TELEPHONE HUDSON 3-6126

Manufacturing Chemists' Association, Inc.

(FOUNDED 1872)

1825 CONNECTICUT AVENUE, N. W.
WASHINGTON, D. C. 20009

304.

MINUTES OF MEETING
SAFETY AND FIRE PROTECTION COMMITTEE
MCA Offices, Washington, D. C. December 8, 1966

PRESENT

A. H. Christian, Chairman	FMC Corporation
A. L. Kling, Vice Chairman	Olin Mathieson Chemical Corporation
R. H. Albisser	Merck & Co., Inc.
L. W. Boulton	Polymer Corporation Limited
A. L. Cobb	Eastman Kodak Company
P. C. Folse	Mobil Oil Corporation
G. L. Gorbell	Monsanto Company
F. E. Macaulay	Wyandotte Chemicals Corporation
S. M. MacCutcheon	The Dow Chemical Company
J. V. Savercool	Allied Chemical Corporation
S. F. Spence	American Cyanamid Company
W. S. Wood	Sun Oil Company
F. G. Stephenson, Secretary	Manufacturing Chemists Association

GUESTS

C. Eastman	Mobil Chemical Company
G. F. Sellen	Enjay Chemical Company
M. E. Woodworth	National Fire Protection Association

ABSENT

G. G. Fleming	Celanese Corporation
J. S. Queener	E. I. du Pont de Nemours & Company

Chairman A. H. Christian opened the meeting at 9:00 a.m. He welcomed the guests and reported that Mr. J. S. Queener could not be present but would represent the Committee that day at the meeting of the USASI Z16.1 Committee on Method of Recording and Measuring Work Injury Experience.

1. Minutes of the September 20, 1966 meeting were approved as distributed.

2. Committee Organization

Mr. R. H. Albisser verbally presented the recommendations of the task group created to review the Committee Rules of Organization and Procedure. It was agreed that these proposals be presented to the Committee in written form and voted upon at the next meeting.

3. Membership

Mr. John V. Savercool of Allied Chemical Corporation was welcomed to membership. Mr. George Sellen of Enjay Chemical Company was appointed a member of the Committee subject to ratification by the MCA Board of Directors.

4. Safety Workshops

Safety Workshops will be held in 1967 as follows:

a) April 17 - At the Ambassador Hotel in Los Angeles. This workshop will be cosponsored by the CIC of Southern California. The contact will be Mr. W. E. H. Knight of Stauffer Chemical Company, Los Angeles

b) April 19 - At the St. Francis Hotel in San Francisco. This workshop will be cosponsored by the CIC of Northern California. The contact will be Mr. Howard Richman of The Dow Chemical Company, Pittsburg, Calif.

c) April 21 - At the Seattle Center, Seattle. This workshop will be cosponsored by the CIC of the Pacific Northwest. The contact will be Mr. Marshall Ramstad of Pennsalt Chemicals Corporation of Tacoma, Washington

1968 Safety Workshop - A Safety Workshop will be held in Toronto during the last week of May 1968. Mr. L. Boulton agreed to make preliminary arrangements regarding this.

5. Progress Reports on Research Programs

a) Underwriters Laboratories program on the Classification of Chemicals for Article 500 of the National Electrical Code - Mr A. L. Kling distributed copies of a report indicating that satisfactory progress is being made. This report is

included with these minutes as Attachment A.

b) Factory Mutual Research Corporation - Flammable Liquid Drum Storage Tests - Mr. A. L. Cobb reported that a problem had been encountered in the initial tests using drums of water since exposure to heat had resulted in high pressures being developed in the drums due to temperature rise in the vapor without appreciable temperature increase in the liquid. He also advised that it had become necessary to redesign and rebuild the thermocouple system.

6. Inter-Committee Task Group on Transportation Hazards Information

Mr. A. L. Cobb reported that the task group has held several meetings and that some progress has been made in the development of a placarding system for use in all modes of transportation, incorporatimg the use of English wording similar to that required by the ICC in Article 69 combined with numerical severity identification similar to that used in the NFPA 704 system.

The Committee discussed a proposal by Mr. M. Woodworth of NFPA that MCA should finance distribution to some 22,000 fire departments in the country of the new NFPA publication "Fire Protection Guide on Hazardous Materials." This publication, available to the general public for $4.75, is a compilation of the following existing publications: 325A, 325M, 49, 491M, and 704M. Copies for distribution by MCA as suggested by Mr. Woodworth would be made available for $1.00 each.

