american national standards institute, inc.

Secretary:
National Electrical Manufacturers Association
[illegible] Fifteenth St., N.W.
Washington, D.C. 20005 (202) 347-0348

MINUTES

MINUTES: ANSI COMMITTEE, C107, ON USE AND DISPOSAL OF ASKAREL AND ASKAREL-SOAKED MATERIALS

PLACE OF MEETING: EPA HEADQUARTERS
WASHINGTON, D. C.

DATE AND TIME: TUESDAY, FEBRUARY 24, 1976
9:00 A.M. - 5:00 P.M.

WEDNESDAY, FEBRUARY 25, 1976
8:00 A.M. - 12:00 Noon

MEMBERS PRESENT

Certified Ballast Manufacturers Association (CBMA)

N. R. Clark	Universal Manufacturing Company
R. A. Stenger (Representing Earl S. Dunham)	General Electric Company

Electric Light & Power (ELP)

F. R. Lengefeld	Union Electric Company (EEI-ES&EC)
H. A. Onishi	Commonwealth Edison Company

Electronic Industries Association (EIA)

N. Butterworth (Representing C. Tuttle)	Aerovox Industries, Inc.

Institute of Electrical & Electronic Engrs., Inc. (IEEE)

E. L. Raab	General Electric Company

National Electrical Manufacturers Association (NEMA)

J. L. Butner	Sangamo Electric Company
R. D. McClain	Westinghouse Electric Corp.

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MEMBERS PRESENT Cont'd:

Government

T. Kopp	Environmental Protection Agency, Ofc. of Toxic Substances
W. R. Nicholas	Tennessee Valley Authority
C. M. Philpott (Representing John Leutritz, Jr.)	USDA, Rural Electrification Admin.
J. J. Ronan (Representing D. M. Crabtree)	U. S. Dept of the Army
S. P. Wasik	National Bureau of Standards

Individuals

A. L. Rickley	Doble Engineering Company
J. C. Weber	Monsanto Company

MEMBERS ABSENT

National Electrical Manufacturers Association (NEMA)

J. Bartus	McGraw-Edison Power Systems Div.

Government

K. J. Hood	Environmental Protection Agency
C. C. Travis	General Services Administration

Individuals

R. L. Hauser	Electrical Utilities Company
W. Philipbar	Rollins Environmental Services
R. J. Schatz	Gilbert Associates, Inc.

OTHERS PRESENT

J. M. Booe	P. R. Mallory & Co., Inc.
W. S. Brenneman	Illinois Power Company
Perry Brunner	Environmental Protection Agency, Ofc.of Toxic Substances
G. N. Bull	General Electric Co.
R. A. Bulley	Commonwealth Edison Company
J. J. Cawley	Edison Electric Institute
A. S. Corson	Environmental Protection Agency, Ofc. of Solid Waste Mgmt. Programs
David Friedman	Food & Drug Administration
D. L. Gebhart	Electrical Apparatus Service Assoc.
R. H. Giles	" " " "
E. G. Gladback	Florida Power and Light Co.

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OTHERS PRESENT Cont'd:

Arnold Grimmett	Ohio Transformer Corp.
Ken Klein	U.S. Energy Research and Development Administration
F. R. Kotter	National Bureau of Standards
A. Lai	ANSI Staff
C. L. Lopes	Cornell-Dupilier Electronics
R. E. Mattson	Factory Mutual Research Corp.
J. J. Nay	Hevi-Duty Electric
J. G. O'Grady	PSE&G
A. D. Otte	Environmental Protection Agency, Ofc. of Solid Waste Mgmt. Prog.
Stephen Purvine	U. S. Coast Guard
R. Rollins	Jard Company
H. J. Schneider	Environmental Protection Agency, Div. of Oil & Special Mat'ls Cont
T. K. Sloat	Westinghouse Electric Corp.
P. J. Student	Bur. of Explosives, Assoc. of American RR
W. A. Thue	Florida Power & Light Co.
C. R. Willmore	NEMA Staff

PRESIDING OFFICERS: CO-CHAIRMEN: Richard Rollins, Capacitor Subcommittee, and Ed Raab, Transformer Subcommittee

I. APPROVAL OF PREVIOUS MINUTES OF JANUARY 12-13, 1976

The minutes of the previous meeting were approved as distributed.

