

MISC

Forms

SEE if ONLINE +
DO if NOT
6/27
son

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770553 - 770561

DSNO: NPC00007914 - 00007922

EXNO:

TYPE: Article (medical)

AUTH: I.C. Hsu; Van Miller; J.R. Allen / Univ. of Wisconsin

INST: Bulletin of Environmental Contamination & Toxicology

TITL: metabolic fate of 3H 2,5,2',5' tetrachlorobiphenyl in infant Nonhuman Primates.

PAGS: 9

DATE: 750000

DIRC: -

SRCE: West. Pro.

KWDS: Hdp, gas chromatography,

KNMS: 1

FLD1:

FLD2:

COMM: PCNO's 770560, 770559 transposed. Study involved feeding single dose of Hdp to infant rhesus monkeys. 500 parts/Housand Hdp solution administered; animals sacrificed after 72 hours. After ingestion animals were inactive, flustered skin, oily hair. After sacrifice, found to have enlarged + pale liver, hypoplasia of bone marrow, decrease in size of malpighian corpuscles of spleen, regression of cortex of thymus, moderate fatty infiltration of liver. Less than 3% of Hdp eliminated after 72 hours; most found in skin, adrenal, and in bone marrow. Discusses metabolic pathways and

toxicity of aromatic hydrocarbons. Results differ from Rgt results of similar

(See review for pfno ~~770546~~ 770547-770552.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770562 - 770577

DSNO: WPC00007923 - 00007938

EXNO:

TYPE: ~~amaka~~ paper (medical)

AUTH: Kuratsune, Masuda, Nagayama / Kyushu University

INST: unknown publication

TITL: Some of the Recent Findings concerning Yusho

PAGS: 16

DATE: (sometime after 75/000)

DIRC: -

SRCE: west. PRO.

KWDS: PCDF, toxicity, PCB, ^{kan chlor} ~~Kanachlor~~, PCDD, Yusho, TCDF, SCDF, cancer, health,
poisoning, symptoms

KNMS:

FLD1:

FLD2:

COMM: 1291 Yusho patients total. Post 1968 poisoning, had high levels of PCB in adipose tissue; by 1975, ~~low~~ level was fairly close to that of unaffected persons. (see tables PFNO 770563-770564). Blood levels of PCB's were not measured post poisoning, but by 1975 were near but significantly higher than that for unaffected persons. PCB culprit looks like 6CB (hexachlorobiphenyl). PCDF found in all samples of oil tested at approx. 5ppm. PCB content was about 1000 ppm. Important: "Used" heat transfer oil may have elevated the PCDF content through use. ~~approx 1000 ppm~~ .009 ~~ppm~~ blood / Liver PCDF levels in patients who have died was approx. ~~approx 1000 ppm~~ .01 ~~ppm~~ (see table PFNO 770567).

<over>

PCDF was higher in liver than adipose tissue - reverse is true for PCB's.

Clinical status of victims: dermal and mucosal symptoms have gradually improved.

Fatigue, poor appetite, abdominal pain, headache, numbness/pain in limbs, cough, expectorating are more prominent. Even after 5 years after event:

discoloration, deformation of nails, hypersecretion; appears that PCDF in

patients causing these symptoms, not PCB's (important). Serum

triglyceride levels elevated, associated with PCB content in blood.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: ~~770579~~ 770579 - 770598

DSNO: NPL 0000 7940 - 0000 7959

EXNO:

TYPE: Instructions

AUTH: -

INST: westinghouse

TITLE: Westinghouse - Intersect Capacitors

PAGS: 20

DATE: 350425

DIRC:

SRCE: west pro

KWDS:

KNMS: B.B. Hines

FLD1:

FLD2:

COMM:

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770600 - 770601

DSNO: WPC00007961 - 0000 7962

EXNO:

TYPE: Price List

AUTH:

INST: Westinghouse

TITLE: Inerlean Insulating Askarel

PAGS: 2

DATE: 550804

DIRC: -

SRCE: West. Pro.

KWDS:

KNMS:

FLD1:

FLD2:

COMM: lists prices for 5 and 55 gal ^{of inerlean} drums; for reconditioning inerlean, for testing inerlean. Characteristics of Inerlean on pfno 770601.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770602

DSNO: NRC 00007963

EXNO:

TYPE: Instructions

AUTH: -

INST: Westinghouse

TITL: Inerteen (with Scavenger)

PAGS: 1

DATE: 690405

DIRC: -

SRCE: West. Pro.