The desirability of making further free distribution of the MCA Chem-Card Manual together with the above was also discussed. It was agreed that since the new MCA publication has already been offered to the general public, that the matter be further considered at the next meeting of the Safety and Fire Protection Committee. In the meantime, Mr. A. L. Cobb agreed to obtain the viewpoint of the Inter-Committee Task Group on Transportation Hazards Information.

7. Environmental Health Advisory Committee

Mr. A. L. Kling distributed copies of a draft for a five year forecast of activities of the Safety and Fire Protection Committee prepared for the information of the Environmental Health Committee. Mr. Kling's proposal was found generally acceptable and it was agreed that it be submitted to EHAC.

8. Short Course on Explosion Problems in the Chemical Industry

The Secretary stated that a list of the 26 persons who will attend the course to be held during the week of December 12 was mailed to the Committee with his letter of December 5.

9. Revised Edition of "Guide for Safety in the Chemical Laboratory"

It was resolved to recommend to the Board of Directors that the sum of $2,000 be made available immediately so that the services of a qualified technical writer can be obtained in order to complete the preparation of the revised edition during 1967. Mr. W. S. Wood reported that Mr. C. Groves of Du Pont had agreed to undertake the work.

10. Safety Publications

The Secretary submitted a report on the status of the chemical safety data sheet program. This is included in these minutes as Attachment B.

An effort is now being made to revise outdated sheets as quickly as possible but there are still a number in existence which were first published almost 20 years ago. It is believed desirable that a program be established whereby all chemical safety data sheets will be either revised or reaffirmed every two years. A recommendation regarding this will be included in the document to be submitted to EHAC.

11. Activities of NFPA Committees

It was reported that a list of MCA representatives on the various NFPA committees had been distributed to Committee members. Mr. A. L. Kling discussed the need for better liaison between these representatives and the MCA committees involved and suggested that a questionnaire be prepared so that each representative may report, at least annually. It was agreed to proceed on these lines.

12. Other Reports

a) Mr. A. C. Clark discussed the possibility that the ICC will expand the definition of a "flammable liquid" possibly to include liquids with a closed cup flashpoint up to 100°F. He urged members to discuss the various aspects of such a change with other interested persons within their respective companies so that corporate viewpoints can be developed.

b) Mr. A. G. Robinson of MCA staff described how the CIC in Michigan is participating in the development of a State safety code for the chemical industry. Mr. F. E. Macaulay has been appointed a member of the committee which will develop the code. He agreed to keep the MCA Committee fully advised regarding developments.

c) Bottom Unloading of Tank Cars

The Secretary advised that the Transportation Equipment Committee has recommended the creation of a 4 man task group, 2 from the T&D Committee and 2 from the S&FP Committee to develop wording on the bottom unloading of tank cars for inclusion in MCA's safety publications. It was resolved to participate in this activity and the Chairman advised that he will nominate 2 representatives.

d) The Secretary reported that the Chemical Packaging Committee is reviewing the format used in packaging sections in chemical safety data sheets and may make some new proposals.

13. Handbook on Waste Disposal

Mr. L. Boulton reported that it is proposed to prepare a series of handbooks in order to make available to chemical users information on the disposal of small quantities of hazardous waste material. The first volume will cover materials used in industrial laboratories and in general will deal with the disposal of small quantities up to 1 gallon or 5 pounds. Mr. Boulton requested specific participation in the project by experienced lab personnel from such companies as Eastman Kodak, Merck, Sun Oil and Dow. Committee members representing those companies agreed to attempt to make arrangements for such participation. A budget of $5,000 for this project will be requested for 1967 in the Committee's 5 year forecast of activities.

14. Meeting Arrangements

a) The next meeting will be held in New York City commencing 1:00 p.m. on Wednesday, March 1, 1967. It will continue as necessary on March 2.

b) A meeting will be held during the last week of September, 1967 possibly at the Sterling Forest Conference Center at Tuxedo, New York.

