



## BANGOR HYDRO ELECTRIC COMPANY PROGRESS REPORT ON THE REDUCTION OF TRANSFORMERS CONTAINING 50 PPM OR GREATER PCB



January 20, 2011

Senator Thomas Saviello One Hundred and Twenty-Fifth Legislature Committee on Environment and Natural Resources 3 State House Station Augusta, Maine 04333-0100

## RE: BANGOR HYDRO ELECTRIC COMPANY – PROGRESS REPORT ON THE REDUCTION OF TRANSFORMERS CONTAINING 50 PPM OR GREATER PCB

Senator Saviello, Representative Hamper, and Members of the Committee on Environment and Natural Resources:

The 119<sup>th</sup> Legislature enacted LD 665, now Public Law 1999, Chapter 193, "An Act to Protect the Environment by Phasing Out the Use of Old Transformers that are Potential Sources of PCB Pollution." The Natural Resources Committee (Committee) requested that, beginning January 15, 2003, public utilities notify the Committee every two years on progress toward this law's goals. Please consider this letter as Bangor Hydro's progress report for 2011. Bangor Hydro last reported information regarding PCBs to the Committee on Natural Resources (Committee) by letter dated January 15, 2009.

The goals established by 38 MRSA Section 419-B are (1) the removal of PCB containing transformers within 100 feet of surface waters or schools by October 1, 2005, and (2) the removal of all remaining PCB containing transformers by October 1, 2011. Specifically, the progress report should address the utility's progress toward the removal of PCB containing transformers and address the number of PCB containing transformers remaining in service.

Bangor Hydro's progress on the removal of PCB containing transformers is highlighted by the following:

- The continuance of a historical, aggressive removal and disposal program for PCB containing transformers from all areas.
- Continuation of a transformer labeling program to easily identify transformers that have been determined to contain PCB's less than 50 ppm.

- Over the past two years, completion of target transformer nameplate PCB data collection and evaluation for PCB risk of an additional ~12,546 polemounted transformers in all of our divisions service territories.
- Over the past two years, completion of transformer nameplate PCB data collection and evaluation for PCB risk of approximately 803 padmounts and 139 stepdown transformers in all of our divisions service territories. This represents all of the padmount and stepdown transformers in our system which were not previously known to be non PCB.
- Subsequent oil sampling of PCB high risk transformers to verify transformers > 50 ppm PCBs.
- Over the past two years, the removal of 244 transformers specifically identified as part of this program as containing > 50 ppm PCBs.

## **Continuance of Historical Removal and Disposal Program**

Since the late 1980's Bangor Hydro has been aggressively removing from service and disposing of transformers that may contain PCBs. A majority of this disposal program is done on a voluntary basis. Bangor Hydro's disposal program has continued and it is estimated that since March 9, 1999, we have removed 5,953 units (including transformers specifically removed as part of this program) manufactured before 1980. These transformers potentially contain PCBs 50 ppm or greater in concentration.

## **Project Planning for Voluntary Removal Goals**

The October 1, 2005, goal of identifying and removing transformers containing PCBs >50 ppm that are within 100 feet of surface waters and schools has been completed. We identified 3,934 transformers with unidentified PCB concentrations near surface waters and schools which were inspected and only 157 of these were determined to be high risk for containing PCBs > 50 ppm and were subsequently removed.

As part of Goal 2 to remove all remaining PCB containing transformers, Bangor Hydro has collected and evaluated nameplate data from approximately 18,716 polemounted transformers, 803 padmount transformers, and 139 stepdown transformers identified through our GIS system as having unknown PCB concentrations. As the data from the transformers was collected, it was determined if the transformer was considered non-PCB based on manufacturer nameplate information or testing records, or whether the transformer was considered to be a low or high risk for containing PCB's based on statistical data. Any transformers determined to be high risk were then sampled to determine actual PCB concentration. If the transformer contained > 50 ppm PCBs or was unable to be sampled, it was then removed from service. Only a small subset (405) of the approximately 19,658 transformers were identified as containing > 50 ppm PCBs.

The Committee requested that we also report on the number of PCB-contaminated transformers that remain in service. Without lab analysis of oil in each of Bangor Hydro's transformers, there is no way of knowing exactly how many PCB-contaminated transformers remain in our system. Bangor Hydro has completed our inspection of all transformers on poles older than 1979 as well as all transformers for the high risk areas. Based on our statistical approach, we estimate that we could have a maximum of somewhere between 200-400 PCB-contaminated distribution transformers left in our system. However, due to knowledge of our system and the fact that the only transformers we have not inspected are located on poles 1979 and newer, we believe that number to be significantly lower.

If you have any questions or require additional information, I can be reached at 207-973-2542.

Sincerely,

Mona & Spear

Mona E. Spear Supervisor of Environmental Compliance

Enclosures

CC: Gerry Chasse, Bangor Hydro Kim Wadleigh, Bangor Hydro Rick Manning, Bangor Hydro Dan McCarthy, Bangor Hydro Jen Brooker, Bangor Hydro Aaron MacIntyre, Emera Roy Koster, CMP Tom Osgood, MPS

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