

PCB Presentation

To the Kansas Senate Utilities Committee

January 22, 2004

Good morning Chairman Clark and members of the committee. My name is Michael V. Engel and I'm the Vice President of Operations and Engineering for Midwest Energy, Inc in Hays, Kansas.

First, I will provide a little background on Midwest Energy. We are a member owned cooperative serving over 80,000 electric and natural gas customers in 41 western Kansas counties. We have 274 employees at over 30 locations and 10 customer service offices to serve our owner/customers.

Second, I would like to address the questions as submitted by staff resulting from a PCB incident in the State of Kansas

Question 1:

Tell the committee the extent to which you can identify transformers, which contain PCBs and their location throughout Midwest Energy's, Inc. distribution system.

Answer

Midwest has 31 units listed below with their respective PCB concentrations. The last 3 are "pure pyranol*" transformers located at Ross Beach Station (these are registered with the EPA as required). This list identifies the larger PCB transformers of all Midwest's distribution substations. *(Pyranol is pure PCB, and tests at 900,000 to 1,000,000 PPM, whereas most of our regular transformers that test over 50 PPM have only small concentrations of Pyranol in the regular mineral oil).

As far as distribution class (pole type) transformers that are over 50 ppm, Midwest Energy does not have any accounting of how many or where the PCB contaminated transformers are. If a spill occurs, Midwest treats pole transformers that have not been tested as PCB contaminated transformers (as allowed by EPA regulations). It is not mandatory to test these transformers and therefore we cannot account for any locations or how many PCB contaminated transformers we have. Our PCB database has 11,000+ entries from the past 23 years of testing distribution transformers. Many of these units were tested and disposed of during their routine maintenance cycles, or when they came through Midwest's maintenance shop for repair or evaluation. All PCB or PCB contaminated pole type transformers have been retrofilled, junked or disposed of. Hence, the database pertains to the units still in the field that are less than 50 ppm, or non-PCB units.

Question 2:

Tell the committee the number of transformers, which contain PCBs in Midwest's distribution system.

Answer:

Midwest Energy's substations that are PCB or PCB contaminated

<u>SUBSTATION LOCATION</u>	<u>PPM</u>	<u>Phase</u>	
MUNJOR	291	3	
SOUTH MAIN (HAYS)	473	3	
GRAINFIELD REG	325	3	
N. LAYTON	321	1	
PRESTON	310	3	
EDMOND	291	1	
HYDROCARBON	290	1	
EDMOND	288	1	
KXXX		284	1
EDMOND	265	1	
KXXX		227	1
KXXX		220	1
SOUTH COLBY	200	3	
N. LAYTON	187	1	
HYDROCARBON	160	1	
HYDROCARBON	140	1	
LUPFER JUNCTION		116	3
LEWIS	111	3	
LYONS	100	3	
LUTHERN	73	1	
FAIRPORT RIVER	72	3	
LUTHERN	68	1	
BIRD CITY PU	67	3	
ELLIS OIL	64	1	
PAWNEE	60	3	
KRAMPE	55	3	
WAKEENEY OIL	54	1	
WAKEENEY OIL	54	1	
BEACH STATION	PYRANOL	3	
BEACH STATION	PYRANOL	3	
BEACH STATION	PYRANOL	3	

In addition, Midwest's Maintenance crews test approximately 400 to 600 distribution pole type transformers annually. These transformers are brought in as they are moved for re-use, have maintenance criteria, or need to be disposed of due to complete failure of the transformer.

<u>Year</u>	<u>Total tested</u>	<u>Number disposed</u>	<u>% PCB, Contaminated or Disposed</u>
1998	710	29	4.08%
1999	529	29	5.48%
2000	599	38	9.52%
2001	356	20	5.61%
2002	351	38	10.83%
2003	450	39	8.67%

Midwest estimates that 7.5% (3,199) of its 42,649 distribution transformers are PCB or PCB contaminated. All PCB or PCB contaminated units tested shall be disposed of. It is expected that Midwest will be nearly PCB free within the next 20 years.

Question 3:

Tell the Committee what problems Midwest has disposing of transformers containing PCBs when they are replaced.

Answer:

We do not have problems with disposing of the PCB units. Midwest maintenance crews normally set up 2 disposals per year with Clean Harbors Environmental Services, Inc. (formerly Safety Kleen, USPCI, Laid Law, etc). Three issues that require timely and accurate attention are (1) record keeping with paperwork involved, (2) storage facility upkeep, and (3) complete readiness for EPA inspections.

Question 4:

- 1. Describe for the Committee Midwest's actions to replace these transformers containing PCBs over the past ten years, the net result of those actions, and Midwest's plans for the future regarding transformers containing PCBs.**

Answer:

Midwest's actions are to continue disposing of any PCB or PCB contaminated pole type transformers as we find them as we have done in past years. Midwest shall remove any units from service that have been tested >49 ppm, and either retrofil (if the transformer can be reused), or dispose of the oil and incinerate the carcass.

We have tested all of the original Midwest distribution power substation equipment including substation transformers and voltage regulators throughout the system. Any substation regulators that were "PCB or PCB contaminated" have been brought into the maintenance shop and retrofilled or disposed of (as we dispose of distribution transformers). We still may have some "line bank regulators" that are PCB or PCB contaminated. These are tested when they come into the maintenance shop for repair or for disposal purposes.

Midwest removed the PCB transformer units at its Colby Plant and one at Ross Beach Station in 2002, which were on the Federal Register. The rest of the PCB plant transformers are budgeted for disposal in 2004. They are in areas that are easily contained as well.