

## **REPORT: TECHNICAL UNCERTAINTY AND RISK REDUCTION**

### **Background**

In FY 2007 EMAB was tasked to assess EM's ability to reduce risk and technical uncertainty. Board members explored this topic throughout the year as a component of their focus on the previously discussed topic of Discretionary Budgeting.

### **Discussion**

Understanding the risks and variability associated with EM's projects is a challenging task that has the potential to significantly impact the program's established baselines. According to budget personnel, EM has established a database of baseline variables and possibilities; however, this tool is project-specific and does not apply to the greater complex. The Board believes that EM could benefit from incorporating an additional and more comprehensive data point into the baseline development process that budgets around various risk scenarios.

EM understands risk mitigation once scenarios have been identified. However, the program could improve its ability to clearly identify the monetization of risk with regard to costs, schedules, compliance agreements, safety, etc. It is important that those components of risk be clearly communicated throughout both the budget process and project execution; however, it appears that EM often lacks consistency or commonalities from site to site, contractor to contractor, or project team to project team. Given the amount of uncertainty associated with its mission, a more comprehensive data point and added awareness would increase EM's control over and ability to respond to variability without negatively impacting its projects' funding and schedules.

These issues are not exclusive to EM; they are industry-wide. Board members will continue to dialogue with EM's budget and project planning personnel throughout FY 2008 and share any applicable lessons learned from their commercial experience.

### **Recommendations**

**Recommendation 2008-10: Incorporate additional and more comprehensive data points into the baseline development process that budget around various risk scenarios.**

Suggestions for Implementation:

- Develop comprehensive data points to increase awareness and address the impact of technical uncertainty and risk across the EM complex. Focus should include but not be limited to financial risks; technical risks; risks of "unknowns," and schedule and regulatory risks.