KWDS: Inerteen, characteristics, ordering information

KNMS: Monsanto,

FLD1:

FLD2:

COMM: [handwritten document.
Lists characteristics, suppliers, ordering number for Inerteen. Caution
says Do not breathe vapor. provide adequate ventilation, avoid skin contact.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770 603

DSNO: NPC00007964

EXNO:

TYPE: Instructions

AUTH: -

INST: Westinghouse

TITL: Inerteen

PAGS: 1

DATE: 700220

DIRC:

SRCE:

KWDS:

KNMS:

FLD1:

FLD2:

COMM:

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770604

DSNO: NPC00007965

EXNO:

TYPE: Letter

AUTH: ~~Wright~~ R. H. Lloyd

INST: Westinghouse

TITL: -

PAGS: 1

DATE: 710916

DIRC: Benignus / Monsanto

SRCE: West. Pro.

KWDS: Inerteen, Specification, supplier

KNMS: Monsanto

FLD1:

FLD2:

COMM: Asks for comments on proposed Inerteen Specification. If
no reply by 10/28/71, will assume ~~no~~ there are no objections
and will list Monsanto as an approved supplier

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770605 - 770606

DSNO: NPC00007966 - 00007967

EXNO:

TYPE: *Instructions Specification*

AUTH: -

INST: *Westinghouse*

TITL: *Inerleen*

PAGS: 2

DATE: 7/11/20

DIRC: -

SRCE: *West. Pro.*

KWDS: *Inerleen, specification, packing, marking, inspection instructions*

KNMS:

FLD1:

FLD2:

COMM: *Lists chemical + physical properties*

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 720607^m

DSNO: NA00007968^m

EXNO:

TYPE: specification

AUTH: -

INST: wec

TITL: Inverken

PAGS: 1

DATE: 711120

DIRC:

SRCE:

KWDS:

KNMS:

FLD1:

FLD2:

COMM:

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770608 - 770609

DSNO: NPC 00007969 - 00007970

EXNO:

TYPE: Specification

AUTH: -

INST: WPC

TITL: Insertion

PAGS: 2

DATE: 750805

DIRC: -

SRCE: West. Pro.

KWDS:

KNMS:

FLD1:

FLD2:

COMM: Chemical & physical properties and tests. Packing, marking, and inspection requirements.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770610 - 770625

DSNO: NPL0000 7971 - 0000 7986

EXNO:

TYPE: Instructions

AUTH:

INST: Westinghouse

TITL: Instructions for Handling Inerteen Insulating Fluid PDS. 54201 CM and
Installation and Maintenance of Inerteen Transformers

PAGS: 16

DATE: 7/0800

DIRC:

SRCE: West. Pro.

KWDS:

KNMS:

FLD1:

FLD2:

COMM:

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770626 - 770627

DSNO: NAL 0000 7987 - 0000 7988

EXNO:

TYPE:

AUTH:

INST:

TITL: Westinghouse Insulating Fluids : Universal wemco C oil; Inerteen

PAGS: 2

DATE: -

DIRC:

SRCE: West. Pro.

KWDS: Wemco C oil, Inerteen, transformer, testing, maintenance

KNMS:

FLD1:

FLD2:

COMM: Lists oil testing service for wemco C oil;

Lists Application, operating characteristics, care and operation for Inerteen, used
in transformers. States that products of arc decomposition are
definitely harmful.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770628- 770629

DSNO: WPC00007989- 00007990

EXNO:

TYPE: Instructions (safety)

AUTH: -

INST: Wec

TITLE: Safe practices and procedures: Pcb's

PAGS: 2

DATE: -

DIRC: -

SRCE: west. Pro.

KWDS: First aid, safety precautions, Inerteen, personal hygiene, protective equipment

KNMS:

FLD1:

FLD2:

COMM: Precautions: low evaporation rate of Pcb's at normal temperatures doesn't present an inhalation hazard. Respirators should be worn if ^{ventilation} poor or heated asphal causes high concentration of vapors.

