



U.S. DEPARTMENT OF
ENERGY

The New Quality Tools of EM HQ

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Office of Standards and Quality Assurance

EM *Environmental Management*

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Speaker BIO

- **Christian Palay has 12 years of experience in government service as a Federal Employee for 3 years and as a contractor for 9 years. His career highlights include: leading performance based audits at the Yucca Mountain Project; oversight of the EM HLW/SNF QA program; and leading initiatives related to supplier quality. Christian Palay received his Bachelor of Science in Mathematics from the University of Nevada in Las Vegas in 1997 and serves as Quality Assurance Specialist within the Office of Environmental Management.**



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Mission

“Complete the safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development, production, and Government-sponsored nuclear energy research.”



Our Priorities are consistent and clear:

- Essential activities to maintain a safe and secure posture in the EM complex
- Radioactive tank waste stabilization, treatment, and disposal
- Spent nuclear fuel storage, receipt, and disposition
- Special nuclear material consolidation, stabilization, and disposition
- High priority groundwater remediation
- Transuranic and mixed/low-level waste disposition
- Soil and groundwater remediation
- Excess facilities deactivation and decommissioning (D&D)
- Continuing DOE missions

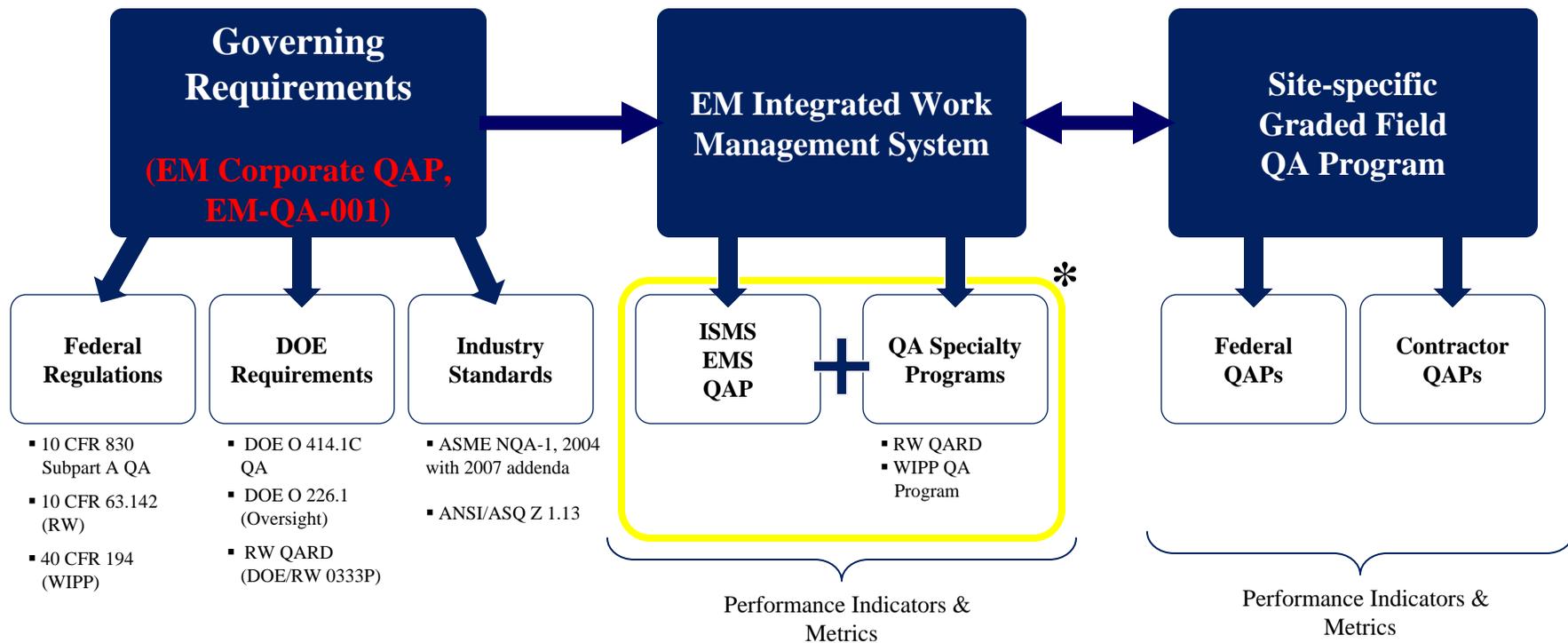


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The EM Corporate Quality Assurance Program



