

Integrated Safety Management Champions Workshop  
Quality Assurance Working Group (Video Conference)  
Hanford, WA - September 13, 2011

**Introduction**

Bob Murray provided an introduction and addressed the expectations for the meeting. He noted this is not an EM QA Corporate Board Meeting; therefore, the topics should be discussed as a group and not presented by only one person. Audience participation is needed to make the working group successful.

**Potential Revision to the Performance Indicator and Measurement Approach for Goal #5 of the Journey to Excellence Regarding Quality Assurance (Bob Murray, DOE - EM-23)**

Bob Murray presented a brief history of Goal #5 of the EM Journey to Excellence and how the performance indicator for the goal was developed. He noted that the metrics are developed by the organizations and not directly in the Journey to Excellence roadmap document. Goal 35 was established last year and is included in the site manager performance elements. A consolidated metric is included in the Deputy Principal Assistant Secretary (EM-2) performance elements. EM-23 and the site QA managers have held several conference calls with respect to the goal and metric and senior management has also discussed the goal and metric with the field managers. EM-23 is responsible for reporting a status on the metric each month. Once the initial metric was distributed, it was realized that the measurement was not realistic or useful. As such, EM-23 and the site QA managers have worked to narrow the metric as much as possible. A concern that has been noted is that contractors are not currently set up to measure the metric as written. Various methods have been discussed from using ORPS reports to metrics developed by the EM QA Corporate Board. The resolution for FY11 is that each site may select the methodology for measurement as long as they document the rationale for the selection. Going into FY12, a better way to measure the metric is needed. Bob recommended the use of the EM QA Corporate Board metrics as the base since this information is already reported in the Annual ISM/QA declarations. The metrics could be used as a one-size-fits-all measurement or could be focused on specific areas for each site, but the question would be who does the tailoring for each site? Should we have a composite score and then a score for specific areas such as Criteria 3, 5, 7, 8, suspect/counterfeit items, software QA, and corrective actions? Bob also noted that we need to be diligent in the understanding and use of the metrics to avoid potential issues such as those noted in the Secretarial Review Report with respect to projects attempting to "get to green".

Al Hawkins noted the current contracts have a focus on Goal #5 of the Journey to Excellence and would like to get some input from the contractor QA managers.

Mike Hassell noted the annual declarations are a good tool, but are subjective. There is not real minimum performance level for the metric. The declaration metrics may not fit unless we are actually looking for overall health of the program such as corrective action management. Each contractor would have to evaluate how to make the metric work for them. The submittal is a once per year effort, and not that useful in managing the projects.

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Bob Murray indicated that one thing to keep in mind is that the metric is already in the site manager's performance plans, but a one-time report each year may be sufficient to meet the performance element. In addition, the metrics in the annual declarations are specifically tied back to NQA-1 requirements.

Al Hawkins asked if Headquarters management would be willing to move away from a monthly reporting requirement for Goal #5 and use an annual report via the declaration.

Other site representative noted the current reporting for the types of metrics in the annual declarations vary (e.g., monthly at PPPO and quarterly at ORP).

Mike Hassell noted that if a subjective response annually is acceptable to EM, then the recommended approach may be ok.

Al Hawkins offered to take an action to provide EM-23 with an example of the metrics/information that is currently being tracked at RL.

A comment was made that when the metrics were originally developed by the EM QA Corporate Board, we were looking at ongoing reviews and all of the sites may want to tailor the metrics based on the current conditions if using them for the Goal #5 performance indicator.

Bob Murray noted we could leave the measurement up to the individual sites in the same way it is measured this year. That would still be an option.

Linda Weir asked for a clarification in the existing metric on what "installed" should include. At the Waste Treatment and Isolation Project, components are placed in the system but not tested until later in the construction. Are those components "installed" when placed in the system or when properly tested at a later date?

Bob Murray indicated the previous discussions had focused on after testing.

Steven Ross agreed and indicated that is consistent with the way the metric has been looked at to date. A defective component is counted in the month where it was found.

A comment was made that there appears to be two metrics. (1) the problem should be caught in receipt inspection and (2) the problem could not be caught in receipt inspection but was caught during installation and/or testing.

Steven Ross noted we don't have good definitions for some of these terms, but the overall effort is to identify problems before they are put into service in the plant.

Mike Hassell asked what we are really looking for in the metric. Are we looking to ensure we have multiple barriers to catch problems, but once we turn it over for operations, finding a problem then is bad? As long as we catch it through our process, that should be a good thing.

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A comment was made that if a problem is identified that could not have been caught during the receipt inspection; it should not count against the metric.

