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The Forgotten Topic: Teaching Plant Closing to Executives and Graduate Students

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Abstract

Executive education programs and graduate-level business programs generally devote substantial time and resources to training professionals to open businesses, generate business growth, and manage on-going operations. Few programs, however, devote any time to a topic that many executives will one day be forced to confront: plant closings. Because relatively few managers have actually gone through the plant closing process, there are rarely “experts” available to guide a company through the practical day-to-day aspects of shutting down a facility. This paper addresses the key topics needed for an advanced level program dealing with the operational aspects of closing a facility. Such topics include operations management issues, human resources considerations, and legal compliance. Following an executive level training program of this type should increase the chances of having a successful closure: one that minimizes the negative impact and uncertainty related to the closure.

Introduction

Most business programs focus on the optimistic side of business education: starting, growing and managing profitable businesses. However, regardless of the economic climate of the day, businesses come and businesses go. In economic times such as those we face in 2009, the fact that businesses will go is a reality that business executives must face and learn to handle. A great deal of literature is available to assist executives in making the decision of whether a facility should be closed (Kirkham, 1998; Deily, 1991; Gibler, 2006), but there are few resources to assist executives in the process of actually shutting down an operation.

As a practical matter, plant closing is something most managers learn through on-the-job training, rather than through a formal education process. But the reality of today dictates that today's business executives should learn in a formal setting the functional and practical aspects of plant closings. The costs, both practical and legal, are too high to leave such training to chance.

Recent publications have addressed the topic of closing an operation from both the human resource (Fox, 2009) and the experienced "expert" (Freeman, 2009) aspects. In the former article, emphasis is placed on how to handle the personnel issues related to closing a plant or operation. The latter article's focus is an experiential perspective based on the author's work in closing numerous plants for his employer. This experience however appears to have been learned on the job, and not in a formal training environment.

Moreover, understanding the practical aspects of closing is something executives should consider as they decide whether or not a plant should be closed in the first instance. In many situations, the cost-benefit analysis through which the decision to close a plant was made do not encompass the various costs – both tangible and intangible – associated with the days leading to the final day of operation and beyond.

Because of the background of the authors, this article generally reflects the aspects of closing a manufacturing facility. Chief among the plant closing concerns in a manufacturing plant's closure are operations management issues, human resources issues, and legal issues. Executives should be aware, however, that the same concerns arise when any facility in any industry is closed.

Operating Considerations

The most obvious concerns for most executives in a plant closing situation are those related to operational issues. There is far too little research published in the area of operations management as related to the actual closing of a plant. While much consideration has been given to the decision making process of closing the plant, and to the handling of the human resource issues related to the closing, little has been suggested in relation to the strategies and actions to be taken in closing the operation.

Management personnel at all levels must confront product inventory, maintenance and operating supplies inventory, cycle counting, capital projects, and employee staffing and morale issues. As a practical matter, issues related to inventory and capital projects must be evaluated first as those areas will directly impact many of the staffing and morale concerns.

Inventory Management

In a plant closing situation, managers must recognize that the plant cannot close until the plant's entire inventory has been removed from the site. At a very early stage in the plant closing process, managers must evaluate all inventory items and plan for the disposition of each item. As a practical matter, there are a limited number of disposition options. Items can be sold (e.g. customer, auction, e-Bay, and salvage outlet), scrapped, reworked, moved to other facilities, returned to the supplier, or donated. Each option brings with it its own costs and logistics issues.

In confronting inventory management during the plant closing process, managers and executives should recognize that the same amount of attention is not required for all potential inventory issues. Decision-makers need to utilize the Pareto principle under which inventory items are classified, counting and classifying the items based on some common measure such as quantity or cost. This enables decision-makers to determine the appropriate degree of control that should be exercised over each item. Items that are ready for immediate disposition should be disposed of. Items that cannot practically be disposed of until later in the closing process can be identified and tagged for future disposal.

Another way to classify inventory items is to utilize each item's annual dollar cost. The high dollar cost items are those that are most likely to be used prior to the closing of operations and also likely be the easiest to dispose of if any remain at the end of operations. Low dollar cost items can be utilized as needed and scrapped or sold when obsolete.