Minutes subject to approval

FGS:cm
12/14/66

ATTACHMENT A

TO Mr. Alan L. Kling AT 460 Park Ave. DATE December 6, 1966

FROM Dr. Richard Y. Le Vine AT 460 Park Ave. COPY TO

SUBJECT U.L. RESEARCH PROGRAM ON THE CLASSIFICATION OF - CHEMICALS FOR ARTICLE 500 OF THE - NATIONAL ELECTRICAL CODE

The first meeting of the Advisory Committee for the above U.L. Research Program was held on September 14, 1966 at the U.L. in Chicago. Present at the meeting were representatives of the MCA, API, AIA, NEMA and NFPA. All of these organizations with the exception of the NFPA are lending financial support to the project.

The equipment to be used in the program and the factors involved in determining the suitability of explosionproof electrical equipment for a certain chemical atmosphere are discussed in the attached article, "Testing Electrical Equipment for Chemical Atmospheres" by William C. Westerberg. Fig. 1, 2 & 3 show details of the equipment.

The first step of the investigation involves the testing in this new equipment of chemicals which are presently classified as Class I, Group A, B, C&D atmospheres in Article 500 of the N.E.C. The second step of the investigation involves the testing of 15 chemicals which are not presently classified or listed. The third step is the correlation of the test data and the classification of these unlisted chemicals into the present groupings. This will not only add 15 chemicals which are widely used in the chemical industry, to the NEC, it will hopefully make it possible to have any chemical tested and classified by UL without the laborious and expensive procedure of trying the chemical atmosphere in actual el ctrical equipment. Another benefit of the project may possibly be an increase in the kinds of electrical equipment approved for Groups A&B as new chemicals are added to these Groups and a demand for approved equipment is created.

The Advisory Committee selected 15 chemicals for testing and suggested the following order of testing:

1. Anhydrous Ammonia
2. Propylene Oxide
3. Ethylene Oxide
4. Propylene
5. Butadiene - 1, 3
6. Styrene
7. Isoprene
8. Vinyl Chloride
9. Vinyl Acetate
10. Acrylonitrile
11. Carbon Disulfide
12. U.D.M.H.
13. Xylene
14. Acetaldehyde
15. Ethylene Dichloride

Prior to the meeting, UL had run materials of the present 4 Groups of Class I in the apparatus. Results were as follows:

TO Mr. Alan L. Kling AT DATE December 6, 1966

FROM AT COPY TO

SUBJECT

Group & Atmosphere	Max. Pressure (PSI)	Max. Safe Gap (In)
A Acetylene	340	.003
B Hydrogen	240	.003
C Ethyl Ether	115	.012
C Ethylene (cyclopropane)	168	.027
D Gasoline	100	.029

Since the meeting, UL has run anhydrous ammonia and classified it as a Class I, Group D atmosphere.

Richard Y. Le Vine

RYLeV:jy
Attach.

ATTACHMENT B

MANUFACTURING CHEMISTS ASSOCIATION
SAFETY AND FIRE PROTECTION COMMITTEE

CHEMICAL SAFETY DATA SHEETS

Status Report -- December 1966

Chemical	Author company	Technical Sections	Medical Sections on hand	Draft Distributed for comments	Other
Carbon Disulfide SD-12	FMC	X	X	X	Printing sta
Dimethyl Sulfate SD-19	Du Pont	X	X	X	Published Nov. 19
Nitrobenzene SD-21	Am. Cy.	X	X		
Phosgene (new)	Mobay	X	X	X	
Caustic Soda SD-9	Dow	X	X	X	
Methyl Bromide SD-35	Dow	X	X	X	
Sodium Cyanide SD-30	Du Pont	X	X	X	
Hydrofluoric Acid SD-25	Chem Pack Comm.Task Group				
Ammonia Aqua SD-13	Eastman Kodak		X		
Methanol SD-22	Celanese	X			
Caustic Potash SD-10	Allied				
Chlorosulfonic Acid SD-33	Merck				
Ethylene Dichloride SD-18	Olin		X		
Hydrogen Sulfide SD-36	Mobil				
Perchloroethylene SD-24	Dow				
Tetrachloroethane SD-34	Dow				
Phosphoric Anhydride SD-28	Not Allocated				
Phosphorus Trichloride SD-27	Monsanto	X			
Hydrogen Peroxide SD-53*			X		
Calcium Carbide SD-23	Am. Cy.	X	X	X	

* Data Sheets and supplements being combined