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QA Quote of the Day

"Quality is not an act, it is a habit"

- Aristotle

IN THE SPOTLIGHT: GEORGE DETSIS, PROGRAM MANAGER

Analytical Services Program
Office of Corporate Safety Programs

The Analytical Services Program (ASP) encompasses approximately 40 annual qualification audits of analytical laboratories and commercial waste operation vendors, semi-annual quality assurance (QA) proficiency testing of 120 domestic and international analytical laboratories, and the development of software and field training to assist the field sites in its systematic planning and environmental sampling programs. In a recent interview, Mr. George Detsis, Department of Energy (DOE) headquarters' corporate ASP Manager, for the Office of Health, Safety and Security (HSS) Office of Corporate Safety Programs talked to us about the benefits, successes, challenges and lessons learned from the ASP.

Q: Please tell us about the major tenets of the Analytical Services Program.

A: A key environmental focus for DOE's corporate ASP is to ensure confidence in the validity and reliability of analytical data and to document accountability in its treatment and disposal of wastes. There are three components of the ASP that work independently and symbiotically to help achieve this confidence. The three components are:

- the DOE Consolidated Audit Program (DOECAP);
- the Mixed Analyte Performance Evaluation Program (MAPEP); and
- the Systematic Planning and Data Assessment Tools and Training (SPADAT) Program.

These programs provide integral support to DOE programmatic and operational efforts throughout the Nation. Accumulation of chemical and radiochemical data, including the data collection strategy, the integrity of the analyses, and the documentation and use of the results is important to all DOE operations. These planning, auditing, and proficiency testing activities are primary vehicles for assuring that quality and defensible data are available for field decision-making to support on-going mission critical operations and functions, environmental remediation, clean-up projects, and long term legacy management surveillance. Auditing of commercial waste vendors assures enhanced accountability for the disposition of radioactive and chemical waste from DOE sites, and these three integrated corporate programs provide DOE the mechanism to gather and disseminate information and lessons learned throughout the DOE complex.

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Background

For the past seven years, Mr. George Detsis has served as the DOE headquarters' corporate Analytical Services Program Manager.

Mr. Detsis is the DOE corporate representative to the National Environmental Laboratory Accreditation Program Committee Institute and serves on several its' committees, as well as being a member of the Interagency Data Quality Task Force working with Senior Managers from the Environmental Protection Agency (EPA) and Department of Defense (DoD) on quality assurance issues.

Previous public service assignments have included employment with the U.S. Department of the Interior in California, Colorado, and Oregon with focus upon public land management policies, program development, and resource allocations; and as a team leader of numerous Environmental Impact Statements and Environmental Assessments. He began his Federal career 32 years ago by working on Capitol Hill as a legislative assistant for energy and natural resources to former U.S. Congressman Lloyd Meeds from the State of Washington.

Mr. Detsis holds a B.S. degree in Natural Resource Management from the University of Maryland; and a M.S. in Environmental Sciences from the University of Washington.

("In the Spotlight"…continued from page 1)

Q: How does your program encourage participation and how successful has the effort been?

A: Each of the three program components have individual websites and databases to inform and assist the DOE community and the public. The DOECAP holds internal bi-weekly teleconferences with auditors and points-of-contact for both the laboratory facility side and the Treatment, Storage and Disposal Facility (TSDF) side of the auditing process. In addition, the ASP publishes and distributes an annual report and sponsors a nationally recognized annual meeting to disseminate information, seek program enhancements, and share lessons learned.

The DOECAP has enlisted participation from twelve DOE Sites and Operations that includes all major DOE facilities. It has recruited over 90 laboratory and TSDF auditors throughout the DOE complex who participate on audit teams on a voluntary basis, and audit over 40 subcontractor facilities each year. The MAPEP prepares, distributes, and evaluates performance test samples semi-annually from 107 domestic laboratories and 17 international laboratories; while the SPADAT planning programs, through its use of the Visual Sample Planning (VSP) software toolkits, are utilized by over 5000 worldwide users.

Q: Are there any challenges and success stories you can share with us?

A: The challenges we face continue to revolve around the need to expand the programs, while resources and budgets are continually shrinking. Obtaining funding for the time and travel required to perform audits and oversight is difficult. In addition, recruiting experienced qualified individuals when these same individuals are retiring, being laid-off, or reassigned has become an increasing obstacle for our organization in the past few years.