Wear ~~eyes~~ face shields, eye protection if inerteen may get splashed in your face. Wear PVC gloves, if hands would be in frequent contact with inerteen. Wash immediately after contact. Remove clothing contaminated with Pcb's. Decomposition products after arcing, contact with hot surface or flame consist of HCl gas, highly toxic carbon monoxide., Lists ~~for~~ First Aid procedures.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770630-770633

DSNO: NPC00007991-00007994

EXNO:

TYPE: Paper (advertisement / technical document)

AUTH: -

INST: Wec

TITL: High Frequency Capacitors, Type FPL, Water Cooled

PAGS: 4

DATE: 701200

DIRC: -

SRCE: West. Pro.

KWDS:

KNMS:

FLD1:

FLD2:

COMM:

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770634 - 770644

DSNO: N/A 0000 7995 - 00008005

EXNO:

TYPE: presentation

AUTH: B. A. Kerns

INST: wec

TITLE: Environmental Relationships of PCB compounds

PAGS: 11

DATE: -

DIRC: -

SRCE: West pro

KWDS:

KNMS:

FLD1:

FLD2:

COMM:

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770645 - 770649

DSNO: NPC 00008006 - 00008010

EXNO:

TYPE: ~~Article (summary)~~ Paper (review of article)

AUTH: ~~Hakkinen (author)~~ Gerarde (author of review)

INST: Fairleigh Dickinson University

TITL: Diphenyl Poisoning in Fruit Paper Production - A new Health Hazard: A Critical Review

PAGS: 5

DATE: 730316

DIRC: -

SRCE: west. Pro.

KWDS: hexane, toxicity, hepatotoxicity, health, Industrial Hygiene, poisoning, diphenyl

KNMS: shoaff/westinghouse.

FLD1:

FLD2:

COMM: [Review by Gerarde of a paper by Hakkinen.
Important note from shoaff on pfno 770647, (who suffered neurological problems after employment at WEC). He has underlined section in review that says neurological manifestations of diphenyl intoxication have not been reported in animals exposed to diphenyl because neurophysiological studies were not conducted. He says in a handwritten note that he finds it hard to believe studies weren't done.

~~Review by Gerarde of a paper by Hakkinen~~
Review of paper: Gerarde thinks paper has a misleading and inappropriate title because he states that the danger from diphenyl could have been averted if standard Industrial Hygiene practices were observed. Attributes all health problems reported (which were due to diphenyl poisoning) due to deplorable working conditions.

Health problems listed in paper include death, headache, nausea, giddiness, indigestion, numbness, aching of the Limbs, and general fatigue. 7 of 33 workers had no symptoms. 10 workers had elevated SGOT and SGPT levels in blood serum. Cites Deichmann Study which indicates diphenyl can cause liver injury. The histopathological findings in the Liver of the workers exposed to diphenyl confirm the hepatotoxicity reported in the animal studies. Man who died also had kidney damage. Some workers were exposed for 16 years to levels of vapor higher than some used in animal studies. Authors ~~state~~ of paper state that quote from technical bulletin by manufacturers of diphenyl ~~shows~~ resulted in nonchalant handling of the material: "Laboratory and practical investigations have shown that diphenyl is completely harmless in quantities several times greater than that to which workers are exposed in the manufacture or use of diphenyl impregnated paper." Reviewer states this comment is meant to be interpreted in the context ~~of~~ of good industrial hygiene practices.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770650 - 770654

DSNO: NP00008011 - 00008015

EXNO:

TYPE: Reg Instructions

AUTH: -

INST: wec

TITL: Interim - Sale practice data sheet.

PAGS: 5

DATE: 721115

DIRC: .

SRCE: West. Pro.

KWDS:

KNMS:

FLD1:

FLD2:

COMM:

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770655-770656

DSNO: NPC00008016-00008019

EXNO:

TYPE: paper (advertisement/technical)

AUTH: -

INST: wec

TITL: high frequency capacitors - type FFW for induction heating equipment

PAGS: 4

DATE: 531100

DIRC: -

SRCE: west. pro.

KWDS: Inertex, Inertex, Capacitor

KNMS:

FLD1:

FLD2:

COMM: Lists applications for these water-cooled capacitors. Advantages, construction, mounting details, ratings, dimensions for these units

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770 659 - 770 692

DSNO: WPL0000 8020 - 0000 8053

EXNO:

TYPE: Instructions

AUTH: -

INST: WEC

TITL: Instructions for type S Inerteen Insulated Distribution Transformers

PAGS: 34

DATE: 630500

DIRC: -

SRCE: West. Pro.

