



Advanced Project Management II

An Online Continuing Education Course for Engineers

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Credit: 4 Hours / 4 PDH / 4 CPD

Advanced Project Management II

Dominic Perrotta, P.E.

Introduction

This course in project management is intended to improve the prospects for existing project managers and would-be project managers to manage a successful project. This course provides the student with a series of case studies of actual Project Managers and projects for which they were responsible. This course is meant to be a sequel to Advanced Project Management - I (APM-I) and is intended to broaden your knowledge about how successful projects are managed. However, APM-I is not a prerequisite for this course. Once you have completed this course, you will realize that there are no perfect projects, nor are you expected to be a perfect Project Manager.

This course is divided for all Project Managers into three important categories, which were previously defined in APM-I:

1. Leadership
2. Decision Making
3. Project Team

In each category there are two different case studies, and in each case study the Project Managers utilized certain techniques, mostly orthodox but some unorthodox, in order to bring the projects to successful conclusions. Regardless of the paths that were chosen by the Project Managers, their implementation of the core principles of quality project management proved to be a huge asset. You will also recognize that, although these Project Managers may have had different levels of experience, they all went about their business in a confident and professional manner. The last part of each of these above three categories tries to give an interesting account of people that we either know or have read about who faced similar challenges in the sports world. The projects that each of them managed was simply their livelihoods. Through diligence, wisdom, and an understanding of those around them, they were able to be successful in their life's projects.

The fourth and last section of this course relates what actually took place following a major fire at a large manufacturing plant. In this case study, the Project Manager went beyond anything that he was obligated to do, resulting in a great savings to the plant as well as significant future benefits to his engineering firm and to himself.

Course Outline

- I. Dealing with Engineering Firms**
 - A. Small and Local Firms**
 - B. Intermediate and Multi-National Firms**
 - C. Defining Leadership**

- II. Dealing with Manufacturing Company Management**
 - A. Mid-sized Companies**
 - B. Larger and Multi-National Companies**
 - C. Defining Decision Making**

- III. Dealing with the Project Team**
 - A. Matrix Organization**
 - B. Direct Supervision Team**
 - C. Defining a Project Team**

- IV. Negotiating with Insurance Companies**

I. Dealing with Engineering Firms

A. Small and Local Firms

Occasionally a Project Manager may receive a telephone call with a surprising and completely unexpected message. A PM received such a phone call late one summer afternoon after successfully completing a rather large project in a nearby city. The caller was the president of a mid-sized engineering firm that was in the expansion mode, and had just received a verbal commitment from the vice president of a large North American industrial company to provide engineering services for the company's new Greenfield project. However, there was one stipulation prior to the company issuing a formal contract to the firm; they must be willing to hire the Project Manager of the company's choosing, who happened to be this particular PM. This individual, who had previous experience with the company as a PM, would also be able to furnish substantial production expertise – a quality that was lacking within the engineering firm's organization.

A meeting time was established within a few days of the phone call at the engineering firm's offices, at which time the PM met both the president and vice president of the engineering firm – no representative from the industrial company was present. The PM listed previous involvement in various projects, particularly those related to the industrial company. The management of the engineering firm furnished a basic list of activities that they had performed since their starting the firm about ten years earlier. The meeting was going smoothly and issues of the firm's work hours, office space, lines of communication, payroll dates and reporting procedures were discussed and quickly resolved. When the subject of payment to the PM finally came up, however, the meeting became slightly contentious.

Be Humble but Be Prepared

The PM was an independent contractor who was close to Social Security age and had been paying his own social security taxes and income taxes, had his own healthcare plan, and lived less than 15 miles from the engineering office. Although he exhibited his enthusiasm for the new project and the firm's role, he was in a strong position to negotiate a good rate from the engineering firm, since failing to hire this PM would jeopardize the firm's pending contract. The initial offer from the firm was quite low, in keeping with the engineering firm's policy. At this point wage negotiations began in earnest, and both the firm and the PM utilized their best arguments for winning the verbal, albeit peaceful, battle that ensued.

