

Main Building Refurbishing Project at NIM

Alok Kumar Singh

Case Background

NIM is planning to refurbish both the exterior and interior of its main building because of the safety issues in the earlier construction. The contract has been given to a company specialized in this type of construction work. The scheduled time of completion of the project is 8 months; however the first monthly review of the project shows that the progress of the work is slow. This is a cause of concern for the NIM authorities. NIM authorities ask project engineer of the company to chalk out a plan so that the work could be completed within the stipulated time of the project. The rescheduling of the project requires extra resources and the project engineer is not sure whether his company will allow him to use these extra resources. The non compliance to the scheduled activities imposes a penalty on the contractor.

Case Analysis

The analysis of the exhibit 3 concludes that the use of scaffolding for a given site is for 35 days. As mentioned, there will be 2 scaffolding and there will be parallel work at two fronts. So, for completing the whole project work, the same scaffolding is to be used 7 times. This means that the use of scaffolding in the last 2 fronts will be over after 7×35 days i.e. 245 days which is 5 days more than the scheduled target. In my view the project manager missed the activity H. The completion of activity H will ensure the starting of activity A at the next front. The activity I, after removal of the scaffolding could only be started after 14 days of the completion of H. Hence to complete a site fully will take another 35 days after completion of activity G. Hence, under the current situation, the last two sites will be over after almost 280 days of the start of the project and hence the total project will get delayed by almost 40 days.

The internal painting is not a problem as the total time required to finish one site is 27 days. So, if they work in parallel on two sites the work will get completed in 7×27 days = 189 days. Therefore even if the internal painting work has not started yet, it can be completed well within the stipulated time if they start the work

from now onwards.

The exhibit 4 clearly indicates that the work is not running simultaneously at two sites as proposed by the project engineer of MICC. The erection of scaffolding is done only at 3000 sq. Feet area which is less the area of two sites. One thing is clear from the exhibits is that the resources used currently for the project is not as it was proposed by the contractor at the beginning. The completion of one site totally will take almost 68.67 days. So, even if the contractor will work at two sites, he is not going to complete the project on time.

Recommendation

As it is clear from the exhibits that even if the project engineer sticks to the proposed work schedule, the project is going to be delayed. There are two ways to complete the project on time. Either one more scaffolding is brought and a new front is opened or more resources are put in the activities from A to G so that the work at a single site could be completed early and the activities after G could be started as early as possible. The activity G at the last two sites must be completed before 205 days of start of the project, so that the project will get complete within the stipulated time. To complete the activity G at all the sites in 205 days from start, a single site work must be completed in almost 29 days. The selection of activity for putting more resources should start from the activity which will cost less i.e. from A, C, B and so on. The trade off here is the cost which will occur for putting more resources against the cost of new scaffolding and other cost that will be incurred in starting the new site. However, Sharma must also be thinking of the penalty cost that will be imposed if the project is delayed.

Alok Kumar Singh is a FPM participant at IIM, Indore. He is a mechanical engineer and has 6 years of industrial and teaching experience in the prestigious public sector enterprise, SAIL and college of technology, Pantnagar. He has undertaken various projects and has won many awards in Bokaro Steel Plant. His research interests are retail supply chain management, project management, quality control and logistics management.