Our greatest success has been the programs' ability to maintain and improve performance and quality throughout the DOE complex and those facilities that support the DOE complex. The DOECAP, by implementing a consistent auditing program in conjunction with consistent quality requirements, has observed a 70% decrease in the number of laboratory deficiencies and a 36% decrease in the number of TSDF deficiencies over the past seven years. Over 86% of the previous year's audit findings were validated on-the-ground as being closed out. Particular attention was focused upon assuring that root causes were identified to prevent future reoccurrences. The MAPEP has seen acceptable test performance increase to greater than 99%. MAPEP has also continued to maintain accreditation as a proficiency testing provider under the international quality requirements of ISO 17025-*General Requirements for the Competence of Calibration and Testing Laboratories*, and operates their program in close association with the National Institute of Standards & Technology. The achievements and successes of these programs are demonstrated through years of implementation, and their ability to achieve process improvement in the services being provided to the DOE community.

Q: What kinds of future enhancements do you foresee to these programs and how would they impact program implementation?

A: The DOECAP currently audits environmental analytical laboratory and radiochemical TSDF operations. There is a need to expand these efforts to non-radiochemical TSDF operations and possibly other DOE support operations. The DOECAP is also working to develop and increase interagency cooperation initiatives with the DoD, EPA, and state organizations. Over the years,' the Department of Navy has participated as team members on DOECAP audits, while other intergovernmental opportunities for DOE participation on DoD audits are being planned in the future.

The MAPEP hopes to enhance and diversify the range of analytes and the types of matrices being disseminated in the performance test series. For example, using concrete as matrices is being explored. In addition, based upon the excellent reputation of DOE's proficiency testing program, several more international laboratories are interested in participating in the MAPEP. SPADAT envisions expansion of the applications of its environmental characterization, remediation, and monitoring project planning through the use of VSP software too1kits, including increasing technical assistance to its user base.

Q: Are there any lessons learned from these programs you can share with other similar DOE programs?

A: The greatest lesson learned from these programs continues to be the need for continuous monitoring and testing of subcontracted facilities. The pressures on facilities to provide data and services cheaper and faster in a very competitive market while still turning a profit require DOE to help these organizations be vigilant in maintaining and upgrading the quality of their products, services and systems.

One specific lessons learned is through our SPADAT VSP field training courses. These training sessions typically include Federal/State regulators working together with DOE/contractor personnel in actually planning and designing statistical sampling strategies required for field gathering. The course fosters cooperation and cost saving measures that mutually benefit DOE and regulators.

In addition, the benefits derived from the programs include:

- reduced departmental liability risks associated with analytical data and the proper disposition of low-level and mixed radioactive waste;
- elimination of redundant audits;
- improved audit quality and consistency;
- improved data quality and data reliability necessary to assure regulatory compliance and support DOE decisions; and
- cost avoidance, streamlined acceptance, and enhanced defensibility through the availability of tools used by site personnel to plan data gathering efforts and to assess whether the data collected meets the necessary objectives and supports confident decisions.

SPECIAL FEATURE: *Blurred Vision: Do Our Business Leaders See What Quality is All About?*

By Douglas Wood, DC Wood Consulting

Do your leaders consider quality and business improvement to be separate topics? This is not what quality professionals have been trying to advance over the years. Has the push to improve the bottom line resulted in a deep divide between improvement and quality? H. James Harrington wondered whether the drive by quality professionals to save money has led to "missing the real quality objective—better and better products and services."[1]

> ***"Quality was always about Control."***

Quality professionals know that quality and improvement are synonymous. The quality body of knowledge is the most complete and comprehensive set of tools and techniques for business and organization improvement. But why don't many business leaders see this connection?

A history lesson

Quality was always about control. For many companies, quality started as simply using tools and techniques to prevent bad work from reaching the customer. A few enlightened organizations took the next step to eliminate variation and causes of the nonconformances. Unfortunately for many firms today, inspection is still the mainstay of quality.

In the 1970s, the influences of Deming, Juran and Phil Crosby led a change in quality awareness, including total quality management (TQM), where quality was deemed everybody's job. The lasting legacy of this effort is that quality issues are not just manufacturing issues.

TQM evolved into more advanced improvement programs such as Six Sigma. Many felt Six Sigma became successful because the operations division ran the program and deliberately excluded the quality staff. Quality professionals often did not speak the language of leadership and lacked soft skills.

ISO 9001 [*Quality Management System Standard*] and other standards ensure organizations comply with basic quality processes, which in theory would reduce risk for customers and become a springboard for improvement. But the improvement aspect of ISO 9001 has been limited, and many firms have elected to stick to a minimum level of compliance.

