## First District Water Department

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July 23, 2004

Pamela B. Katz, Chairman Connecticut Siting Council 10 Franklin Square New Britain, Connecticut 06051

Subject: Docket No. 272 -- Connecticut Light and Power Company and United Illuminating Company Application for a Certificate of Environmental Compatibility and Public Need for a 345-kV Electric Transmission Line Facility and Associated Facilities between Scovill Rock Switching Station in Middletown and Norwalk Substation in Norwalk, filed October 9, 2003

Dear Chairman Katz:

The First District Water Department of the City of Norwalk ("FDWD") an intervenor in the above-referenced docket is a municipal water supplier within the City of Norwalk. FDWD's public water supply operation serves approximately 41,000 people in Norwalk, virtually all of whom are also CL&P customers. A significant portion of FDWD's water supply is provided by its well field (the "Well Field") situated on the west side of the Norwalk River north of CL&P's Norwalk substation.

We are writing this letter to transmit our comments and concerns regarding the various proposals and alternates for the subject transmission line.

It appears that the CL&P and DOT proposed routes include approximately 2.5 miles of underground cables within the direct recharge area of the Well Field as shown on the Level B aquifer mapping. While we understand that the new Aquifer Protection Regulations are not complete we believe it is prudent to comply with their intent to protect the Well Field. Accordingly the transmission lines in the aquifer protection area of the Lakeview Drive East Well Field should be above ground where feasible and, where required to be underground, should be constructed of solid dielectric cable.

The groundwater within this recharge area, which is in turn pumped by FDWD's wells, could be affected in the event of a fluid leak from HPFF cable, thus potentially resulting in a shutdown of the Well Field and an interruption of supply to FDWD customers. FDWD notes the following points:

- 1. The principal recharge area of the Well Field is approximately a semicircle, about 1 <sup>1</sup>/<sub>4</sub> miles in radius, centered on the Well Field. Stratified drift that contributes flow to the principal recharge area extends over 8 miles from the Well Field along and on both sides of the Norwalk River.
- 2. Oil-filled cable conduits, if used, contain a non-biodegradable polymeric oil. Once released into an aquifer area because of an accidental break the oil will retain character and eventually reach the flowing aquifer and be carried to a place of withdrawal or discharge.
- 3. The FDWD aquifer has been estimated to flow at a rate of between 1 to 2 feet a day. A contaminant entering the aquifer a mile away would take in the order of 7 years to reach the FDWD Well Field.
- 4. All FDWD well water first passes through an air-stripping tower before entering the public water supply system. Aeration of oil mixed in water can produce an unsightly milky mixture, unsuitable for consumption in the eyes of the FDWD customers.
- 5. Despite its non-toxic nature, the unsightly appearance produced by the oil may require shutting down the Well Field, depriving the FDWD of a critical source of supply, and crippling the FDWD's ability to provide water to its customers. FDWD's main surface source of supply, a reservoir located in New Canaan, is insufficient by itself to support customer demand.

It is noted that, once contaminated by oil, the Well Field may have to be deactivated. Pumping the wells to eliminate the contaminant could take many years and the discharge would be to the City Sewers.

Our comments on possible impacts to the water distribution system are summarized below:

- 1. We have critical pipes along the proposed underground route in Norwalk along Ward St., Main Ave. and Broad Street. We understand that the underground option would require the construction of a ductbank along these streets. We are concerned about the impact on our pipes during construction, and long term:
  - a. Blasting and excavating during construction can damage our pipes that have older poured type joints that are brittle and leak if disturbed.
  - b. Stray current induced corrosion may deteriorate our older pipes, which may not be electrically continuous.
  - c. Excavating under or adjacent to the proposed 3' x 5' ductbanks to maintain our pipes would be difficult, require shoring, and may require blasting. There must always be

at least 10 feet of separation for us to be able to safely maintain or replace the water lines. The 10 foot distance would also protect the underground cables that could be affected by main breaks.

Damage to the above described pipes could result in breaks or leaks that damage the road and/or ductbank; and endanger the water supply to significant parts of the City.

Based on the above concerns, any underground routes have potential negative impacts on the FDWD.

Again we emphasize, what makes even a remote possibility of accidental break and release of oil so troubling is that it might take years before the impact would be noticed at the well field and many years to clear up. We request that the Connecticut Siting Council take cognizance of these FDWD concerns about the use of non-biodegradable oil in the proposed NU installation in their considerations. Transmission alternates in FDWD's recharge area other than oil filled underground cables would avoid this very serious problem.

We appreciate your consideration of this potential threat to a significant source of drinking water supply.

Sincerely

Franco Chieffalo General Supervisor

cc: Service List