Criteria other than annual dollar cost, such as estimated days on hand, can also be used to categorize into the correct inventory level. If an item's estimated on-hand balance will significantly exceed the targeted shutdown date, steps should be taken to reduce that inventory at the beginning of the shut down process. Similarly, if there is an inventory item for which there is no reasonable expectation of customer demand prior to the shutdown date, the item should be disposed of. In contrast, finished goods or raw material inventory with high demand should be transferred to a surviving plant at the time of closing because such items require little contingency planning and post the least likelihood of unanticipated disposal costs.

It is crucial that executives understand early in the plant closing process that inventory disposition is an extraordinarily time consuming task. As part of the education process, executives should be given a sample inventory to analyze and code, then provide a detailed plan and time line for disposition, as well as contingency disposition plans. The exercise could also include a projection of the costs associated with each day the facility must remain open in the event inventory disposition does not go as planned. Instructors should remind participants that many inventory items cannot simply be sent to the local junk yard so that plant closing plans must include the cost of disposal for regulated or sensitive items if other methods of disposition fail.

Maintenance, Repairs, and Operations (MRO) Inventory

Special attention must be given to MRO inventory. In many organizations, high dollar value MRO items are kept on the balance sheet rather than expensed. As these items are used, the items are then expensed. Because of the nature of the accounting and control of these items, MRO inventory is something that is often overlooked in the inventory planning process in general, and the plant closing process in particular. Unlike finished goods and raw materials inventories which generally are monitored by cycle counting systems, MRO inventory is not always subject to the same scrutiny.

Even in the absence of a plant closing risk, operations management practices suggest physical inventories of MRO items be conducted at least annually. However, because of the time consuming nature of the physical inventory process, many organizations ignore the best practice suggestions and avoid the time, effort, and cost of annual physical inventories of the "bone yard" of maintenance parts that accumulate over time.

If accurate records of MRO inventory are not maintained, the managers involved in the plant closing planning must include a physical inventory of MRO items as a required step in the process. Part of the MRO inventory planning should include an assessment of the staffing needed for this process. The regular inventory cycle counting staff may not have the necessary training to handle the unique maintenance parts frequently found in MRO inventory, and the maintenance supervisors and mechanics may have the parts knowledge but not the time to engage in the necessary counting and recordkeeping associated with the physical assessment of MRO inventory.

After MRO items have been physically inventoried, the value and disposition options for each MRO item must be assessed. At an early stage of the plant closing process, decision-makers need to know if they are facing MRO items that have little or no value. Like general inventory items, plans must be implemented for disposition as MRO items cannot simply be left behind nor, in many cases, can they simply be sent to the local junk yard.

As noted above, the executive education process should include a sample MRO inventory to analyze and evaluate, including evaluation of the time and costs associated with reduction of the MRO inventory.

Cycle Counting

At the outset of plant closing planning, managers must evaluate the type of cycle counting used at the facility. Using the cycle counting inventory system, the facility would identify specific items to be counted at specific time intervals. This system in a closing situation would need to determine which items are counted more frequently, and which items less frequently. If, for example, the facility utilizes annual dollar cost as a method of assigning classification for cycle counting, the plant could close prior to lower level items scheduled to be counted. In contrast, if the plant utilized a days on hand method cycle counting, the lower level items might be scheduled for counting at some point before the plant is closed or when the item is scheduled to be used or transferred.

Because inventory analysis and reduction is a crucial component in a plant closing, managers should evaluate the benefits of improving inventory accuracy. Serious consideration should be given to using cycle counters to handle the tasks of inventory disposition. Cycle counters are often familiar with plant procedures, vendors, purchasing agents and shipping procedures and, as a result, cycle counters can be the best resource to handle the disposition task.

The executive education program could include an exercise in which executives take on the cycle counting role, determining the most effective cycle counting schedule for the various types of inventory on hand. The cycle counting analysis could be part of the overall inventory analysis suggested above.

