisfy the DOE Sponsor and to meet the changing needs and expectations of the EFCOG member companies.

The SSRWG restructured its organization in late 2004 to better focus on the key issues important to the DOE Sponsor and to be responsive to the needs and expectations of the EFCOG Board of Directors. Leadership was shifted from a single Working Group Chair to two Co-Chairs (The EFCOG Board of Directors requested the SSRWG to report on the effectiveness of this structure in its annual reports). After five years of experience with this structure, the Co-Chair arrangement continues to be much more successful than originally anticipated. The Co-Chair structure allows more flexibility and spreads the workload such that the periodic crisis, and times of escalated workload, does not typically
occur to both Co-Chairs simultaneously. However, the success of the Co-Chair arraignment is truly personality dependent in that the Co-Chairs must be able to work together and share a common vision. It is recommended that the Co-Chair structure remain intact.
SAFEGUARDS AND SECURITY WORKING GROUP

CHAIR: JIM MULKEY, BABCOCK & WILCOX Y-12 NATIONAL SECURITY COMPLEX
VICE-CHAIR: REUBEN MCGILVARY, BABCOCK & WILCOX PANTEX

INTRODUCTION

Vision – The vision is to provide a forum for continuous improvement in safeguards and security areas of carrying out the Department of Energy (DOE) and National Nuclear Security Administration (NNSA) missions.

Purpose - The purpose of the Safeguards & Security Working Group (SSWG) is to provide a strong focus for meeting the DOE security management challenge by enhancing the protection of special nuclear material (SNM), classified matter, property, and cyber systems. The Working Group promotes excellence by sharing information and lessons learned and by facilitating the application of information and techniques. The scope of the SSWG includes all elements of safeguards and security (S&S) to include cyber security. The SSWG enables the successful execution of DOE missions and programs by helping ensure appropriate security in a cost effective and safe manner and by providing a forum for the active exchange of ideas, approaches, and lessons learned among DOE and its contractors.

Objectives – The objectives of the SSWG are to:

- Enable the successful execution of DOE missions and programs by helping ensure appropriate security in a cost-effective manner
- Provide a forum for the active exchange of ideas, approaches and lessons learned among DOE contractors and with DOE that:
  - Enhances collaboration among DOE contractors so that the latest technology and methods are brought to bear
  - Encourages interaction between DOE management and contractors on complex wide objectives, issues and projects
  - Provides value-added feedback and recommendations to DOE
- Serve as a consensus board for emerging security directives proposed by DOE and for the interpretation and consistent application of existing DOE directives
- Encourage planning and actions necessary to ensure that the overall objectives of EFCOG are met in the area of security
- Promote training and continuous improvement by sharing management and technical information and lessons learned among contractors through vehicles such as websites, workshops

Scope - The areas of interest covered by the SSWG include both S&S and cyber security. S&S includes the protection of SNM, classified matter, personnel security, and both equipment and real property. Cyber security includes both classified and unclassified computer, communication and information systems. The cyber security area will also address selected Information Technology topics of interest to the DOE community. The SSWG will identify those topics or issues important to DOE meeting the security challenge and present them to DOE management. The SSWG will facilitate interaction with outside organizations and experts regarding the application of security principles and methods in the DOE complex. The SSWG will communicate with other EFCOG and contractor groups to ensure activities are fully coordinated. While the SSWG will not lobby, advocate independent positions, or try to change DOE policy, the SSWG practices as applied to DOE missions may be discussed and suggestions for improvement made to the DOE.
MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

Since the revitalization of the SSWG, membership has significantly increased with 44 active members and an average of 65 attendees at each of the quarterly meetings. This growth is expected to continue at an accelerated rate as the SSWG integrates with other EFCOG Working Groups. There are 16 EFCOG member companies who participate in the SSWG. The SSWG strives to keep a complement of representation from these member companies; vacancies are filled as they occur. New membership is generally achieved by individual networking and peer relationships.