KWDS: Inerteen, Instructions; ~~Assembled~~

KNMS: -

FLD1:

FLD2:

COMM: Collection of a series of smaller pamphlets on General Information, Shipment of Transformers in Inerteen, Installation of Inerteen Transformers, Determination of Dryness and Drying out, Operation and Maintenance, Gaskets, Inerteen Insulating Fluid, Standard Outside Finish, and Diaphragm Relief Device. PFNO 770 664. Inerteen has Irritating effect on skin. Receiving, Handling, and storing Instructions on PFNO 770 676. Handling: Skin Irritant, wash after contact, avoid exposure to vapors, esp. when hot. Chloracne, personal Hygiene. Avoid frequent contact with Inerteen. Characteristics on PFNO 770 680.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: ~~770 693~~ 770 693 - 770 697
DSNO: NPL0000 8054 - 0000 8058
EXNO:
TYPE: memo
AUTH: D. A. Reiser
INST: Westinghouse
TITL: Inerteen
PAGS: 5
DATE: 760130
DIRC: -
SRCE: West. Pro.
KWDS: Askarel, Inerteen, PCB, 1242, 1016
KNMS: -
FLD1:
FLD2:
COMM: re. "the and cry" about PCB's; sharing facts: EPA requests companies to voluntarily restrict pcb use; Nema liaison set up to guide EPA; Inerteen 54201cm (Aroclor 1254) is 91% Biodegradable; Inerteen replacement fluids not as fireproof and 3x more expensive; replacement fluids can be used quickly and easily; cites Business Week article of 1/19/76. Attached are comments from R.E. Willis Jr./wec to New York State Hearing: PCB isomers not all the same re. biodegradability, lists Industrial hygiene practices in place at wec; Industry and Govt. should not be stampeded into ^{using} a replacement ~~fluid~~ fluid without considering ~~that~~ biodegradability of PCB isomers; and ^{risk} ~~from~~ from new fluid.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770698-77073³³~~5~~

DSNO: NPC0000 8059-0000809⁹⁴~~4~~

EXNO:

TYPE: Guidelines

AUTH: -

INST: ANSI

TITL: ANSI Guidelines for Handling and Disposal of Capacitor and Transformer grade Askarel containing PCB's.

PAGS: ~~36~~ 36

DATE: ~~740000~~ 74 0109

DIRC: -

SRCE: West. Pro.

KWDS: Askarel, guidelines, PCB, Transformer, Capacitor, NEMA

KNMS: papageorge/monsanto; Salazar/NEMA

FLD1:

FLD2:

COMM: Forward on pfno 770701 has excellent summary of formation of ANSI C107, objectives, purposes, representation, timetable. Lists ~~all~~ members. Benefits (fire proof), risks associated with askarels (only health risk is non-chronic chloracne); alternatives, capacitor guidelines, transformer guidelines, (lists properties on pfno 770706), Industrial and personal hygiene requirements, disposal of Askarel wastes, control of water effluents, Labeling requirements (pfno 770710), effluent monitoring, appendices include information on disposal services, analytical procedures and lab service organizations, chromatography method. 27 references.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770734^{mr}

DSNO: NPC00008095

EXNO:

TYPE: chart (table)

AUTH: -

INST: Wec

TITL: Table I

PAGS: 1

DATE: 760106

DIRC: -

SRCE: West. Pro.

KWDS: Disposal, Specification, Waste, Inerteen

KNMS:

FLD1:

FLD2:

COMM: Lists waste type (chemical name), associated disposal spec, whether ^{chemical} ~~pollutant~~ is toxic, a pollutant, or Flammable; color of label required. #13, 14 deal with Inerteen.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770735 - 770736

DSNO: NRC00008096 - 00008097

EXNO:

TYPE: chart (Form)

AUTH: -

INST: ~~toxic~~ Monsanto

TITLE: material Safety Data Sheet

PAGS: 2

DATE: 72 0730

DIRC:

SRCE: West. Pro.

KWDS: Aroclor 1016, Hazard; health, disclaimer, liability

KNMS:

FLD1:

FLD2:

COMM: MSDS for Aroclor 1016. Lists physical data, fire and explosion hazard, health hazard (Chlorine, systematic intoxication - nausea, vomiting, weight loss, edema, abdominal pain), reactivity data. Spill/leak procedures, special precautions (avoid skin, eye contact and inhalation of vapors) - Disclaimer at bottom of page says Monsanto makes no warrant with respect thereto [information given] and disclaims all liability from reliance thereon 1/25/72

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770 737- 770 771

DSNO: NA000 239 21- 000 239 59

EXNO:

TYPE: minutes (with attachments)

AUTH: A. M. Salazar

INST: ANSI / NEMA

TITL: ANSI Committee, C107, on use and disposal of Askarel and Askarel soaked materials

PAGS: 35

DATE: 7/09/74

DIRC: -

SRCE: West Pro.