Capital Projects

A frequently overlooked area in the plant closing process is on-going capital projects at the facility. As a practical matter, capital project planning and approval is often a complex process. As a result, once the initial planning and approval is complete, companies generally assume the project will be completed. Unfortunately, if a plant is closing this assumption is no longer valid. Consequently, each on-going capital project must be re-evaluated.

Executive training should emphasize that capital project review is not an all-or-nothing evaluation. Instead each ongoing project must be evaluated and a decision must be made whether to abort or complete each project. Training should emphasize the high priority nature of the capital project review. Capital projects may represent a sizeable budget issue and may include the on-going purchase of high dollar assets. A delay in reviewing a project could result in a lost opportunity to cancel a purchase order or end a contract at a time when penalties will be low.

Executive-level training programs should include exercises to highlight that not all capital projects, including previously high-priority projects, need to continue. Evaluation should include scrutiny of the payback period and any post-closing value of the project, as well as the cost-effectiveness of an early shut-down of a particular function or the outsourcing of a function. Care should be taken to include a review of prior cost savings calculations because the likelihood of the company experiencing the projected cost-savings benefit decreases dramatically as the shut down date nears.

Like general inventory analysis, executive-level and graduate training should include exercises involving sample capital project analysis. Discussions should focus on the different options and evaluation models for the different types of capital projects that are common in organizations, including projects devoted to enhancing safety, environmental compliance, replacement of worn or outdated assets, etc.

Operational Staffing and Employee Morale Considerations

After evaluating the inventory and capital projects aspects of plant closings, decision-makers must next assess the staffing that will be needed to bring the operation to a successful close. Executives need to learn to evaluate the inter-related nature of the various parts of the operation and analyze the steps need to coordinate each of those parts and the tiered reduction in the needs for staff as the shut down process evolves.

For example, as decisions are made to stop or eliminate capital projects, project managers, project engineers, and staff members will be occupied with the steps necessary to cancel equipment purchases, negotiate the end of long-term and short-term contracts, stop construction crews, return materials and dismantle equipment. As these tasks are completed the need for a full staff will diminish and plans for staff reductions or re-assignment should be completed before the workload levels drop. Modeling exercises will be very useful in teaching executives what is entailed in the staffing analysis process as few of those involved in plant closings are likely to have taken detailed course work as undergraduates in staffing.

Moreover, coursework at the executive and graduate level should not focus just on the numbers-side of the plant closing equation. Training on the inter-personal relations aspects will also be beneficial. For example, managers who will be communicating capital project cancellations need to do so with tact and sensitivity, recognizing the amount of time and effort that many people devoted to the planning and approval of the now cancelled project. The announcement of a project's cancellation will always be a blow to those involved; however significant ill-will can be generated if due care is not taken in delivering the announcement. Ill-will, of course, can lead to a multitude of additional problems, including low productivity, sabotage, and even legal action.

Quality Considerations

While many operations have taken to and closely adhere to the quality improvement philosophies of Total Quality Management, Six Sigma, and Continuous Improvement over the last few decades, a severe downturn in the economy can still force those organizations into a closure situation. While many might look to cut every corner during a facility closure, management must assure that the level of quality that customers have come to expect will remain up to the final transaction.

Monitoring process systems is as critical in a closing situation as it ever was in normal operation. Control charts tracking process parameters, quality levels, and customer feedback are all relevant tools to be utilized in the closing strategy. In fact, the tools applied to quality improvement should be used to measure and monitor active systems and processes during the closing.

Human Resource Considerations

Human capital is a crucial element in the success of any business. Consequently, a focus on human capital should be an integral part of every company's operational plan. Many studies have shown a direct link between unproductive employee behaviors and ineffective human resource management (HR) activities, particularly the selection and training functions. Unproductive employees frequently serve as the impetus for plant closings (LaRusso, 1989).

Regardless of the degree of attention paid to human capital issues prior to the decision to close a plant, decision-makers must focus on human capital as they plan for staffing reductions and, eventually elimination of all plant employees. Training of future decision-makers at the executive or graduate level needs to emphasize the importance of involving HR in plant closing efforts at the earliest possible stage. Including HR in the planning stages of the closing efforts can help the organization to reconcile the "bottom-line outcomes with employee well-being" (Rynes, 2004, p. 211).

