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Strategic Role of EM Corporate Quality Assurance (QA) Board

Dr. Steven L. Krahn
Deputy Assistant Secretary
Safety and Security Program, EM-20
Office of Environmental Management
U.S. Department of Energy



- Dr. Steven Krahn has more than 30 years of experience in government, private industry and the military. His management highlights include: \$140 million complex overhaul of a nuclear submarine; \$30 million nuclear work package for two submarines; technical direction of the R&D program for two major DOE program offices; the design and construction efforts for two major safety upgrades at DOE nuclear facilities; directing a \$25 million division in an engineering services company; and providing senior technical consulting services to the U. S. nuclear industry. Dr. Krahn received his PhD in Public Administration from the University of Southern California in 2001 and serves as the Deputy Assistant Secretary for the Safety and Security Program within the Office of Environmental Management.



Present EM's approach and strategy to leverage a Corporate QA Board to improve the safe and correct execution of its diverse mission

- Background
 - EM QA Program
 - Requirements expectations
 - Legacy and current QA challenges facing EM
 - Elements of EM strategy to strengthen and institutionalize QA
 - Program evolution and lifecycle

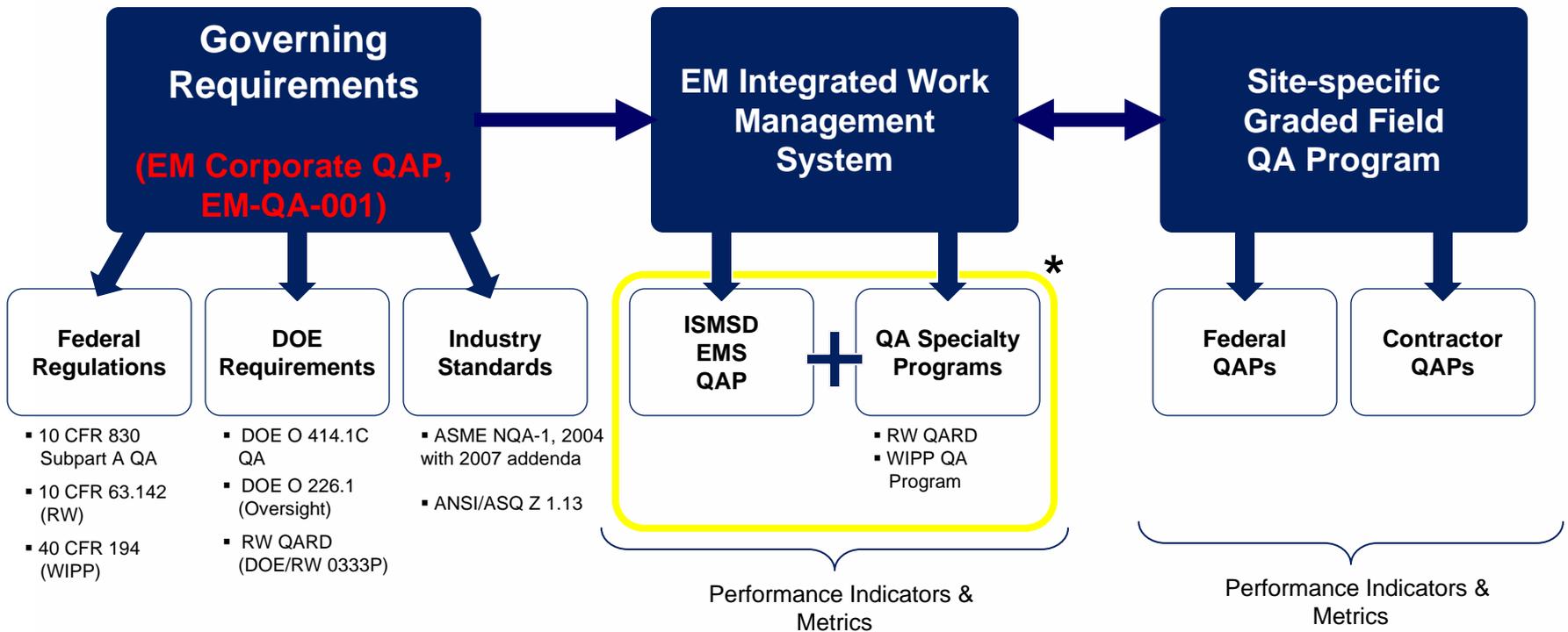
- Corporate QA Board
 - Drivers and characteristics
 - Strategic objectives
 - Recent accomplishments
 - FY 2010 priorities

