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Mr. Jeffrey Zients
Deputy Director for Management and Chief Performance Officer
The Office of Management and Budget
725 17th Street, NW
Washington, DC 20503

Subject: Section 302 of the Weapon System Acquisition Reform Act (Earned Value Management)

Dear Mr. Zients:

I am responding to the *Open Government Directive* that was issued by Dr. Orszag's office on December 8. The Directive includes the principle of participation. Participation allows members of the public to contribute ideas and expertise so that their government can make policies with the benefit of information that is widely dispersed in society.

Please consider an acquisition reform to improve the effectiveness of Earned Value Management (EVM) for the acquisition of capital assets. It is recommended that policies and regulations be revised to ensure that government agencies receive accurate measures of progress towards milestones for cost, timeliness, *capability to meet specified requirements*, and *quality*, as required by Section 300.5, OMB Circular No. A-11, Part 7, *Planning, Budgeting, Acquisition, and Management of Capital Assets*.

EVMS Standard

Most agencies use EVM based on the ANSI/EIA Standard 748, Earned Value Management Systems (EVMS), to obtain timely information regarding the progress of capital investments. However, there is a serious deficiency in EVMS. The deficiency enables a contractor to be compliant with the EVMS guidelines yet *fail* to report valid performance towards meeting a program's cost, schedule, and technical objectives. EVMS does *not* provide sufficient guidance to link reported earned value with progress towards meeting the quality or technical performance requirements of the customer (Quality Gap). Instead, EVMS waives a requirement to link EV to technical performance.

DoD Report to Congress

The DoD recently submitted a report to Congress as required by Section 887 of the FY 2009 National Defense Authorization Act as amended by Section 302 of the Weapon System Acquisition Reform Act of 2009. The report is *DoD Earned Value Management: Performance, Oversight, and Governance* (Report).

The Report concludes that the utility of EVM has declined to a level where it does not serve its intended purpose. It also included many valid recommendations for corrective actions. Unfortunately, the Report also contains incorrect and insufficient information. Most importantly,

the Report provides no recommendation for legislative action to link earned value with technical performance.

I provided additional information and recommendations to the Senate and House Armed Services Committees in the attached letter (Senate letter is attached). It is also requested that you consider making appropriate changes to OMB Circular No. A-11.

Summary DoD Evaluation of Accuracy of EVM Data

Section 887 (a) (5) of the FY 2009 National Defense Authorization Act requires an evaluation of the accuracy of the EVM data provided by vendors to the Federal Government concerning acquisition categories I and II programs, with a discussion of the impact of this data on the ability of the Department to achieve program objectives. For your information, an extract of the Report with regard to the evaluation follows.

1. Change in...culture is necessary
 - Encourage Program Managers to identify and quantify the impacts of schedule slips and cost overruns
 - Contractors often worry that poor performance may result in
 - Program cancellation
 - Reduced profits
 - Damaging performance evaluations
 - Contractors may circumvent proper EVM practices to keep EVM metrics favorable and problems hidden
 - Engineering community should establish technical performance measures that enable objective confirmation that tasks are complete
2. Accuracy of EVM data provided by vendors...in conveying the true status of the project
 - Various subsystems that make up many contractors' EVMS are not integrated, resulting in inconsistent portrayals of status
 - Schedules often cannot show downstream impacts of problems or cannot determine the critical path driving contract completion
 - When assessing cost and schedule variances, contractors cannot effectively identify the root cause, impact, and appropriate corrective actions
 - Contractors do not have a process for developing reliable estimates at completion
 - Contractor change control processes do not maintain the integrity of the Performance Measurement Baseline
 - Contractors treat EVM as a reporting requirement rather than the management process it is intended to be
 - Many instances of inappropriate changes
 - Arbitrarily changing past variances
 - Moving budgets to mask overruns
 - Making changes that were not properly authorized
 - End result
 - Many Defense contractors cannot accurately predict outcomes that affect program costs or deliveries

- These types of data quality problems hinder the government's ability to meet program objectives by delaying or masking insight into developing problems
- 3. Technical Performance Measures (TPM)
 - EV process is reliable and accurate only if
 - TPMs are identified and associated with completion of appropriate work packages
 - Quality of work must be verified
 - Criteria must be defined clearly and unambiguously
 - If good TPMs are not used:
 - Programs could report 100 percent of earned value..even though behind schedule
 - Validating requirements
 - Completing the preliminary design
 - Meeting weight targets
 - Delivering software releases that meet the requirements
 - PM should ensure that the EVM process measures the quality and technical maturity of technical work products instead of just the quantity of work performed
- 4. Systems Engineering (SE)
 - EV process is reliable and accurate only if
 - Augmented with a rigorous systems engineering process
 - SE products are costed and included in EVM tracking
 - SE life-cycle management method is integrated with the planning of the PMB
 - SE and EVM should be integrated, not stove-piped

Additional Information and Guidance

Additional information and guidance regarding the techniques for integrating technical performance, or quality, with EVM are available at the website www.PB-ev.com . This letter, the letter to the Senate Armed Services Committee, and the summary DoD evaluation are also posted to the website.

I believe there should be acquisition reform for the benefit of the taxpayer and warfighter.

Please contact me if I can provide further assistance.

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