Norm Barker commented that there has been more energy in this effort and we may want to see what is out there now and not just move ahead with the existing EM QA Corporate Board programmatic elements/metrics. There are a lot of things that could be used now as a foundation for the metric such as the Contractor Assurance Systems (CAS).

Al Hawkins noted that the metric as written in FY11 works great for RL, but he will also provide an example of the CAS to EM-23 for review and consideration.

Norm Barker noted that the annual declaration may not continue to be an annual requirement, so we may not want to tie the metric to the declaration.

A comment was made that a project has a good handle on all safety class and safety significant components. They know all of the equipment purchases/procurements and use nonconformance reports to identify problems. If 2000 parts are installed and 1 bolt is defective, does that meet the metric? The question is what is meant by an "item" in the metric.

Rick Warriner noted we need to ensure the metric has value or we are spending money to prepare something that isn't useful.

Bob Murray clarified that the EM management wants to keep defective items out of the systems. Discussion was held about the number and quality of barriers – is that the right measurement? The EM QA Corporate Board metrics are measuring systems and processes. The original performance indicator was measuring a 95% confidence interval that 100% of the defective components were not installed in the system. We have removed the confidence interval due to questions and requests from the field. As such, we could measure systems or specifics, whichever we think is the most useful – there is benefit in both. The issue we have been given is that the contracts were not set up to measure the specifics in the current metric; however, if that is not the case, then maybe we should leave the metric alone and see what results are provided by each site at the end of this FY. If the results are reasonable, then perhaps we leave the metric as currently defined.

Rick Warriner noted that "defective" is a whole definition that could be caused by various sources such as engineering. For example, we got what we wanted and what we ordered, but that is not what we actually needed.

San Horton noted that the recent revision to the ORPS manual has a definition of "defective" if we would like to look at that information.

Ashok Kapoor and Collette Broussard both indicated the order has been issued and is available on the website now.

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**Discussion of major changes and challenges with revision to the Corporate Quality Assurance Program, EM-QA-001 (Larry W. Perkins, DOE - EM-23)**

Larry Perkins provided a brief history of the EM-QA-001 development and implementation. He discussed the recent revision to DOE Order 414.1 and the incorporation of those changes into EM-QA-001. In addition, the revision of NQA-1 that is required in EM-QA-001 was discussed, noting that NQA-1-2004 with addenda through 2007 would still be used, but with specific allowances for NQA-1-2008 and NQA-1a-2009. Other information that should be addressed as part of the revision will include information from the Secretarial Review (Lehman Report) and any other lessons learned that can be developed and provided by the field elements. The revision is planned to be completed by December 2011.

Collette Broussard clarified that the DOE Order 226.1B does not include all of the requirements from the original corrective action management program that were in DOE Order 414.1C. The revised documents push the requirement for tracking to the local level. She also noted that the version of NQA-1 to be used is endorsed as NQA-1-2008 in the order, but the approving official can approve a different version if an equivalency is demonstrated.

Shelby Turner noted that his group has put the management expectations were in an appendix with a discussion of how they are met and their interpretation of the expectation. He asked if Al Hawkins could provide EM-23 that information for consideration in the revision. [Subsequent to the meeting, Al Hawkins provided EM-23 with the context of the original RL management expectations and will be providing the contractor information soon.]

Ken Armstrong noted that the records group at the EMCBC would like to participate and provide some input in the revision with respect to the records management portion of the document and the National Archives and Records Administration (NARA).

Mike Hassell noted that the requirements in the document are not a point of contention. The management expectations are the area where most of the questions are coming from in this effort.

Tilak Verma asked if a contractor is implementing NQA-1 and 414.1D requirements, do they still have to meet the management expectations? The expectations are adding a load to the requirements that would only be necessary if NQA-1 was not endorsed.

Bud Danielson clarified that there are other requirements in both the rule and the order that are not in NQA-1 so you must be careful to make sure you meet all of those requirements too.

Kris Kuhl-Klinger noted the EM QAP is not invoked by their current contract and expressed continued concern about what frequency of QA Program assessment is actually required.

Rick Warriner noted his organization is, as with management expectations, defining its understanding of the limits of the new DOE O 414.1D requirement to apply Part II of NQA-1. Some parts are not directly applicable. He asked if we could also consider an explanation of what we want from NQA-1 part 2 in the revision.

Al Hawkins committed to make sure EM-23 gets a copy of specific examples from the discussion for use with the revision team.

Russell McCallister indicated he would need a couple weeks to get input from the PPPO contractors, but he would provide it as soon as possible.

**Lessons Learned on Flow-down of Quality Requirements at Idaho's Sodium Bearing Waste Project**  
**Including Comparison to the Previous EM QA Corporate Board Deliverable on Flow Down of**  
**Quality Requirements (Greg Hayward, DOE – ID)**

Greg Hayward provided a presentation and history of the recent flow down issue with respect to the Sodium Bearing Waste Project.