Few plant closings are implemented without a significant strain on the employee-employer relationship. Whether employees have been given a specific separation date or not, all employees are likely to experience some degree of concern over the uncertainty of their futures. Experience shows that closure decisions erode employee perceptions of their employer as the source of job security and, as the perception erodes so, potentially, does the productivity and motivation of the employee.

Interestingly, employees of other organizations who hear of the closure, respond with similar angst, complicating normal operations at neighboring companies (LaRusso, 1989). Thus executive training on plant closing issues may be beneficial even to those who never experience the full brunt of the closing experience because they will be better prepared to handle the impact of neighboring plant closings on their own workforces, particularly the need for open communication and reassurance of the health of their own facilities.

The organization can address the employees' anxiety associated with closing the facility in several ways. Providing as much advance warning as possible and as much explanation as to the reasons the plant is closing can increase the level of trust employees maintain in the organization and their perceptions of fairness (Brockner, Konovsky, Cooper-Schneider, & Folger, 1994). Many advocate full disclosure of the procedures the company used to determine an outcome or decision because full disclosure helps affected employees process the decision and understand that the decisions were fair, regardless of the outcome (Lind & Tyler, 1988).

Of course the amount of advanced notice will vary depending upon the circumstances. Advanced notice is more likely when the reason for the layoff or plant closure is endogenous (e.g., organizational changes) rather than exogenous (e.g., economic downturn). Additionally, advanced notice is also more likely when managers feel they have more control over notifying their employees (Gilliland & Schepers, 2003).

Studies show that employees offered explanations and advance notice may be less likely to diminish effort or engage in dysfunctional behaviors as they wind up their tenure at the plant. Furthermore, in a case study of manufacturing workers, longer notice was associated with a lower incidence of joblessness and lower likelihood for the workers to suffer from depression and alienation (Zippay, 1993).

Other research, however, suggests that advance notice provides opportunities for sabotage and exacerbates early turnover among employees (Tang & Crofford, 1999). To gain the benefits associated with advanced notice while minimizing risks, managers planning the operational-side of plant closing should work with human resource personnel to develop a list of potential high risk employees, including supervisors and managers. High risk employees may include those facing money troubles, those without much activity outside of work, families with dual incomes from the facility, and any employees who show an on-going dislike of the work environment and workplace policies. The potential for dysfunctional behaviors in the high risk employee population may be mitigated by assigning employees tasks immediately that help them prepare for the shutdown (LaRusso, 1989). Focusing high risk employees on essential tasks for the shutdown in addition to focusing them on the objective fact that the closure will happen often shortens what would otherwise be a lengthy emotional adjustment period (LaRusso, 1989).

Managers must address the dilemma of how and when to notify employees regarding the pending plant closing. Managers must consider the possibility that some employees may react to the closing news in

a way that will make the situation worse, while considering the need, both ethically and legally of notifying the employees in a timely manner. Whether notifying employees early on in the planning process or waiting later is a decision that must be evaluated to try to minimize the impact on the operation.

High performance organizations often tout their employees as their most important asset. Managers involved with plant closing planning must evaluate the facility's human capital and whether any employees can (or should) be absorbed into other company operation (LaRusso, 1989). For example, GE offered preferential hiring at other GE locations for displaced workers (Tang & Crofford, 1999). A key element in an organization's ability to identify key personnel for retention is whether the company has maintained an on-going database of its current employees' skills, using specialized software or other sources that provide quick and easy access. These instruments, commonly used in career management in high performance organizations, are especially important in the instance of a plant closing since they can help select the applicant pool or the candidates for positions in other parts of the company. An additional activity would be to perform current performance appraisals on all employees to assist in the placement efforts. Explaining the importance of these tools during executive training could be instrumental in prompting executives to implement HRIS and reliable performance appraisal systems – systems that have been shown to greatly benefit the organization as a whole.

