



Exchanging ideas and sharing experiences to foster continuous improvement in QA implementation within the Department of Energy.

In The Spotlight: Technical Standards Program Interview with Jeff Feit, Technical Standards Program Manager

Mr. Jeffrey D. Feit is the Manager for the Department of Energy (DOE) Technical Standards Program (TSP), Office of Nuclear Safety (HS-30), within the Office of Health, Safety and Security (HSS). In this position, he is responsible for developing and implementing DOE policy and requirements on matters related to technical standards, including non-Government Voluntary Consensus Standards. Mr. Feit has been with the DOE TSP since its inception over 20 years ago. Among many of his duties, he helped to establish and maintain the Program's infrastructure and process procedures, and has worked to make the Review and Comment System (also known as RevCom) for DOE technical standards comment disposition user-friendly and effective.

Prior to starting his DOE career, Mr. Feit worked at the Idaho National Engineering Laboratory as a mechanical design engineer and project leader. He earned a Bachelor of Science degree in Mechanical Engineering from the University of Maryland in 1984.

In a recent interview with Mr. Feit, he discussed the TSP in regards to the HSS Directives Reform Initiative and the new Project Justification Process, as well as how quality assurance-related standards contribute to work performance at DOE, and the challenges in developing technical standards.

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QUALITY ASSURANCE EXCHANGE

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Sponsor: Colette Broussard: 301-903-5452, colette.broussard@hq.doe.gov

Editor: Debbie Rosano: 301-903-8177, debbie.rosano@hq.doe.gov

Quality Assurance Web site: www.hss.energy.gov/nuclearsafety/qa

Questions or Comments? Please submit to qaexchange@hq.doe.gov

Director's Note

With the help of dedicated quality professionals across the complex and beyond, I am pleased to announce that this issue of the *Quality Assurance Exchange (QAE)* newsletter focuses on hard hitting issues, as well as opportunities to explore abatement methods in regards to our quality assurance (QA) challenges. Within, you will find a brief discussion on the Department of Energy (DOE) Federal Quality Council and its Calendar Year 2011 accomplishments; an exploration of Safety Software QA activities including an overview of the annual meeting; an update on the Safety Software Communication Forum; and activities surrounding new and upcoming guides and systems. Also, you will get an inside look on the Differing Professional Opinions Process; read an exclusive interview with the Technical Standards Program Manager about his most recent efforts with the Technical Standards Program; and have the opportunity to discover the ways that the DOE Federal Quality Council has influenced the strategic improvement processes for one site and its activities. As always, we share these processes and lessons learned as a way to keep you, the reader, informed on current and emerging issues. I encourage your questions, comments, and suggestions of future topics and feature articles of interest within the community which can be sent to me via email at: Colette.Broussard@hq.doe.gov. We anticipate no shortage of continuous improvement tools for you and your organization in the coming issues and look forward to bringing you the latest developments in the DOE QA community. We thank you for your continued support and hope you enjoy this issue of the QAE newsletter.

– Colette Broussard, Director,
Office of Quality Assurance

Q: What is the mission of the DOE Technical Standards Program?

A: Our official mission states: "In support of the Department's Standards Program and in partnership with all stakeholders, the mission is to enhance DOE's transition to a standards-based culture by providing information, coordinating activities, and promoting the use of consensus standards, and when needed, the development of DOE technical standards."

There are basically 2 parts to the TSP mission. Part 1 is to observe the federal mandate, Office of Management and Budget (OMB) Circular A-119, *Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities*, which states that "all Federal agencies and departments shall use technical standards that are developed and adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments." It further states that "...Federal agencies and departments shall consult with voluntary, private sector, consensus standards bodies, and shall ... participate with such bodies in the development of technical standards." In addition, we must adhere to Public Law 104-113, *The National Technology Transfer and Advancement Act of 1995*, which serves to continue the policy changes initiated under OMB Circular A-119 that are transitioning the Executive branch of the Federal Government from a developer of internal standards to a customer of external standards and compels us to focus all technical standards development efforts deemed necessary toward voluntary standards in lieu of DOE technical standards.

