

ENVIRONMENTAL SAFETY AND HEALTH WORKING GROUP

2009 ANNUAL REPORT

Chair: Anthony Umek, Savannah River Nuclear Solutions

First Vice-Chair: Mike Madison, EnergySolutions

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.