II. DISCUSSION OF HAZARDOUS SPILLS - H. J. Schneider, EPA

Mr. Schneider who is with the Spill Prevention and Control Branch, Division of Oil & Special Materials Controls of EPA, gave a brief presentation regarding spills of hazardous materials such as oil, PCBs, etc. He noted that EPA and most states consider a harmful quantity of oil to be that quantity sufficient to cause a visible film on the surface of the water. He further noted that the limit set for PCBs at the present time is one pound (1 lb.). In other words, a spill of PCB in excess of 1 lb. is considered to be reportable according to EPA.

Mr. Schneider noted that there is a special conference on hazardous spills to be conducted in New Orleans, Louisiana, April 25-28, 1976. Two of the papers to be presented concern PCB spill histories.

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III. SUBCOMMITTEE ACTIVITIES

The main Committee met very briefly to discuss the overall plan of work, and then adjourned into the respective Subcommittees to work on the Capacitor section and Transformer section of ANSI C107.1. The individual minutes of these two separate meetings are attached here. Exhibit A is for the Capacitor Subcommittee, and Exhibit B for the Transformer Subcommittee.

IV. ELECTION OF A CHAIRMAN FOR THE MAIN COMMITTEE

In view of the fact that the major activity in ANSI C107 is divided into two groups, one on Capacitors chaired by Richard Rollins, the other on Transformers chaired by Ed Raab, it was decided that the work of the Committee could be carried forward under a dual Chairmanship arrangement, at least for the time being.

V. TIME AND PLACE OF THE NEXT MEETING

The meeting of the Transformer Subcommittee (only) is April 13, 1976 from 9:00 A.M. to 5:00 P.M., and April 14th from 8:00 A.M. to 12:00 Noon, to be held at the Sheraton O'Hare North in Rosemont, Ill.

The next meeting of the Capacitor Subcommittee has been left at the call of the Chair.

VI. ADJOURNMENT

The Capacitor Subcommittee adjourned on Tuesday, February 24th at 5:00 P.M., and did not reconvene on the 25th. The Transformer Subcommittee adjourned at 5:00 P.M. on February 24th, then convened at 9:00 A.M. on February 25th, adjourning at 12:00 Noon.

C. R. Willmore
Secretary

CRW:pmk

Attachments: Exhibits A and B

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MINUTES C-107 CAPACITOR SUBCOMMITTEE

The Capacitor Subcommittee of ANSI C-107 convened at 10:00 a.m., 2/24/76, at the E.P.A. Building, Washington, D.C. Richard Rollins acted as Chairman, R. D. McClain as Secretary. (Attendance roster attached.)

Portions of C107.1 dealing with capacitors were reviewed, page by page, and the following changes recommended:

Page 5 Contents: add

"5. Disposal of Laboratory Samples

6. Askarel Spill Plan Control and Notification Guidelines."

(Note: the terms "oil" and "PCB" were changed to read "askarel", throughout).

Page 10 3.3.2 Bulk Fluid Shipment, Receiving and Transfer

On line 4, after sentence ending in "sealed drums", add the following: "In case of an askarel spill during bulk fluid shipment, reference should be made to paragraph 6 which provides procedures for control and listed authorities to be notified."

3.3.3.2 Liquid

Change last sentence to read: "Hands should be cleaned of askarel before eating, drinking, smoking, or using toilet facilities by means of waterless hand cleaners and wipe towels which should then be properly disposed." (See 3.5)

Page 11 3.3.4 Manufacturing Housekeeping

Change last paragraph as follows:

"Wiper rags, clothing and other extraneous materials which are likely to be soiled should preferably be made of disposable materials. These

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items should be collected for proper disposal. Other materials should be collected within the containment area for properly controlled laundering. (See 3.5)."

Page 11 3.3.5 Disposal of Askarel Wastes - Add item:

"(10) Askarel containing materials from laboratory samples."

3.3.6 Change paragraph (2) to read, "Askarel wastes, or liquids containing askarel wastes should never . . . ." etc.

3.4.1 Concentration Limits, change to read:

"A 1975 proposal by the Environmental Protection Agency (EPA) is to keep the PCB levels in rivers and lakes below 0.001 parts per billion (or 1 part per trillion). This is currently under review by the EPA and standards are expected to be promulgated in 1976. Plant effluent . . . " etc.

3.5.1 Disposal of Capacitor Units Page 12

Add a final paragraph "Capacitor units should be disposed of intact, or if leaking, in sealed drums. The small amount of free fluid to be drained, the integrity of intact units and the necessity for complex control over drainage procedures make intact disposal preferable."

Page 12 3.5.1.2 Field Rejects: Delete all, and insert the following:

"Wherever practical, all askarel containing capacitors should be removed from equipment prior to disposal of equipment. This precaution will enhance environmental control procedures and insure that by removing these capacitors they do not ultimately disperse their askarel contents into a landfill site which does not meet all applicable state requirements.