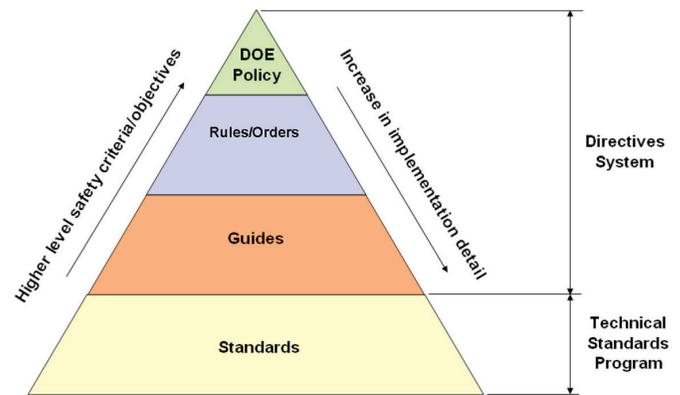
Part 2 of the mission involves providing the infrastructure to develop and maintain DOE technical standards when non-government, voluntary consensus standards are not applicable, appropriate or available for the types of work performed at DOE sites and facilities.

The TSP provides a service to its clients, the program offices of DOE, by reviewing new/revised technical standards using the new Project Justification Process, and by providing guidance to topical/writing committees on how to develop a standard.

Q: How do technical standards fit into the DOE Directives System and what specific roles do they have?

A: The DOE Directives and Technical Standards Hierarchy shows a set of governing documents and starts with policies at the top of the triangle. Policies include high-level expectations and objectives of the organization. In the middle of the triangle are the rules and orders, which provide the requirements and the guides, that provide assistance with implementing the requirements. At the base of the triangle are the standards, which contain implementation details and standard practices.

DOE Directives and Technical Standards Hierarchy



Q: What have we strived to achieve during the recent HSS Directives Reform Initiative with regard to technical standards? Were we successful?

A: The HSS Directives Reform effort was established to streamline and clarify requirements to implement guidance and technical standards and to better support line management, provide flexibility in implementation, and enhance productivity while maintaining expectations for high standards of health, safety, and security at DOE facilities, all in accordance with DOE Order (O) 251.1C, *Department Directives Program* and DOE O 252.1A, *Technical Standards Program*.

DOE O 251.1C calls for review of each DOE directive and either certification or revisions every four years. This Order outlines the directive process with supplemented project controls for deliberate and disciplined consideration of changes to directives.

DOE O 252.1A establishes the TSP to promote the use of voluntary consensus standards by DOE as the primary method for application of technical standards, except where inconsistent with law or otherwise impractical, per OMB Circular A-119, and Public Law 104-113. It allows the TSP to sustain and manage technical standards development, information, activities, issues, and interactions, and to encourage and support participation in DOE topical committees and voluntary consensus standards by development organizations. In addition, TSP provides DOE interface with the Interagency Committee on Standards Policy, other Federal agencies, and national and international standards development organizations on broad technical standards issues and activities.

In regards to technical standards, DOE O 252.1A added a new requirement for the development of Project Justification Statements for all proposed DOE technical standard projects before they are registered. One of the questions answered on the Project Justification Statement by the prospective technical standard writer is whether or not the proposed

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technical standard project will be invoked by a DOE Directive, making it a requirement. In the cases where it will be invoked, the Directives Review Board (DRB) must be informed and they must concur on moving forward with registration of the technical standard. This is key. If the DRB does concur, then the technical standard will be included in the Justification Memorandum for the directive that will be revised or written to invoke the technical standard.

The DRB was established to ensure the consistency and added value of DOE directives. The DRB consists of members represented by the Office of Management, Office of the Under Secretary for Nuclear Security, Office of the Under Secretary of Energy, Office of the Under Secretary for Science, Office of General Counsel, Office of Health, Safety and Security, and National Laboratory Directors Council.

This process has been successful and very well received by all parties. It gives TSP the ability to work closely with the DRB in the process of reviewing technical standards, and acts as a checks and balances system that assesses the content and value of each technical standard and the consequences of its addition, modification, or removal. It has helped to streamline the approval process for Department directives.

Q: What are voluntary consensus standards and why does DOE use them?

A: The textbook definition of voluntary consensus standards is “standards that are developed or adopted by voluntary consensus standards bodies, both domestic and international, that plan, develop, establish, or coordinate standards using agreed upon procedures. These standards include provisions requiring that owners of relevant intellectual property agree to make that intellectual property available on a nondiscriminatory, royalty-free, or reasonable royalty basis to all interested parties. A voluntary consensus standards body is defined by the following attributes:

- openness;
- balance of interest;
- due process;
- an appeals process; and
- general agreement or consensus.”