* Ongoing EM Priority:

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



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Examples of Legacy and Current QA Issues

- **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)**



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The EM Oversight Strategy

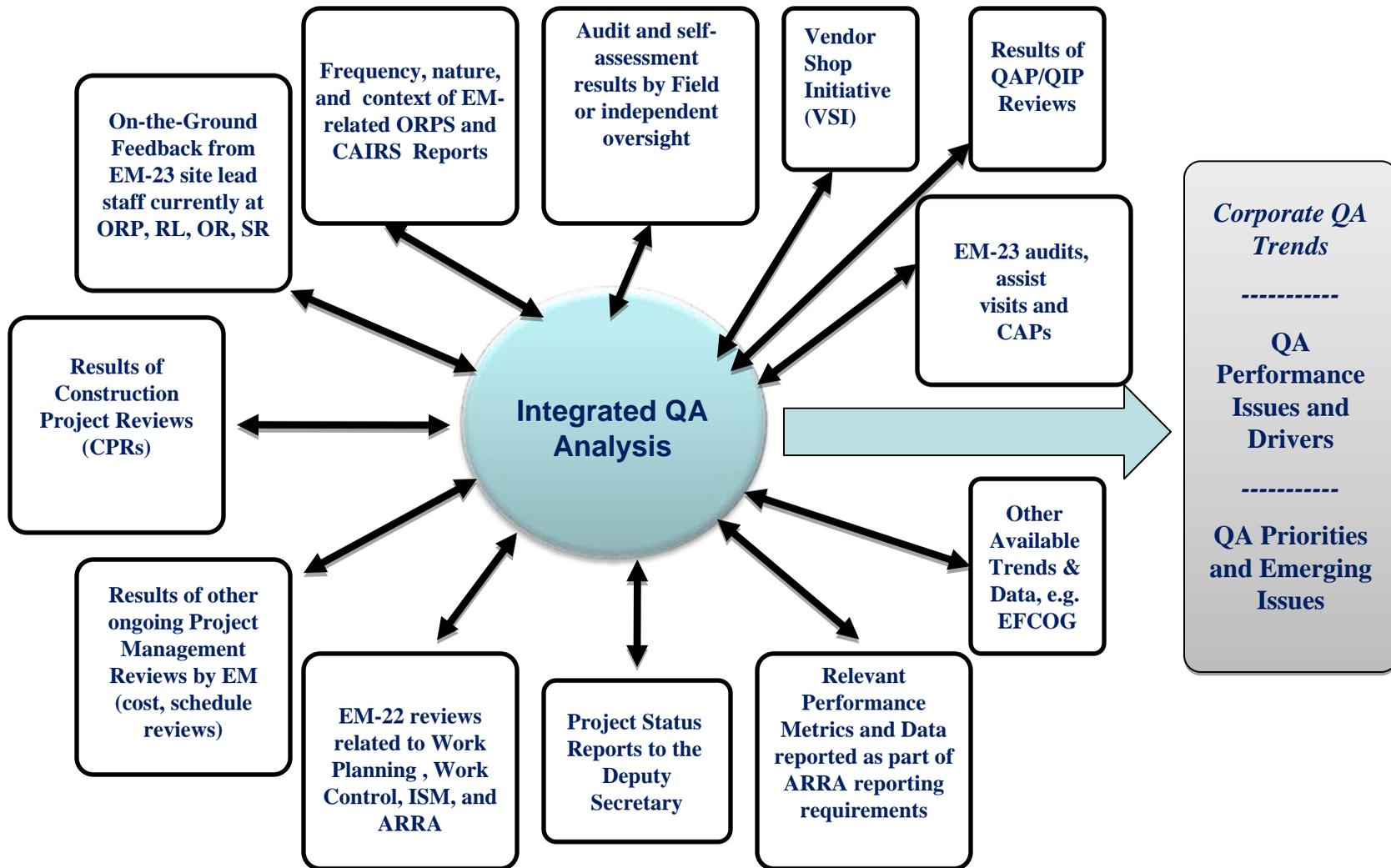
- **Reflects an integrated operational awareness process**
 - **Focus on risk significant and critical path activities**
 - **Priority-based allocation of resources responsive to senior EM leadership expectations:**
 - **Major Construction Projects**
 - **Implementation of Site-specific QAPs/QIPs**
 - **Crosscutting generic QA issues (CGD, S/CI, procurement, monitoring of vendors/subcontractors, graded approach, configuration management, software QA, Code of Record requirements)**
 - **ARRA-funded projects**
 - **Follow-up of corrective action commitments**



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Leverage the Potential Available Information & Data Analysis



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So what does it all mean?

