

EDUCATION ACTIVITIES COMMITTEE
Report of J. W. Tomecko, Chairman
To the Board of Directors
September 14, 1965

I appreciate the opportunity of reporting before the Board on the activities of the Educational Activities Committee.

I wish personally, and on behalf of E.A.C., to thank the Board for having made it possible to have had Robinson Ord sit in on our committee deliberations and we look forward to our association with Mr. Byrom.

This committee was organized with a number of objectives which I think can be summarized into two:

1. Do things that can inspire students to become scientists in the fields of industry, education and government.
2. Provide encouragement and materials to aid teachers to not only inspire students to become scientists but also to develop them into competent scientists.

In both cases we work mainly through teachers. First at the elementary and secondary level and later at the university level. We work through teachers because without dedicated and proficient teachers progress is difficult.

These facts were appreciated early in E.A.C. activities and now after a ten-year period this committee enjoys a national reputation for assisting teachers and students and for arousing interest in careers in chemistry and chemical engineering.

President Sommer in receiving the Kirkpatrick Award for Monsanto last year, said in speaking about informing the public:

"When we have demonstrated, initiated and communicated adequate proof that we deserve the public's confidence, we may face a refreshingly new problem: a public impatient for our contributions ..."

I think it is fair to say that MCA through the past work of E.A.C. enjoys the confidence of educators, but there is so much that we can do that we are inclined to be impatient with our own progress.

Without going into detail on the entire programme, I would like to highlight some current important activities:

1. The College Chemistry Teachers Awards programme is being continued for the tenth year and, so far, 48 outstanding professors have been honoured.
2. Sponsoring high-school chemistry teacher awards programmes, to be conducted by at least eleven Chemical Industry Councils following two suc-

cessful pilot trials last year. The unique criterion is selection of recipients on the basis of their activity in relating school learning to industry application in local areas.

3. Promoting publication of the "Chemistry in Action Series" of paperback books on major aspects of industry activity in the chemical field. Several of the volumes designed for student and lay consumption are nearing completion. A problem now being encountered is that a number of authors, while authorities in their fields, are not qualified as popular science writers. The committee, therefore, may "have" to appeal to the Board at a later date for additional funds, possibly up to \$10,000 in 1965-66. This money would be used to pay persons skilled in "translating" the manuscripts into appealing presentations.

Some of the titles are:

- Chemistry of Nitric Acid - MSS about complete;
 - Chemistry of the Soil - Expect to be done this year;
 - Detergents - MSS now in the hands of publishers;
 - Industrial Wastes - and
- A total of 20 numbers being worked on -- 37 titles altogether.

4. Issuing a series of Industrial Resource Publications, primarily for the use of high-school and undergraduate teachers, on current developments in the chemical industry. These will deal primarily with new products and new processes, amplifying the theoretical chemistry taught in the classroom and laboratory.

5. Preparing one or more talks on the chemical marketing careers for use of industry representatives before such groups as ACS Affiliate Chapters. We had budgeted money for the purpose of symposiums - this is regarded as a better approach at less cost.

6. Making available new editions of most of MCA's numerous established aid-to-education publications which continue in heavy demand. The 1965-66 editions of "Careers Ahead in the Chemical Industry" and of the Film Guide are now ready for distribution. I should like to cite the tremendous response that we have had in Canada to the MCA films which we have been showing since 1959:

<u>1959-1965</u>	<u>Screenings</u>	<u>Attendance</u>
Chlorine	1,566	53,879
Combustion	1,554	61,587
Chemistry of Water	1,214	44,004
Oxidation-Reduction	849	29,145
Nitric Acid	282	9,850
Catalysis	<u>1,035</u>	<u>32,568</u>
	6,500	231,033

No. of Prints now in Circulation

Chlorine	11
Combustion	10
Chemistry of Water	8
Oxidation-Reduction	9
Nitric Acid	6
Catalysis	7

A new item "Education Publications Available from the Chemical Industry" soon will follow. It is likely also that we will have to reprint the Chemical Laboratory Safety Posters. The first printing of 5,000 sets may be exhausted by the end of the calendar year.

7. Show copies of Safety Posters. Most of the 5,000 sets are now in the schools and a second lot will likely be needed this year. This is essentially a self-liquidating undertaking.

8. As E.A.C. has developed, it has increasingly promoted cooperative working relationships with professional organizations such as the American Chemical Society, the Advisory Council on College Chemistry and the National Science Teachers Association. We believe this enhances the stature of our group and the opportunity for constructive contributions to education.

Our budget is approximately \$31,000 for projects with some additional \$21,000 being added for overhead operational costs.

We have been most fortunate in the men whom the member companies have selected for this important work and may I say a special thank you to the Association for this. I personally have enjoyed working with Dr. Chace and may say our director does his work with care and dispatch.

Thank you for inviting me to speak before you.

SAFETY AND FIRE PROTECTION COMMITTEE

Report of A. L. Cobb, Chairman

To the MCA Board of Directors

September 14, 1965

1. Chem-Cards

Probably the most important undertaking and certainly the most controversial was the Chem-Card Program. The actual work was carried out by a task force under the chairmanship of Boyd Schafer of the LAPI Committee.

It is however a project recommended by this committee and in which we participated actively.

One gratifying result of this program has been its endorsement by both fire and police authorities, with a recommendation that a copy of the Chem-Card book be carried on every piece of fire apparatus and on every police car in the country.

2. Placarding

Representatives of the Safety Committee have met with a task force on tank truck placarding and have developed some recommendations which were offered to the Interstate Commerce Commission.

However, the project was overshadowed by the sudden interest of the Department of Defense in this matter -- which culminated in two two-day meetings of the Armed Service Explosive Safety Board. We were represented on the second of these meetings. Representatives of the fire and police services were present and were very vigorous in their support of a placarding proposal based on the NFPA numerical system (704M).

We were successful in getting the ASESB to make a recommendation essentially along the lines of the proposals made by the placarding task force. ICC now plans to come out with "notices" describing the proposed systems.

3. Explosion Hazards Training

We conducted a two-week school, in conjunction with the US Bureau of Mines at Pittsburgh, on fire and explosion hazards with special emphasis on detonation hazards.

This course was at a high technical level and was well received. We will have a similar course in December of this year. It will be a one-week course. These courses have been made necessary because of an increase in the number of chemical plant incidents which involve the possibility of detonations.

4. Safety Workshops

We have held a safety workshop in Newark, New Jersey, and have scheduled one in Boston on September 23. These workshops have proven to be an interesting

and, we believe, worthwhile feature of our program. In addition to stimulating the interest of local chemical industry people, the Safety Committee staff has been able to learn much from these sessions.

5. Visual Aids

Work is underway on a series of slide talks on various aspects of chemical plant safety; as for example, a talk on "Entry of Confined Spaces" and on "Lock Out Procedures."

6. Data Sheets

The data sheet on ethyl ether has been revised and a new data sheet on 1, 1, 1 trichloroethane has been prepared.

7. Laboratory Safety

Work is underway on a revision of the manual "Guide for Safety in the Chemical Laboratory."

8. Case Histories.

We will publish a new volume of case histories of chemical industry accidents. These case histories are virtually invaluable in the improvement of chemical industry safety. We are very grateful to these companies that have voluntarily supplied us with case histories and urge all to participate in this program. To a very large extent, progress in safety is being made through the use of actual experience. We are not exactly proud of our case histories, but we do recognize the tremendous importance of learning through past mistakes.