They are non-government standard documents that contain criteria for completing tasks, performing testing methods, and defining functional qualifications/requirements. DOE uses voluntary consensus standards in accordance with OMB Circular A-119 and Public Law 104-113, and whenever possible because they reduce the cost of product development, increase safety and trade, and reduce the cost of government by eliminating the need to independently create the information.

Q: What are some of the existing quality assurance-related DOE standards?

A: Because of the availability of industry consensus standards for quality assurance (QA), the only QA-related standards for DOE are those supporting personnel qualifications and are called Functional Area Qualification Standards (FAQS). A FAQS is put out by the Federal Technical Capability Program (FTCP) and is written as a means for determining competencies of certain disciplines in specific fields.

DOE O 414.1D, *Quality Assurance*, contains requirements for Federal personnel directly responsible for the oversight of quality assurance requirements or safety software quality assurance activities at defense nuclear facilities to be qualified to the appropriate Functional Area Qualification Standard (i.e., DOE Standard (STD)-1150-2002, *Quality Assurance Functional Area Qualification Standard* or DOE-STD-1172-2011, *Safety Software Quality Assurance Functional Area Qualification Standard*). There is also a qualification standard, DOE-STD-1025-2008, *Weapons Quality Assurance Functional Area Qualification Standard*.

DOE-STD-1150-2002, *Quality Assurance Functional Area Qualification Standard* (QA FAQS), identifies common functional area competency requirements for DOE personnel who provide assistance, direction, guidance, oversight, or evaluation of contractor technical quality assurance activities impacting the safe operation of defense nuclear facilities.

DOE-STD-172-2011, *Safety Software Quality Assurance Functional Area Qualification Standard* (SSQA FAQS), identifies the minimum technical competency requirements for DOE personnel who have a responsibility for safety software. This standard forms the primary basis for developing vacancy announcements, qualification requirements, crediting plans, interview questions, and other criteria associated with the recruitment, selection, and internal placement of personnel performing SSQA duties.

DOE-STD-1025-2008, *Weapons Quality Assurance Functional Area Qualification Standard*, provides documentation of competency requirements for all DOE/National Nuclear Security Administration quality assurance technical personnel who provide assistance, direction, guidance, oversight, or evaluation of contractor activities that could impact the production, maintenance, and design of nuclear weapons.

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Q: How do these quality assurance standards contribute to performing work effectively/efficiently at DOE?

A: The Functional Area Qualification Standards related to quality assurance are used as a means of implementing and overseeing the quality assurance functions and requirements found in DOE O 414.1D, *Quality Assurance*, and Title 10 Code of Federal Regulations Part 830, *Nuclear Safety Management, Subpart A, Quality Assurance*. In particular, these standards focus on DOE personnel competency requirements in certain fields as defined by the standards. Having these documented standards provides DOE with a level of confidence that personnel possess the requisite competence to fulfill their quality assurance functional area duties and responsibilities. In addition, these standards contribute to helping DOE work effectively and efficiently by ensuring that they hire and retain qualified personnel to perform DOE work.

Q: Are there any new or updated quality assurance standards being developed or revised?

A: Yes. Currently, DOE-STD-1150-2002, *Quality Assurance Functional Area Qualification Standard DOE Defense Nuclear Facilities Technical Personnel*, is up for its FCTP's four-year review and is being reviewed and revised by the Office of Quality Assurance (HS-33). The Quality Assurance Functional Area Qualification Standard, as stated before, establishes common functional area competency requirements for DOE personnel who provide assistance, direction, guidance, oversight, or evaluation of contractor technical quality

assurance activities impacting the safe operation of defense nuclear facilities.

The Office of Quality Assurance completed a Job Task Analysis in December 2011 to determine a priority of the requirements in the standard. The revisions include updating the standard based on the Job Task Analysis and comments received from the revision team.

Q: What are some of the challenges in developing and/or revising standards?

A: One of the challenges that TSP faces is keeping the standards up to date to ensure that they are appropriate for implementing DOE requirements. The TSP has a Technical Standards Information System database that provides alerts for standards that are up for a five-year sunset review. Topical committees that develop and revise standards are encouraged to communicate with the TSP manager. Lastly, we continue to work with the DRB and the Office of Management to develop a harmonious relationship to ensure that every technical standard developed or revised is being done appropriately and in the best interest of the Department.

