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Critical Analysis Team Report on General Silos Issues

CAT Report #18

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15 November 2000

Cost and Schedule Tracking

The Critical Analysis Team has reviewed and attempted to analyze the past four months Silos Project Variance Analysis Reports. The CAT appreciates the efforts and time of project controls personnel in responding to CAT questions on the variance reports and requests for additional information.

Overall, the silos project does not have a cost and schedule reporting system that can be utilized as an effective tool for managing projects. As part of the system, the existing WBS dictionary does not meet the normally accepted definition of such a document. Following are several reasons that the variance analysis reports fail to provide useful information and are extremely difficult to analyze:

- Including estimated monthly cost accruals as part of the ACWP can lead one to assume more progress than has actually been achieved. This could also lead to a negative schedule variance that does not reflect reality. Accruals are generally associated with an accounting system, not a project management system.
- Cost Account Status and Variance Report Sheets are often incomplete in the areas of problem analysis, tasks/project impacts and corrective action plans even though variance thresholds (\$50,000 and 10%) have been exceeded.
- In general, variance explanations (problem analysis and corrective action plans) are not specific and do not identify responsible individual(s) or expected completion dates. In some cases the variance analysis reports as identified by the WBS number are not compatible with the scope of work described in the Work Breakdown Structure dictionary.
- The FY 2000 budget analysis section of the report addresses fiscal year variances. These data cannot be reconciled to any other report data nor do they appear to add value to the report.
- The cost data and variances are reported at the cost account level and thus at a large BAC. As a result, performance in one area can be masked by performance in another area.
- The variance threshold requirements (\$50,000 and 10%) could easily allow work to significantly deviate from established baselines before the system identifies the variance as requiring resolution.

Variance analysis reports, when done correctly, are extremely valuable in managing the project through early identification of problems, projecting trends and providing an



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accurate monthly status of work. In addition, it is important that regular structured project status briefings are presented to management and project team members to discuss, track and resolve issues raised in the variance analysis reports. The CAT was unable to determine whether such briefings were occurring on a regular basis.

The CAT recommends that the cost and schedule control system be implemented at the work package (task) level with variance thresholds customized to each work package. By tracking to this level, the system will be a more useful tool for project managers.

Configuration Management

The CAT conducted a brief review of the project files at Engineering/Construction Document Control (ECDC). ECDC personnel were helpful, competent and appeared well-trained. The CAT found the following deficiencies which appeared to be the result of inattention on the part of the silos project in implementing configuration management practices and principles:

- Many meeting minutes appear to be missing.
- Many documents are duplicated.
- There was no order (chronological or otherwise) to the documents.
- Many documents were in the wrong file. For example, a great deal of Silo 3 documentation (including DCN 's and meeting minutes) were found in the General Correspondence file (1.5). Apparently the silos project is not informing ECDC of the appropriate location for each document
- The document quality and quantity varied greatly between silos projects. In short, it didn't appear that a consistent approach to configuration management exists within the silos project.

The CAT recommends that the silos project conduct a self-assessment of silos records to identify and implement corrective actions. Further, a configuration management procedure should be developed and implemented that ensures all project documentation is received, identified and appropriately distributed by a central document clearinghouse. It is critical that the quality of the project records be improved to support claims avoidance, claims settlement, Operational Readiness Review, and preparation of operations and maintenance manuals. Lastly, the CAT still has a concern that document review (in particular, design review) comments resolutions are not being represented in recent documents.

On the issue of configuration management, the CAT references CAT report #9 (14 September 1999). In that report, the CAT reinforced the importance of sound document control and recommended that Fluor Fernald Project Managers conduct periodic audits of document controls, review processes and procedure compliance.

Remote



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In past reports the CAT outlined its concerns with remote arm based retrieval of both Silo 3 and AWR. The CAT briefly reviewed EMMA as it is represented in the AWR Draft Remedial Design Package and conducted interviews with silos project operations and maintenance management.

Operation and maintenance of the arms present potential project showstoppers if the workforce is unable or unwilling to conduct the necessary activities. Because of this, the CAT recommends Fluor Fernald pursue timely resolution of the maintenance and operations issues raised by the remote arms (in particular, the AWR EMMA tower).

The CAT greatly appreciates the responsiveness of operations and maintenance management to CAT inquiries. The CAT is reassured that operations and maintenance management recognizes issues that the CAT has identified, particularly the difficulties associated with operating remote arms. The CAT is also encouraged that operations and maintenance management is attempting to obtain appropriate personnel, implement long-range planning and develop processes and procedures that will lead to orderly testing and facility startup. The CAT expects upper Fluor Fernald management to acknowledge and support these activities.

Silo 3

Lastly, the CAT has continued to monitor the Silo 3 project. The contract difficulties continue to be extended with no apparent productive progress. The CAT repeats its recommendation for speedy resolution of the situation and evaluation of alternatives to bring this important project to a successful conclusion.

Recommendations

Recommendation 18-1: Ensure that the maintenance and operations workforce is both able and willing to conduct necessary tasks on these projects. It will be far more cost-effective to identify and resolve these issues in the design phase rather than after construction has been initiated or completed.

Recommendation 18-2: The Silos project should conduct a self-assessment of its configuration management. Further, a configuration management procedure should be developed and implemented that ensures all project documentation is received, identified and appropriately distributed by a central document clearinghouse.

Recommendation 18-3: The Silos project cost and schedule control system be implemented at the work package (task) level with variance thresholds customized to each work package.