EM-53 Lessons Learned Bulletin

October 2013

EM Project Management Good Practice Norms

PMLL Identifier: PMLL-2013-EM-PM-Other-Norms-001

Contact: Jim Carney, 301-903-6583

Date: 9/17/2013

Statement:

EM identified 50 Project Management (PM) Lessons Learned (LL) "Good Practice Norms" from the EM projects in the PARS II database. These items were transmitted by an ARRA PM LL Questionnaire to all EM sites and rated by responders that had experienced the LL. The top rated LL items/norms that were experienced and rated as highly important to project success are addressed in the analysis section below. A list of all 50 PMLL norms is included in the attached file under six subgroups: Planning, Staffing, Documentation, Reviews, Contingency and Management Reserve, and Administration. These LL Good Practice Norms will be updated to incorporate new LL norms.

Discussion:

The 50 PM Good Practice Norms came from EM projects listed in the DOE Project Assessment and Reporting System (PARS II) database as of January 2013. These LL norms were from LL reports or Close Out reports and were mostly one paragraph in length, i.e., not in the HSS format with a discussion, analysis, or action section.

Analysis:

The response to EM March 2013 ARRA PM Questionnaire was very successful. There were 26 responses (Federal and Contractor) to the survey and at least one response was received from each of the EM sites. Each of the 26 responses on the 50 LL items/norms was reviewed with a focus on those responders that had experienced the LL and would rate the LL as Highly Important to project success. Also, the responses from the Federal verses the Contractors on the Highly Important LL were analyzed.

The number one item/norm that was selected as the most important LL for project success by both the Federal and Contractor responders was LL #10, adequate project management resources must be available. This LL is in the attached PMLL Norms under the subgroup Staffing.

The top rated LL items/norms that were experienced and rated as highly important to project success are stated below, with the most important listed first:
- (LL #10) Adequate Project Management resources must be available.
- (LL #19) The project must provide adequate field inspectors and adequate oversight staff.
- (LL #30) Weekly DOE/Contractor status meetings facilitated timely resolution of potential issues.
- (LL #3) The project should maintain a good working relationship with communities and oversight agencies. [see photo]
- (LL #4) The project must ensure that the vendors and contractors understand the quality-level expectations at the beginning of the work.
- (LL #7) The relationship between the FPD and the Contractor Project Director must be positive.
- (LL #13) When issues are identified, a corrective action plan strategy needs to be established.
- (LL #24) Conduct daily pre-job briefings with all applicable oversight, subcontractors, and vendors.
- (LL #32) Rigorous focus on risk and earned value performance was critical to project success.
- (LL #39) Provide consistent oversight during characterization/cleanup activities and maintain a questioning attitude to ensure opportunities for improving processes during field execution.
- (LL #41) Understanding and embracing the regulatory foundation for the project is essential to successful project completion.

Actions:

1) All Capital Asset projects should be reviewed for adequate Federal and Contractor resources at each Critical Decision point and at each Peer Review.
2) All FPD staff should review the attached list of 50 PM Good Practice Norms for applicability.

Critical Decision(s): CD-0, CD-1, CD-2, CD-3, CD-4

Facility Type(s): Other

Work Function(s): Construction, Integrated Project Team, Project Management, Reviews (Technical, EIR, IPR, ICE, etc.)

Technical Discipline(s): Energy

Per LL#4, projects should maintain a good working relationship with communities. This photo demonstrates this principle whereby Savannah River Nuclear Solutions (SRNS) President and Chief Executive Officer Garry Flowers, updates about 125 stakeholders and members of the nuclear community on the Recovery Act Program at the Savannah River Site. In his presentation to Citizens for Nuclear Technology Awareness (CNTA) on June 15 in Aiken, S.C., Flowers shared strategies for SRS' focus on safety, major Recovery Act projects and first-year progress in terms of Recovery Act workforce investment and completed projects. Flowers explained major Recovery Act projects, including shipping more than 800 cubic meters of transuranic waste to the Waste Isolation Pilot Plant in Carlsbad, N.M., reducing the height of the 293-F Stack, characterizing 24 waste units, remediating 11 release sites, using in-situ decommissioning on three reactors, and the May 25 implosion of K Cooling Tower, the second-largest cooling tower to be demolished worldwide. (June 19, 2010)

EM Project Management Lessons Learned
Good Practice Norms

(The listing number (#XX) is not a ranking number)