For more information on the TSP, please visit the web site at: www.hss.doe.gov/nuclearsafety/techstds/, or contact Jeff Feit, TSP Manager, at jeffrey.feit@hq.doe.gov.

DOE Federal Quality Council 2011* Accomplishments

Established in November 2008, the Department of Energy (DOE) Federal Quality Council (Council) provides a forum for Federal quality assurance (QA) experts across the DOE complex, including program, field, and staff offices, to:

- Identify and recommend actions to support DOE QA policy needs;
- Strategize methods and opportunities for continuous improvement relative to the quality of DOE work and DOE QA program implementation; and
- Share lessons learned on QA best practices.

The Council has also helped DOE QA professionals expand their networks, improve their inter-agency communications, and gain knowledge of QA efforts within the Department that can be applied complex-wide. As a result, several notable capabilities or best practices developed by the Council Task Teams have been made available for use across the Department. This not only provides a valuable return on investment for DOE, but also for those organizations supporting the Council membership.

*calendar year (CY)

For more information on the DOE Federal Quality Council, its activities and accomplishments, please visit: www.hss.doe.gov/nuclearsafety/qa/council/index.html.

CY 2011 DOE Federal Quality Council Accomplishments

- Revised the original Council-developed QA Training package for the education of Headquarters and Field Offices, and for potential implementation across DOE by the National Training Center;
- Provided guidance on the use of terminology within the American Society for Mechanical Engineers Nuclear Standard Nuclear Quality Assurance (NQA)-1, *Quality Assurance Requirements for Nuclear Facility Applications, Part II* (e.g., Nuclear Reactors) for better understanding and application by DOE, and ensured inclusion of the guidance in DOE Order (O) 414.1D, *Quality Assurance*;
- Streamlined the determination of applicability of the NQA-1 Part II requirements through the development of a white paper to aid in efficiency, consistency, and supportability when implementing NQA-1 requirements at nuclear facilities across the DOE complex;
- Assisted in implementing the Department's Directives Reform Initiative to clarify requirements and eliminate redundancy via Council member participation on either the revision teams for the QA directives and/ or as peer reviewers for QA and other Directives (e.g., Integrated Safety Management);
- Strengthened the interaction between DOE and the Defense Nuclear Facilities Safety Board (DNFSB) through DNFSB staff's consistent participation and contribution of expertise, and early feedback, via the Council, on QA issues/concerns across the complex; and
- Improved DOE's ability to perform high quality, consistent management assessments of an organization's QA program per the requirements of the DOE O 414.1D via the development of management assessment tools, which are available at: www.hss.doe.gov/nuclearsafety/qa/assessment_tools.html.

DOE Differing Professional Opinion Process: *What Would You Do If You Had A Technical Problem?*

- On January 28, 1986, the Space Shuttle Challenger exploded within minutes of its launch killing all seven crew members. The explosion was caused by the failure of a solid rocket booster "O" ring supplied by a subcontractor (Thiokol). Thiokol informed the National Aeronautics and Space Administration (NASA) of their concerns regarding the O ring performance in the unusually cold temperatures on the night before the launch, but there was strong pressure to launch anyway and Thiokol eventually recommended launch.
- In March 2002, the Nuclear Regulatory Commission (NRC) discovered excessive degradation in the reactor pressure vessel head of the Davis Besse nuclear reactor after the reactor was shut down for maintenance. The reactor vessel had an operating pressure of 2150 pounds per square inch and was part of the reactor coolant pressure boundary which contains the radioactive primary coolant water. The degradation had nearly breached the reactor pressure vessel head.
- On February 1, 2003, Space Shuttle Columbia burned up on atmospheric re-entry killing all seven crew members. The cause was a separated piece of insulation which allowed the entrance of superheated air which in turn melted part of the structure. Foam loss had been an historical problem, but as time went on it was treated as more of a routine maintenance issue.

All of these events involved not only material failures but also concerns about reporting and decision making. In July 2005, the Department of Energy (DOE) completed a review of the latter two incidents and issued the Department of Energy Action Plan, *Lessons Learned from the Columbia Space Shuttle Accident and Davis-Besse Reactor Pressure-Vessel Head Corrosion Event*. One action from that plan was to establish a DOE Differing Professional Opinion (DPO) Process.