KWDS: ANSI, Nema, lindane, Pydraul, meeting, ANSI, C107, TSCA,

KNMS: Ryan / U.S. Congress; <see reverse>

FLD1:

FLD2:

COMM: minutes of first
Attached are letter
organize ~~the~~
dates, etc...

770743-77074

in light of C

Gives text

Program; given on 1/14/71

2 Page
Summary

ersburg, MD.
to

announce

PFNO
le problem

Monsanto's PCB

KNMS, CONT.

~~W.A.~~ P. Williamson

B.H. Falk

C.A. Parris

T.K. Sloat

J.C. Rissinger

C.W. Hart

S. Sherr / IEEE

M. Pisciotta / ANSI

J.J. Kark / NEMA

Raab / GE

Podzanski / GE

N.R. Clarke / Universal Manufacturing

S.P. Wasik / National Bureau of Standards

D.E. Allen / Allis-Chalmers

J.P. Kuzela / Sangamo Electric

R.D. McClain / Westinghouse

W.C. Reinhardt / Colt Industries

H.R. Rowe / McGraw - Edison

D.M. Crabtree / U.S. Army

E.P. Floyd / EPA

R.T. Morgan / GSA

A.J. Woloshin / GSA

Papageorge; Berlynus / Son of Monsanto

J. Leutritz, Jr. / Dept. of Agriculture

W.R. Nichols / TVA

L.E. Wagner / Clem-Trol

A.L. Rickley / Doble Engineering

A.O. Hauser / Electrical Utilities Co.

~~SAK~~

H.A. Alsentzer / Rollins-Park

KNMS cont

Water Quality Laboratory, Duluth, MN

Columbia Missouri Bureau of Interior
Fish-pesticide Laboratory

Gulf-Breeze FL Commercial Fisheries Laboratory

C. Evans / Bangor University

Comments, Cont:

mentions onset of PCB problem (1967), Testing of Aroclors 1254, 1242, 1260 on Animals. (IBT studies). Failed Monsanto Fish Experiments. Use of PCB's to extend life of pesticides (PCB's "Never intended for broadcasting") (Contrasts with Monsanto document/advertisement in 1966 or WEC production listing a PCB use in pesticide application). Description of events leading to Monsanto's withdrawal of PCB's from all but "closed" applications. Possibility of importation of foreign PCB's. PCB use in pharmaceuticals was in heat transfer equipment used in manufacture. Important in giving reasons/events/impetus for Monsanto's withdrawal from some PCB application. Monsanto still feels that some heat transfer usage (non-food) is necessary (AFNO 770763). PCB's in Food Packaging via inks and carbonless copy paper recycling. Monsanto Biodegradability studies of Aroclors (AFNO 770766).

Important: "PCB's are not and cannot be classified as highly toxic" (770767). Believe Monsanto can control the amount of PCB entering the environment to the point where the adverse effects are not too great and the benefits we derive far outweigh the minor adverse effects that we might notice.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770722

DSNO: NPC000 23,960

EXNO: |

TYPE: memo

AUTH: R.D. McClain

INST: WEC

TITLE: ANSI C107 Use and Disposal of Askarels

PAGS: |

DATE: 7/11/8

DIRC: J. B. Brittain

SRCE: \$ West. Pro.

KWDS: ANSI C107, meeting, Gaithersburg, capacitor

KNMS: D.M. Sauter/WEC; Salazar/ANSI; Potefsky/GE; Clark/Universal Mfg.;

FLD1: Hammer/McGraw-Edison; Kuzela/Sangamo; Moore/Electrical Utilities Co.;

FLD2: Papageorge/Monsanto; Langenfeld/Union Electric; Rheinhardt/Maloney;
Raab/GE; Johnson/EPA

COMM: Informs Brittain that he (McClain) was asked by ANSI to
serve on a Committee to draft guidelines for use, maintenance, and disposal
ANSI

of capacitors containing Askarel. Has Agreed. Lists others on
Committee.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770773-770776

DSNO: NR00023955-00023958

EXNO:

TYPE: minutes

AUTH: Sloat

INST: wec

TITL: Trip report - Initial Organizational Meeting of ANSI Committee C-107

PAGS: 4

DATE: 7/10/17

DIRC: -

SRCE: West. Pro:

KWDS: Aroclor 1016, pcb, ANSI, meeting

KNMS: (see reverse); Ryan/U.S. Congress.

