

FACILITIES MAINTENANCE AND ENGINEERING PROCEDURE		
Subject: TREND PROGRAM	FMEP-G-0120	Rev. No. 4
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1.0 PURPOSE

To outline the organization, responsibilities, reporting requirements, and criteria for implementing the Trend Program within the Facility Maintenance and Engineering (FME) Project Controls & Reports Department.

2.0 GENERAL

2.1 Background

The primary objective of the Trend Program is to establish and maintain the agreed-upon baseline project scope, quality, cost, and schedule of projects by tracking and controlling changes. The Trend Program also conveys an understanding of project evolution, as well as preventing cost and schedule surprises. It is essential to document the scope and assumptions in all estimates.

The success of the Trend Program requires the active involvement of the entire project team; including department managers, NCI Representatives, Project Managers, and other project team members.

The Trend Program allows the project team to expeditiously:

- Identify and document project changes
- Segregate the project growth or reduction into two categories; scope changes and non-scope changes
- Identify changes in design, quality and services
- Identify required changes to the project Estimate At Completion (EAC)
- Improve project and customer communication
- Explain cost and schedule variances
- Take corrective action before deviations are irrevocably included in the project
- Consider cost saving alternatives
- Optimize project execution activities

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2.2 Responsibilities

The Directorate/Division Customer (DC) ensures that adequate funding is available to complete any approved non-administrative changes to the baseline scope of work.

The NCI Representative is responsible to approve all scope change trends and schedule trends which are not included in Schedule Contingency. New scope of work will require additional project baseline resources and NCI approval. Contingency Reserve will not be utilized for new scope of work. (See Contingency/Risk Management Procedure FMEP-G-0180).

The FME Director is responsible for the review and approval all non-administrative trends greater than \$100K.

The Manager of Project Operations is responsible to review and approve all non-administrative trends between \$5K and \$100K.

The Project Controls (PC) Manager is responsible for review and approval of all trends. The PC manager is also responsible for coordinating the overall implementation of the Trend Program.

The Project Manager is responsible for utilization of the Contingency Reserve and has approval authority for its use within the framework of the QRAM. The Project Manager has authority to implement and approve administrative budget transfers within the overall project baseline. The Project Manager also will coordinate with the Directorate / Division Customer and the NCI Representative to review and obtain approval of all scope change trends.

Project Controls is responsible for understanding the project budget and scope, monitoring project development, and supporting the project team in flagging all major project deviations. Other Project Controls responsibilities include:

- Facilitate the training and familiarization of the trend process with project team members
- Facilitate the initiation and development of trends with all project team members
- Review and coordinate trends with the project scheduler for determination of potential schedule impacts
- Coordinate the cost and schedule impacts with the Project Manager

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- Prepare and maintain the FME Trend Register
- Coordinate with the Project Cost Analyst to ensure smooth implementation of Trend data into other FME systems

The Project team members are responsible for actively supporting the Trend Program. Responsibilities include:

- Being familiar with the scope (technical requirements, cost, and schedule) of the Work Order
- Notifying the trend engineer or Project Manager of any deviations from the current baseline of the Work Order
- Providing definition of the change and support documentation.

2.3 Definitions

Current Baseline – [also known as Budget at Completion (BAC)] the approved project scope, cost, and schedule recognized by the Directorate / Division customer. It includes all project costs, schedule, and technical requirements that have been identified in the approved Conceptual Estimate (CE) or Fiscal Estimate (FA) plus any approved scope change trends. The current baseline is the basis for the identification of variances and deviations as the project progresses.

Directorate / Division Customer - the individual representing the interest of the Directorate on the Project Team.

NCI Representative – the Project Team member representing the Contracting Officer and/or NCI Operations Director.

Estimate at Completion (EAC) – the projected forecast of the final cost of the work order.

Trend - an item of potential change to the Work Order. This includes any item of change (technical requirements, cost, quantity or schedule) to the project.