In 2006, DOE established a formal DPO process for both DOE and DOE-contractor employees. The DOE DPO process is limited to concerns relating to technical issues which could potentially impact environment, safety, and health. Furthermore, employees are required to first attempt to resolve these issues through local processes (i.e., discussions with line management, review and comment processes, or local employee concern reporting processes).

In July 2011, DOE issued DOE Order (O) 442.2 (DPO Order), *Differing Professional Opinions for Technical Issues Involving Environmental, Safety, and Health Technical Concerns*, to update the DPO process. DOE O 442.2 documents the DPO process for employees to raise professional opinions on environmental, safety, and health technical issues that may differ from prevailing staff or management views or from current practices.

DOE expects its Federal and contractor managers to foster complete and open evaluation and discussion of technical issues related to the environment, safety, and health of employees and the public. Furthermore, the DPO Order assigns the Deputy Secretary the responsibility to protect employees from reprisal or retaliation for reporting DPOs.

DOE has established a web page to report concerns within the scope of the DPO process at: www.hss.doe.gov/nuclearsafety/qa/dpo.html. The web page lists the DPO managers to whom concerns are to be submitted and provides contact information for any questions. It also has an online submittal form.

It is easy to view the events listed above in hindsight and say that the engineers should have done more to stop these situations, but to step forward and insist on putting safety first takes courage and confidence. DOE wants to ensure that all of our employees have the support to report unresolved technical environmental, safety, and health concerns if needed and DOE has established the DPO process to provide that support.

This article was submitted and written by Mary Haughey.

For more information on DPO, please contact Mary Haughey at mary.haughey@hq.doe.gov.

QA Community Corner: Chicago Office Quality Assurance Representatives Council

The Office of Science (SC) Chicago Office (CH) provides support to numerous SC Site Offices and SC headquarters, and therefore focuses on understanding the customer's needs and expectations, while continuously improving our processes and performance, in order to improve customer satisfaction. The SC-CH Manager understands that quality assurance (QA) must be embraced and implemented within each element of SC-CH if the organization is to be successful. In recent time, resource constraints have prohibited each SC-CH senior staff member (the managers of Acquisitions; Finance; Legal; Human Resources; Information Management; Safety, Technical and Infrastructure; etc.) from hiring a QA professional specifically for their organization. However, each SC-CH element has numerous QA activities that must be routinely executed, such as measuring customer satisfaction, conducting management/self-assessments, developing and implementing improvement actions, document control, and records management. Therefore, in March 2010, the SC-CH decided to create the CH QA Representatives Council. The idea was launched from the organizational model of the Department of Energy (DOE) Federal Quality Council, and was modeled from the approach used by many of the SC National Laboratories. The members of the CH QA Representatives (QARs) were appointed by each SC-CH senior staff member from among their existing staff. The QARs serve as resource to their senior staff member for the accomplishment of QA activities within that SC-CH element.

Unlike the DOE Federal Quality Council members, who are all QA professionals, the SC-CH QAR function is a collateral duty assigned to persons from a variety of professions (contracting officers, financial accountants, human resources specialists, information technology specialists, security specialists, cyber security specialists, lawyers, environmental, safety and health specialists, realty specialists, management analysts, etc.).

The SC-CH QARs comprise the SC-CH QAR Council. The QAR Council is chaired by SC-CH's Senior QA Engineer. The QAR Council meets every six weeks and it provides a forum for information sharing between the QARs. Topics of discussion include the results of management/self-assessments, and the results of customer satisfaction surveys. Since the chairperson of the SC-CH QAR Council is also SC-CH's representative on the DOE Federal Quality Council, the QAR Council meetings also provide an avenue for disseminating information from the DOE Federal Quality Council through the SC-CH QARs to the various divisions of SC-CH.

The SC-CH QARs have been provided training on the fundamentals of QA, the requirements in DOE Order (O) 414.1D, *Quality Assurance*, and the International Organization for Standardization (ISO) standard, ISO 9001:2008 *Quality Management System – Requirements*, which is the national/international consensus standard SC decided will be used by its federal offices to implement the requirements in DOE O 414.1D, and in planning and performing audits/assessments.

The QA Engineers and QA Specialist that reside within the SC-CH Office of Safety, Technical and Infrastructure Services are responsible for training and advising the QARs.