FLD1:

FLD2:

COMM: Summary of 1st ANSI C107 meeting. Papageorge elected chairman, Salazar/Verna elected secretary. Steering Committee appointed to advise chairman, act as advisory group for other National/International societies. C107 objectives: Prepare methods for proper handling/maintenance of pcb liquid; disposal of scrap, to communicate to all capacitor/transformer users/manufacturers on pcb info. History of and current status of Pcb problem. Trichlorobiphenyl found in chickens.

KNMS

R. L. Schwab
J. C. Rissinger
H. R. Steppard
F. J. Brutt
H. S. Gilleland
J. W. Dallis
L. Rademacher
J. E. Foley
W. T. Brennan
R. F. Frew
G. C. Wilburn
R. H. Hollister

WEC

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770778-770787⁷⁸⁷

DSNO: NAC00023962 - 00023971

EXNO:

TYPE: letter

AUTH: Salazar ~~MAUSE~~

INST: ANSI

TITLE: Agenda for the Wednesday, December 15, 1971 meetings

PAGS: 10

DATE: 711118

DIRC:

SRCE: West. Pro.

KWDS: IEEE, ANSI C107, meeting, oil, pcb, disposal, guidelines

KNMS: ~~Benignus/Monsanto~~ (see Reverse);

FLD1:

FLD2:

COMM: meeting to be held ~~on 12/15/1971~~ on 12/15/1971. Purpose: to specifically delineate areas needing national standardization; formulate initial recommendations for procedures on safe use and disposal of Askarel. Gives format of meeting.

Memo from ~~Benignus~~ Benignus/Monsanto to ANSI C107 steering committee stating that it should consider that 1) Electrical industry has no suitable substitute for PCB's for use in transformers and capacitors; 2) ~~issue~~ this need and the fact that the transformers and capacitors are hermetically sealed, Monsanto continues to supply Aradior (also for topping-off fluid for some heat exchanger systems); 3) Monsanto has removed virtually all penta and higher homolog pcb ~~isomers~~ isomers from capacitor askarel; 4) Monsanto has

(over)

KNMS

Raab/GE

Crisbree/U.S. Army

Grogan/Allis - Chalmers

Lengefeld/Union Electric

Reinhardt/Central Moloney

Rickley/Doble Engineering

Slout/WEC

Benignus/Monsanto

Papageorge/Monsanto

Pozefsky/GE

~~Clark~~

Clark/Universal Mfg. Co.

Hammer/McGraw Edison

Kuzela/Singano

McClain/WEC

Moore/Electric Utilities

Rissinger

Pourch/EEI

Kark/NEMA

Sherr/NEMA

Pisciotti/ANSI

Introduced ~~own~~ controls at mfg. plant to reduce PCB entry into the environment ~~environment~~; 3) 75% of higher homolog isomers have been removed from commerce
6) States FDA recommendation against a complete ban on PCB's

7) PCB's found to be essentially non-toxic when fed to standard lab animals (Important); 8) Lists FDA guidelines for PCB in food; 9) avoid prolonged exposure to PCB liquid or vapor to avoid chloracne; 10) avoid exposure to hot vapors to avoid liver/kidney damage (very Important); 11) no evidence that PCB's are carcinogenic; 12) if dioxane is produced during arcing in PCB, the amount is barely discernible; 13)

Monsanto accepts scrap askarel for incineration at 3¢/lb, ~~labels~~ ~~on~~ stating this are attached to PCB shipments, failed capacitors should be buried in dry landfills (although the technology used in incinerating fluids can incinerate small capacitors and large capacitor components); 14) solubility of PCB's is low, consensus is that PCB's do not migrate in soil; 15) Transformer coils/insulation should be flushed with solvent, and solvent incinerated as per PCB fluid.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770788 - 770798

DSNO: NPC00023972 - 00023982

EXNO:

TYPE: Guidelines

AUTH: -

INST: AIEE (American Institute of Electrical Engineers)

TITL: Proposed Guide for Maintenance of Transformer Askarel

PAGS: 11

DATE: 581200

DIRC: -

SRCE: West. Pro.

