

# Role-Play Exercise: Prafac Engineering

## Directions for Instructor

1. Print copies of the role-play exercise pages (one copy of “Background” for each student in the class; one set of the roles for every four students in the class).
2. Develop teams of five students (there are four unique roles in Prafac Engineering).
3. Have each student read the “Background” as an introduction to the exercise.
4. Assign each student a role to play and provide the specific role description.
5. Indicate the desired outcome of the process (e.g., press conference, written and/or oral presentation, short-term plan, long-term plan, employee meeting, etc.) and create feedback mechanisms appropriate for the desired outcome.
6. Teams will need at least forty-five minutes to review, discuss, and prepare.
7. Link the key issues to course training and learning objectives.

## Key Issues

Accounting manipulation (front loading) | Breach of contract | Fraud

## Background

Roger Prafac founded Prafac Engineering in 1984. Mr. Prafac had been a senior engineer with a large engineering firm and was head of the industrial design division. The new company was very successful in designing water treatment and sewage treatment facilities. The company developed a reputation of excellence in design and impeccable integrity. Prafac Engineering went public in 1993, and Mr. Prafac retired. In 1995 the CEO Ike Umelo convinced the board and stockholders to expand the company services to include building the plants. This new initiative would entail substantially more risk than design. Projects like these are very labor-intensive and the cash required for payroll and materials is substantial. The unique way that these contracts are paid for puts pressure on cash because 10 percent of the amount billed is withheld until the project is complete. However, the profits possible could quadruple the company's earnings.

The new division was named Prafac Contracting Group and was very successful. New contracts negotiated in early 2018 resulted in total contract awards of \$130 million. The estimated profit from the jobs was expected to be over \$10 million. All the contracts would take three years to build and would be complete sometime in 2023. The largest project was the White River Sewage Treatment Plant in Northwest Arkansas. The contract for this project was valued at \$53 million.

Ike Umelo decided to sell off the division in November 2021. All of the projects were ahead of schedule and reported to be profitable. The climate in the industry was focused on expansion, and a tentative purchase agreement was reached with Thompson Corporation. The agreement was subject to a review of the accounting records for the company and the cost records for the projects under construction. Auditors had not completed the yearly audit, and there were some questions about the actual percent of work completed on the projects. This would be key in the documentation for the agreed purchase price. If the projects were not as profitable as stated and if they were not at the level of completion, the price would be inflated. Thompson representatives were beginning to question why the information was taking so long to produce. Lawyers for Thompson Corporation have threatened to sue to void the agreements if the documents are not produced. Such action could also result in lawsuits for fraud and lost profits by Thompson.

## Jameson, Operations Manager

You are the Operations Manager for the construction division of the company. Each project is overseen by one Project Manager. A building team consisting of engineers, foremen, and trade superintendents is responsible for the actual construction. The Project Managers are the profit centers for the projects and report directly to you. The accounting and estimating departments also report directly to you.

You have been with the company for fifteen years and have worked up through the ranks in a variety of design positions. This is your first experience running the construction end. However, the CEO picked you to head up this division because he wanted to have a company person, whom he could trust, responsible for the new division. Thompson has advised you that you will be kept on after the sale and that your bonus will be increased by 10 percent if you bring the projects in at the projected level of profits and on time. This could amount to an additional bonus of \$5,000.

Almost all of the people in the division were hired from outside when it was started. They all had proven track records in construction and brought a great deal of experience to the table. Your biggest challenge has been to convince people that accurate reporting of job progress is incredibly important. You have preached the importance of being conservative in this regard and that you never want to be told that a project is further along than it is. However, you suspect that other managers in the company do not see things the same way you do and that employees may be getting mixed signals.

In your early years as an engineer, you saw a construction company go broke on one of your projects because they had used the practice of "front loading." Construction contracts are paid for as the work progresses. Each month the contractor is paid for the value of the work that is put in place that month. Values for each part of the work are set up at the beginning of the project and never change. Front loading is the practice of putting most of your overhead, profit, and part of the value of the work that will be completed last into the value of the work that will be completed first, thereby getting paid much more than you have earned at the beginning of the job. In this case, front loading is an attempt to improve cash flow by overcharging early in the construction process. The danger of this practice is that if there are cost overruns, there is no money left to pay for them.

You have received at least three memos from Eloise, the Controller, questioning the progress of the White River Project and expressing concern that the projects are not as far along as the billings would indicate.

The CEO has asked you and your project managers to attend a meeting Friday to discuss project progress and billing.

