AACE® International Recommended Practice No. 53R-06

SCHEDULE UPDATE REVIEW – AS APPLIED IN ENGINEERING, PROCUREMENT, AND CONSTRUCTION

TCM Framework: 9.2 – Progress and Performance Measurement
10.3 – Change Management

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Note: As AACE International Recommended Practices evolve over time, please refer to www.aacei.org for the latest revisions.

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Disclaimer: The opinions expressed by the authors and contributors to this recommended practice are their own and do not necessarily reflect those of their employers, unless otherwise stated.

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PURPOSE

This recommended practice (RP) for schedule update review is intended to provide a guideline, not to establish a standard. As a recommended practice of AACE International, this document provides guidelines for the project scheduler to create a professional schedule update or assess the reasonableness of changes to be made in a schedule due to a change of project status and progress. This RP is associated with the Total Cost Management (TCM) progress and performance measurement, and change management processes on construction projects.

OVERVIEW

This recommended practice provides guidelines to assist construction entities submitting the schedule updates (the contractor) and the entity reviewing the schedule submittal (the owner or client) to respond to the submittal in a fair and reasonable manner. The use of the term “owner” also includes the work performed by their agents such as construction management. Also included is the recommended process to be followed by the schedule reviewer (reviewer.) Overall these three participants are responsible for the complete, accurate, and timely submittal, review and approval of the project schedule status update in order to benefit the project as a whole.

A schedule update occurs when a contractor assesses the status of the project that they are currently working on, enters that status into a previously prepared schedule, and then submits (shares) this updated schedule with the owner of the project. Schedule updates are an important aspect of timely project completion and this is a major reason that most construction contracts for large projects require them. They are a vital medium of communication from the contractor to the owner about project status, completed work to date and forecasts for project completion.

The schedule update should be a reflection of the contractor’s intent to reach project completion. Because of this, it is created and updated by the contractor. The owner indicates their willingness to use the schedule update as a means of communication and negotiation by accepting the schedule update. There are alternative methods of managing a schedule update, but the process should honor this basic procedure. Acceptance first requires reaching agreement on the project status.

Reaching agreement on the status of the project schedule is often difficult, frequently requiring negotiation and perseverance. The successful completion of this process is the hallmark of a good scheduler using the correct process. Failure to arrive at a quick, accurate, and timely agreement of project status can cause confusion, uncertainty, and potential loss of time and/or money on many projects. A lack of timely agreement on the project schedule status could result in contractor acceleration, cost overruns, late project delivery, and disputes that frequently last well past project completion.

Assessment of the impacts of trends, deviations, changes, etc. on project schedules usually cannot be made without agreement on schedule status. If the participants agree that the schedule update submittal meets the specified standards and represents the current status and forecast using logic for the project as of the status date for the schedule update, it is understood that both the contractor and owner are in agreement on approval of the schedule submittal.
APPLICABILITY

This recommended practice is oriented to critical path method (CPM) schedule analysis and is applicable only to schedule update reviews that take place during execution of the work. Baseline schedule reviews prior to the start of execution differ greatly and require different review techniques than used in schedule update reviews. A baseline schedule review is different from an update schedule review for the following reasons:

- Focus on quality. The focus of a baseline review is on the overall quality and completeness of the original project schedule and overall plan, and not an assessment of current progress or subsequent project schedule changes.
- Review factors. The following factors are typically considered in a baseline review that are not the focus of a schedule update review:
  - Sequence and work flow.
  - Constructability.
  - Timing and phasing.
  - Resource usage and balance.
  - Ease of understanding and use in updating and maintaining.
- Constraints. Baseline schedules should be relatively free of imposed or “mechanical” constraints. Schedule updates are more flexible in the allowance and use of (mechanical) schedule constraints than in the baseline schedule.
- Negative float. Negative float is generally not permitted in baseline schedules.
- Early project completion. In baseline schedules, the contract project completion date should be met or a clear intent and capability of delivering the project early should be demonstrated. A baseline schedule with an early project completion date typically represents a request for early project completion that should be negotiated. Once on-time completion has been demonstrated in the accepted baseline schedule, early project completion is generally dealt with as a shared project resource and is not subjected to the scrutiny that is typical for baseline schedules.

In contrast to a baseline review, an update schedule review is generally concentrated on the following issues:

- Focus on changes. The reviewer should concern itself with changes made to the schedule since the last accepted schedule update. If no accepted schedule updates exist, then this review should focus on the changes made since the accepted baseline schedule.
- The focus of a schedule update review generally falls into the following categories:
  - Status or recorded progress.
  - Changes made to the activities.
  - Changes made in logic.
  - Delays and unplanned events.
  - Constraints to the project.
  - Status and changes in resource availability and usage.
- Constraints may be added to the schedule if documented in the narrative and can be shown to not unfairly reserve available float for the exclusive use of one party. A typical example of allowable uses of constraints include the delay of non-critical offsite work until favorable summer weather.
- Update schedules may indicate negative float. This is a matter of status and logic and cannot be avoided if the project is running late.
- Project completion is a projection of status. If the project is running late, then project completion will be shown as a date later than the required project completion date. If the project is running ahead of schedule, then projected project completion will indicate a date earlier than the required project completion date. Once a baseline schedule is accepted that indicates on-time project completion, then early projected project completion in an update schedule typically has no effect on the status of the contract.

This process is applicable across all contract types.
RECOMMENDED PRACTICE

This recommended practice is organized into two phases; the preparation of the schedule update submittal by the contractor, and the review of this submittal by the owner. The following topics are outlined as follows:

- OVERARCHING PRINCIPLES
  - Timeliness
  - Fairness
  - Interpretation
  - Enforceability

- SCHEDULE UPDATE SUBMITTAL
  - Components and Deliverables of an Update Submittal
    - Schedule Narrative
    - Printed Reports
    - Schedule Input Data File
  - Schedule Update Process
  - Schedule Status
  - Activity Suspension

- SCHEDULE UPDATE REVIEW PROCESS
  - Reviewer’s Role and Responsibilities
  - Review Process Overview
  - Acceptance versus Approval
  - Schedule Update Review Items
    - Actual Date Revisions
    - Rules for Acceptance of Constraints

- ADDITIONAL TOPICS
  - Resource Leveled Schedules as a Submittal
  - As-Built Schedule Submittal

OVERARCHING PRINCIPLES

The optimal processing and review of a schedule update requires timeliness, fairness, and appropriate interpretation of the contract. A schedule update submittal constitutes a notification of the status of the project and the project schedule from the contractor to the owner. Contractually, if the owner requires the contractor to submit a schedule update, then the owner of the project has a responsibility to review and comment on any required schedule update submittal in a timely manner. Comments from the owner (if any) should be made in writing and returned to the contractor.

Timeliness

The timely submittal, review and approval of schedule updates are of major importance to the construction project. For the owner to receive full value of the schedule submittal, it should be delivered within the specified time. Because the contractor requires the owner’s comments from the previous schedule update in order to prepare the next schedule update submittal, the owner’s comments should be returned within the agreed upon time.

Failure to comment on a schedule submittal in a timely manner may result in disruption and hinder the efficient prioritization of scheduled construction. Because failure to comment generally implies acceptance of the schedule, it is in the owner’s interest to review and formally comment and/or accept the submitted schedule update.