MEANS OF IMPLEMENTATION OF CONTROLS

Donato R. Telesca
Enviro Control, Inc.
Rockville, Maryland

MEANS OF IMPLEMENTATION OF CONTROLS

You have heard a number of talks during the past two days dealing with the technical aspects of control technology. We have dealt with the methods of measuring the effectiveness of the engineering controls, and we have talked about the implementation of controls in new facilities.

The NIOSH technical report of the control technology assessment of the plastics and resins industry consisted of a series of in-depth surveys on the polymerization and compounding processes. The findings were presented as case study summaries. The case study summaries for each of the sites surveyed included:

- Major toxic chemical and harmful physical stresses;
- Engineering controls and work practices;
- Workplace monitoring systems and air sampling program;
- Personal protection equipment;
- Exposure data and conclusions; and
- Planned or ongoing improvements.

The question is: How can all the information that has been collected be used to implement controls that are necessary to protect the workers in any and each of the plants? It is a difficult problem.

Many people feel that the major problem lies with management. I suggest, rather, that the implementation of controls is a three-way effort by management, labor, and regulatory agencies.

This effort can be symbolized by a three-legged stool. Each leg must bear its fair share of the weight, and each leg is important to maintain the balance of the chair to avoid any failures. Thus, this effort to reduce exposure of the workers is somewhat like a three-legged stool.

LABOR

The role of labor in this three-pronged attack on the implementation of controls is to note areas where there are emissions in the operating

equipment in the plant and to bring these problem areas to the attention of supervision so that the proper corrective measures may be taken.

Members of the R & D forces who are making a study to reduce exposure make changes in the process or equipment, etc., will be limited by the time of the study and may not be aware of all the problems which may occur during the operation of a particular process or plant. The members of the operating groups, or the maintenance groups, are the people who are most familiar with the operation of equipment in any and all situations. During their various experiences in the plant, they may find a better solution for a particular problem which is occurring in the plant. This solution can be based on previous experience, on training sessions, or on word-of-mouth from other maintenance people in similar situations. These solutions should be suggested by labor to management so that they can be incorporated in any suitable spot in the plant.

In my past experience, when sent to a plant for trouble-shooting assignments, I would request the "laziest" operator who was available. In questioning this operator, I often found that he had better work practices and knew of better methods of performing his job. Additional questioning would show that the quality of the product was not hurt by these better methods, and often I would point out to the plant management the value of this operator's method and have them introduced into the standard operating procedures of the plant.

It is also the responsibility of labor to adhere to rules established as a result of regulations. Labor must be honest in evaluation of a problem and not "blow a simple problem out of proportion."

Further, more experienced members of the labor force have the responsibility to properly educate new members in the safe methods of operation of the equipment and process. These experienced workers should also emphasize the reasons for the regulations which were established for the safety of the job.

REGULATORY AGENCIES

The role of regulatory agencies in this three-pronged attack on the problem of implementation of controls is primarily to establish rules and regulations which are obtainable, fair and nonpunitive. It is of no value for the regulatory agency to request a standard which can neither be measured (and consequently is not enforceable) nor one which cannot be obtained in a reasonable length of time by the available commercial equipment.

It is also the responsibility of the regulatory agencies to have a reasonable cost associated with the implementation of any regulation. Each plant has the cost data for meeting the regulation. Some of this information is proprietary and cannot be used in discussions with the regulatory agencies. However, it is the responsibility of the regulatory

agency to make an estimate on the best available information at the beginning of the procedures for the institution of the regulation because this estimate will help guide the agency in pursuing the level of controls desired.

Another area that the regulatory agencies should examine is a request for reports, many of which are overlapping, and many of which are unnecessary because the information requested is available from other agencies. It is suggested that an interagency committee be established to monitor and/or develop reports to minimize duplication and to reduce costs to the various plants developing the information required by the report.

There is a recognition of the problems faced by the regulatory agencies, and a partial answer may be found in the draft form of a document titled Making Prevention Pay dated December 14, 1978. This is the final report of the Interagency Task Force on Workplace Safety and Health, and it may be obtained by writing to the Interagency Task Force at 1815 North Lynn Street, Rosslyn, Virginia 22209.