KWDS: Askarel, Transformers, Maintenance, tin tetraphenyl, PPO, safety,

KNMS: <see reverse>

FLD1:

FLD2:

COMM: states Guide was published for trial use. Lists qualities of fluid - dielectric strength, low viscosity, low dielectric losses. Economic considerations of reclaiming (removing free moisture/other insoluble particles) and reconditioning (removal of soluble/colloidal contaminants such as paint and varnishes) ~~the~~ used askarel. Cost of reconditioning used askarel approx 24 - 104/gallon on up. (Lists types of costs involved). Lists tests on Askarel to determine physical characteristics and gives ASTM guidelines for tests. Describes importance of each test (dielectric strength, free chlorides, ...).

Knms

C. A. Xenis
R. G. Call
F. C. Doble
J. G. Ford
E. E. Gilcrease
R. B. Kaufman
L. M. Limpus
W. H. Mende
J. C. Parker
E. L. Roab
W. W. Satterlee
C. E. Welsh

Comments, Comments...

Also lists other criteria for determining quality of askarel in service: visual condition, presence of water, presence of insoluble matter, amount of chloride scavengers, resistivity. Lists where to find sampling and testing guidelines (in other ASTM publications). Field and/or laboratory screening for quality of askarel. No practical method of removing oil from askarel. Describes use of filter press and activated clay. Scavengers have good dielectric properties, are non-volatile, and induce no abnormal fire or explosion hazard. Lists hazards of askarel: If exposed to high temperatures or arcing, HCl , CO_2 , CO , some phosgene (possibly) produced. Suggests use of pressure relief valve on transformer, though it may not ~~prevent~~ prevent rupture of unit. Personal hazard: not hazardous if

Simple precautions are taken. Can handle similarly as Insulating oil. Avoid direct contact with ~~the~~ liquid or vapor, esp. when hot. No evidence that ordinary exposure to (non-heated?) askarel vapors results in ill effects. Use gas masks if necessary after arcing or thermal action produces noxious fumes (HCl , etc.).

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770799- 770818

DSNO: NPC00023983- 000 24002

EXNO:

TYPE: Guidelines

AUTH: -

INST: IEEE

TITL: IEEE Guide for Acceptance and Maintenance of Insulating oil in Equipment.

PAGS: 20

DATE: 690000

DIRC: -

SRCE: West. Pro.

KWDS: oil, reclamation, filter press, transformer.

KNMS: <See reverse>

FLD1:

FLD2:

COMM: document shuffled in binder (see page ~~refer~~ numbering at bottom of sheets).
Lists desirable qualities of Insulating oil. Characteristics of acceptable oil listed on PFNO 770806. Lists tests and describes results which indicate oil quality. Lists ASTM ~~reference~~ ^{reference} Numbers for guidelines to follow when performing tests. Describes reclamation /reconditioning processes. Lists results from survey taken to determine testing methods used by users of transformer oil. Lists types of costs involved in oil refurbishment.

Knms

P.G. Benignus

G.L. Bleske

D.A. Gillies

R.I. Lowe

W.H. Meade

E.L. Morrison

V.R. Mulhall

Incomplete List - four xerox.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770820 - 770824

DSNO: WPC 00024004 - 00024008

EXNO:

TYPE: Specification

AUTH: -

INST: IEEE

TITLE: Specification for New, Unused Transformer-type Askarel

PAGS: 5

DATE: 750200

DIRC: -

SRCE: West. Pro.

KWDS: Askarel, specification, characteristics, caution

KNMS: -

FLD1:

FLD2:

COMM: { Incomplete document.
Applies to new askarel shipped in bulk. Definition of Askarel.
Caution states that pcb's are considered by many to be an environmental
contaminant - proper handling and disposal are required. Refers to IEEE
guide for Acceptance/maintenance of Transformer Askarel; also to ANSI C107
guidelines. Table 1 (PFNO 770822) lists 7 types of Askarels (not explained in
text what the names of each are), lists ~~isomer~~ pcb isomer and scavenger
amounts. Lists acceptable characteristics of Askarel by type (PFNO 770823).

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770825 - 770840

DSNO: NAC00024009 - 00024024

EXNO:

TYPE: notes

AUTH:

INST:

TITL: C-107

PAGS: 16

DATE: 711215

DIRC:

SRCE: West. Pro.