After removal from equipment, capacitors should be disposed of according

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to the procedure for production rejects. (See 3.5.1.1)

Where removal of askarel contained in capacitors from equipment is not practical, that equipment should be disposed of only in supervised, dry landfill sites that meet all applicable state requirements."

3.5.2 Disposal of Liquid Wastes. Add the following:
"However, preference shall be given to incineration."

3.5.2.2 Toxic and Hazardous Waste Disposal Sites. Delete present text and insert:
"Where incineration is not feasible, landfill sites which have been classified by state government agencies as suitable for disposal of toxic and hazardous liquids should be used. (See Appendix A.)"

3.5.2.3 Packaging and Shipment. Remove, renumber as 3.5.4 and re-insert between 3.5.3 and 3.6.

Page 13 3.5.3. Disposal of Solid Wastes Editorial change, first sentence: "All solid wastes which....." etc.

3.6.1 Small Units
Delete text following first two sentences, and insert the following paragraph:
"It is recommended that shipping containers from capacitor manufacturers should be labeled as to contents and that transporters be given instructions, in accordance with paragraph 6, as to procedures in the event of a spill.

Small unit capacitors are applied as a component of a large piece of equipment. Manufacturers utilizing askarel-filled capacitors should affix a label referencing this standard or describing disposal procedures consistent with it."

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Insert new section, to be as follows:

3.7 Askarel Spill Plan, Control, and Notification Guidelines.

Purpose

This plan is intended to establish effective notification and action procedures, to guide the manufacturer of polychlorinated biphenyls (Monsanto) and capacitor manufacturers in the event of a spill while the material is in transit. A manufacturer using its own equipment and personnel to transport PCB's should instruct its employees concerning proper procedures to be followed in the event of a spill. Such instruction should be documented in each manufacturer's spill control plan.

3.7.1 Spill Notification Procedure

A. Each tank car used to transport PCB's from Monsanto to the manufacturer should be marked boldly on its sides and ends, in 4" to 6" high letters, with the instruction, "In Case of Spill Immediately Call 618/271-5835, Collect".

B. Each capacitor manufacturer should provide to Monsanto the number of a telephone which is manned 24 hours per day 7 days per week, which Monsanto should call to inform the manufacturer of a spill. Where it is not possible to maintain such a number, the capacitor manufacturer should call those persons, in succession if necessary, to provide notification of the spill.

C. When Monsanto receives notification of a spill, its employee shall obtain the following information:

   1) The name of the caller.

   2) The official title and function of the caller.

   3) All available information concerning the spill, including:

      a) Exact location (in sufficient detail to find the site on maps and on the ground).

Exhibit A-4

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b) Time of occurrence (as close as possible).

c) Name of transportation company involved and its emergency call number.

d) Amount of material spilled, its current location, and action taken.

e) Cause of spill, if known.

f) Condition of the transportation equipment.

g) Disposition of casualties, if any (what hospital, clinic or physician).

h) Witnesses (name and address).

i) Information as to how to contact the caller or other responsible party at or near the scene.

j) Identity of others who have been notified, including local, state and federal pollution control agencies. Specifically name and phone number of persons contacted.

D. After obtaining the information outlined in C., Monsanto, acting as agent for the capacitor manufacturer, should provide the following information to the person reporting the spill:

1) Material is fire resistant.

2) It is recommended that boots and gloves of Neoprene or PVC be worn when handling the material, to avoid possible skin irritation.

3) Possible control procedures enumerated in Section 3.7.2 below.

E. Monsanto should then immediately notify the capacitor manufacturer that a spill of its material has occurred and should provide the manufacturer with the information it has obtained concerning the spill.

F. The capacitor manufacturer, upon notification of a spill, should immediately notify appropriate state and federal pollution control

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agencies and should dispatch a responsible individual to the spill site immediately.

1) To notify the federal EPA, Call 1-800-424-8802.

2) To notify state pollution agency if number is not known, call regional EPA office to obtain state number. (See attached map and phone list.)

3.7.2 Spill Control, Clean-up and Precautionary Procedures

The specific circumstances of a spill should dictate effective control and clean-up procedures. The following actions should be considered.

A. Possible control procedures:

1) Limit the amount of material that escapes from the container by righting the container (tank car or drum), closing valves, plugging holes with wooden pegs or by any other available means.

2) Limit spread of material by using absorbent materials such as dry sand, sawdust, oil absorbers or rags and/or by erecting an earthen dam, using any equipment available.