Listing #	PM LL Norms	PARS #
	PLANNING:	
(#12)	• An early project trending program provided warning of potential cost and schedule issues.	387
(#18)	• Recognition of the magnitude of quality issues early can prevent increased cost and schedule impacts.	387
(#22)	• Contractors that do not have prior DOE experience will need support.	646
(#23)	• Regulatory plans should be developed with sufficient flexibility to allow field changes.	646
(#27)	• A rigorous flow-down of requirements can assist inexperience contractors.	457
(#28)	• Interim milestones/completion criteria with incentives were a key component to project success.	403
(#29)	• On future projects, additional time should be spent in the planning stage to fully understand the potential for conflicts due to differing requirements for ARRA and Base KPPs.	493
(#33)	• Measurable interim milestones and a contract incentive fee were key to project success.	403
(#34)	• An acquisition strategy that allowed Contractor responsibility for the design, procurement, and construction minimized accountability issues.	403
(#36)	• A DOE representative should be involved early in the ATP planning phase to ensure there is agreement on the rigor of the ATP process.	403
(#40)	• Facilitated communication between regulatory agencies and technical personnel and managers at the Site can be extremely beneficial.	550
(#41)	• Understanding and embracing the regulatory foundation for the project is essential to successful project completion.	550
(#43)	• Stay abreast of emerging regulatory changes to avoid potential schedule and cost impacts.	550
(#47)	• Time delays and cost overruns incurred as a result of unknown conditions below-grade could have been minimized by a geophysical survey prior to contract award.	431
(#49)	• Delayed remedial action on excess contaminated facilities and limited surveillance and maintenance budgets can result in accelerated facility deterioration.	666
	STAFFING:	
(#02)	• A FPD should plan to seek out individuals with required skills in every fact of the project.	387
(#06)	• Prior to CD-1, the project team should be staffed.	387
(#09)	• Project personnel should be co-located at the job site.	387
(#10)	• Adequate Project Management resources must be available.	387
(#11)	• Turnover of key personnel (Federal and Contractor) should be minimized.	387

(#14)	• Adequate personnel are needed to be budgeted into the project to support DOE reporting and many special requests.	387
(#19)	• The project must provide adequate field inspectors and adequate oversight staff.	387
(#35)	• To enhance communication and oversight, dedicated office space at the facility should be provided for both the Federal personnel and/or their support contractors.	403
(#44)	• For Cleanup projects that take a decade or more, establishing a Core Team of members from each agency early will minimize the risk of construction delays.	550
(#45)	• DOE personnel need to focus on ensuring that the contractor assurance system is in place; otherwise, DOE staff could inadvertently be providing safety oversight for the project.	431
(#46)	• The loss of staff and replacement with short term or rotational staff has a large effect on the effectiveness of DOE oversight of contractor activities.	431
	DOCUMENTATION:	
(#05)	• The Project Execution Plan should be signed by both the DOE and the Contractor.	387
(#13)	• When issues are identified, a corrective action plan strategy needs to be established.	387
(#31)	• Establishing a relationship with DOE-HQ staff expedited approval of CD-4.	403
(#48)	• Use of historical facility data without additional up front characterization does not provide sufficient information to adequately bound cost and schedule impacts of risks and unknowns.	666
(#50)	• Facility characterization data should be collected and made available as early as possible to support the acquisition process and facilitation of project planning functions.	776
	REVIEWS:	
(#16)	• Formal reviews of the documentation required for critical decisions and large subcontracts should be conducted.	387
(#20)	• Project personnel should participate in off-site equipment demonstration to inspect equipment prior to mobilization.	646
(#21)	• Perform management self assessments prior to start of operations.	646
(#26)	• Providing subcontractor reports prior to arrival on site allows time for issue resolution.	646
(#32)	• Rigorous focus on risk and earned value performance was critical to project success.	403
	CONTINGENCY AND MANGEMENT RESERVE:	
(#01)	• Project needs to utilize both the contractor Management Reserve and DOE held contingency, not just the MR.	387
(#08)	• The Contractor needs to have a management reserve in order to cover variances.	387

ADMINISTRATION:

(#03)	• The project should maintain a good working relationship with oversight agencies.	387
(#04)	• The project must ensure that the vendors and contractors understand the quality-level expectations at the beginning of the work.	387
(#07)	• The relationship between the FPD and the Contractor Project Director must be positive.	387
(#17)	• When the craft does not have the experience needed, craft training should be required.	387
(#15)	• A request-for-information system should be established to formally communicate between technical disciplines and design engineering and design authority.	387
(#24)	• Conduct daily pre-job briefings with all applicable oversight, subcontractors, and vendors.	643
(#25)	• Establish a practice of “timeout”, used when task instructions are not understood, unclear, or conditions change in the field.	643
(#30)	• Weekly DOE/Contractor status meetings facilitated timely resolution of potential issues.	403
(#37)	• The Federal Project Director should control the Site badging process.	403
(#38)	• Train Federal Facility Representative (FR) and Subject Matter Experts (SME) on the specific contract language and on the differences between construction and operations, as defined in the CFR and DOE Orders.	645
(#39)	• Provide consistent oversight during characterizations/cleanup activities and maintain a questioning attitude to ensure opportunities for improving processes during field execution.	550
(#42)	• Project/program managers need to access legal opinions throughout the duration of the project.	550