Of course, in most plant closings, there will be a core group of employees who are not willing or able to move to another location (Tang & Crofford, 1999). There will also be groups of employees whose skills are not needed in the company. For these employee populations, contracting with an outplacement center can be useful in helping the employees find other work, work that will provide obvious benefits to the effected employees as well as limiting the organization's exposure to claims for supplemental unemployment benefits (Tang & Crofford, 1999). Decision-makers should also consider offering retraining benefits, potentially with monetary incentives, as retraining can both help employees find new employment and limit unemployment compensation claims (Tang & Crofford, 1999). Providing services to help affected employees find new employment also addresses the angst experienced by the community and contribute a more positive perception of the company in the community. Planners should also consider methods through which employees can take time off for job search and re-training related activities.

Planners should also focus on potential employee issues related to “health, safety, and environmental activities” (LaRusso, 1989, p. 61), which normally fall into the HR area of responsibility (Rynes, 2004). Awareness should be raised in executive training sessions of the scenarios in which employees are likely to “create” claims in the health, safety, and environmental arena. Executives should then learn steps that can be taken to minimize the likelihood that employees will file claims that allow them to remain on the payroll for additional financial security or to retaliate against the company for deciding to close the plant (Jennings, 1996).

As part of the executive training, executives should learn the importance of detailed job descriptions (Jennings 1996) both in terms of their relation to on-going operations as well as their importance in the plan closing context. In addition, the benefits of having employees sign separation questionnaires attesting to their injuries and sending exiting employees for medical exams to decrease the likelihood of employees filing false claims for Workers’ Compensation payments (Jennings 1996). Proactive steps, such as offering a “safety bonus” through which employees are paid for completing their employment accident free, might help improve awareness and caution should be discussed as monetary incentives often deter employees from considering the “benefit” of work related injuries.

Legal Considerations

Obviously any form of plant closing training must include an overview of the various legal issues that could arise. Of prime importance are the requirements of the Worker Adjustment and Retraining Notification Act. Additionally, executives should be aware that there are a number of other statutes, both state and federal, that affect the plant closing. Those laws include the National Labor Relations Act and its “decision” and “effects” bargaining rules; the Employee Retirement Income Security Act and its fiduciary duty requirements; the Multi-employer Pension Plan Amendments Act of 1980 and its withdrawal liability provisions; the Internal Revenue Code and its effect on benefit plan termination and severance payment taxability; the Older Workers Benefit Protection and the requirements for valid waivers of age discrimination claims; the various federal and state discrimination statutes and the potential for discrimination claims on employee lay-off decisions; and the myriad of federal and state environmental statutes and regulations.

Additional Learning Activities Related to Plant Closings

There are numerous possibilities for executive-level training activities that could facilitate an understanding of the various facets of plant closings. Two principle activity sources are group role playing exercises and simulation exercises.

Group Role Playing

Training session participants could be divided into small groups representing the different organizational departments of the operation (operations management, human resources, labor, legal counsel, etc.). Each personnel group would formulate an action plan based on its role in the plant closing operation. After development of the action plans, each group would present its plan and the other groups would respond. Interactions within the group will train executives for planning potential plant closings and also to work with other departments in adapting the plan to changes that may occur. It also allows executives to see the interplay between the needs and concerns of the various affected groups within a closing facility.

Simulation

A second activity geared toward assisting executives to plan and respond to plant closings is simulation. Probability models can be developed with the aid of computers so that each decision can be simulated. The simulation of decision points allows the participants to face the uncertainty of how the workforce will react, how customers and suppliers will react, and the legal aspects related to the closing. Using simulation, the activity participants get the chance to experience handling the uncertainty of the closing, and make decisions based on the potential outcomes.

Research Projects

Depending upon the scope of the executive training program, participants could be required to engage in plant closing research. Such research would be particularly effective in a graduate-level managerial program. The research could focus on a particular company and what the company did that facilitated a successful closing and/or what the company could have done differently that would have resulted in a smoother transition process.