- Takeaways



Background

EM Corporate QA Program



*** Ongoing EM Priority:**

Integration of QA and EM Safety/Environmental Management Systems ----including Development of Corporate Performance Metrics



Background:

Legacy and Current QA issues and needs facing EM

- Variation in maturity and effectiveness of site-specific QA practices
- Proactive integration of QA in early stages of design, engineering, construction, and operations
- Effective management and execution of commercial grade dedication (CGD) programs, processes, and practices
- Comprehensive and consistent application of QA requirements/expectations in the procurement process (flow down)
- Real-time operational awareness/performance monitoring of vendors and subcontractors activities to ensure conformance with prime contract's requirements
- Varying degrees of adequate QA resources in terms of quantity, capacity, and capability
- Continued issues associated with configuration management, software quality assurance, and suspect/counterfeit items (S/CIs)

Background:

Elements of EM Strategy to Institutionalize and Strengthen QA

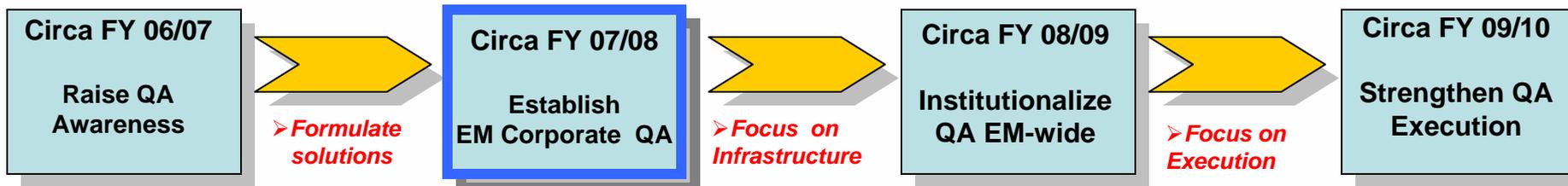


- Streamlined and clear QA expectations and requirements
- Stability and predictability in corporate decision making
- Ready access to and availability of QA resources and expertise
- Stringent performance accountability and transparency
- Timely operational awareness, meaningful QA performance metrics, and effective closure of corrective action plan commitments
- Robust performance-based audits/reviews
- Development and dissemination of root cause analysis and lessons learned
- **Enhanced management engagement and awareness**



Background

Lifecycle/Evolution of EM Corporate QA Program



Reinvigorate QA Get the QA message out!

- Frequent Audit/Assist visits
- Compliance focused
- Ensure prime contracts include QA Order
- Extensive Senior mgmt involvement

Create EM corporate QA identity

- Define DOE/EM requirements & expectations
- Nuclear industry codes/standards
- **Established EM Corporate QA Board**
- Lessons learned
- Best practices
- Others

Build QA capacity and capability

- Tools, resources
- Operational awareness
- Training/qualifications
- New hires
- Audits/assessments
- Technical assists

Enhance QA execution and performance

- Tech assistance
- Field accountability
- Engineering, design, construction projects
- Transparency in decision-making
- Risk-based and targeted assessments

Focus on implementing EM's strategy



EM Corporate QA Board

Drivers and Characteristics

Drivers

- Enhance management awareness, accountability, and engagement in QA program development and implementation
- Minimize project risks by ensuring consistent EM-wide focus on early integration of QA in EM activities and processes; e.g., design, engineering, construction, procurement

Characteristics

- Voting Membership consists of Field Office Managers and EM-20/EM-23
- Supported by non-voting members including Site QA Managers as well as senior contractor representatives from EFCOG (EM-23 staff provide technical support)
- Focus on critical and emerging QA issues facing the EM complex
- Authorize work on specific focus areas (e.g., CGD, S/CI) to develop consistent corporate approach to solving QA issues and challenges
- Regularly scheduled face-to-face meetings and video-conference to review work progress, discuss alternatives and strategies, and vote on pending issues