Relationships have been developed with these EFCOG Working Groups: Integrated Safety Management & Quality Assurance, Contractor Assurance, Human Capital, and Safety and Security Regulatory Working Groups, as well as with the Institute of Nuclear Power Operations (INPO); Nuclear Regulatory Commission (NRC); Department of Homeland Security; Defense Nuclear Facility Safety Board; World Institute of Nuclear Security; and the United Kingdom’s Nuclear Decommissioning Authority.

ORGANIZATION

Leadership in the SSWG is comprised of:

Chair: Jimmie Mulkey, Babcock & Wilcox Y-12 National Security Complex
Vice-Chair: Reuben McGilvary, Babcock & Wilcox Pantex
Secretary: Joe Riddle, Savannah River Nuclear Solutions

There are three subgroups in the SSWG, with Chairs as follows:

- Material Control & Accountability Subgroup Chair: Geneva Johnson, University of Tennessee-Battelle (Oak Ridge National Laboratory)
- Cyber Security Subgroup Chair: Joe Riddle, Savannah River Nuclear Solutions
- Physical Security Chair: Judy Johns, Babcock & Wilcox Y-12 National Security Complex

EFCOG Sponsoring Director: Michael Bebon, Brookhaven National Laboratory

DOE and NNSA Sponsors: Bradley Peterson, NNSA; Ted Wyka, NNSA, Amy Whitworth, NNSA; Glenn Podonsky, Office of Health, Safety, and Security (HSS); and, Steve Crowe, NNSA

With regard to succession planning within the SSWG, the SSWG Chair rotation occurs in January 2010 with the Vice-Chair moving to the Chair and a new Vice-Chair to be elected. For the Physical Security Subgroup, the Chair is to rotate out in January 2010 as well, with the current Vice-Chair to become the Chair and a new Vice-Chair to be elected. For the Material Control & Accountability and Cyber Security Subgroups, the officers have one year remaining on their terms.

ACHIEVEMENTS

During FY 2009, the SSWG held its first FY 2009 meeting at Brookhaven National Laboratory, October 22-23, 2008, its second meeting at Lawrence Livermore National Laboratory, January 28-29, 2009, and its Spring meeting at the Nevada Test Site, April 23-24, 2009 with the Safeguards and Security Regulatory Working Group. The SSWG also held a strategic planning meeting in May 2009 in Las Vegas, Nevada. Subgroup officers and the SSWG Chair met with various sponsors (NNSA, Environmental Management, Cyber Chief Information Officer, and HSS) throughout the year.
The SSWG also accomplished the following in FY 2009:

- Protective force workers continue to rank at the top of the list of employees injured as categorized by operation type. The nature of the type of work, types of risk, and hours of exposure make zero rates unlikely. Through improved data collection and analysis, the Working Group identified methods to enhance the ability to better identify problem areas (activities, days of the week, hours of the day, pre-work preparations, etc.) and take proactive steps to minimize injuries and illness to protective force employees.

- A security peer review process was developed in coordination with HSS to provide a method for participating contractors to better manage their implementation of 10CFR824, “Procedural Rules for the Assessment of Civil Penalties for Classified Information Security Violations” – specific to information protection. This process provides an assessment tool for contractors to consistently identify and implement information protection and assurance program elements. When used, it provides continuity in the peer review process associated with 10 CFR 824. The process was field tested at three sites and was well received. The pilot reviews conducted have demonstrated the value of the process to identify deficiencies, minimize the risk, and mitigate damages should an incident occur. The task work is complete and the report is in final draft.

- DOE is in the process of revising the existing impact measurement index (IMI) tables. A task was initiated to review the draft revised tables before they went into the DOE formal review process (RevCom). A team of contractor subject matter experts worked with DOE to review the tables and comments, and recommendations were provided.


- The SSWG conducted an informal review and comment of the proposal that DOE adopt the national Executive Branch standard of issuing traditional security clearances (Top Secret/Secret/Classified) for access to national security information, and afford access to restricted data via complimentary Q-level or L-level access authorizations.