Norm Barker noted that using NQA-1 does not alleviate the need to specify requirements. He also noted that B31.3 is not equivalent to NQA-1.

A question was asked if the weld process was the failure or the inspection process.

Greg Hayward indicated that it was the welds, but there was also some confusion over the documentation.

Larry Perkins asked about the statement that basic requirements were flowed down to subcontractors. Does this mean they only flowed down the 100 paragraph of NQA-1?

Greg Hayward indicated that in some instances that is correct.

A question was asked if when the product was received from the vendor, did they provide the pedigree to meet the requirements? Was the documentation provided without performing the work or was it just missed?

Greg Hayward responded that apparently it was not noticed in the receipt inspection. There were NDE reports, but they were apparently not reviewed to the proper level.

Bob Thompson noted that the requirement was not to meet Section 3 for the pipe, so they didn't expect it to meet Section 3.

A comment was made that there seems to be more flaws than just flow down in this case.

Tilak Verma asked what an "information only" inspection was intended to mean and was any credit given to those inspections?

Bob Thompson responded that the inspection as not required, but was performed for internal information. They did not take any credit for the information only inspections.

Mike Hassell asked if everything else had been completed properly, was there still a chance the pipe would have been flawed.

Greg Hayward said yes, it was still possible.

Tilak Verma noted that someone should have been looking at the testing to ensure it was correct.

Bob Thompson noted the flaw was at the mid-point of the weld, with no indication that a section inspection was needed.

Mike Hassell asked if the flaws were also at the ends of the pipe.

Bob Thompson said yes, it was at the start and stop points, which were typically cut off. There was no documentation provided that these areas were remaining and had the potential for the problem there as well.

Greg Hayward noted that sometimes this may happen, but they would like to have known about it in advance.

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**Status and Path forward for Training Focus Area of the EM QA Corporate Board**  
**(Ken Armstrong, DOE – EMCBC)**

Ken Armstrong provided a discussion of the current status of the training efforts that are resulting from the EM QA Corporate Board. The focus has been on CGD, S/CI, procurement (flow down of requirements), and software QA. Ken indicated they are still working through the needs evaluations, so if the contractors have any ideas or information, please send it to Ken. Right now, the effort is not including the QC portion but focusing on Quality Engineering and Quality Management training. Areas such as QC have extensive standard and their own technical communities. The final solution may not be right for everyone, but may include options for (1) no money available; (2) bringing the class to your office/location; or (3) sending your people to take the class elsewhere.

Mike Mason noted the group should tap into the EM QA Corporate Board Commercial Grade Dedication classes that are already developed.

Norm Barker noted the importance of understanding codes and code application.

Rick Warriner discussed that some initiatives are currently ongoing across the complex, such as the Aiken Technical College efforts. We need to have some basic principles in order to get ahead of the problem.

Ken Armstrong noted that TJ Jackson at the EMCBC is also involved in the Aiken Technical College effort.

Greg Hayward mentioned that there is other experience with community colleges, but the colleges have to show they are putting people to work. With the EM budget and work load, we may not be able to provide the jobs needed to sustain the effort.

Bob Murray responded that he was part of the Development of a Curriculum (DACUM) at Aiken Technical College about 12-15 months ago. At that time, there was a push to use the results in industry with an emphasis on QC in the DACUM. Aiken Technical College had a job survey but it may have changed in the last year. However, there is funding for the effort that is coming from outside of EM.

A comment was made from Savannah River that the current support from industry is still present, and Aiken Technical College is working on a certificate program possibly by next September. The 2 year degree program would follow. There was also discussion that the effort is intended to provide online classes to help expand beyond Savannah River/Aiken.

Bob Murray stated this was consistent with the EM effort at the DACUM to emphasize online classes to enhance the instructor pool as well as make the classes more readily available.

Greg Hayward noted the portability is great and the expertise may be available to perform hands on labs to train QC inspectors. This would be a key to the effort.

A comment was made that On-the-Job training is good and necessary for QC inspectors.

A comment was made that we may not have the same competition for the labor pool that we expected a year or more ago but we still have an aging workforce that makes this effort necessary.

TJ Jackson clarified that the effort has separate directions. The college is good to get fresh talent, but we need to be training current workers as well.

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Bob Murray noted this type of training is referring to the training academy. There was a 40 hour course developed to grow QA resources within EM. We are currently wrestling with continuing that effort going forward using commercial training in lieu of EM in-house training.

Ken Armstrong took an action to work with the Aiken Technical College team to ensure no duplication of efforts.