Cost of quality, or the cost of poor quality, has been an underpinning concept in quality for more than 50 years. Still, the majority of midsize manufacturing firms do not apply this metric to plan and improve their business.

The world of quality today

Today quality thinking is diverse. Many approaches have been developed, hundreds of books written and countless ideas blended.

Both old and new ideas are now spreading at the speed of the internet. As Thomas L. Friedman has said, the world is flat. Knowledge flows faster than capital, and information spreads with amazing speed.[2]

The landscape is rich with opportunity for business improvement. With quality concepts seemingly more accessible than ever before, why are quality professionals not reaching leaders with a clear message about quality?

Many business leaders are introduced to quality through a master's level education. Many master's level programs have one class in quality principles taught by a generalist, not necessarily by a subject matter expert. Established ideas are what get taught, but many established ideas are like myths. *Consider some of the following quality myths and the actuality of each one.*

1. Quality is strictly about product or service issues. The focus of quality is on product or service features, not the process it takes to build and deliver that product or service.

This myth equates higher cost with better quality. Such a definition of quality sets up conflict between quality and cost, a divergence that spreads across society and lingers in the boardroom.

The actuality: Lasting quality lies in the process. Products and services are replaced frequently by new ones. Having a high quality process makes high quality products and services possible, never the other way around.

2. Cost, quality and schedule form an iron triangle. If you improve one, you make the others worse. If you believe higher quality means higher cost, you will believe that these three metrics operate against one another.

The actuality: Organizations that perform quality well know schedule adherence and costs improve if process quality improves, but the reverse is not true. If process quality improves then product quality, cost, and schedule all improve.

3. Quality is about controlling risk. If your quality budget is spent on inspections and audits, this may be true. This view implies that quality tools are not good for business improvement. All managers have a goal to reduce risk, and quality is everyone's job. So it would follow that risk and quality become intertwined.

The actuality: Quality and risk are linked, but it is not a simple equation. Breakthroughs in process quality often occur after some risk is undertaken, and after innovation is applied.

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If you begin with risk mitigation, then you expect that more expenditure for quality means less for operation improvement. If you see quality as the doorway to improvement, then higher expenditures for prevention activities will show a return on investment through reduced appraisal and failure costs.

4. Six Sigma and Lean are great new tools. Any new set of tools gets the hype: They're new and therefore best tool to ever be developed. For example, Six Sigma is special because it connects improvement to financial measures.

The actuality: Six Sigma leverages quality engineering tools, along with project management techniques in an organized command and control structure, and Six Sigma delegates tasks to people with differing levels of skill or training. There is really nothing that new about Lean either. Just as Six Sigma puts standardized statistical tools in the hands of the masses, Lean puts industrial engineering tools in the hands of those close to the work.

5. Choosing a quality approach is a task for senior leaders. Senior leaders take information about the organization and its environment to create a vision and promote that vision throughout the organization. The employees believe that the responsibility of choosing and promoting the quality approach lies with senior leaders, and nothing will get done until these leaders make the choice.

The actuality: You need to understand what is required by each quality approach and what your organization lacks or has established before you choose an approach. Because there is no clear standard in quality education for leaders, how can we expect that senior leaders will be able to choose wisely? What our leaders need is good information, and subordinates are the best source for trusted information. Narrowly focused consultants can lead to more confusion.

6. No preparation is required to run an improvement program except willpower. If employees know their jobs, they will know how to improve their work. Good ideas will occur and be implemented, and improvement will happen through trial and error approaches.

The actuality*:* Some personnel are lacking in fundamental requirements (both in technical and people skills) to successfully implement an improvement approach. Your probability of success will be increased if you have the fundamentals ready before you start.

Truly world-class organizations need years to get to the top. An "overnight success" is really an eight to 10-year process. For examples, just read Jim Collins' *Good to Great* or look at Malcolm Baldrige National Quality Award winners.

What are these companies doing in the early stages? Usually a lot of learning and planning, along with some experimentation. Willpower is the fuel, but the engine of successful change is controlled by a solid foundation of knowledge.

7. Cost of quality programs are old school. Quality cost approaches have little bearing on today's organizations. There is no widespread outside requirement to measure quality costs. Newer improvement approaches such as Six Sigma have supplanted quality cost.

The actuality: The old measure called cost of quality should be revived. We do need to call it by a name that makes sense today. "Finance for improvement" might be more appropriate, as we are using financial language to measure the overall business improvement results.