3) Prevent material from flowing into sanitary or storm sewers, ponds, lakes or rivers by whatever means available. Do not wash material away or into sanitary or storm sewers, ponds, lakes or rivers.

4) If other freight is contaminated, quarantine it until appropriate mode of disposition is determined. Such freight must be decontaminated or disposed of in a responsible manner.

B. Possible clean-up and precautionary procedures:

1) Pump free askarel or liquid within contained area into drums or tank truck.

2) Dig up contaminated earth and transport to an area approved for the disposal of askarels.

3) Decontaminate any equipment used in the clean-up operation and dispose of absorbent materials in a manner which prevents askarels from entering the environment.

Note: Transportation equipment should be thoroughly cleaned before being used for other purposes. The cleaning of the equipment should not result in contamination of sewers, streams, or other areas not approved for disposal of askarels.

4) If there are shallow wells in the surrounding area, sample the water from the wells and analyze for askarels. Be sure the water from a contaminated well is not taken internally.

Environmental Protection Agency
Regional Offices

Environmental Protection Agency
Region I, Room 2303
John F. Kennedy Federal Building
Boston, Massachusetts 02203
Tel: (617) 228-7265

Environmental Protection Agency
Regional II, Room 909
26 Federal Plaza
New York, New York 10007
Tel: (201) 548-8730

Environmental Protection Agency
Region III
Curtis Building
6th and Walnut Streets
Philadelphia, Pennsylvania 19106
Tel: (215) 597-9898

Environmental Protection Agency
Region IV
1421 Peachtree Street, N.E.
Atlanta, Georgia 30809
Tel: (404) 528-5062

Environmental Protection Agency
Region V
230 South Dearborn Street
Chicago, Illinois 60604
Tel: (312) 896-7591

Environmental Protection Agency
Region VI, Suite 1000
1600 Patterson St.
Dallas, Texas 75201
Tel: (214) 749-3840

Environmental Protection Agency
Region VII
1735 Baltimore Avenue
Kansas City, Missouri 64108
Tel: (816) 374-3778

Environmental Protection Agency
Region VIII, Suite 900
1860 Lincoln Street
Denver, Colorado 80208
Tel: (303) 837-3880

Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111
Tel: (415) 556-6254 //

Exhibit A-7

TOWOLDMON0047786

Page 17. Insert new section 5, to be:

5. Disposal of Laboratory Samples

"5.1 The disposal of laboratory samples and materials used for testing and experimental purposes that may contain various amounts of polychlorinated biphenyls must be carefully controlled as outlined in paragraphs 3.3 and 3.5."

Renumber existing section 5 to be 6.

5.2 General References. (Re-number to be 6.2)

Delete first listed bulletin, "Aroclor Polychlorinated Polyphenyls (Biphenyls) etc.

Add,

"Polychlorinated Biphenyls and the Environment, Interdepartmental task Force on PCB's, Washington D.C., May 1972. (National Technical Information Service, U.S. Dept. of Commerce, Springfield, Virginia 22151). (COM-72-10419.)"

Page 19. Appendix A. Disposal Services

Delete last phrase of first sentence "... and others may be available.", replacing with second sentence, "For other facilities, call your regional E.P.A. office."

Add to last paragraph of text, following listing of Monsanto Company: "Askarel liquids containing water above 1%, or any phosphate esters cannot be accepted."

Page 20. Insert additional listing:

"General Electric Co.
c/o J. H. Thayer
100 Woodlawn Avenue
Pittsfield, Mass. 01201

Appendix B, Section B1 - General:

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Exhibit A-8

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Change to read as follows:

"B1. General

Analysis for PCB in environmental samples is a tedious process due to the very low levels (ppb or ppt) which are of interest and due to the high sensitivity of the electron capture chromatographic procedure. It cannot be overemphasized that extreme care must be taken to ensure first that the sample is representative and second that sufficient numbers of blanks, and sample replicates are tested to define detectability limits and precision of the particular equipment and procedure being used. Cleanliness of sampling devices and containers and their extraction is also important. Analytical procedures for the determination of PCB's in air, water and sediments are given in sections B3 and B4."

B2. Laboratories

Delete present text and listing, replacing with:

"For a listing of laboratories offering services for PCB analysis refer to 'Directory of Testing Laboratories' publication STP333A available from the American Society for Testing and Materials (ASTM) 1916 Race Street, Philadelphia, PA 19103". If an outside laboratory is used, a verification of capability is recommended."

Sections B3, B4: Remove in their entirety. Add section, "B3: Analytical Procedures: (See A.S.T.M. D3304-74, 'Analysis of Environmental Materials for Polychlorinated Biphenyls,' reference.)"

