

CONTENTS — Continued

Safe Handling of Low Level Radioisotopes	E. R. Harris	59
Safety Rule Enforcement—A Key to Accident Prevention.....	Richard R. Wiley	62
Damage Control—A New Horizon in Accident Prevention.....	Frank E. Bird, Jr.	66
Training the Plant Defense Corps	John E. Twomey	70
What Do We Expect of the Safety Engineers?	G. W. Harper	73
Design Specifications for a Safety Engineer	T. H. Rockwell, Ph.D.	75
Preparing the Safety Engineer and Upgrading Performance	D. A. Weaver	79
The Kintz and Browne Fire and Static Electricity Demonstration	G. M. Kintz and H. F. Browne	85
Better Driving for the Whole Family.....	William F. Sabota	87
Getting People to Understand Law Enforcement	Franklin M. Kreml	93
Officers of the Industrial Conference 1961-62.....		95
Other Volumes in the 1961 National Safety Congress Transactions.....	Back Page	

INTEGRATING ACCIDENT PREVENTION WITH PRODUCTION

By THOMAS A. SULLIVAN
A. O. Smith Corporation, Milwaukee, Wis.

We would like to offer the experience of our Granite City plant as a case study in the integration of accident prevention with production.

We have tried to present facts to you and not draw conclusions. If these facts can give you clues as to steps you can take in your own plants to tie accident prevention into your production processes this is the most that we believe can come from such a study. We would be the last to claim we have discovered any panacea for the complex subject of plant safety.

This case study is interesting because it was a new plant in a new area for A. O. Smith Corp. The exposure volume is significant, about 3,000,000 manhours per year.

From the beginning we had a safety director, who is still there. He is a staff man and must get all action through the operating people.

At the start-up of the plant two problems developed which complicated our problem immediately:

Certain automatic assembly equipment was not ready when product deliveries had to be made.

Our competitors were not ready to produce at all so we had to carry the entire requirements of our customer for the first few months of our operation.

As you might suspect, this required the hiring of green workers and green supervisors and made the training problem almost insurmountable at the beginning.

We have tried to put our whole story on this chart. It looks complicated but if you will follow along with me we will take it one step at a time.

The chart is divided into four areas:

The accident frequency data.

Production demands and union relationships.

Management action.

Safety and housekeeping.

Accident and frequency data show the number of lost time accidents per month since the plant began production in Sept. 1954. You will note that we have identified injuries to maintenance men separately from production people as the nature of their exposure is different and may be of some significance. For example, in 1959 and 1960 every other accident was in maintenance, although the hours of exposure of the production people is 10 times that of the maintenance men.

The frequency rate is a 12 month running average.

Production demands and union relationships are grouped together as things over which the management of the plant did not have complete control.

The start-up of new models in the summer of each year should have an adverse effect on safety because new equipment is present and men are back from a layoff of 4 to 6 weeks and presumably "out of practice." An examination of the chart does not disclose such a trend. Rather the accidents seem to bunch up in the later months when the heat is on to produce at peak efficiency. However, the data is not conclusive here either.

The effect of union activity on safety, while at first appearing adverse—after the union certification in 1955—does not show any discernable pattern. The accidents occurring after the major work stoppages in 1956 and 1957 do not seem to be related to the stoppage any more than to the model changes which occurred shortly thereafter.

In fact, it looks as though the formation of the Union-Management Safety Committee in 1959 had a major favorable effect on accident frequency. The frequency rate for the two year period since April 1959 is 0.78 per million manhours of exposure.

Management actions—There were four manufacturing superintendents during the period on the chart—identified as A, B, C and D. The frequency rate for each was: A—3.47; B—1.20; C—3.15 and D—1.53.