SC-CH QARs are actively engaged in assisting their senior staff member with collection and analysis of customer satisfaction data; planning and performing management/self-assessments of their organization's processes; and developing and implementing improvement actions in response to either the analysis of customer service data or the results of assessments. In addition to the QARs assisting their senior staff member with the implementation of QA activities within their organization, the QARs, through the QAR Council, are often engaged by the SC-CH Manager to take on SC-CH-wide efforts. An example of such an effort is the annual internal independent assessment of the implementation of the QA Program, which is based on DOE O 414.1D and ISO 9001-2008. Members of the QAR Council have served as assessment team members.

To further motivate the efforts through positive reinforcement, SC-CH began the administration of the SC-CH Customer Service Star Award. Since the role of SC-CH is a service provider for the SC Site Offices and SC Headquarters, customer focus is very important to the success of SC-CH. Every month, the SC-CH Manager receives numerous unsolicited messages from customers acknowledging the good service provided by various SC-CH employees. In early 2011, the SC-CH Manager created the Customer Service Star Award to recognize such employees, and turned to the QAR Council to develop and administer a process for selecting a monthly award recipient. A sub-team of the QAR Council developed and is implementing the process by which customer messages of appreciation for services delivered are evaluated and the monthly award recipient selected.

Since its institution in 2010, and with the help of networking with the DOE Federal Quality Council, the SC-CH QARs and the QAR Council have provided a process by which to accomplish the organization's goals as a team. By forging an innovative forum inspired by the proven benefits of information sharing and lessons learned, the SC-CH QARs and QAR Council have made great strides in ensuring QA within their organization. While only in existence for a couple of years, the QAR function and the QAR Council are considered valuable assets by SC-CH management, and it is anticipated that the QARs and QAR Council will continue to contribute to the culture of continuous improvement at SC-CH.

 This article was submitted and written by John Adachi. For more information, please contact John Adachi at john.adachi@ch.doe.gov.

Quality Assurance Activities: Safety Software Quality Assurance

Safety Software Communication Forum Launched

The Safety Software Communication Forum (SSCF) is an extension of the Department of Energy (DOE) Safety Software Central Registry and is now operational. It can be accessed from the Office of Health, Safety and Security (HSS) Software Quality Assurance (SQA) web site at: www.hss.doe.gov/nuclearsafety/qa/SQA. The SSCF is an access-controlled, web-based forum to disseminate information about the use of safety software within DOE. Although established for safety software used at defense nuclear facilities, the SSCF can be utilized for any software used at any DOE facility as an effective tool to share information on software usage within DOE. The following defines some features of the SSCF:

- Code Summary displays codes used at DOE facilities;
- Site Summary displays codes used at specific DOE sites;
- Discussion Forum allows users to exchange information about codes usage; and
- SQA Technical References provides a centralized location for storing code-related documents.

Individuals can request access to the SSCF by going to the website and filling out the registration form. To gain access to the password protected SSCF, a user must have the approval of his/her manager and both must have a valid DOE (.gov) e-mail address, or the user can be sponsored by a DOE/Defense Nuclear Facilities Safety Board staff person. The SSCF is administered by the Office of Quality Assurance within HSS. The Office of Quality Assurance is responsible for the overall operation of SSCF.

For more information on the SSCF or other safety SQA issues, please contact Subir Sen at subir.sen@hq.doe.gov.

Review of ALOHA Safety Software for Listing as a Toolbox Code in the Central Registry

From August 16-19, 2011, the Aerial Locations of Hazardous Atmospheres (ALOHA) Code Review Subgroup of the Safety Software Expert Working Group (SSEWG) conducted a software quality assurance (SQA) review of ALOHA Version (V) 5.4.2 at the National Oceanic and Atmospheric Administration (NOAA) in Seattle, WA. The purpose of the review was to determine if ALOHA V5.4.2 could be listed in the Department of Energy (DOE) Safety Software Central Registry as a DOE approved Toolbox code. The ALOHA Code Review Subgroup made several recommendations to NOAA related to improving the SQA documentation to bring the ALOHA Code in compliance with the DOE Order 414.1D, *Quality Assurance*. The review was based on an evaluation of a collection of ALOHA development and technical documents, mathematical models, user manual, and source code. The ALOHA Code Review Subgroup also provided generic templates to be used by NOAA in developing ALOHA specific software plans for Quality Assurance, Configuration Management, Requirements Specification, and Verification and Validation Testing. NOAA has accepted the recommendations of the ALOHA Code Review Subgroup and upon completion of the NOAA actions to address the recommendations, it is expected that ALOHA V5.4.2 will be listed as a Toolbox code.

