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Topics:
PCB
Chemical analysis
Fires
Transformers
Pollution control
Insulating oils

EPRI EA/EL-5612
Project 2028
Proceedings
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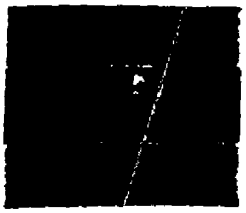

# Proceedings: 1987 EPRI PCB Seminar

Prepared by
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MONS 019985

# REPORT SUMMARY

**SUBJECTS** Hazardous and toxic waste management / Risk assessment and management methods / Transmission substation design and operation / Distribution substations

**TOPICS**

| | |
|---|---|
| PCB | Transformers |
| Chemical analysis | Pollution control |
| Fires | Insulating oils |

**AUDIENCE** Environmental managers / Distribution engineers

## Proceedings: 1987 EPRI PCB Seminar

An EPRI-sponsored seminar explores the increasingly complex issues of PCB management. This year, retrofill and decontamination technologies discussed at the last seminar are reaching maturity or are commercially available. Participants also addressed the necessity of spill cleanup and methods that meet that need.

**BACKGROUND** EPRI regularly sponsors an industrywide seminar to update utilities on the newest equipment and processes for managing the complex problems posed by polychlorinated biphenyl (PCB). Discussion topics ranged from initial development of equipment and methods to processes now commercially available.

**OBJECTIVES** To provide a forum for discussing equipment and methods for PCB management; to avoid duplication of research effort through an information exchange; to inform equipment suppliers of utility PCB management needs.

**APPROACH** Approximately 325 representatives of utilities, government agencies, research groups, and private industry from around the world attended a PCB seminar held October 6–9, 1987, in Kansas City, Missouri. More than 60 presentations summarized research in such areas as PCB destruction, analysis, spill cleanup, risk analysis, and fires, as well as mineral oil decontamination and retrofill and replacement fluids. PCB destruction discussions focused on thermal treatment of PCB and PCB-contaminated soils, as well as sampling and analysis criteria for evaluating destruction methods. Other areas of discussion included processes for removing PCB from contaminated transformer oil and coolants, equipment for testing PCB-contaminated soils, PCB environmental transports, and pyrolysis and combustion of PCB-contaminated transformer fluids. Several papers described pilot plant projects, case studies demonstrating new equipment, processes and cleanup methods, and commercial PCB removal processes.

**RESULTS** Some technologies described at previous seminars have advanced to commercial or semicommercial stages. One such technology is retrofilling, replacing either PCB or contaminated oil with fresh oil to reduce PCB content, usually to below the strictest EPA regulatory level of 50 ppb. Improved techniques for decontaminating mineral oil containing PCB are commercially



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available. Spill cleanup and disposal of askarel transformer carcasses are areas that still require improvements. Ongoing EPRI work (project RP2028-19) is studying disposal techniques for detanking transformers and dismantling and cleaning components for scrap or disposal.

**EPRI PERSPECTIVE**

The large number of people attending the 1988 PCB seminar reflects the need of those involved in PCB management to discuss common problems and goals. Participants—nearly 125 of whom were from member utilities—came from the United States, Canada, Great Britain, Belgium, Mexico, and Japan. They represented many disciplines, including PCB analysis, risk assessment, and disposal, as well as research and development of equipment to facilitate these tasks. EPRI reports EL-2572, EL-3581, and CS/EA/EL-4480 present proceedings from the 1981, 1983, and 1985 seminars.

**PROJECT**

RP2028
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For further information on EPRI research programs, call EPRI Technical Information Specialists (415) 855-2411.

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