- The Working Group finalized the report on the review of the Nuclear Material Management and Safeguards System. The report included recommendations for the DOE and NNSA sponsors.

- The SSWG developed a standard EFCOG/SSWG presentation for use by the membership in the promotion of EFCOG and the SSWG specifically.

- The Working Group provided information to the Board for member tracking capability using specific data base software.

- The Cyber Security Subgroup had members attend the DOE Cyber Security Conference in Henderson, Nevada in May 2009.

- The Cyber Security Subgroup began to focus on making recommendations and comments on DOE Orders that affect cyber security. Draft recommendations have been developed for social engineering tools.

- The Cyber Security Subgroup briefed Sandia National Laboratory members on lessons learned from Savannah River Site, Hanford and Yucca Mountain on DOE- Headquarters cyber security audits. Also, they were briefed on lessons learned from the Oak Ridge East Tennessee Technology Park cyber security system test & evaluation conducted by DOE-Headquarters, as well as being briefed by Sandia National Laboratory on a recent “Cyber Security Incident Response Program” that they had successfully completed.

- The Cyber Security Subgroup began working to establish relationships with the National Laboratories Chief Information Officers council.
PLANNING FOR THE NEXT YEAR

Planned achievements during FY 2010 include the following:

- When the new DOE IMI tables and policy are developed, the SSWG will coordinate, sponsor, and assist in the development and presentation of a workshop. The workshop would be designed to provide consistent implementation of the new process. Major emphasis would be placed on decision trees and their consistent application across the complex. Also, the SSWG plans to develop and pilot an IMI workshop for use across the DOE complex.
- The SSWG will complete the protective forces worker safety task, with publication of the final report in January 2010.
- The SSWG will complete the final report on the 10CFR824 peer review process in January 2010.
- The Material Control & Accountability Subgroup will develop for implementation and pilot the “In Teach” methodology as applicable for this functional area.
- The SSWG will hold its Fall meeting in October 2009 at Sandia National Laboratory, and its Winter meeting at Oak Ridge National Laboratory in January 2010. Continuing its interaction with the other EFCOG Working Groups, the SSWG will attend the Integrated Safety Management & Quality Assurance Working Group meeting in Las Vegas, Nevada in November 2009, and hold a joint meeting with the Safety and Security Regulatory Working Group and the Contractor Assurance Working Group in April 2010 in Las Vegas, Nevada.
- The SSWG plans to more effectively utilize its EFCOG standard presentation at collaborative meetings with other groups and organizations.
- Continue to cultivate the relationship with the World Institute for Nuclear Security and the United Kingdom’s Nuclear Decommissioning Authority.
- Continue collaboration for proposed work between the Los Alamos Lessons Learned Center and the SSWG. The SSWG plans a visit in November 2009 to the Los Alamos Lessons Learned Center as a part of the NNSA metrics task development; this initiative would be to develop a set of metrics which depict the health of S&S programs across the NNSA enterprise.
- Develop a white paper as a proposal to NNSA for a task regarding internet social networking.

EFFECTIVENESS EVALUATION

The SSWG has a significant role to play within the EFCOG community; the full benefits and contribution that can be made to improving the overall effectiveness and efficiency of the complex security has not yet been achieved. However, there has been significant improvement in the communication across the complex in many areas, most specifically that of interactions between contractors and DOE HSS’s Office of Enforcement. Their engagement in the Working Group and Subgroup meetings has been shown to be valuable to the individual sites in the open communication and dialogue. The value of the SSWG to NNSA continues to improve as more and more comprehensive complex-wide tasks are supported.