Six Sigma does look at quality costs, but it is project driven and the savings are not aggregated. A piecemeal approach results in spotty improvement. Too often, the global cost of running Six Sigma is not integrated with the entire quality program. This occurs due to organizational silos and not using cost of quality across the organization.

The term Cost of Quality is well understood by quality professionals, but is confusing to many business leaders. If we are trying to reach new business leaders, we need to use their language.

8. Quality is a discipline learned on the job, not in a classroom. To be a quality manager, you only need to know your operation's products. Quality approaches have a minor place in academic programs, and teaching quality can be done with a few historical references to Deming and other gurus.

The actuality: Weakness in quality teaching in master's level programs leaves organizations at the mercy of internal tribal knowledge. There are virtually no degrees in quality today. There are some classes for undergraduates, but there needs to be a better curriculum for higher level education. This education should be connected to the real world and linked to other portions of the curriculum and the students' work environment.

These gaps in higher education are felt as organizations try to reach for excellence. The choice to learn about and apply the quality tools occurs after a problem exists. With an eight to 10-year development curve to move a business toward excellence, it is no surprise that only a few visionary organizations start, learn, implement and succeed in driving real excellence into their work processes.

Start the dialogue

Recognizing myths and countering them with active dialogue is one way to clear the haze. Not every improvement needs to start at the top. We can all make a difference in our own sphere of influence.

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If you hear these myths being perpetuated or promoted, or if you see improvement actions blunted by people misguided by these myths, seek to bust the myths and enable improvement. Remember, many people you encounter do not understand the background of quality and might be misdirected by some of these myths. Your knowledge is your best lever for change.

References

[1]H. James Harrington, "Are We Going Astray?" *Quality Digest*, February 2008, www.qualitydigest.com/feb08/columnists/jharrington.shtml.

[2]Thomas L. Friedman, *The World Is Flat: A Brief History of the Twenty-First Century*, Farrar, Straus and Giroux, 2005.

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Take the Survey on "8 Quality Myths" go to www.DCWoodConsulting.com
Register your email at the end to receive study results.

LESSONS LEARNED: INSUFFICIENT TRAINING CAUSES NEAR MISS EVENTS AND INJURIES

By Mark Petts, (on detail) Lessons Learned/ORPS QA, HS-23 Office of Quality Assurance and Assistance

Personnel training and qualification is one of the quality assurance criteria established for the quality assurance programs required in DOE O 414.1C. Not only must personnel be trained and qualified to perform assigned work, but continuing training must be provided to maintain job proficiency.

A review of 3rd Quarter, 2008 Occurrence Reporting and Processing System (ORPS) data reveals that insufficient training was identified as a causal factor in 10 out of 39 (25%) of near miss events reported. These events involved industrial equipment use or construction activity. For example, in one occurrence, two synthetic lifting slings failed during trailer loading activities, striking a technician across the hand, forearm and chest. This was determined to be due to overloading of the slings. An evaluation of the occurrence found that management had not adequately determined worker proficiency for the task, and that the qualification requirements used to train crane operators were insufficient. As a corrective action, the reporting organization will establish proficiency standards for waste handling processes and incorporate them into the qualification program. Proficiency standards will include use of crane controls.

In another incident, a retrieved waste cask was being lifted by a crane when the slings used to rig the cask to the crane broke. The waste cask dropped approximately four (4) inches and landed in an upright position. Initial investigation found that the synthetic slings that had been selected were inappropriate for the rigging configuration, and that softeners had not been used to cushion the slings. It was also discovered that training and job evaluations for the riggers do not incorporate methods or examples of peer checking or second checking. The reporting organization also discovered four events in the last three years where a sling failed, and they found that lessons learned from these events had not been incorporated into work planning or training activities.

The lack of a training or qualification program was identified as a causal factor in a serious injury, where a worker sustained a cut to the thigh while using a circular saw. The reporting organization found that although one-time hand tool safety training was provided, no additional training and qualifications were instituted.

The importance of a comprehensive training program in averting workplace accidents cannot be emphasized enough. Training deficiencies were identified as a causal factor in a recent Type B accident investigation. While preparing a test in which two small thermal batteries were to be placed on a monorail sled along with a hardened data recorder, the associated rocket motor ignited prematurely, injuring four employees. One was taken to the hospital with a broken leg and burns to the hands and arms. The other three reported ringing in the ears from the sound of the rocket; two went to the hospital. The Type B accident investigation identified training deficiencies as a causal factor. It concluded that management did not adequately educate and

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train employees in the hazards and precautions required for handling explosives and materials used in conjunction with explosives operation.