The Chairman requests comments on the above recommendations, if any, be submitted to him as soon as possible. In addition, he requested comment on attachment "B", "Control Plan for Polychlorinated Biphenyls (PCB's)

Exhibit A-9

TOWOLDMON0047788

In Finished Capacitors".

Additional passout information supplied to the attendees (and not attached) included:

a) Copy of "Recommended Procedures for Disposal of PCB - Containing Wastes", with cover letter of 2/23/76, Mr. Jessie L. Butner to Mr. Tyler Nourse.

b) Request from Mr. R. M. Graziano, Association of American Railroads, that a task force be established to examine the problem of emergency spills of askarels or askarel filled material in transport.

c) Copy of an E.P.A. release to its regional offices, "Effective Management of PCB - Containing Waste."

d) Copy of the General Electric Co. caution label for capacitors.

e) Comments, from the Aerovox Company, on proposed recommended procedures for disposal of PCB containing capacitors.

f) Comments, from the Jard Company, Inc.,"Proposed Changes to Capacitor Guidelines of ANSI C107.1-1974."

Respectfully submitted,

Robert D. McClain

Robert D. McClain
Acting Secretary
Capacitor Subcommittee
ANSI C-107

Attachments: A, B

0223543

Exhibit A-10

TOWOLDMON0047789

ATTENDANCE ROSTER

2/24/76

ANSI C107
Capacitor Subcommittee Attendance Roster

NAME	COMPANY REPRESENTED
J. M. Booe	P. R. Mallory
W. S. Brenneman	Illinois Power Co.
Perry Brunner	EPA, Ofc. of Toxic Substances
Norm Butterworth	Aerovox Industries, Inc.
J. Butner	Sangamo Electric
J. J. Cawley	Edison Electric Institute
N. Ray Clark	Universal Mfg. Corp.
Alan S. Corson	EPA, OSWMP
Ed Gladback	Los Angeles Water & Power
Alvin Lai	ANSI Staff
F. R. Kotter	National Bureau of Standards
Curtis L. Lopes	Cornell-Dupilier
R. D. McClain	Westinghouse Electric
Wm. R. Nicholas	Tennessee Valley Authority
J. G. O'Grady	Public Service E & G.
H. A. Onishi	Commonwealth Edison
A. D. Otte	EPA, OSWMP
C. M. Philpott	Rural Electrification Administration
R. Rollins	Jard Co., Inc.
R. A. Stenger	General Electric Co.
J. C. Weber	Monsanto Co.

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Attachment A Exhibit A-11

TOWOLDMON0047790

Attach to 2/24 minutes & request Comment.

CONTROL PLAN FOR

POLYCHLORINATED BIPHENYLS (PCBs) IN FINISHED CAPACITORS

Introduction

Studies have shown that polychlorinated biphenyls may persist in the environment and may be injurious to some forms of bird, aquatic and animal life. It is, therefore, extremely important that entry of these materials into the environment be minimized in the event of accidental damage and leakage from finished capacitors in transit, from capacitor manufacturer to customer.

Purpose

This plan is intended to establish uniform labeling, clean up, and disposal instructions to be followed in case capacitors are damaged and leak during transit.

I. Labeling

A. Shipping containers used for capacitors containing less than two pounds of PCBs should be labeled as follows:

(1) Caution: This container contains capacitors containing polychlorinated biphenyls. In case of damage resulting in PCB leakage, dispose of capacitors, containers, and clean up materials in an approved ~~toxic waste~~ approved, approved landfill or in incineration facilities approved for disposal of PCBs. Further instructions will be given by the capacitor manufacturer, acting as agent for consignee, if the following number is called (Company phone number).

(2) Each bill of lading should also have a prominent notation that, in the event of an accident, any significant liquid spillage from

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Exhibit A-12

ATTACHMENT B

TOWOLDMON0047791

the capacitors must be reported to the manufacturer. The same Telephone number would, again, be listed.

II. Control, Clean Up Procedures

A. Possible clean up and control procedures which could be suggested by capacitor manufacturer in case of leakage of capacitors during transit are as follows:

(1) Material is fire resistant.

(2) It is recommended gloves of Neoprene or PVC be worn when handling the material, to avoid possible skin irritation.

(3) Limit spread of material by using absorbent materials such as dry sand, sawdust, oil absorbers or rags.

(4) Do not wash material away or into sanitary sewers, ponds, lakes or rivers.

(5) If other freight is contaminated, quarantine it until appropriate mode of disposition is determined. Such freight must be decontaminated or disposed of in a responsible manner.

