

## **Effective Project Management:** ***How to Upgrade Your Plant without Hurting Your Business***

As your business expands, you need to provide the internal infrastructure to adequately support external growth. For example, as you add new customers, you will need additional service representatives and delivery vehicles. You will need more accounting staff to handle the invoices and receive payments. You may even need new software to handle the additional company accounting responsibilities. And, sooner or later, your plant will need to be upgraded to handle the additional volume of customer products.

There are many different ways you can upgrade your facility. You can add on to your existing building and install additional equipment to increase capacity. Or you may want to replace your existing production equipment with more modern technology to reduce operating costs and increase efficiency. Ultimately, you may decide that it is time to build a brand new plant. In any case, upgrading your operation is an important piece of the puzzle if you want to continue to grow and stay profitable.

However, many companies will postpone a facility upgrade until it negatively impacts the health of their business. Instead of upgrading the plant, they will hire additional production employees, work longer hours, pay more overtime, increase utility usage, and spend more on maintenance to keep old equipment running. Ultimately, this increases their production costs to the point where they struggle to be competitive and profitable.

So, why do companies wait so long to upgrade their facilities? Sometimes it's due to budget constraints. If you are in fast growth mode, most of your capital is being invested in new inventory. Therefore, you may not have the means to upgrade your plant. If you are in slow or no-growth mode, then the desire to maintain short-term profitability may override the need to make long-term capital investments in your operation.

However, most companies will postpone a facility upgrade because they are scared to death that it will cost way too much and not provide the benefits they were hoping for. We have all heard the story. A small, profitable, high growth company decides to build a new plant. So they go buy some property and begin construction. Once they are beyond the point of no return, they realize that the project is way over budget and severely delayed. To stop the bleeding, the company starts focusing its resources on their new plant, spending less time on their current business. Cash flow suddenly becomes an issue. The company is having trouble making ends meet, but finds a way complete the new plant. However, now their business is smaller and less profitable than when they started the project. Within a year, they cannot cover the cost of the new facility and have to sell the business.

This cautionary tale is the reason why many companies put off the decision to upgrade their facilities. In doing so, they miss the opportunity to improve and strengthen their business. So, the real question is "How do you upgrade your facility without hurting your business." To accomplish this, you need to adhere to these fundamental rules.

### **Rule #1 - Define the Project Goals**

This sounds pretty basic. However, you would be surprised how often a company begins a major project without properly defining the project goals. When you ask someone why they are upgrading their plant, they will often say something like "Because we need to renovate the washroom." Renovating the washroom is not a project goal. It is the means to attain the goal. A better example of a project goal would be to reduce washroom labor by three FTE's. Project goals need to be simple, precise, and easily understood. Write them down at the beginning of the project and reference them often. If you have trouble deciding whether or not specific items need to be included in the project scope, ask yourself "Does this item help me accomplish the project goals?" If not, then chances are you don't need it. Also, make sure you review this information with all project contractors, equipment suppliers, consultants, and other outside vendors at the beginning, so there are no misunderstandings later in the project.

## **Rule #2 - Define the Project Scope**

Now that the project goals are established, you need to clearly spell out how you plan to attain those goals. For example, let's say you have defined your project goals as eliminating three FTE's in the washroom, increasing washroom output by 50%, and reducing water consumption by 25%. That's good, but how do you plan to accomplish these results? Are you going to use conventional washer or tunnel washer technology? Do you plan to load the washers automatically or manually? Do you want an automated or manual soil monorail system? Do you want to use a water reuse or recycle system? Before you start digging dirt, putting up walls, or installing equipment, you need to answer these questions. A clearly defined scope of work will help you keep the project costs and schedule under control.

## **Rule #3 – Develop a Plan**

Now that you have project goals and a well defined scope of work, you probably want to get the project moving. But, before you can implement the scope, you need to develop a plan. Proper planning is critical to the success of your project. You should start by reviewing the scope and determining the order in which the project steps will be completed. This is especially true if you are renovating your existing plant while running full production. The key is to break the project down into smaller pieces and then determine how those pieces can be successfully implemented. For example, let's say that after defining the project scope, you decide to upgrade your washroom to an automated washer extractor system. And due to space constraints, the new equipment must be installed in the same location as the old machines. If you attempted to do all this work at once, you would shut your washroom down for at least a week and be unable to run production. However, if you did the plumbing work in advance and replaced a couple machines each weekend, you could complete the project in a month and continue to operate. Just remember that poor planning accounts for most cost overruns and delays. As the old carpenter's saying goes "Measure twice and cut once."

## **Rule #4 – Use your Resources**

Whether this is your first plant upgrade, or your fiftieth, you need to leverage your resources if you want to succeed. Most equipment vendors offer a wealth of information about equipment performance, installation, operations and maintenance training, etc. Many vendors also offer design and installation services to help you develop an effective project scope and plan. For more of an independent perspective, you can turn to industry consultants. These companies specialize in large capital projects, and offer a high level of industry experience and design expertise. The various trade associations are a great resource for information. They provide training, reading materials, and other forms of assistance for their membership. Finally, talk to a company that just built a new plant or did a major renovation. Many times you can learn invaluable lessons if you just listen to someone that has been through the process. Remember, you can't do it all by yourself. So, use your available resources and learn from their experiences.

## **Rule #5 – Keep the Ball Rolling**

Delays will kill a project. Let me say that again. Delays will kill a project. Facility upgrade projects require a tremendous amount of time and effort to plan and implement. You spend hundreds of hours establishing project goals, learning about new technology, choosing vendors, developing designs, defining the scope of work, and developing implementation plans. And, once the project starts, you will have to manage equipment vendors, contractors, subcontractors, consultants, local government officials, maintenance staff, production employees, and the list goes on. Getting all of these people to move in the same direction is imperative to the success of the project. And once that happens, you need to use that momentum to carry you through to the end of the project. So, you cannot let the project stop. A delay not only costs time, it costs money - a lot of money. For example, your washroom renovation project is moving along nicely when suddenly it hits a snag. The project financing is not in place and you need to meet with the bank to straighten this out. In the meantime, your plumbers are 75% complete and are asking for payment. The equipment is crated up and ready for shipment, but the vendor needs 50% down to ship. And the rigger is scheduled to come in next week and remove two washers. So, you call everybody and tell them to stop until you get things worked out. It's not a big deal if you delay

things just a couple days, right? Wrong. The plumber and rigger have dedicated resources to this project, and if those resources become idle, they have two choices: continue to charge for their services or pull them off of the job. Most customers will not pay for contractors to sit around and do nothing, so the plumber and rigger reallocate their people to other projects. Three days later, you finally get things worked out with the bank and start making calls. The plumber states that his people are on another project and will not be available until next week. The rigger tells you he wasn't sure if you would be ready by the weekend, so he scheduled another rigging job and is booked the next weekend as well. Finally, you call the equipment vendor to let him know that he needs to delay shipment. And that's when he tells you no problem, but he has the right to charge a storage fee for the equipment per the original contract. From this point forward, the delay begins to cascade through the remainder of the project. Ultimately, the project takes longer and costs more than expected. Let's use an analogy to put this in perspective. A large capital project is like a huge ship. Once you get moving, it is hard to stop. However, if you do manage to bring it to a stop, it takes a lot of time and effort to get it moving again.

Because of the large investment of time and money, upgrading an existing facility can look like a risky proposition. But, if you follow these five basic rules, you can stop worrying about the risks and start focusing on the rewards.