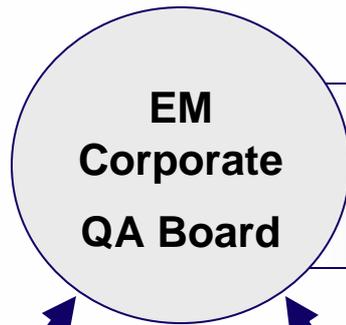
- **Minimize project risks:**
 - Assemble QA leaders and experts from diverse cross-section of EM Community (HQ, Field, Contractors, Industry)
 - Form the nucleus of a collaborative QA expert working group
- **Serve a leadership role to facilitate effective corporate approach to:**
 - Implementation of EM QA policies, requirements, and expectations
 - Dissemination of lessons learned and best practices
 - Ensuring a consistent implementation approach, including integration of insight, across a diverse set of independently managed federal and contractor QA Programs.
- **Serve as a corporate consensus-building body:**
 - Action oriented focus to develop positions and deliverables
 - Facilitate continuous improvement of QA management systems and processes
 - Instill a quality culture in EM so that sites perform work safely and correctly
 - Ensure availability of stable and qualified QA workforce engaged in work planning and work execution



Corporate QA Board

A key element of EM's overall strategy to institutionalize QA

Value Added: Proactive Corporate QA Risk Management



Maintain focus and management attention on identified QA priority issues

Spearhead development of consistent strategies and solutions to address QA needs and challenges

Facilitate dissemination and complex-wide sharing of QA lessons learned and best practices

Enhanced management engagement and accountability

Coordinated EM QA community consensus building and awareness

Strengthened technical rigor and performance expectations

Consensus based tools for advancing quality





- Developed standard contract language associated with QA for DOE procurements
- Provided analysis of requirements flow-down including procurement QA process flow diagram from DOE-EM and commercial nuclear contractors
- Developed training courses for Commercial Grade Dedication including fundamentals and train-the-trainer courses (~30 have completed the train-the-trainer course and ~300 have completed the fundamentals course)
- Developed and presented basic indoctrination and awareness training (~170 have completed the training)
- Developed and hosted Nuclear Vendor Days in Denver, CO (2008) and Augusta, GA (2009)
- Developed stop light indicators for Quarterly Performance Review
- Initiated EM participation in the NEI Manufacturing Outreach Workshop (ongoing)
- Developed a formal “alert” system for documenting and notifying the EM-complex and other DOE offices of nuclear suppliers not meeting QA requirements
- Enhanced Operational Awareness including deployment of a web-based corrective actions Hub
- Supported development of the EM Corporate QA Program



Corporate QA Board

FY 2010 Priorities

- Integration of QA in design and construction projects
- Development of formal approach to grading of QA for D&D projects
- Development of standard guidance for CGD (currently in draft);
- Collaboration with EFCOG on use of a Joint Suppliers Evaluation Program;
- Development of QA Program Performance/Risk data; and
- Prioritization of issues proposed from site representatives across the complex (federal and contractor).



- Senior management awareness and hands-on engagement is critical to success of QA integration
- Clarity of QA expectations and stability of the overarching requirements influences community buy-in
 - Crucial to gain/maintain organizational motivation to make the required site-specific infrastructure investments to ensure sustainable long-term implementation
- Ultimate success requires ongoing operational awareness, at all levels, coupled with a robust QA performance monitoring campaign to enable real-time course corrections
- Collaboration and communication between Federal and contractor QA counterparts is vital to ensure open flow of information, data, and insights to facilitate complex-wide QA improvements

Questions/Contacts



Dr. Steven Krahn

Deputy Assistant Secretary, Safety and Security Program
Office of Environmental Management

202-586-5151

steven.krahn@em.doe.gov

Mr. Robert Murray

Acting Director, Office of Standards and Quality Assurance
Office of Environmental Management

202-586-7267

robert.murray@em.doe.gov

Dr. Larry W. Perkins

Nuclear Engineer, Office of Standards and Quality Assurance
Office of Environmental Management

202-287-5502

larry.perkins@em.doe.gov