Management's obligation to implement effective training programs is well articulated in a Lessons Learned Report submitted to the Lessons Learned Database. The report stresses that training requirements cannot be taken lightly and must be adhered to in order to ensure procedures are followed, and to ensure a safe and compliant work environment. Furthermore, managers and supervisors are responsible for ensuring all employee training requirements are met prior to assigning them work, and employees are responsible for attending scheduled training. This report describes an event in which an employee objected to the transfer of two drums of fissile material because the combined total mass of U^{235} in the drums could have exceeded the maximum allowed for fissile material transport as specified in nuclear criticality safety evaluation. The objections were overruled by the project manager. A subsequent evaluation revealed that workers, including the facility manager and superintendent were not up-to-date with required training; including required reading. While there was a process in place to track such delinquencies, the administrative process failed.

The importance of training in preventing workplace accidents and injuries is stressed in a number of other Lessons Learned Reports. One lesson alone cites four separate forklift accidents in which a causal factor was that the training provided to operators, supervisors, and others assigned to forklift operations was less than adequate. Supervisors and operators had not been trained on the company's expectations. Additionally, spotters were not trained on forklift signaling/communications protocols. Not only is training critical, but there should be post-training follow-up to ensure that skills acquired in training are maintained and reinforced. This is expressed in a Lessons Learned Report describing an event in which a skip pan, which is an approximately 8 foot square by 2 foot deep steel bucket loaded with pipe hangers, was being transferred from a material staging area to a work platform. During the transfer, the flagman used a non-standard hand signal that was not recognized by the crane operator. This resulted in the load intruding beyond an administrative barrier. The crane operator and the flagman recognized the intrusion, and the crane was stopped. However, the momentum of the skip pan caused it to swing and come into slight contact with the scissor lift basket. The flagman had been through formal training which teaches American Society of Mechanical Engineers (ASME) B30.5, *Mobile and Locomotive Cranes,* the industry standard crane hand signals. This 5 hour long training course also included a written and practical demonstration test. However, there was no follow-on field verification of the flagmen's ability to implement the training, specifically to ensure that the proper hand signals were being used correctly.

An effective training program is ultimately a management responsibility. Worker qualifications and proficiencies must be determined, standards must be established, and requirements must be defined. Acquired skills must be reinforced. The role of effective training in ensuring a safe work environment is repeatedly underscored by events throughout the complex where training deficiencies are identified as a causal factor to the occurrence, and numerous valuable Lessons Learned Reports have been shared by many organizations.

Article written and submitted by Mark Petts, mark.petts@hq.doe.gov

HAS YOUR CONTACT INFORMATION CHANGED?

If so, please help us maintain the QA Point of Contact database with accurate information by forwarding the following information to:

qaexchange@hq.doe.gov

- name
- phone number
- email address
- Federal or Contractor personnel
- DOE organization or company name
- and site name, if applicable

Newsletter Articles Needed

The *Quality Assurance Exchange* is intended to be a forum for the exchange of ideas and the sharing of experience among DOE field offices, contractors, and DOE headquarters to foster continuous improvement in QA implementation.

Readers are strongly encouraged to contribute articles on the implementation of QA requirements, lessons learned, and other QA-related topics. We welcome your feedback and suggestions.

Please forward your input to:
qaexchange@hq.doe.gov

SQA Work Activity: Problem Reporting and Corrective Action

By Scott Matthews, Los Alamos

(This article is the ninth in the series that will address how the software quality assurance 10 work activities in the DOE O 414.1C relate to ASME NQA-1-2000 and other consensus standards. DOE G 414.1-4 provides details for implementing the 10 work activities to meet the SQA requirements in the DOE O 414.1C.)

According to Dr. Watts S Humphrey,[1] even experienced software developers inject an average of more than 120 defects[2] per 1000 lines of code, or one defect per 10 lines of software code. As a result, a defined "Problem Reporting and Corrective Action" process is vital to manage the plethora of defects within *any* software application but becomes even more of an issue when dealing with safety software applications. When a defect is encountered, a defined process to manage the defect from identification through analyses, correction, and regression testing to resolution is paramount.