Specifically, the task force was directed to:

(1) Explore the incentives that might supplement direct workplace safety regulations;

(2) Evaluate government-wide administration of federal workplace safety and health activities, including duplication, overlaps, and gaps in the Federal agency jurisdiction; and

(3) Review other ways to improve the safety and health efforts of all Federal agencies, including those programs that affect Federal employees and resources devoted to them.

There are a number of areas that were identified for study. It is a work of some 150 pages and recognized in detail a number of the problems faced by industry.

MANAGEMENT

Management has the responsibility for taking the initiative in the implementation of controls. The major difficulty for people in management is to implement a number of controls and changes which may be required by regulatory agencies and/or suggested by the labor force at a plant. Implementation of these controls and/or changes may be difficult because:

(1) It may not be cost effective;

(2) It may be the pet "project" of some group or individual and may not be necessary for the welfare of the general public; and

(3) It may not be possible because of the lack of equipment and/or instrumentation required.

Before the institution of any regulation, a notice is put in the Federal Register requesting comments regarding the regulations. It is management's responsibility to comment on the proposed regulations in response to these requests from the regulatory agencies. Management must analyze the effect of the regulations on the industry as a whole or, where warranted, the effect on a specific sector within the industry. The response from industry should be objective and open in order to have the best possible regulation issued as a control for the industry.

Another responsibility for management is to draw to the attention of the regulatory agencies the cost that would be associated with the implementation of the required control equipment. In discussions with the agencies or their representatives, management should be frank about the problems to be faced. In the past, a requirement from an engineering group often resulted in a high estimate for the implementation of controls because of the speed at which the estimate was made. The end result was that the credibility of the estimate and of the company was questioned.

Further, in many cases management will not make a change in the equipment unless there is a payout period for the change. Often, this payout period is unreasonable because of the length of time that is required for payout. It is recognized that money is valuable and that the established payout period is based on the competition with the income that this money can generate if invested in other locations. Unfortunately, this attitude regarding payout often leads to arbitrary decisions by regulatory agencies and/or higher members of management. The result can be ineffective installation of equipment that is inadequate for the required regulation.

There are a number of ways for management to implement the controls in the plants or industries. First, there should be an industry group whose function is to review the proposed regulations which are issued in the Federal Register. This group should also be empowered to submit to the federal agency their objections to any of the sections of the regulation and to suggest a better or more efficient control method.

Second, the plants can establish incentives for the work force to encourage the suggestions by members of the labor force which will lead to better controls. Again drawing on past experience, in one location we instituted a safety suggestion box which made cash awards for suggestions that were accepted. This was a number of years ago, so the amounts will appear to be small. But, as an illustration, for a suggestion that could be used at one specific location, the award was $5.00. For a suggestion that could be used within one plant, the award was $10.00. For a suggestion that could be used in a number of plants within a company, the suggestion was awarded $25.00. While the amount of money can be changed to

reflect the present times, the important thing is that the suggestion box can be used to encourage the participation of the workers within the plant in an effort to make a better working place.

The areas that management should consider for the institution of controls are as follows:

- Category I: Elimination by substitution of unit process or hazardous materials (this will be the most expensive way);
- Category II: Application of current technology to specific equipment designed to contain emissions within process equipment;
- Category III: Devices to control hazardous emissions once they enter the work environment;
- Category IV: Controls used to isolate workers or prevent contact with the toxic agents; and
- Category V: Monitoring system which warn workers of hazards and initiate corrective measures.

CONCLUSION

In summary, the implementation of controls is dependent upon a cooperative, three-pronged attack of the problem, with the "attacking" force composed of members of management, labor, and regulatory agencies. Each of these team members has a definite function to perform in the implementation of these controls, and with a cooperative, objective method of operation their efforts will result in a plant which will be a better and safer place in which to work.

NIOSH

SYMPOSIUM PROCEEDINGS

Control Technology in the Plastics and Resins Industry

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Institute for Occupational Safety and Health

SYMPOSIUM PROCEEDINGS

CONTROL TECHNOLOGY IN THE PLASTICS AND RESINS INDUSTRY

Held at the
Atlanta Hilton Hotel
Atlanta, Georgia

February 27-28, 1979

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Institute for Occupational Safety and Health
Division of Physical Sciences and Engineering
Cincinnati, Ohio 45226

January 1981

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

DISCLAIMER

Mention of company names or products does not constitute endorsement by the National Institute for Occupational Safety and Health.

DHHS (NIOSH) Publication No. 81-107