(6) Decontaminate any equipment used in the clean up operation and dispose of absorbent materials in a manner which prevents PCBs from entering the environment.

Note: 1. Transportation equipment should be thoroughly cleaned before being used for other purposes. The cleaning of the equipment should not result in contamination of sewers, streams, or other areas not approved for disposal of PCBs.

2. The manufacturer should notify the customer of the spillage and the actions taken on his behalf.

Exhibit A-13

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ATTACHMENT B

TOWOLDMON0047792

GENERAL ELECTRIC

Transformer Laboratories
100 Woodlawn Avenue
Pittsfield, Mass. 01201

March 9, 1976

Messrs. Karl Bremer
W. S. Brenneman
G. N. Bull
R. A. Bulley
J. J. Cawley
A. S. Corson
D. Friedman
D. L. Gebhart
R. H. Giles
E. Gladbach
A. Grimmett
R. L. Grinde
K. W. Klein
T. Kopp
A. Lai
F. R. Lengefeld
R. E. Mattson
R. D. McClain
J. Nay
H. A. Onishi
W. B. Philipbar
S. P. Purvine
A. L. Rickley
R. Rollins
J. J. Ronan
T. K. Sloat
P. J. Student
W. A. Thue
S. Wasik
C. R. Willmore

Gentlemen:

ANSI C-107

Enclosed is a copy of the minutes of the Transformers Subcommittee meeting of February 24 and 25, 1976 as recorded by our secretary, Mr. A. L. Rickley.

For our next meeting please bring the following material:

1. Your copy of C107.1 - 1974
2. Your copies of the minutes of our January and February meetings.
3. Any other items that should be considered.

It is hoped that we can complete our assignment at our next meeting.

Very truly yours,

E L Raab

E. L. Raab
Chairman-Transformer Subcommittee

-nr
Enc.

Exhibit B-1

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ANSI COMMITTEE C107

Use and Disposal of Askarel and
Askarel-Soaked Material in Electrical Equipment

* * *

Minutes of Meeting, Transformers Subcommittee
February 24 & 25, 1976, EPA Headquarters,
Waterside Mall, Washington, D.C.

*

The following is a summary of proceedings during the recent meeting of our Transformers Subcommittee:

I. Handouts (by various)

A. Association of American Railroads Memorandum February 23, 1976, To: All Members of ANSI Committee C107 on Use and Disposal of Askarel and Askarel-Soaked Materials in Electrical Equipment, regarding emergencies or spills of askarels or askarel-filled material in transportation.

B. Letter February 3, 1976, John P. Lehman (Director Hazardous Waste Management Division, EPA) to Charles R. Willmore (NEMA, Secretary ANSI C107) with copy and request for review of draft, "Recommended Procedures for the Disposal of PCB-Containing Wastes (Industrial Facilities)."

C. EPA Bulletin, "Effective Management of PCB-Containing Waste."

D. NRC Form 8-5/1/74, Location, Function & Capability - National Response Center (NRC).

E. Program Booklet, 1976 National Conference on Control of Hazardous Material Spills, April 25-28, 1976, New Orleans, Louisiana.

F. EPA Publication EPA/530/SW-165, September 1975, Landfill Disposal of Hazardous Wastes, A Review of Literature and Known Approaches.

G. EPA Publication SW-138, Hazardous Wastes.

H. EPA Bulletin, May 1975, Hazardous Wastes and Their Management.

Mr. Raab urged that the Subcommittee members review these documents for material or suggestions which might be properly incorporated into our revised Guidelines.

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II. Minutes of Past Meeting (January 12 & 13, 1976)
Accepted as published (E. L. Raab letter January 21, 1976).

III. Review and Recommendations for Revision of Guidelines

A. Proposed following list of topics or items to be treated prior to return to paragraph-by-paragraph review of Guidelines:

1. Transit Transformers
2. Transformer Shipments

   a. Truckers
   b. Railroad
   c. Private Movers
   d. Barges

3. Movement of Liquids (New & for Disposal, in Tank Cars, Drums, Cans and Bottles)

   a. Air
   b. Truckers
   c. Railroad
   d. Boat

4. Toxicity Data

   After some discussion, it was agreed that this section need not be included in the Guidelines - provided that proper cautions are given regarding toxicity in appropriate sections. This is in agreement with a similar conclusion by the Capacitors Subcommittee.

5(a) Disposal Procedures
   i. Liquids
  ii. Impregnated Solids
 iii. Metals (tanks, core steel, cooling tubes, etc.)