Group Projects

For more intense executive training or graduate level training, group projects lasting an entire semester could provide a more hands-on learning approach to the closing of an operation. Each participant can take on a management role or employee role related to the closing of some fictional plant. With people assigned to each role, the participants can develop strategies and plans for facilitating the plant closing. The interactions among the participants would lead the executive trainees to find what may work and what may not work in a particular plant environment.

Part of the project might include periodic decision points, which would trigger interaction with the rest of the group. Each participant may have a set of choices to make, and the other participants would make decisions based on what choices are made by others. With periodic decision points, each participant will need to develop, implement, and likely adjust their respective strategies for “successful” closing.

Conclusion

Plant closings are difficult for all involved parties. Consequently, closings must be handled with a combination of strategy, compassion, and caution. Traditionally, plant closings have required “on the job training” and “trial-and-error” for the managers and executives tackling this difficult task. Including training on the potential operational issues and concerns, in graduate and executive training programs would provide an invaluable resource through which managers could learn to recognize the various areas of concern and make strategically planned decisions to minimize cost and ill-will, but to maximize the effectiveness of a process that typically is not.

By utilizing these essential elements to the plant closing process in an executive-level training program or a graduate-level management course, participants will be better able to handle the tough decisions related to bringing the plant to a close, which in turn will result in an easier workforce transition, and minimize the company losses.

References

- (1968). *Darlington Mfg. v. NLRB*, 397 F.2d 760.
- (2004). *Millsap v. McDonnell Douglas Corp.*, 368 F.3d 1246 (10th Cir.).
- Brockner, J., Konovsky, M. A., Cooper-Schneider, R., & Folger, R. (1994). Interactive ef-

- fects of procedural justice and outcome negatively on victims and survivors of job loss. *Academy of Management Journal*, 37, 397-409.
- Brown, J.T., (1980). *Luli v. Sun Products Corp.: Examining employee pension rights upon plant shutdown*, 7 Ohio N.U. L. Rev. 287.
- Deily, M.E. (1991). Exit strategies & plant closing decisions: The case of steel. *RAND Journal of Economics*, 22, 250-263.
- Employee Retirement Income Security Act*, 29 U.S.C. §1001 et. seq.
- Fox, A., (2009). Pulling the plug on Circuit City. *HR Magazine*, 54, 58-64.
- Freeman, K.W., (2009). The right way to close an operation. *Harvard Business Review*, 87, 45-51.
- Gibler, R.R., (2006). Using scorecards to routinely evaluate distribution facility locations, *Journal of Corporate Real Estate*, 8,19-26.
- Gilliland, S. W., & Schepers, D. H. (2003). Why we do the things we do: A discussion and analysis of determinants of just treatment in layoff implementation decisions. *Human Resource Management Review*,13, 59-83.
- Heizer, J & Render, B (2004) *Operations Management*. Upper Saddle River, NJ: Pearson Education Inc.
- Jennings, G. (1996, April). Closing a plant: Lock it up and throw away the key? *Risk Management*, 83-93.
- Kirkham, J.D., Richbell, S.M., Watts, H.D. (1998). Downsizing & facility location: plant closures in multiplant manufacturing firms, *Management Decisions*, 36, 189-197.
- LaRusso, A. C. (1989, July-August). Shutting it down: A test for management. *Business Horizons*, 59-62.
- Lind, E., & Tyler, T. (1988). *The Social Psychology of Procedural Justice*, New York, NY: Plenum.
- Multiemployer Pension Plan Amendments Act of 1980*, 29 U.S.C. §1381 et seq.
- National Labor Relations Act*, 29 U.S.C. §151 et seq. (as amended).
- Rynes, S. L. (2004). Where do we go from here? Imagining new roles for human resources. *Journal of Management Inquiry*, 13(3), 203-213.
- Tang, T. L., & Crofford, A. B. (1999). The anticipation of plant closing: Employee reactions. *The Journal of Social Psychology*, 139(1), 44-48.
- Worker Adjustment Retraining and Notification Act*, 29 U.S.C. §§2101-2109
- Zippay, A. (1993, Spring). The effects of advance notice on displaced manufacturing workers: A case study. *Labor Studies Journal*, p. 43-57.