
SELECTING A SUITABLE DELAY ANALYSIS METHOD IN CONSTRUCTION
ARBITRATIONS

Arbitrations arising out of construction and Infrastructure contracts normally have a claim relating to delay and disruptions that caused consequential loss to the contractor. Delays in construction projects can result in delayed completion of the project, lost productivity, additional costs due to acceleration of the project, increased costs due to prolongation, contract termination etc., The delay events are complex in nature and difficult to estimate their impact on the progress of the project without adopting a proper delay analysis methodology. A delay in an activity may not result in the same amount of the project delay. Some of the delays caused by a party may or may not cause damage to another party. Moreover, all types of delays are not eligible for getting damages in an arbitration. The delays can be concurrent delays or delays which did not have any impact on the critical path of the project or delays covered under force-majeure provisions or compensable delays. Hence, one of the most difficult task of a party or an arbitration lawyer is selecting an appropriate delay analysis method to identify and estimate the delays that attributed to the delay to the critical path of the project.

Even though, delay analysis can be done in various ways the following four methods of delay analysis are used by the industry experts in construction and infrastructure arbitrations, which include 1. As-planned Vs As-built schedule analysis method 2. The impact as-planned schedule analysis method 3. The collapsed as-built schedule analysis method and 4. The time impact analysis method.

The as-planned Vs as-built method is the comparison analysis method between an as-planned schedule and as-built schedule. The above said method is the simplest form of delay analysis among the above said four methods. This method is capable of addressing and distinguishing concurrent delays and compensable delays. An important advantage of this method is that the analysis requires only the information associated with general administrative procedures i.e., as-planned and as-built schedules. But the above said method lacks systematic procedure to evaluate the impact of delay events individually

and hence many experts do not recommend this method even though this is the widely used method in India.

The impact as-planned method adds all the delays into the as-planned schedule to specify the earliest date by which a project ought to have been completed. In this method, contractors submit their claims for the owner caused delays to the as-planned schedule in the appropriate sequence. This method is not widely in use because it is based on as-planned schedule to determine the impact of the delay. This method is not accurate because the contractor can insert only owner-caused delays into the as-planned schedule to prove his case.

In collapsed as-built method where the effects of the delays are subtracted from an as-built schedule to determine what would have occurred but for those delay events. In case an as planned schedule does not exist or not updated, an as billed schedule can be taken from records such as Monthly Progress Reports (MPR). The collapsed as built methods or chosen when reliable schedules cannot be obtained from the project records. The other advantage of this method is its cost effectiveness and time efficiency. In this method, the actual completion schedule is compared only with the delays caused by the owner on the project completion. Hence, the collapsed as built schedule can determine the delay impact in case of availability of lesser time and resources with the parties for the analysis purpose.

The time impact method analyses the construction schedule by running series of analysis on schedule updates periodically. Time impact analysis method is the most reliable and credible delay analysis method available in the industry in case of complex projects. The impact of a delay event is individually evaluated in detail. This method uses the CPM algorithm, time impact analysis method that follows up on the project each day from starting of the project till the completion of the date including consumption of float, concurrent delays, acceleration, resequencing of execution plan etc.,