LESSONS LEARNED

The SSWG competes with other security initiatives across the DOE and NNSA enterprise. A concerted effort is required to ensure that there is not a duplication of task and that the groups work together in a supportive fashion in lieu of a stovepipe contentious relationship.
RECOMMENDATIONS

It is recommended that the Working Group continue in FY 2010, with increased emphasis in the cyber security area, coordinating its efforts with the National Laboratories Chief Information Officers council.
Waste Management Working Group

Chair: William (Billy) Morrison, Energy Solutions
Vice-Chair: Welford (Sonny) Goldston, Savannah River Nuclear Solutions

Introduction

Vision - The EFCOG Waste Management Working Group (WMWG) is chartered to leverage the expertise and experience of contractors to the Department of Energy (DOE) to focus on complex-wide integration and technology transfer while supporting cost-effective and efficient waste management options.

Purpose - The purpose of the WMWG is two-fold:

- to seek out and promote the best management and operating practices, cost effective technologies and disposal options for all waste streams generated at DOE and National Nuclear Security Administration (NNSA) facilities whether destined for DOE or commercial facilities, and
- to enhance complex-wide communication and maintain a priority on safety, environmental stewardship and security

Objectives – The WMWG is committed to the following objectives:

- Work with the EFCOG Board of Directors and DOE sponsors to identify and address issues that have broad impact on waste generators, storage, treatment and disposal facilities throughout the DOE complex
- Promote, coordinate and facilitate the active transfer of best practices, procedures, lessons learned and other salient information that can benefit all contractors in the DOE complex
- Through focused subgroups, provide for technology exchange and development which will be used to provide “technology based” solutions for cross-cutting waste issues (e.g. waste with no paths to disposal)
- Pursue optimized pricing for waste management supplies (e.g., containers) and services (e.g., treatment and transportation) commonly used by DOE waste generators

Scope – The WMWG scope is defined as follows:

- Focus areas will be determined using a systematic approach to identify where gaps or optimization opportunities exist in the current DOE waste management strategies. In consultation with the EFCOG Board of Directors and DOE sponsors, these focus areas will be developed into WMWG actionable items.
- The WMWG will document the results of various member-sponsored efforts in reports and position papers, including the EFCOG website.
- The WMWG will communicate with other EFCOG Working Groups and DOE groups (e.g. Transuranic Waste, Low-Level Waste, and High-Level Waste Corporate Boards in the DOE Office of Environmental Management (EM)) to avoid duplication of effort.
- The WMWG will facilitate dialogue between DOE and member organizations for the purpose of understanding issues and initiatives of mutual interest, but will not engage in lobbying efforts with DOE.
MEMBERSHIP AND ORGANIZATION

MEMBERSHIP

The WMWG has 35 active members, representing 24 EFCOG member companies, and has several active DOE participants.

ORGANIZATION

Leadership in the WMWG is comprised of:

Chair: William (Billy) Morrison, EnergySolutions

Vice-Chair: Welford (Sonny) Goldston, Savannah River Nuclear Solutions

Secretary: Ginger Humphries, Savannah River Nuclear Solutions

The WMWG has no subgroups or task groups at this time.

EFCOG Sponsoring Director: Susan Stiger, Bechtel National Inc.

DOE and NNSA Sponsors: Frank Marcinowski, EM; Dave Michlewicz, Office of Science; and, John Lehr, NNSA

Regarding succession planning, all WMWG officers are scheduled to remain in place through FY 2010.

ACHIEVEMENTS

The WMWG had a busy inaugural year which was initiated by the first Working Group meeting to determine the focus areas for 2009. Four primary focus areas were identified:

1. Identify and produce clarification white papers which will provide consistent guidance on complex wide waste issues

2. Assist the DOE in the update to DOE Order 435.1, “Radioactive Waste Management”, allowing waste management experts to apply their knowledge and experience to the update effort

3. Use the collective experience of the WMWG to provide peer reviews as requested from selected DOE facilities (this was executed in any number of ways including small team assessment reviews; peer reviews of assessments performed; answering waste inquiries posted on message forums, etc.)

