

Pollution Prevention

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September 1994**Enhancing Employee Involvement
in Pollution Prevention Activities**

One reason pollution prevention programs have not been as effective as they should be is that too often a human behavioral problem has been confused with a technical problem. Pollution prevention will only be successful if people's behavior changes.

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Identifying technical options for pollution prevention may be only half the battle in implementing a successful pollution prevention program. Employees have the power either to limit the successfulness of a program or to advance it beyond expectations. Companies striving to reach the fullest potential of their pollution prevention activities must take steps to obtain the active cooperation of all employees.

Often, an organization's employees are already recycling or taking other steps at home to reduce the impact of their lives on the environment. This may be because of a local law or because of a sense of personal responsibility toward the environment. Whatever the reason, they probably take pride in their activities.

These same employees may see the waste they save at home as being insignificant compared to the waste being generated at their workplace. This can result in frustration and cynicism. When their company begins to imple-

ment pollution prevention programs, these people are likely to be very supportive because their sense of pride and "ownership" expands to include their jobs as well as their personal lives.

Of course, every company has people who don't seem to care, or who will actually oppose any new program. This may have less to do with the specifics of the program than with fear - the fear of change, loss of authority, failure, or that too much will be expected of them.

There are many steps your company can take to enhance employee involvement in its pollution prevention activities. It is not enough to establish an environmental ethic for your company. Each employee must embrace this ethic and fulfill his or her role on a daily basis (Makower, 1993).

Enhancing Involvement

Enhancing involvement does not mean making employees

follow orders better. Employees are more than "hands and feet" - they are a vital resource for improving your company's operations.

According to Joel Makower in "The E-factor: The Bottom-line Approach to Environmentally Responsible Business," companies that are the most committed and productive are those in which leadership and authority are spread throughout the workforce, not limited to upper management. The most environmentally successful companies create and support green leaders throughout the company.

A strategic management approach will help encourage employees to participate in the program. It also will enable them to appropriately fill the role that is expected of them.

Upper Management Commitment

Begin by conveying upper management's commitment to employees through a formal policy statement or

management directive. A policy statement needs to address why a pollution prevention program is being established, what is to be accomplished in qualitative terms, and who will do it.

Whether your company formally launches its program with a slogan and logo, mugs and specially made recycling bins, or informally launches it through a simple memo or announcement, the true level of commitment will soon become evident to employees. Employees will be certain to evaluate how meaningful management's commitment is.

Understand Your Corporate and Plant Cultures

Understand your corporate and plant cultures and design your pollution prevention program to work within those cultures. Is your company quality-driven, management-driven, or "champion"-driven? Are grass-roots type efforts effective? Are slogans and logos seen as gimmicky,



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or do they motivate employees? Employees may have grown accustomed to monetary rewards for extra effort, or to profit sharing. If employees are in a union, union representatives should be involved in the earliest stages of planning possible.

Management's commitment and attitude toward pollution prevention may be agreeable to employees, but more is needed before employees can translate that commitment into their own jobs.

Involve Employees

Involve employees in the pollution prevention program. They can participate through quality circles, task forces, suggestion programs or a combination of these.

Quality circles, task forces or other "green teams" help link the company's environmental goals with the rest of the organization. They should consist of representatives from a variety of levels of the company, and should be small enough for all members to participate (less than twelve, if possible).

The Honda Motor Company has used quality circles since 1985. Honda's Marysville facility has developed a member handbook on circle activity for its suppliers. This handbook states that "the motivation for employees to

form circle teams is that everyone wants to belong to a group that does something extraordinary. Everyone wants to do things the right way, a better way, and everyone wants to feel proud of what has been accomplished."

Some of Honda's practical advice is to not start circle activity until you have considered goals and objectives for the circles. Set goals and clarify the purpose and objective for the teams. Evaluate questions such as, "What problems will teams be permitted to work on?" "Where and when will teams meet?" and "What incentives will the employees receive for participation on teams?"

Employees will acquire a sense of "ownership" of pollution prevention activities when they are encouraged to: help define company goals and objectives; review processes and operations to determine where and how wastes are generated; recommend ways to eliminate or reduce waste production at the source; design or modify forms and records to monitor materials used and wastes; find ways to involve suppliers and customers; and think of ways to acknowledge and reward employee contributions to the pollution prevention effort.

Suggestion programs may be more effective for your

company or more fitting for your company culture. Be sure to establish and publish criteria for the suggestion program in advance. Consider publishing all suggestions, since this may encourage new ideas.

Educate Employees

Educate employees about their pollution prevention responsibilities. Provide the necessary training so that employees can fulfill these responsibilities. This is important both for new and veteran employees.

Educate employees about the goals of the pollution prevention program, and the benefits to the company, the employees, the environment and the community. Re-education can help maintain the momentum and visibility of the program.

Employees may need training or education before they can participate in teams. They may need instruction on how to use various Total Quality Management tools such as brainstorming, fish-bone diagrams, and pareto charts.