A question was asked about a historical effort that was similar at Columbia Basin College.

Rick Warriner clarified that the effort was in the 1980s, but the scope and depth were comparable. He has already provided that information to Aiken Technical College for use.

Greg Hayward noted that there are a lot of courses available as part of the Quality Training Resource Center as well that should be considered.

Rick Warriner continued that the training referenced by Greg was updated in the last ~5 years and is also available to the Aiken Technical College.

**Status and Path forward for QA Resources Focus Area of the EM QA Corporate Board**  
**(Bob Toro, DOE - EM-23)**

Bob Toro provided a discussion of the current status of the QA Resources effort that is resulting from the EM QA Corporate Board. The team expects to have a draft of the survey by the end of the month. He noted EM has looked at resources before, but we need to identify what resources to track – QA, QC, QE, etc.

Bob Thompson added that we need to focus and define what we really want and then ensure the survey questions meet that need.

Rick Warriner noted it is difficult to know what is meant by QE. We should focus on QA engineering from beginning to end (e.g., procurement).

Bob Toro noted that some of the definitions being discussed should be defined in the training focus area.

Rick Warriner suggested the survey be broken down by groups such as electrical, mechanical, etc.

Ken Armstrong noted the contractors also purchase support from subcontractors if needed for a short time.

Bob Murray explained this was also addressed issues when Sandra Waisley was in charge of EM-23. The DNFSB has reviewed information such as the number of QA resources and we need to be consistent. The usefulness of the information is also a key and any training approaches should be useful to the sites. We may even want to share resources with other groups such as Science or NNSA. If we only take a snapshot of the resource loading, is it really useful in a month? He recommended the possibility of putting the resources online to address this issue.

San Horton noted that a staffing model to develop numbers is available in one of the 413 documents to aid in identifying needed resources in specific areas.

Mike Mason indicated that commercial nuclear has done this previously and they expect 4-7% of the workforce be QA, but it gets confused quickly with teams that come in to do assessments. They are there for a short period, but do they count toward the QA resources?

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**Status of MOU and Path Forward for Integration of JSEP and BMAC Programs (Mike Mason, EFCOG and Christian Palay, DOE – EM-23)**

Christian Palay provided a status of the JSEP efforts and included two major efforts. First, a successful contractor JSEP assessment has been completed demonstrating the system. The current effort is to now document the process of integrating the site contractors into the JSEP program. Second, BMAC has agreed to look at integrating with EM and JSEP. EFCOG is helping pursue the integration since they participate in both groups. A primary difference is that NNSA is using a Master Suppliers List, which EM has not been successful at pursuing to date. The MOU is currently waiting on the results of the integration efforts and resolution of some governance questions.

Mike Mason provided some additional detail for the JSEP program. The database is available to EM and BMAC. In addition, there has been an additional assessment completed, so there are two reviews demonstrating the JSEP system. The primary issue identified in these two reviews is the coordination of resources. He also noted that Paul Bills will be stepping down from the JSEP effort, but a new individual has already been assigned to continue the program. There are still some key differences between the JSEP and BMAC programs such as BMAC allows anyone to add people to the approved list where EM performs joint reviews to add the supplier to the system. The question will be whether to combine or maintain both databases. He noted it will be sensitive to recommend doing away with one of the databases. He also noted that there could be 200-300 suppliers in the system, and a volunteer group to conduct the joint audits may not be feasible, but funding will be needed to form a group to perform the evaluations. Based on discussions with NNSA, BMAC does not have sufficient information to pull a report from their database and have all of the information and background needed to evaluate use of the report, but are interested in this type of enhancement to the reports. Sharing resources and consistency in the reports would be a key issue to the success of any integration.

Bob Toro asked if there has been any discussion with NNSA about integration given the current differences.

Christian Palay responded that the discussion has taken place and NNSA is enthusiastic about the potential for integration, especially with respect to adding detail to their current report templates. He also noted that the Waste Treatment and Isolation Project will be a key partner for the success of the program.

Mike Mason clarified that the Waste Treatment and Isolation Project lawyers were primarily concerned with due diligence and that concern has been resolved. They will participate in the JSEP program and think it will be a benefit to the complex.

**Comparison of Engineering Practices Working Group and Quality Assurance Working Group (Charlie Kronvall, EFCOG)**

Charlie Kronvall went over the subgroups for Engineering Practices Working Group and compared them to the current QA efforts discussed in this meeting. He indicated that some additional support could be used, especially in the testing sub-group if anyone was interested. He also noted that the Commercial Grade Dedication sub-group is linked with the current EM Commercial Grade Dedication efforts.

**Meeting Adjourned**