4. Develop a method to have in place low-level waste (LLW) profiles for disposal that are available for use by all contractors (primary focus of this effort is to evaluate if the Nevada Test Site waste profiles can be broadened to reduce time and cost)

These focus areas were communicated to and accepted by the three DOE and NNSA sponsors; however, in March 2009, EM asked that the WMWG conduct a facilitated discussion using the expertise of the WMWG, which added another focus area:

5. Identify all the treatment and disposal needs to support American Recovery and Reinvestment Act (ARRA) activities. The ideal deliverable would be a document which maps the available Federal/commercial capabilities (treatment and disposal) to the needs of each of the ARRA sites or projects.
EM then asked that the WMWG include all baseline waste volumes so that the DOE would have a comprehensive list of the total waste volume which would need treatment and disposal through year 2015. This was a considerable effort with many WMWG members spending a significant amount of time and energy to develop waste spreadsheets to capture the requisite information. As such the group deferred work on focus area 4 (LLW disposal profiles) listed above.

The following summarizes the results of the WMWG efforts in 2009 for focus areas 1, 2, 3, and 5:

- The WMWG developed a white paper which was designed to allow generators to use the legacy contaminated waste containers as a part of the waste form. The weight of the entire waste stream including the container would then be used to calculate radionuclide concentrations. Including the container weight will in some cases help classify a waste stream as LLW versus transuranic (TRU) waste, which will benefit the generator through cost savings. This draft white paper was submitted for review to DOE-Headquarters.

- The WMWG worked to support the efforts of the complex-wide review of the DOE Order 435.1. A substantial number of WMWG members participated in the planning and execution of this review. This includes, but is not limited to: accepting the role as the “point of contact” for their respective sites; helping the development of the lines of inquiry for the large and small site pilot reviews; helping in the development of the assessment schedules; performing the assessments; and, reviewing and interpreting the findings and issues.

- The WMWG has been able to use the considerable experience of the group to provide peer reviews and advice on several waste issues. First, there have been several inquiries posted by members on the WMWG website, which have yielded many responses, usually in the vein of providing input to how a similar waste issue is handled at their respective sites. The Working Group has also provided a peer review of a lessons learned that was conducted at the Nevada Test Site. This focus area has provided very beneficial returns in knowledge to the WMWG members and will be an enduring focus area for the Working Group.

- A substantial effort was put forth to deliver on a request by EM to support their ARRA planning effort. The WMWG conducted a forum where generators and contractors with treatment and disposal capabilities got together and populated spreadsheets with waste volumes, types, expected treatment and disposal dates needed, container types, and special waste issues. Due to the evolving ARRA scopes, the WMWG continues to validate some of the waste volumes and is awaiting additional guidance from DOE.

In addition to the specific tasks above, in April 2009, the WMWG provided a recommendation to EM concerning supplemental guidance on methodologies to use to classify waste forms to determine if the waste form meets the definition of TRU waste to LLW. The recommended guidance provides specific examples and methods to allow DOE and its contractors to properly classify waste forms while reducing the generation of TRU wastes. TRU wastes are much more expensive to characterize at the generator’s facilities, ship, and then dispose at the Waste Isolation Pilot Plant versus disposal as LLW. Therefore, it is important to perform the characterization properly, but in a manner that minimizes the generation of TRU wastes if at all possible. In fact, considering the generation of additional volumes of radioactive wastes under the ARRA projects, this recommendation should improve the cost-effective implementation of DOE requirements while properly protecting human health and the environment. The WMWG understands that EM is considering adoption of this recommended guidance in the updated DOE Order 435.1.