## Eloise, Controller

You are the Controller for the construction division and report to the Operations Manager. You were hired from outside when the division started. Previously you had worked as the Controller for a large construction company on the West Coast. This job was a tremendous opportunity and you moved your whole family to the Midwest to take the job.

Starting the new division took much more time than you expected. The first six months were spent putting systems in place to accurately report the progress of the projects, the cash flow for the company, and the financial condition of the company. The next six months were spent debugging the systems and trying to get the people at the projects to understand the importance of accurate reporting and the use of the systems that have been put in place. The time you've put in has not helped your family. Your spouse and two teenage daughters don't like their new home, and the fact that you are working all the time has not helped the situation.

When you heard about the buyout, it was a relief. The new parent company has said that your position will be eliminated and that you will be given a severance package and retained as a consultant for two years. This deal will allow you to move your family back to the West Coast.

You have been working feverishly to produce the records that the Thompson people are requesting. The information that has been provided from projects has been entered according to GAAP (generally accepted accounting principles). These rules allow for estimating percent complete for the purpose of realistically identifying revenue from construction projects. Part of the problem is the project records from the White River Project. The information is always sent in late. You have been suspicious for some time that the information provided by the Project Manager is not accurate. You have complained more than once to the Operations Manager about this.

Jameson, the Operations Manager, has asked you to attend a meeting with the CEO on Friday to review the sales documents.

## **Maurice, Project Manager: White River Project**

You are the Project Manager for the White River project. Projects like this are very technical. You were hired specifically for this job because you have done at least ten other similar projects over the past 30 years. You began your career as a carpenter and have worked your way up a number of different companies. You are one of the few people in the industry to hold your position and not have a college degree. You intend to retire after this project. The bonus from the job will let you pay off the vacation home you purchased in Akumal, Mexico, and you will move there and enjoy the Caribbean.

One of your main responsibilities is the monthly billing to the owner for the project. The first step in this process is agreement on the schedule of the value for each portion of the work. Once these values are established, billing each item's monthly payment is simply a matter of agreeing on the percent complete.

When you came to work, the project was just starting and your orientation into company policies and procedures was very fragmented. You knew the reason you were hired was to build the project on time and under budget. You also know the best way to keep the accounting department out of your hair is to provide them with information that makes the progress reports look better to upper management. When there is any question about the progress of the project, you report your most optimistic opinion. Pessimists end up being overly scrutinized by all the "college boys" in the office.

Front loading is a part of this job. Front loading is the practice of putting most of your overhead, profit, and part of the value of the work that will be completed last into the value of the work that will be completed first, thereby getting paid much more than you have earned at the beginning of the job. Everyone knows that front loading is the way it's done, and that's the way it is. The fact will not change and it is a part of your job to make sure you get cash in early on the project. It always works out in the end and you've always done it. You have front loaded this project and have over-billed it by about 5 percent. Reports show that the project is 5 percent further along than it really is. Projected profits are 10 percent inflated.

The Operations Manager called earlier in the week to ask you to fly back to the home office to review your project with the CEO on Friday.

## **Kaylee, Corporate Attorney**

You have only been with the company for two years. You have spent the previous ten years with a law firm that deals only with mergers and acquisitions. You were hired specifically to deal with the sale of the company. As legal counsel, you very seldom get involved with the day-to-day construction-related business of the company. The past six months have been spent dealing with the sale of the division. You were involved in all of the negotiations of the sale, and all information going to Thompson filters through you. The project information comes from the Operations Manager and the financial information from the Controller. You generally check it for format and refer any questions about content to the Operations Manager.

The information you are required to get out to the purchaser has been very slow, especially the accounting information. You have questioned the Controller about this and have been told that he wants to be sure it is accurate before it goes out. You agree that this is prudent, but the Thompson attorneys are getting very impatient.

One of the attorneys is a friend of yours from law school. You had dinner last week and he told you “off the record” that they were beginning to get suspicious about the validity of the project and profit information used to negotiate the original purchase because documentation was taking too long. They had spent substantial time and effort on the purchase, and if the figures were inaccurate, the deal would be off. There would also be lawsuits for breach of contract and possibly fraud.

Since you were involved in all of the negotiations, you fear you could be personally involved in the lawsuit. If the information you helped provide was inaccurate, your reputation in that field of law would be damaged forever.

The morning after dinner, you called the CEO to demand a formal meeting with the Controller, the Operations Manager, and the Project Managers of the projects. After listening to your concerns, the CEO decided to set the meeting for next Friday.