Before any problem reporting and corrective action can occur, managed processes for requirements management, configuration management, verification and validation, and a recognized and accepted process for documenting and tracking defects must exist to enable analyses and corrective actions. The organization responsible for problem reporting and resolution must also be clearly defined and all the requisite resources must be available to successfully fix the identified defect. Without this infrastructure, any attempt at reasonable problem reporting and corrective action will not only be frustrating but also fruitless.

If there are doubts or concerns about what problem reporting and corrective action means at a practical level, a Google search within the DOE web sites or other Federal agencies such as NASA, DoD contractors, or academe might provide guidance for what processes and activities need to be invoked for a risk-based graded approach. As in other issues associated with software quality, a risk-based graded approach is essential. There is an obvious trade-off between analysis, testing and documentation versus just getting the application operational especially if an incorrect use or decision making based upon the software application results are perceived as low risk. Low risk in this context means that any software failure or faulty decisions based upon incorrect software outputs have a low probability of impacting project issues such as budget or schedule, or the risk to the environment, security, or human health issues are negligible or non-existent. In keeping with the above principle, the software development team must identify and assess whether the perceived defect is truly a defect and, if so, whether the defective software condition poses any imminent threat to personnel or facility safety. If this is the case, the team is obligated to inform management immediately.

The primary "order of business" must be a determination whether the perceived "defect" is truly a defect or simply an incorrect or misunderstood application of the software or an incorrect data entry. If a defect does indeed exist and the application functionality as documented disagrees with the documented and approved software requirements, appropriate documentation of the defect is basic. Such content as when and how the defect was identified as well as the operational conditions and environment of the system when the defect was first observed must be recorded. Another vital bit of information for analysts is what conditions exist and what conditions do ***not*** exist, i.e., "what ***is*** the problem" and "what ***is not*** the problem."

If the software application is a safety application, then complete and appropriate analyses are essential. Analyses may encompass a review of previously identified defects to ascertain whether the defects might have a "common cause" that may not have yet been identified. Other analyses might need to address timing issues if the application is a "real-time" software application. Such analytical techniques as Petri nets or state transition diagrams may assist the analyst in identifying and resolving the identified defect. The objective of this analysis is to correlate the defect with the appropriate software engineering elements. Upon identification of the defect and its impact, the analytical team is obligated to notify management so they can evaluate impacts upon safety basis decisions, and develop a mitigation strategy and recommendations for the path forward. Actions may include contacting 3rd party suppliers if the application is acquired software.

When the defect has been identified, alternative solutions should be sought and discussed along with their associated tradeoffs. Part of the corrective action, i.e., "defect resolution," must also be identification of any potential risks to past, present and future developmental and operational activities. Management approval of the recommended defect resolution is essential to ensure the required resources are available.

After the appropriate software elements have been corrected, thorough regression testing must confirm if the chosen "fix" does resolve the identified defect while not causing any unintended consequences that fix one defect but cause many other defects to emerge. Maintenance of the problem reporting and corrective action(s) within a robust configuration management environment is essential when other defects are noted later to not only support efficient and improving processes but also the identification of possible common failure causes. Tracking the application operation via some useful defect software metrics in a risk-based graded approach will also support quality improvement for the application. The use of software defect metrics for problem reporting and corrective action is especially important for safety software applications.

Article written and submitted by Scott Matthews, sxm2@lanl.gov

Footnotes

1 Dr. Watts S Humphrey, ***Watts New: The Quality Attitude***, 2004, Number 3

2 "Defects" also have many other names within an organization, e.g., "errors," "bugs," "issues," "incidents."

HSS QA Activity Corner

QA Has a New Web Home!

The DOE Quality Assurance website has been migrated to its new home at: www.hss.energy.gov/nuclearsafety/qa/index.html. Feel free to come visit us, and don't forget to update your favorites!

HSS and EM QA Initiatives

Office of Quality Assurance Policy and Assistance (HS-23) and The Office of Environmental Management (EM) Quality Corporate Board will meet periodically (e.g., quarterly) to discuss QA efforts. Topics of interest will include addressing the Defense Nuclear Facility Board (DNFSB) question regarding the number of Federal QA professionals in EM. DNFSB is also interested in the percentage of quality professionals within HSS and NNSA. These offices are currently evaluating their staff and trying to match the industry practice of having 4-7% of staff be of quality professionals.