5(b) Recommended Disposal Procedures
   i. Incineration
  ii. Approved Landfill

6. CHEMTREC

7. Transformers with Replacement Fluids (Labelling so that remnant PCB impregnants are not disguised)

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Exhibit B-3

TOWOLDMON0047795

8. Transformer Rebuild & Service - Testing
Present Guidelines deal with manufacturing plants where PCB's may be handled in a separate facility. This section should include repair shops where both oil- and askarel-filled units may be handled in the same facility, and special handling procedures may be required to avoid contamination of oil-filled units.

9. Salvage Procedures

10. Spill Procedures

B. Items 1-10 were disposed of in the following order:

Item 10 Spill Procedures - to include procedures for handling accidental spills from the standpoint of:

Description
Immediate Containment
Notification
Elimination (Clean-up)
Disposal

A Spill is defined as any accidental discharge of liquid containing PCB's into the environment. When such a condition exists, the following procedures are recommended:

a. For Transformers in Transit or Installed in Moving Vehicles

i. Stop or Contain Leak, If Possible
ii. Contain Spilled Material to Limit Spread
iii. Do Not Wash Material Away
iv. Call CHEMTREC (800) 424-9300* as soon as possible
v. Notify Appropriate State & Federal Authorities

*Present and past manufacturers of equipment containing PCB's should list their recommended spill procedures with CHEMTREC, including such information as:

(1) Trademark designation for PCB-containing liquid

(2) Company emergency telephone number

(3) Emergency procedures.

Note: P. J. Student agreed to supply application forms which E. L. Raab will distribute to manufacturers with a request that they file with CHEMTREC.

TOWOLDMON0047796

b. For Transformers in Service

i. Stop or Contain Leak, If Possible
ii. Contain Spilled Material to Limit Spread
iii. Do Not Wash Material Away
iv. Notify Person In Charge
v. Person In Charge Should Notify Appropriate State & Federal Authorities

c. See Appendix No. (?) for More Details

Item 7. Transformers with Replacement Fluids

It is not recommended that apparatus containing PCB liquids be changed to other liquids. It is recognized that the best practical change-out procedures will still leave appreciable PCB's in the apparatus. Apparatus that has contained PCB's which have been replaced with another fluid should be labelled as indicated below, and the disposal ultimately should follow the same disposal procedures as those recommended for PCB liquids and PCB-filled apparatus.

LABEL (Yellow & Black):

Caution: Contains liquid contaminated with PCB's, an environmental contaminant.

Changed to (describe liquid) on (give date)

Item 8. Transformer Rebuilding & Service Testing

This section believed to be covered in present Guidelines except for the question regarding special handling of askarel-filled apparatus in repair shops, and the following question regarding identification of PCB-contaminated oil-filled apparatus:

How do you test (simply) to determine the presence of askarels in oil-filled transformers returned to service shops for repairs?

Item 5 Disposal Procedures - Refer to Section 4.1.6 in Guidelines

Missing or requiring further consideration are sections dealing with disposal of:

a. Water in PCB's
b. PCB's in Water
c. Treatment and Disposal of Metals: Cores, Coils, Tanks, Cooling Tubes, etc.
d. Total Transformers

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Exhibit B-5

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The following new sections or revisions were agreed to:

a. When PCB's for incineration contain water the individual disposal organization should be contacted to determine the maximum amount of water acceptable.

b. Economic or other restraints may dictate the desirability of separating the PCB's from water by acceptable methods, with the PCB portion disposed of by approved incineration and the water portion treated by suitable methods recommended by EPA if required.

c. It was agreed that disposal methods are covered adequately in Section 4.1.6.2.3 of the present Guidelines.

d. Total Transformer Disposal - Substitute the following for Section 4.2.3.6:

The ultimate disposal of a PCB-containing transformer may be accomplished by the following procedures:

(1) Contract with a qualified organization for disposal of the complete transformer.

(2) Where acceptable facilities are available, the following alternative procedures are recommended:

(a) Always drain the liquid and dispose of it by approved incineration.

(b) For the solid components or for the entire transformer structure, either of the following procedures are recommended:

i. Dismantle, wash and dispose in accordance with Section 4.1.6

ii. Ship entire solid structure to acceptable organization for disposal

iii. Ship to acceptable landfill disposal site.

Notes: (1) Add to Section 4.1.6 a paragraph on Landfill Disposal as follows:

Acceptable landfill disposal sites are those defined as "Secure Chemical Waste Landfill" as defined in Landfill Disposal of Hazardous Wastes EPA/530/SW-165 and approved by the State.