Finally, employees must receive the necessary training to implement pollution prevention projects. For example, if it is decided that painting operators should use improved spray technique to reduce paint waste, those operators must be taught the

proper spray techniques. They also should be educated about the advantages of the new way of doing things.

Inform Employees of Progress

Inform employees of the progress of the program. Materials in and waste out must be tracked for a company to evaluate success. Posting reductions in waste generation and consumption of materials will demonstrate to employees that their efforts are making a difference. Evaluate what method of reporting your employees are most interested in. Will they be more motivated by dollars saved in waste treatment or disposal, amounts of waste reduced, or progress toward a pre-established goal?

The Chemical Manufacturers Association's (CMA) Pollution Prevention Resource Manual suggests using internally produced posters to communicate information about the program to employees. They can carry the company logo and list accomplishments toward facility-specific goals. In-house publications, such as newsletters, also can be effective. These can be used to report statistics, review projects and transfer technology.

Recognize Efforts

Recognize employees' efforts. Immediate recognition of early accomplishments helps establish a pollution prevention program. Recognition programs sponsored by upper management help sustain employee motivation.

The type of recognition used will vary depending on your plant culture. It may range from a pat on the back to recognition in front of peers, or even to monetary rewards.

Motivate Employees

Motivate employees through additional incentives, such as bonuses, or non-monetary recognition such as awards or plaques.

CMA's Pollution Prevention Resource Manual suggests that contests can generate interest in the program. Encourage one group, such as a production area, shift, or green team, to challenge another. Establish criteria for the contests in advance, and have clear, fair rules. Make sure that prizes are worthy of the expectations of employees.

Publicize Success Stories

Publicize success stories, both internally and externally. Find ways to make everyone aware of your successes, including employees,

stockholders, regulators and the community. Employees are proud of pollution prevention accomplishments, and want their families and others to know about the company's successes.

Components of Involvement

How can your company help ensure that employees participate in the pollution prevention program in a manner that benefits both themselves and the company? There are four key ingredients to beneficial involvement: knowledge; information; power; and rewards. Each is critical.

- Rewards without power, knowledge and information lead to frustration and lack of motivation because people cannot influence their rewards.
- Information, knowledge and power without rewards are dangerous because nothing will ensure that people will exercise their power in ways that will contribute to organizational effectiveness.
- Power without knowledge, information and rewards is likely to lead to poor decisions.
- Information and knowledge without power lead to frustration because people

cannot use their expertise (Lawler, 1986).

Case Studies

The following companies have all been recipients of the Ohio Governor's Awards for Outstanding Achievement in Pollution Prevention. The active involvement of the employees in pollution prevention activities contributed to their companies' exemplary efforts in source reduction and recycling.

Ball Metal Beverage Container Division, Findlay

Ball's upper management is thoroughly committed to pollution prevention, and has demonstrated this in part by writing environmental responsibilities into employees' job descriptions. Ball has established a Total Quality Management program throughout its facility, and integrates its pollution prevention activities into the framework of this program. This plant has five Total Quality Recycling Teams, made up of employees from all levels of the company. All plant personnel are involved through identifying problem areas, and weighing and tracking volumes of scrap and waste stream products.

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GE Superabrasives, Worthington

GE Superabrasives also includes an environmental statement in its employees' job descriptions. GE has established formal task forces, the Waste Minimization Task Force and the POWER (Pollution, Waste, and Emissions Reductions) Team, to develop plans and programs for recycle/reuse, and to identify options for reducing releases, with a primary emphasis on source reduction. Task force members are assigned to individual shops to promote environmentalism throughout the workforce.

GE educates its employees about its pollution prevention practices through workshops, circulations and fliers. It also solicits suggestions through an employee suggestion program. As an example of its efforts to recognize its employees, GE nominated them for the Governor's Awards for Outstanding Achievement in Pollution Prevention. One of the reasons that GE's associates were selected for this award was their dedication to extensive segregation of wastes for recycling.

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Plasticolors, Inc., Ashtabula

Plasticolors developed its waste minimization program, WASTEMIN, to reduce operating costs and risk to the environment. When the program was initiated, the company committed to returning a portion of the money saved through pollution prevention activities to the employees. At the end of the first year of the program, hazardous waste generation had been cut by 43 percent and each of the approximately 100 employees received a \$500 bonus.

The Waste Minimization Team, composed of employees representing administration, sales, technical and production functions, encouraged the participation of employees through training and education regarding the proper segregation, collection, reuse or disposal of materials, and the associated costs.

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**This is the twenty-second in
a series of fact sheets Ohio
EPA has prepared on
pollution prevention. For
more information, call the
Office of Pollution Preven-
tion at 614/644-3469.**

**The Office of Pollution
Prevention was created
to encourage multi-
media pollution preven-
tion activities within the
state of Ohio, including
source reduction and
environmentally sound
recycling practices. The
office analyzes, devel-
ops, and publicizes
information and data
related to pollution
prevention. Addition-
ally, the section in-
creases awareness of
pollution prevention
opportunities through
education, outreach,
and technical assistance
programs directed
toward business,**