EM Publishes Newsletter for QA Community

EM Office of Safety Management and Operations has produced its first issue of the ***QA Quarterly***, a newsletter that will be published four times a year to provide QA information to the EM QA Corporate Board members as well as the QA Community. The first issue includes topics regarding the establishment and update of the 2008 EM Quality Assurance Corporate Board activities, the Nuclear Suppliers Outreach Event, and the EM QA Centralized Training Platform/Academy. The EM newsletter can be found at: www.em.doe.gov/pdfs/QA_Newletter-Oct08-Website-Final.pdf

Quality Assurance Audit of the Filter Test Facility

An audit team made up of headquarters and site personnel conducted the ASME NQA-1-2000 triennial audit of the Filter Test Facility (FTF) operated by Air Techniques International (ATI) on February 10 and 11, 2009. The audit included the review of the ATI QA plan and procedures and the witnessing of HEPA filter inspection and testing by ATI staff. For further information, please contact Subir Sen at (301) 903-6571 or subir.sen@hq.doe.gov.

The DOE Corporate Lessons Learned Database is looking to expand its user network

Take the Lessons Learned database for a test drive. Go to the DOE Lessons Learned Website at: www.hss.energy.gov/CSA/Analysis/DOEll/index.asp. User access can be granted within 5 minutes after you select your user name. Take the challenge to stump the database with an unusual request and see how unique you really are!

Did you know that site DOE ORPS data entered into certain fields can be used to generate Lessons Learned? A re-work of the ORPS report "description of cause" or causal analysis field (Field #32) can be used to prepare the Lessons Learned Field (Field #36). This data in turn can be submitted to the Lessons Learned Database as a new entry with minimal effort.

Update on the Safety Software Expert Working Group

The Safety Software Expert Working Group (SSEWG) was established in September 2008 and consists of NNSA and EM contractors experienced in the use of the Safety Software Central Registry toolbox codes. Monthly SSEWG conference calls are held with representatives experienced in the use of the toolbox codes.

Work has started reviewing the CFAST, GENII and ALOHA gap analysis reports to develop actions necessary to address the gaps in the code documentation. SSEWG members are also reviewing approaches that may be used to add newer toolbox code versions to the Safety Software Central Registry inventory. For further information, please contact Subir Sen at (301) 903-6571 or subir.sen@hq.doe.gov.

Update on Plan of Action to Address Increased HEPA Filter Rejection Rate at the FTF

In July 2008, DOE submitted a plan of action to the DNFSB to address the increased rejection rate of High Efficiency Particulate Air (HEPA) filters. The plan was developed by a team with expertise in HEPA filter testing, procurement, quality assurance, engineering, and operations. The plan contains several actions that are being taken by DOE and its site contractors in conjunction with the filter manufacturers for improving the quality of filters delivered to DOE and reducing the high rejection rate.

Actions taken to date include:

- ***Safety Advisory - Quality Assurance*** was issued July 2008 to alert the DOE complex of the increased rejection rate and actions being planned to address the problem;
- Federal and site contractor HEPA filter points-of-contact (POC) have been identified to improve the distribution of HEPA filter testing results;
- Current HEPA filter data reporting processes (e.g., monthly, semi-annual, non-conformance reports) have been reviewed to ensure that HEPA filter POC receive appropriate filter testing information;
- Letters have been sent to the three major suppliers of HEPA filters requesting information on: (1) the root cause of the increased rejection rate and what action is being taken to resolve the problem and (2) the HEPA filter qualification testing process and test results. This information is currently being evaluated and requests for additional information have been requested of the filter manufacturers; and
- A site survey was conducted to document protocols used by site contractors for testing non-safety related HEPA filters as defined in DOE-STD-3020 *Specification for HEPA Filters used by DOE Contractors.*

This information will aid in the evaluation of manufacturers' QA programs and those processes that are critical for manufacturing, qualification and testing of filters to DOE quality requirements and specifications. For further information, please contact Subir Sen at (301) 903- 6571 or subir.sen@hq.doe.gov.

FORMATION OF THE DEPARTMENT OF ENERGY'S QUALITY COUNCIL

Secretary Bodman's April 7, 2006, memorandum, *Improving Quality Assurance* noted that quality assurance was not being consistently implemented across the DOE complex. As a result of the memorandum, HSS implemented the *DOE Survey on Quality Assurance Implementation* and initiated the establishment of a DOE Quality Council. On November 5, 2008, the Chief Health, Safety and Security Officer formally announced the formation of the Department's Quality Council.