Also during FY 2009, the following workshops, meetings and monthly teleconferences were conducted:

- January 13-14, 2009 Working Group meeting at Lawrence Berkeley National Laboratory, where EM provided input on waste issues across the DOE complex, and the WMWG discussed
focus areas and assigned responsibilities

- March 5, 2009 Working Group meeting at the Waste Management Symposium in Phoenix, Arizona. Several topics were covered, including WMWG progress against identified focus areas, planned support to EM by the WMWG in the update of DOE Order 435.1, several EM waste issues (ARRA waste priorities, expected increase in solid waste treatment and disposition, disposal facility outlook, and the complex-wide mixed LLW treatment contract), NNSA objectives (communication of lessons learned, benchmarking across sites, and orphan waste disposition solutions), and a detailed discussion on the white paper to be submitted on including waste packaging as a part of the waste form in characterization efforts.

- September 8-9, 2009 Working Group meeting in Las Vegas, Nevada, in conjunction with EM’s ARRA Waste Summit. At this meeting, the WMWG discussed the update on the revision to DOE Order 435.1, and worked with EM on the ARRA waste stream planning effort. As part of the Waste Summit, an overview of the ARRA waste data collected and the data needed from the vendors was discussed, and waste generators provided a summary of their waste and noted problem wastes. Contractors provided feedback on their concerns with the forecasts. WMWG developed and populated spreadsheets to match the planned waste for treatment and disposal with the complex and contractor capabilities to disposition.

The following best practices were identified by the WMWG during FY 2009:

- Recognition of when a waste matrix is classified as LLW or TRU each time a waste matrix is transferred to another processing step or facility
- Utilization of the radioactive waste management basis for proper DOE classification of a problem waste form
- Use of non-destructive assay technology at the Nevada Test Site to determine "hot spots" in a large box container managed as TRU waste to determine if an item can be removed that is TRU and, thus, reclassify the entire container as LLW for disposal after the "hot spot" item is removed. Transfer of this technology and strategy was accomplished from the Nevada Test Site to the Savannah River Site, and should be considered as a best practice for the DOE complex.

PLANNING FOR THE YEAR AHEAD

The following summarizes the activities and objectives that the WMWG has identified for FY 2010:

- The WMWG will continue to support the complex-wide review of DOE Order 435.1.
- Efforts will be completed to identify all the treatment and disposal needs to support ARRA and base EM program treatment and disposal activities. The product will be a document which maps the available Federal/commercial capabilities (treatment and disposal) to the needs of each of the ARRA sites or projects.
- The WMWG will complete documentation of at least two best practices and get them posted on the EFCOG best practices website.
- The WMWG will continue to take advantage of the considerable knowledge and experience of the WMWG by sharing lessons learned and best practices.
- Other focus areas will be defined at the first FY 2010 WMWG meeting.
- Working Group meetings will be held quarterly, with monthly teleconference calls.

LESSONS LEARNED

No lessons learned have been identified.
EFFECTIVENESS EVALUATION

By using the collective knowledge and experience of the WMWG, the Working Group was able to provide a significant contribution to the planning and implementation of the complex-wide review for the DOE Order 435.1 project. The value of the WMWG’s contribution has been acknowledged by the DOE Order 435.1 update project manager in EM. Additionally, EM found the WMWG to be the right group to lead the waste management treatment and disposal mapping effort in support of the ARRA program. In both cases, the WMWG was able to provide direct programmatic support to the DOE sponsor in a way that will be mutually beneficial for DOE and the contractors.

Probably even more impactful was that the WMWG created a forum by which members can draw on each other for help and support on similar waste issues (accomplished through the WMWG website’s Discussion Forum, with the capability to post questions and receive answer from their waste colleagues).

Although there are no cost savings to report at this time, it is expected that cost savings will be realized across the DOE complex through the efforts of the WMWG, particularly once the white paper on waste classification is approved and adopted for implementation at the various DOE and NNSA facilities.

RECOMMENDATIONS

It is recommended that the WMWG continue in 2010 and beyond. Formation of subgroups is also being considered by the WMWG to enable focused support for FY 2010 Working Group actions.
As a lessons learned organization, dissemination of information promptly and easily is essential to EFCOG’s effectiveness. The EFCOG website is a critical tool serving this purpose. During the past year, Barbara Pierre, EFCOG Coordinator, and Ed Yatsko, Website Coordinator, continued to serve as website administrators, performing daily maintenance of the website to assure that data from contractors, Working Groups and DOE is up-to-date and consistent with the EFCOG database.

