

**Testimony before the
Senate Utilities Committee
By
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Chairman Clark and members of the committee, I am Bill Eastman, Director, Environmental Services for Westar Energy.

Thank you for the opportunity to answer your questions this morning about polychlorinated biphenyls, better known as PCBs, which the electric utility sector used extensively from the early 1900s until it was banned.

Item #1 - The extent which PCB transformers can be identified and their location.

Westar Energy maintains two databases that track this type of oil-filled equipment. One database tracks the lower voltage oil-filled equipment that serves our distribution system and generally includes equipment containing smaller volumes of oil (less than 1,000 gallons). This equipment serves our residential, commercial and industrial customers. The second database tracks the large oil-filled equipment (1,000 -5,000 gallons) that supports our transmission system. The majority of this equipment is located in the 615 substations located across our service territory.

Westar Energy has a professional environmental staff of thirteen scientists, engineers and technical specialists who work full-time with electric utility environmental issues. The management of PCBs is one area we take very seriously. Of my staff of thirteen, two have primary responsibility for PCB management within Westar Energy with one staff member spending the majority of his time on this program.

I will describe our PCB mitigation efforts in more detail in answer to Item 4.

Item #2 - The number of known transformers/voltage regulators in the Kansas distribution system, which contain PCBs.

The only definitive way to know if a transformer has oil contaminated with PCBs is to draw a sample and have it tested at an approved lab. For our distribution transformers that contain a relatively small amount of oil, we replace the entire transformer when they come out of service rather than testing each of them. Each of our larger transformers, which contain thousands of gallons of oil, has been tested and is identified in our database.

Westar Energy owns 254,007 transformers in our distribution system. From our testing data during disposal of these transformers, we have found that about 90% have no PCBs in their oil. We own 1,603 transformers in our transmission system. Each of these has been tested, and 42 have PCB concentrations greater than the regulatory limit of 50 parts per million. We also own 582 regulators that contain

volumes of oil smaller than the large transformers (e.g. 75 gallons). The regulators are handled in the same manner as the distribution transformers. Once they are taken out of service, they are sent to an out-of-state disposal facility.

Item #3 - Problems identified with the disposal of transformers containing PCBs.

Westar Energy contracts with a PCB disposal facility, TDS in Tonkawa, Oklahoma, which receives all of the contaminated equipment. TDS is a licensed and permitted facility that meets the requirements for proper handling and disposal of PCB-contaminated equipment, oil and debris. The fluids are removed from the equipment by TDS and segregated according to PCB levels, and the remaining shell and core are dismantled and recycled. Westar Energy has performed an audit on this facility, and internal procedures require the contract be re-bid every two years to ensure that the disposal costs remain competitive and the facility maintains the proper permits for handling PCBs. To date, we have not experienced any problems with the disposal of PCB equipment by TDS.

In addition, we contract with two Kansas-based firms, HazMat Response in Olathe and Wichita, and Eagle Environmental in Wichita, which handle onsite cleanup of large oil spills. These firms have complied with all environmental regulations associated with the cleanup of oil spills.

Item #4 - Describe actions to replace transformers containing PCBs over the past ten years, the net results of those actions, and plans for the future regarding transformers containing PCBs.

The largest percentage of our distribution transformers serve our residential customers. Westar Energy has an aggressive program to retire residential distribution transformers manufactured before 1980. If these pre-1980 transformers are removed from service for any reason they are retired and sent to a licensed disposal facility. Approximately 3,000 distribution transformers are removed for this reason each year. Since these transformers must be sampled for PCB content during the disposal process, Westar Energy is able to track the overall trends of PCB content in these transformers. The latest data shows that 90% of all transformers sent to the disposal facility contain no PCBs, about 5% are classified as non-regulated transformers containing less than 50 parts per million PCBs, about 4% are classified as PCB-contaminated with 50 to 499 parts per million PCBs and about 1% of the transformers are classified as PCB transformers containing greater than 499 parts per million PCBs. Westar Energy is systematically removing distribution transformers that contain PCBs from our system and will continue this process until all are replaced.

The 1,603 transmission transformers located at our substations and have been sampled and analyzed for PCB content. These transformers contain the largest

volumes of oil, which translates to the potential of containing the most PCBs.

Forty-two have been identified as having a PCB content that makes them subject to the PCB regulations.

Westar Energy uses the sample results to perform a structured risk assessment of all substations with a focus on potential oil releases and subsequent impacts on the environment. Substations with transformers containing higher concentrations of PCBs and located near sensitive areas, such as waterways, receive a higher priority for risk reduction. For these higher priority substations, operational plans are developed to mitigate the risk and may involve retro-filling, replacement or construction of secondary containment structures. This is an ongoing program that will result in a continual decrease of PCB-containing equipment in all Westar Energy substations and the associated risks.

Westar Energy is committed to handling all PCB oil-filled equipment in an environmentally appropriate and regulatory compliant manner.

I will be glad to answer your questions at the appropriate time.