- **By using this strategy for oversight, EM HQ will conduct value added oversight that will be**
 - **Risk Informed**
 - **Prioritized**
 - **Efficient use of resources**
 - **Ability to adapt to current trends & issues**
 - **Commercial Grade Dedication**
 - **Suspect/Counterfeit Items**
 - **ARRA**
 - **Software QA**
 - **Configuration Management**
 - **Requirements Flow down**
 - **And.....so forth**



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The EM Quality Assurance Hub Objectives

- **Enhance Headquarters/Field Office partnership to accomplish EM mission**
- **Increase corporate return-on-investment on QA related corrective action plans (CAPs). Corporate strategy is to ensure that:**
 - **Commitments agreed to in CAPs are responsive to the underlying causes**
 - **Commitments are implemented consistent with agreed upon milestones and resources**
 - **Timely effectiveness review is performed to verify and validate root causes have been addressed**
- **Enhance dissemination and application of lessons learned**
 - **Provide technical basis and tangible operating experience for use by other projects and sites**
 - **Support root cause analysis**



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CAP Legacy Issues at EM Headquarters

- **Lack of real-time (or timely) operational awareness of implementation status of CAP commitments**
- **Onsite verification of CAPs completion and effectiveness reviews were not consistently performed**
- **Development of CAP commitments were not always based on effective root cause analysis**
- **Frequent observation of similar or citing of repeat QA issues raised corporate concerns in terms of soundness of CAP development process, effectiveness, and value-added**



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Overview of the QA Hub

- **Web-based---** One of its key attributes is to shed greater transparency and accountability on how EM-HQ discharges its QA assessment/audit responsibilities
 - **Reflects the institutionalized processes and steps defined in the EM-HQ Assessment procedure**
 - **Provides a traceable history and technical basis for commitments and decisions from the interfaces between the Field Offices, their Contractors and HQ**
 - **Enhances communication and cooperation between EM-HQ and the Field Offices**



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Specific Benefits from the QA Hub

- **Enhances the rigor and formalism in identification of QA findings that require CAPs**
 - **Links each finding to a specific regulatory requirement and expectation—not the auditor’s wish list**
 - **Provides relative significance and priority for findings—Helps management with basis for resource allocation decisions and sense of urgency**
 - **Identifies repeat findings, and SQA issues—helps with performance analysis**
 - **Requires root cause analysis for high priority findings– needed for CAP approval**
 - **Requires supporting documentation for CAP completion, verification, and effectiveness reviews**



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Current Status of QA Hub

- **Implemented on a pilot basis in July 2009**
 - **System populated with 2008 and 2009 audit reports and approved CAPs**
 - **System demonstrations have been conducted at several sites (RL/SRS/ORP/ID/ORO)**
 - **Positive feedback and suggestions have been received**

- **Official system launch in April 2010 - Hosted at the EM Consolidated Business Center**
 - **Secure server environment**
 - **Further update and refinements, as needed**



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QA Hub Demo Screen Shots



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EM-HQ Quality Assurance (QA) HUB

Performance Status
Corrective Action Plans (CAPs)

- Transparency
- Accountability



- Home
- My QA CAPs
- Highlights
- Audits
- Reports
- Control Panel
- Help
- Logout

Please Select The Site To Display

View By Fiscal Year

Oak Ridge Operations Office (ORO)



# of Audits	# of Findings
10	43
# of CAs Required: 26	
# of CAs Submitted: 0	
# of CAs Completed: 43	

Idaho Operations Office (ID)



# of Audits	# of Findings
9	14
# of CAs Required: 4	
# of CAs Submitted: 2	
# of CAs Completed: 11	

Savannah River (SRS)



# of Audits	# of Findings
18	82
# of CAs Required: 60	
# of CAs Submitted: 38	
# of CAs Completed: 19	

Portsmouth-Paducah Project Office (PRPO)