KWDS: DDT,

KNMS:

FLD1:

FLD2:

COMM:

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770841-770845

DSNO: NP000024025-00024029

EXNO:

TYPE: minutes

AUTH: Salazar ~~WASZ~~

INST: ANSI

TITL: ~~minutes~~ meetings of Capacitor and Transformer Working Groups ; of
the ANSI Committee, C107, on use and disposal of
PAGS: 5 Askarel and Askarel-soaked materials.

DATE: 7/12/5

DIRC:

SRCE: West. Pro.

KWDS:

KNMS: <see reverse>

FLD1:

FLD2:

COMM:

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770846 - 770847

DSNO: NPL 00024030 - 00024031

EXNO:

TYPE: memo

AUTH: Raab

INST: ~~ANSI~~ GE

TITL: Ansi working Group on Transformers

PAGS: 2

DATE: 7/12/09

DIRC: <see reverse>

SRCE: West. Pro.

KWDS: R-

KNMS: Reinhardt, Raab

FLD1:

FLD2:

COMM: Suggests topics for discussion for Ansi C107 Transformer working group to be for meeting on 12/15/71. Topics include distribution of a fact sheet to apparatus users, public, etc...; Plant housekeeping, Employee Safety, disposal. Need to decide what is needed, prioritize, and draft recommendations. Reinhardt/Central money and Raab/GE agreed to produce information from their companies on: estimate of the number of Askarel transformers made each year, production failure rate, failure rate in service, estimate of total number of Askarel transformers in service, and average liquid volume in an Askarel transformer.

Dir

D. M. Crahtree / U.S. Army

W. S. Grogan / Allis-Chalmers

F. R. Lengefeld / Union Electric

W. C. Reinhardt / Central Moloney

A. L. Rickley / Doble Engineering

T. K. Sloat / Westinghouse

P. G. Benignus / Monsanto

W. P. Rappageorge / Monsanto

A. M. Salazar / NEMA

A. Pozefsky / GE

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770848-770851

DSNO: WPC00024032-00024035

EXNO:

TYPE: letter

AUTH: H. Johnson

INST: National Environmental Research Center

TITL: -

PAGS: 4

DATE: 7/12/06

DIRC: Benignus/monsanto

SRCE: Wash. Pro.

KWDS: Congress, Resource Recovery Act, ANSI C107,

KNMS: Booz-Allen Research Inc.; Salazar/NEMA, Papageorge/monsanto

FLD1:

FLD2:

COMM: Outline of EPA's National Disposal Site study, requested by Salazar/~~ANNE~~ NEMA. Study is mandated by Congress in section 212 of the Resource Recovery Act of 1970. Tasks listed for completion are: 1) Hazardous Waste Survey, 2) Recommended methods of Disposal 3) Inventory of Potential Sites 4) Functional makeup (physical details) of sites 5) cost sharing plan and 6) Public acceptance plan (attitudinal research), 7) additional legislation required 8) Computer model (to optimize location) 9) Report to Congress.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770659 - ~~770692~~ 770692

DSNO: NPC00008020 - ~~000003418~~ 0000 8053

EXNO:

TYPE: Instructions

AUTH: -

INST: wec

TITL: Instructions for Type S Inerteen Insulated Distribution Transformers

PAGS: 15

DATE: 630500

DIRC: -

SRCE: West. Pro.

KWDS:

KNMS:

FLD1:

FLD2:

COMM: ~~Instructions~~ Collection of a series of small pamphlets on General Information, Shipment of transformers in Inerteen, Installation of Inerteen Transformers, Determination of Dryness and Drying Out, Operation and Maintenance, and Consists for these units. Instructions - Type SL Inerteen Transformers states Inerteen has an irritating effect on the skin.

PCBD
TECHNICAL DOCUMENTS SCREEN

PFNO: 770841 - 770845

DSNO: NPC00024025-00024029

EXNO:

TYPE: minutes

AUTH: A. M. Salazar

INST: ~~WASH~~ ANSI

TITLE: minutes - meetings of Capacitor and Transformer Working Groups of the
ANSI Committee, C107, on Use and Disposal of Askarel
PAGS: 5 and Askarel - Soaked materials

DATE: 7/12/5

DIRC:

SRCE: West. Pro.

KWDS:

KNMS:

FLD1:

FLD2:

COMM: First meeting of Transformer and capacitor working groups. Background, agenda,
and purpose for meeting ~~sent out to members~~ supposedly attached (not in
binder).