



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

136 Main Street, Suite 401  
New Britain, Connecticut 06051  
Phone: 827-7682

Petition No. 259  
United Illuminating Company  
Hamden, Connecticut  
November 14, 1990

On November 9, 1990, Mortimer A Gelston and William H. Smith of the Siting Council and Robert K. Erling of the Siting Council staff met Ralph S. Anderson, Heidi Rydene, and Robert Silvestri of the United Illuminating Company (UI) for a field review of this petition at UI's Mix Avenue Substation in Hamden, Connecticut. UI is requesting a determination from the Siting Council that no Certificate of Environmental Compatibility and Public Need is required for the company's proposed Mix Avenue Substation temporary transformer installation project. This project would include an assembly consisting of a transformer, circuit breaker, and high-and-low voltage switchgear at the Mix Avenue Substation. The addition of this equipment would relieve transformer thermal overloads that could occur at this substation at projected summer peak load. The additional equipment would allow load to be shifted from the existing transformers, thereby relieving potential thermal overload during contingency conditions, such as the loss of one of the existing transformer during the summer peak load. The proposed installation of equipment would not be permanent, but would provide temporary relief until additional load can be transferred to other substations.

The Mix Avenue Substation is within a two-acre parcel of land within an area zoned residential. The substation is well screened from nearby residences and apartments by existing trees.

The proposed installation would consist of a 24/32/40 MVA, 115/13.8kV, transformer with a high voltage switch, an SF6 circuit breaker, and low voltage switchgear. The transformer would contain approximately 7550 gallons of dielectric fluid containing less than one part per million of polychlorinated biphenyls. The proposed equipment would occupy an area of approximately 50 feet by 75 feet and would be less than 20 feet in height to the top of the transformer. The new equipment would be installed entirely within the existing fence line.

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UI has conducted a transformer noise evaluation to determine the additional noise levels expected as a result of the proposed equipment. Present noise levels are approximately 43dBA (night) at the nearest home and 35dBA (night) at a nearby apartment complex. These night noise levels are expected to increase to about 46dBA and 36dBA respectively. Daytime noise levels are not expected to increase at either location. The predicted noise levels of each location would be below the State noise level regulations of 61dBA (day) and 51dBA (night) for a property line between an industrial emitter and a residential receptor. UI would measure the noise levels at the nearest home and and nearby apartment complex to ensure compliance with State noise regulations, and would provide the results to the Siting Council.

Construction work at the Mix Avenue Substation is expected to take approximately four weeks to complete. Connection of the proposed equipment to the existing substation ground grid is expected to take approximately four to six weeks to complete.

Robert K. Erling  
Sr. Siting Analyst

RKE/cp

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