For more information on the ALOHA Safety Software or other safety SQA issues, please contact Subir Sen at subir.sen@hq.doe.gov.

Safety Software Expert Working Group Held its Third Annual Meeting

On May 7, 2012, the Safety Software Expert Working Group (SSEWG) held its third annual meeting in Santa Fe, New Mexico in conjunction with the Safety Analysis Working Group meeting of Energy Facility Contractors Group (EFCOG). The meeting was attended by approximately 25 SSEWG members either in person or via the WebEx connection. James O'Brien, Director of the Office of Nuclear Safety, welcomed the participants and kicked off the session. As part of the full day agenda, presentations were given by:

- Keith Morrell (Savannah River Nuclear Solutions) on American Nuclear Society (ANS) Standard ANS 10.7-201x, *Non-Real Time, High-Integrated Software for Nuclear Industry*;
- Mike Lehto (Battelle Energy Alliance) on Radiological Safety Analysis Computer (RSAC) Program Version 7 Legacy Code;
- Johnnie Nevarez (National Nuclear Security Administration) on Key Components of a Software Verification and Validation Plan;

- Mukesh Gupta (URS-Safety Management Solutions) on Dispersion Analysis Codes;
- Rob Plonski (Los Alamos National Laboratory) on Fire Dynamics Simulator;
- Jorge Schulz (Bechtel National, Inc.) on Wind Speed Increment Size Effects on Methods for Estimation of Leakage and Consequences of Releases Accident Consequences Code System Version 2 (MACSS2);
- Roger Lanning (Bechtel National, Inc.- Waste Treatment Plant) on FATE (Facility Flow, Aerosol, Thermal, and Explosion) Computer Code; and
- Subir Sen (Office of Quality Assurance) on Verification and Validation of Computer Simulation.

Presentations can be found at <https://sscf.hss.energy.gov/>. To gain access to the password protected Safety Software Communication Forum (SSCF), you must register on the SSCF login page and have the approval of your manager (or DOE sponsor) who must have a valid DOE or DNFSB (.gov) e-mail address.

Mark Your Calendar

Upcoming Workshops & Conferences

OCTOBER 2012

ASQ 39th Energy and Environmental Training and Educational Conference Program

Where: Tampa, FL

When: October 14-17

NOVEMBER 2012

ANS Winter Meeting & Nuclear Technology Expo

Where: San Diego, CA

When: November 11-15

Upcoming Training

AUGUST 2012

NQA-1 Nuclear Lead Auditor Trainning

Where: Atlanta, GA

When: August 21-24

Info: www.nqa-1.com/training.html

Implementing and Auditing an ISO 9001:2008 Quality Management System

Where: Minneapolis, MN

When: August 29-31

Info: www.asq.org/courses/info/5324.html

OCTOBER 2012

ASME NQA-1 Lead Auditor Training

Where: Bethesda, MD

When: October 8-11

Info: www.asme.org/products/courses/asme-nqa-1-lead-auditor-training

Office of Quality Assurance

Mission:

The Office of Quality Assurance establishes and maintains the quality assurance policies, requirements and guidance for the Department of Energy and serves as the Department's corporate resource to ensure that products and services meet or exceed the Department's quality objectives.

The Office provides assistance to Departmental elements and contractors in the interpretation and implementation of the Department of Energy quality assurance requirements and in the resolution of quality assurance-related issues.

Visit us on the Web:

www.hss.doe.gov/nuclearsafety/qa

Points of Contact:

<i>Colette Broussard,</i> Director	301-903-5452
<i>Stacey Onley,</i> Administrative Assistant	301-903-8019
<i>Duli Agarwal,</i> QA Technical Assistance/QA Analysis	301-903-3919
<i>Mary Haughey,</i> QA Policy/Directives	301-903-2867
<i>Subir Sen,</i> HEPA Filter/Software QA	301-903-6571
<i>Debbie Rosano,</i> QA Technical Assistance/QA Communications	301-903-8177
<i>Sonya Barnette,</i> QA Technical Assistance/QA Web Liaison	301-903-2068

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