Trend Cause – Trends serve to document all changes to the baseline and provide traceability of significant impact items that require NCI approval and minor changes, which are absorbed by the current budget. The Work Order baseline or Budget at Completion (BAC) is updated only after the trend is approved. Trends are categorized based on the following causes:

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- User Requested Change – A change requested by the Directorate / Division customer that causes significant project cost growth or schedule slippage.
- Error / Omission – Cost, schedule, or technical requirements that were not included in the original estimate or errors that affect the current estimate.
- Market Condition Impact- The amount above or below the project estimate for subcontract award. During competitive solicitation in the local market place, the award price as compared to the project estimate is noted as a change due to market conditions.
- Unforeseen Condition – A change that was not known or could not have been known prior to the approval of the scope and commencement of work
- Administrative Change – a change that typically transfers from contingency to an identified QRAM item or from one budget element to another (e.g., a budget transfer from M&S to shop labor). Administrative changes do not require NCI approval.

Trend Disposition – The status and “disposition” of a trend can have one of three possible choices; open, cancelled, or closed.

- A trend is “open” after it is initiated and entered into the database.
- A trend can be “cancelled” if the Project Manager determines that the change will not be realized and that no trend was needed.
- A trend will be “closed” after the trend has been approved and entered into the database.
- A trend will be “rejected” if the NCI determines that the requested change is not approved as a baseline modification. (i.e., request for schedule relief is disapproved)

3.0 PROCEDURE

3.1 Process

a) A project team member identifies a change (technical requirements, cost, and schedule) and provides a write-up with supporting documentation describing the change to Project Controls.

b) Project Controls will utilize an estimate, vendor quote or bid price (as agreed with the Project Manager and the appropriate project team members) to prepare the trend form for approval signatures. Cost and schedule impact (if any) will be detailed for approval.

c) At this point, the trend is considered “open”.

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d) Approval Authorization will be obtained and coordinated between the Project Manger and Project Controls.

e) After approval, Project Controls will change the trend status and update the baseline as required.

f) Trend Resolution

Cancellation – No change to the Project Baseline
 Rejected – No change to the Project Baseline
 Scope Change – Update Project Baseline

Non-Scope Change – No increase or decrease to the formulated Project Baseline.

3.2 Trend Development

The following information should be identified for all trends:

- State if the trend is a scope change affecting the technical requirements, cost or schedule.
- Provide a full description of the change and the justification for the change.
- Provide the budget changes by department, broken down into the different resource elements
- Identify the source of necessary resources for the change. Sources may be represented in monetary terms or schedule item. Trends may be budget transfers within the exiting budget/schedule baseline (i.e., Contingency Reserve to Construction, Shop Labor to M&S, Schedule Contingency to CBO date). These trends are Administrative Changes and do not require NCI authorization.
- Trends describing changes to the scope of work and/or schedule commitments dates require NCI approval.
- Identify any schedule impacts and the milestones that are affected by the change.

3.3 Reporting and Evaluating Trends

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- Significant changes from the current baseline will be reported.
- Trends should be documented as early as possible.
- The trend engineer will prepare the trend and enter it in the system.
- A copy of the trend notice can be obtained from the trend engineer.
- When a change is observed, a trend notice (Attachment C) is initiated, approved by the Project Manager and transmitted to the trend engineer. The trend engineer will review the trend notice for completeness and make the appropriate changes prior to entry in the system. The trend engineer will work with the project team members to develop the scope, cost and schedule.
- Trend evaluations are to be inclusive of the entire project scope of work covering all project activities engineering, procurement, construction, as well as an assessment of non-labor cost items such as equipment, material and supplies.
- The trend report will be distributed as requested by the Project Manager or for review by an Project Team Member.

FMEP-G-0120 Exhibits

Exhibit B - Trend Register (1 page)

Exhibit C - Trend Form (1 Page)