The DOE Quality Council Chair, Colette Broussard, is the DOE HSS Director of HS-23. Representation on the Quality Council includes nominated members from seventeen DOE headquarters and field offices. One of the first accomplishments of the Quality Council was that all members participated in establishing the charter approved by the HSS Chief Officer in November 2008. One of the charter's primary objectives is to address DOE/NNSA QA concerns as directed by the Secretary of Energy. The Council provides a forum to identify QA policy needs and recommend resolutions as well as to identify and recommend actions for continuous improvement of the quality of DOE work. The Council welcomes recommendations from any individual on QA-related concerns.

The Quality Council has been meeting regularly and has started developing three task planning documents to take action on areas such as (1) developing general quality assurance training for DOE HQ employees, (2) establishing guidance for the application of NQA-1 Part II, and (3) integrating quality assurance and safety management. The primary points-of-contact for the Quality Council are Colette Broussard (colette.broussard@hq.doe.gov) and your respective program office or field office Council member. Current Council Members are listed in the table below. If you have any questions concerning this article, please contact Sonya Barnette at 301-903-2068 or sonya.barnette@hq.doe.gov.

QUALITY COUNCIL MEMBERS				
Name	**Org.**	**Location**	**Email**	**Phone**
Colette Broussard*	HS-23	GTN	colette.broussard@hq.doe.gov	301-903-5452
Gary Staffo	EE	FORS	gary.staffo@ee.doe.gov	202-586-9577
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Vijendra Kothari	LM	Morgantown	Vijendra.Kothari@lm.doe.gov	304-285-4579
Joy Mroz	LM	Morgantown	Joy.Mroz@lm.doe.gov	304-285-4106
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Mary Haughey	HS-23	GTN	Mary.haughey@hq.doe.gov	301-903-2867
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(March 2009)

* Council Chair

U.S. Department of Energy

Office of Nuclear Safety, Quality Assurance and Environment (HS-20)

Office of Quality Assurance Policy and Assistance (HS-23)

Washington, D.C.

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EDITORIAL NOTE:

If you are interested in receiving this newsletter electronically, please email your request to be added to the distribution list to qaexchange@hq.doe.gov.

We're on the Web!

See us at:

hss.energy.gov/csa/csp/qa/

QA-Related Meetings & Conferences

The Society of Quality Assurance Annual Meeting
When: April 19-24, 2009
Where: San Diego, CA
For more information: http://www.sqa.org

2009 Spring NQA Standards Committee and Subcommittees Meeting
When: April 20-22, 2009
Where: Hyatt Regency Cincinnati, Ohio
For more information: http://calendar.asme.org/EventDetail.cfm?EventID=9732

EFCOG ISM and QA Working Group Semi-Annual Meeting
When: May 5-7, 2009
Where: Oak Ridge National Laboratory Conference Center, Oak Ridge, TN
For more information: http://www.efcog.org/wg/ism/events/Spring09Mtg/ISMQAWGspring09mtg.htm

World Conference on Quality and Improvement
When: May 18-21, 2009
Where: Minneapolis Convention Center, MN
For more information: http://wcqi.asq.org/

2009 ASME Annual Meeting
When: June 13 2009 - June 17 2009
Where: JW Marriott Resort & Spa, Palm Desert, California
For more information: www.asmeconferences.org/annualmeeting09/

Director's Note

The Office of Quality Assurance Policy and Assistance (HS-23) is pleased to announce a new employee. In December 2008, Ms. Sonya Barnette joined the organization. Sonya joins HS-23 from HS-1.2 Office of Resource Management.

In other news, HS-23 participated in the International Atomic Energy Agency (IAEA) Nuclear Quality Assurance Committee Meeting with staff from the Office of the Chief of Nuclear Safety (CNS) and other IAEA organizations in Vienna, Austria, to review and compare the IAEA standard GS-R-3, *The Management System for Facilities and Activities,* with American Society of Mechanical Engineers (ASME) NQA-1-2008, *Quality Assurance Requirements for Nuclear Facility Applications,* and to develop draft Guidance. A second consultancy face-to-face meeting in Vienna, Austria will be attended by the same committee members from March 30-April 3, 2009 to discuss this draft Guidance. The final guidance document is expected to be completed by December 2009. Benefits to DOE will include clarification between DOE QA requirements and IAEA QA requirements for DOE programs that use services and vendors from other countries and identification of any gaps so they can be addressed as needed.

The HS-23 staff consists of the following individuals:

Office of Quality Assurance and Assistance (HS-23)	
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Lisa Treichel, QA Technical Assistance/QA Communications	301 903-8177
Sonya Barnette, QA Technical Assistance/QA Web Liaison	301 903-2068
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