# of Audits	# of Findings
4	0
# of CAs Required: 0	
# of CAs Submitted: 0	
# of CAs Completed: 0	

West Valley Demonstration Project (WVDP)



# of Audits	# of Findings
2	12
# of CAs Required: 0	
# of CAs Submitted: 0	
# of CAs Completed: 12	

Richland (RL)



# of Audits	# of Findings
8	73
# of CAs Required: 31	
# of CAs Submitted: 2	
# of CAs Completed: 64	

Carlsbad Field Office (CBFO)



# of Audits	# of Findings
2	22
# of CAs Required: 22	
# of CAs Submitted: 0	
# of CAs Completed: 0	

Office of River Protection (ORP)



# of Audits	# of Findings
9	3
# of CAs Required: 0	
# of CAs Submitted: 0	
# of CAs Completed: 3	

Brookhaven National Laboratory (BNL)



# of Audits	# of Findings
2	9
# of CAs Required: 0	
# of CAs Submitted: 0	
# of CAs Completed: 9	

Moab Federal Project Office (MFPO)



# of Audits	# of Findings
2	0
# of CAs Required: 0	
# of CAs Submitted: 0	
# of CAs Completed: 0	

Listing 10 Sites Consisting of 66 Audits
(692 Issues, 258 Findings, 3 SCAQ, 67 SQA, 0 Repeat Findings)

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EM-HQ Quality Assurance (QA) HUB

Performance Status
Corrective Action Plans (CAPs)

- Transparency
- Accountability



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2007

Please Select The Fiscal Year To Display

View By Site

Fiscal Year: **2007**

DOE Site/Field	Audit Number	Organization	Audit Lead	Report Issue Date	Regulatory Basis	# of Audit Issues
Idaho Operations Office (ID)	EM-PE-07-002	CWI	RMurray	6/11/2007		30
Office of River Protection (ORP)	EM-PE-07-008	CH2M Hill	RMurray	9/25/2007		8
	EM-PE-07-001	Bechtel National Inc. (BNI)	RMurray	5/7/2007		28
Portsmouth-Paducah Project Office (PRPO)	EM-PE-07-004	Portsmouth-Paducah Project Office (PRPO)	RMurray	7/24/2007		17
Richland (RL)	EM-PE-07-006	Fluor Hanford	RMurray LPerkins	9/11/2007	EM-QA Audit	20
Savannah River (SRS)	EM-PE-07-007	DOE-SR	RMurray	8/21/2007		12
	EM-PE-07-003	Parsons	RMurray	7/9/2007		43

Fiscal Year: **2008**

View Audits For FY08

Fiscal Year: **2009**

View Audits For FY09

Fiscal Year: **2010**

View Audits For FY10

Fiscal Year: **2011**

View Audits For FY11

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EM-HQ Quality Assurance (QA) HUB

Performance Status
Corrective Action Plans (CAPs)

• Transparency • Accountability



Home My QA CAPs Highlights Audits Reports Control Panel Help Logout

EM Site/Field: Moab Federal Project Office (MFPO)

Location: Grand Junction, CO

Fiscal Year / QTR

Display Audits

Organization

Audit Type

All FY's

All QTRs

All

All Organizations

All Review Types



Audit Number	Audit Status	Audit Type	Report Issue Date	Audit Scope	# of Issues
EM-PA-10-08 <i>Moab Phase II V/V QAP/QIP Implementation/Field Self-Assessment</i>		Standard	10/25/2010	TBD	0
EM-PE-08-002 <i>Moab Uranium Mill Tailings Remedial Action (UMTRA) Project</i>		Assist Visit	3/25/2008	Moab Uranium Mill Tailings Remedial Action (UMTRA) Project-Moab, UT-Grand Junction, CO	32

Total of 2 Audits Found.

Create New Audit

Edit Existing Audit



Audit Number:

Create Audit



EM-PA-10-08

Edit Audit

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In Conclusion

- **These initiatives (the Oversight Strategy and the CA Hub) demonstrate the commitment of the EM Safety and Security Program (EM-20) that includes the Office of Standards and Quality Assurance in helping to ensure the success of the EM mission and the EM Journey to Excellence.**
- **Continuous improvement depends on ongoing and timely operational awareness, at all levels, coupled with a robust QA performance monitoring campaign**



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