Exhibit B-6

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(2) Eliminate present Paragraph (2) regarding junk or scrap dealers in Section 4.2.3.6.

(3) With regard to Section 4.1.6.3, we should explain "appropriate" in reference to metal transport drums. A. S. Corson agreed to look into any guidance available from Department of Transportation.

(4) In Guidelines, Before Section 4.2.3.3, Installation and Periodic Inspection,

Add Section on Installation & Containment as follows:

Transformers should be installed so that, if a leak should develop, askarels can be restrained from reaching the environment. Depending upon the type of installation, consideration may be given to pans, dams, traps, standpipes, dry wells, absorbing agents, etc.

(5) The foregoing obviously indicate a need for renumbering of sections.

Item 3 Movement of Liquids

Time did not permit discussion of this Section; it will be dealt with at our next meeting.

IV. Miscellaneous

A. In a general meeting with the Capacitor Subcommittee at 2:00 p.m. on February 24, the following agreement with regard to the General Information Section of the Guidelines was announced by the Chairmen:

1. The present Appendix B on Analytical Procedures and Laboratory Service Organizations will be deleted. Where appropriate in other sections, reference will be made to ASTM Method D 3304.

2. In the Appendix, reference will be made to the ASTM Directory of Analytical or Testing Laboratories, ASTM STP 333A.

3. A common appendix will be included on disposal services.

In connection with this, E. L. Raab announced that the General Electric Company will accept liquids and complete transformers (nothing in between) for disposal. Inquiries should be directed to:

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General Electric Company
100 Woodlawn Avenue
Pittsfield, Mass. 01201

Attention: Mr. J. H. Thayer
Tel. (413) 494-3729

4. A new common Section No. (?) will be prepared on Procedure & Handling - Laboratory Samples.

5. A new common Section No. (?) will be prepared with details on spill procedures.

6. The Capacitor section (for now) will continue to list Monsanto as its prime contact in the event of spills involving bulk shipments of PCB liquids.

B. The Transformer Subcommittee was joined on Febuary 25 by:

Harold J. Snyder, Jr., P.E.
Sanitary Engineer
Spill Prevention and Control Branch
U. S. Environmental Protection Agency

who spoke to the Subcommittee on spill prevention procedures and regulations, transportation and non-transportation, and the working relationships of EPA with the Coast Guard and Department of Transportation in matters dealing with spills and spill prevention. In response to questions following his brief presentation Mr. Snyder provided the following information:

1. What constitutes a spill (quantity) under present regulations?

Oil - a harmful quantity (must be reported) is one which results in a visible film or sheen on water.

Hazardous Chemicals - definition of a harmful quantity is more complicated and varies with the chemical - may be 1, 10, 100 or 1000 lbs. PCB's are classed as harmful when 1 lb is spilled in water or on the adjoining shoreline.

Exhibit B-8

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Mr. Snyder also discussed dredging technique and facilities for treatment of PCB-contaminated waters such as recently utilized in Seattle waters.

C. Next Meeting proposed for April 13-14, 1976, Chicago (O'Hare). C. R. Willmore to arrange and advise.

D. Meeting Adjourned 11:30 a.m. February 25, 1976.

ALR:g
3/1/76

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Exhibit B-9

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ATTENDANCE ROSTER

2/24/76 and 2/25/76

ANSI C107
Transformer Subcommittee Roster

NAME	COMPANY REPRESENTED
G. N. Bull	General Electric
R. A. Bulley	Commonwealth Edison Co.
W. S. Brenneman	Illinois Power Co.
J. J. Cawley	Edison Electric Institute
A. S. Corson	EPA, OSWMP
David Friedman	Food and DRug Administration
D. L. Gebhart	EASA
R. H. Giles	EASA
Ed Gladback	Los Angeles Water and Power
A. Grimmett	Ohio Transformer Corp.
Ken W. Klein	ERDA
Tom Kopp	EPA, Ofc. of Toxic Substances
Alvin Lai	ANSI Staff
F. R. Lengefeld	Union Electric Co.
R. E. Mattson	Factory Mutual
J. J. Nay	Hevi-Duty Electric
H. A. Onishi	Commonwealth Edison Co.
S. Purvine	U. S. Coast Guard
E. L. Raab	General Electric
A. L. Rickley	Doble Engg. Co.
J. J. Ronan	U.S. Army
T. K. Sloat	Westinghouse Electric Corp.
P. J. STudent	Bureau of Explosives, Assoc. Amer RR
W. A. Thue	Florida Power and Light Co.
S. P. Wasik	National Bureau of Standards
C. R. Willmore	NEMA Staff

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Exhibit B-10

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