

Schedule Control in Engineering Programs

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Abstract: Schedule control is one of the most important works in engineering management, which has affected engineering cost, time limit for a project, project benefit and social benefit. Moreover, it could be influence the social reputation of the construction company.

1. PROCEDURE

Planning the best progress plan.

Following the whole construction progress and fast find deviation, goals classification from small to large.

Good communication with all parties.

Achieving the goal of the whole schedule control in programs.

2. MAIN PROBLEMS

2.1 The related things which affected engineering construction

It includes construction company, design company, the related department of government, materials supply company, lending bank, transportation, water and electricity supply. So as a supervising engineer, we could not just consider Construction Company, we have to constantly monitor coordination between all related things. If there are something we could not coordinate schedule, we should reserve enough time for no risk at all.

2.2 Logistics supply chain

We need many facilities, materials, machines and tools in engineering program. However, we could not buy everything prepared, sometimes we have to rent large scale equipment. If it is not be provided when we need to use it, we will lose time. Or it is not eligible, materials are unqualified. We may have to find new qualified products, much time gone. As a supervising engineer, we also need to pay attention to the logistics supply chain.

2.3 Capital of supply

Enough money ensure the engineering run succeed, most of capital from construction company. If it is not enough for operation, engineering schedule will be affected. Large enterprises have closed relationship with banks, but for some small companies, they may also make an advance

to private financial companies. As I know, there were some construction companies has bought grand but no money for building. Schedule was broke, they tried to lend money by very high interest, and went bankrupt in the end.

2.4 Construction surroundings

It is really different which season do you decide to start building. And in different areas, you have to consider about climate, water, geology and environment. If you ignore these, you will trap in trouble which affected engineering schedule moreover. We hope everything goes well, but if we meet the extreme climate, it will definite effected engineering schedule.

2.5 Human resource

We sure that in the construction progress, human resource is one of most important effected factors. It means you could not just focus on management department, you should also pay attention to building works and primary-level works. After all, they are the people who really do build the buildings. Evaluate manpower needs and assigns available resources. Improving cooperation of different departments. Making the best of every worker about their capacity.

2.6 Unknown and possible risks

It includes political, economic and nature. We cannot estimate them. About political aspect, there is war, civil strife and strikes if workers. About economic aspect, there is delay payment, break contracts and inflation. About nature aspect, there is earthquake, flood and typhoon. Of course it even is impossible and small probability. But engineers cannot ignore them and do something.

3. SOLUTIONS

3.1 We have many plans about engineering program. But we should know, the main plan is schedule control, and we could make some other related plans follow schedule control

So, we need to plan it before start working. Moreover, I think there should be some departments which could check it carefully. There is no doubt that engineers may have some careless mistakes. Whether the plan is viable and enough in detail. Then, making related plans based on schedule control. Logistic supply chain plan, Capital of supply plan, Human resource plan, Safety and environmental protection plan and so on.

3.2 Confirm design of technical proposal

Design of technical proposal is fundamental of promising schedule control run succeed. We analyze technical proposal and schedule, compare and combine. According to existing equipment and technical, make sure progress target of different departments.

3.3 Establish rounded security system

I know that most of schedule control work is belong to engineering management department of Construction Company. This department is large one and many jobs to handle, which resulted in slower response and handle. I suggest that establish a department which aim at schedule control or allot focused employees to supervise it. Once they find any problems, give feedback to engineers immediately. This ensures operation of plan.

3.4 Dynamic control and correct mistakes as soon as occur

According to third point, we already established rounded system. So we could find mistakes timely. At this time, it is a test which test reaction capacity of engineers. When we usually check construction, even request achievements imperative. We could reduce construction period based on quality. If we attach importance to schedule, building workers and related managers would finish a better and faster engineering program.

3.5 Improving our program schedule plan

Firstly, list all steps of achieving program goals. Start detailing from the largest section. Then allot each job to different assignments. Finally, collect and solve estimated value of work-period. Organizing data after set up task list. We could get relationship of different sections and appointed days. We could use network planning to show these.

3.6 Examine and evaluate

In the construction period, current situation may be different with plan because of many factors. We could use some known methodologies to compare them, like “S” curve, tabulation method and horizontal line method. Then do some corrective actions. Making sure handle and solve problems after find them.

4. PERORATION

The schedule control of construction is complex, difficult and omnibus. It requests cooperation of different departments. For avoiding delay, we have to positive communication, cooperation and execution. Keep adjustment according to physical truth. Taking these as security for schedule control.

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