The PM's counter-offer was substantially higher than the firm's original offer and represented a figure that was more or less in line with the type of wage (or salary) that was customary for the project involved. His offer was immediately met with great resistance. After a few higher and lower numbers were brought forth, the PM then asked the firm's management to provide a copy of their proposal to the industrial company. The engineering firm apparently agreed to supply the requested information, although with some degree of reluctance and hesitation, and their proposal included the following information:

1. A summary of the total hours for the firm's Project Manager to complete the project;
2. All hourly rates that would be charged to the industrial company during the course of the project, including those for the Project Manager;
3. A summary (resumes) of the experience of the engineers, designers, and drafters who would be involved with the project;
4. Letters, memos, and emails linking the engineering firm to the financial success of the project;
5. Previous projects by the engineering firm either of a similar nature or with the industrial company, accompanied by any letters of commendation or criticism.

Take the Initiative

The PM took a day to analyze and evaluate the data from the firm's proposal, calculated the cost of personal taxes, healthcare, and other potential expenses and arrived at a number that was presented to the firm as a compromise. The PM's rate was sufficient to cover expenses, and to earn the PM a good income for the work performed. It also allowed the firm the opportunity to receive a net profit of more than thirty percent of the hourly rate that they would charge to the company, and this last remaining issue was accepted and adopted by both parties.

However, the PM quickly became aware of the reason behind the engineering firm's reluctance to share this proposal information. Buried in the proposal was a substantial number of hours plus accompanying rates for "administrative fees", meaning that the two owners of the firm would be "double-dipping" - collecting on the markups of the engineering team that was actually working on the project as well as direct billing the industrial company for work in which they were not directly involved. The compromise to this situation was to reallocate most of the owners' hours to the engineering group, including to the Project Manager, while the owners would bill the industrial company only for those hours that actually involved their work on the project.

Possess a Teachable Spirit

For a little over one year (actually 14 months) the Project Manager's assignment with this coastal engineering firm was to function as their PM on this local project that they had won with the low bid. The PM provided leadership and production expertise to the firm's in-house design team, being mindful of the fact that, due to its low-bid nature, the project would be under constant scrutiny by the firm's management.

During the course of the project the PM was diligent and respectful of the engineering firm's quest to do a good job and to make a decent profit, while at the same time leading the engineering group to provide a quality facility for the industrial company. As the individual with the most related experience on the project, the PM also felt duty-bound to protect the industrial company Owners' interests and ensure that the new facility would function properly and would ultimately provide the company with a decent profit margin for their new products. Because of the high profile nature of the project within the company, and owing to the company's request that the PM furnish them with his production experiences for making their project a success, this created other issues not of the PM's making.

Despite his being required to routinely explain the purpose and function of the industrial company's operations to his project team, his efforts were not always met with wholehearted support and enthusiasm by the engineering firm's top management. While his production expertise was always met by the project team with appreciation, the Executive Management of the engineering firm would occasionally try to derail his efforts. Whether this action was due to his favored status with the industrial company or just the management firm's seeming lack of control over every output was never quite clear to the PM.

At one stage the firm's vice president countermanded one of the PM's recommendations for proper grounding design while the PM had been gone for a few days to visit a supplier. Upon his return and having been made aware of the VP's action, the PM had challenged this design change, explaining to the VP why his design would be neither acceptable to the Plant Owners. Furthermore, the PM had investigated the reasoning for the PM's recommendation and the Plant Owners supported the PM's recommendation as ineffective due to the very high water table in the project proceeded.

However, there were other occasions where the VP and the PM. On another occasion while in the presence of the VP (the other owner), the VP threatened to fire the PM. The PM was not any sufficiently during the previous month by explaining that two of the engineers were not available to replace them, with no one president diffused the situation for a month. The firm's before the vacations occurred for additional support critical nature of another project of all size and the PM.

As the project was winding up, another large, industrial project being planned by the company. Their confidence had been buoyed by the success of the industrial project. About two weeks before the very successful project, the engineering firm was informed that they had been selected because they were not only the low bidder on this new project, but also in large part because of the firm's success with the project which was being concluded. The engineering firm, seemingly feeling that their capabilities were now sufficient to manage an industrial project of such size and scope, made no attempt to negotiate with the PM for the new project.

Be Flexible and Sincere

In the meantime the PM had been directly contacted by the Owners from the industrial company to determine if he would be their contract Project Manager for a new industrial facility similar to the one being started up two states away. The PM's decision was based partially on money (there would be no markup by any engineering firm in order to make a decent profit) as well as the integrity of the industrial company Owners. When he notified the engineering firm of his decision to work directly for the Plant Owners, but to support them for the next few months with

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