In 2009, the EFCOG website saw an increase in the number of Working Groups, Subgroups and Task Groups which required webpage development and support. EFCOG website administration now includes support for 13 Working Groups with 46 Subgroup/Task Groups and Teams, and maintenance of over 31,731 individual web pages.

In 2009, the EFCOG website experienced a 20% increase in average use, with over 99,500 visitors viewing over 454,600 pages throughout the year.

Based on the usage history, modifications to the website are ongoing and are a result of recommendations and suggestions received from the members and the DOE community. 2009 also saw a substantial increase in the use of the discussion forums by EFCOG members and DOE. The number of discussion forums increased to 47 and now has 340 registered members. In addition to website maintenance, the EFCOG web administrators also provided support for 56 Working Group meetings and workshops.

It is EFCOG’s continued goal to make the website as useful as possible, and EFCOG encourages all parties using the website to provide comments to the web administrators on how the EFCOG website can be made more useful and user-friendly. One can do so by logging onto the Feedback Section of www.efcog.org, or by contacting the website administrators at bpierre@cox.net and eyatsko@efcog.org.
Longenecker and Associates, Inc. (L&A) is the EFCOG support contractor, providing Executive Council and Board of Director support and coordination, Working Group integration and coordination, strategic planning, and day-to-day administrative support, including web page maintenance to the EFCOG members and Working Groups. John Longenecker of L&A serves as the Managing Director for EFCOG, overseeing and coordinating all activities of the organization, and is the direct liaison between the EFCOG membership, Board of Directors, Chair, and support staff. Mark Frei of L&A serves as the EFCOG Working Group coordinator, and Barbara Pierre of L&A serves as the EFCOG Administrator. All of this support provides a focal point for coordination of EFCOG activities, tracking of action items, regular communication with DOE and members, and for maintaining and disseminating a central base of EFCOG data. The support contractor is also responsible for coordinating activities with DOE and member companies, developing and distributing the EFCOG Overview, Annual Report, tri-fold brochures, and other documents, contacting prospective new members, maintaining the EFCOG Executive Council and Working Group Operating Manual, developing and maintaining the EFCOG library of records and information, supporting the Directors, Working Groups and Subgroups, and other duties as assigned by the EFCOG Chair.

Funding for administrative support is provided by EFCOG members who annually pay a pro rata share of the support costs for EFCOG. The funds are collected, administered and disbursed by the EFCOG Chair. Receipts for members’ FY2009 pro rata shares and disbursements for services are shown in Tables 5 and 6.
### TABLE 5. 2009 EFCOG FUND ACCOUNT RECAP

**OCTOBER 1, 2008 – SEPTEMBER 30, 2009**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
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1 Support Service costs include:
   a. Strategic Planning, Managing Director, Working Group Coordinator Support
   b. Administrative Support
      - Working Group, Member Company Coordination
      - Database Development and Maintenance
      - Internet Service (IPowerWeb)
      - Website Development and Maintenance
      - Meeting Logistics and Support
   c. Printing and Distribution of Tri-folds and Periodicals
   d. Executive Council Meetings, Annual Meeting
   e. Quarterly Board of Directors’ Meetings
   f. Strategic Planning Meetings
   g. Working Group Chair Meetings
   h. Travel

2 Bank administrative costs include fees charged and reimbursed, check reorder, etc.
### TABLE 6. 2009 EFCOG MEMBERSHIP RENEWALS

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** TOTAL MEMBERSHIP FOR 2009 ** $329,250

** Pro-rated  F = Full Member  A = Associate Member
## APPENDIX A. EFCOG MEMBER COMPANY PARTICIPATION IN WORKING GROUPS (MEMBERSHIP BETWEEN 10/1/08 AND 9/30/09)

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