



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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Petition No. 113
Field Review
United Illuminating

Mortimer Gelston, Dr. James Horsfall, and Robert Erling met Marcus McCraven, Dave Damer, Ted Grave, and Robert Klancko of United Illuminating (UI) for a field review of Petition No. 113 on September 21, 1984. UI is petitioning the Council for a ruling that no certificate of environmental compatibility and public need is required for the company's proposed Fluid Filling of the underground cables between the Grand Avenue and West River substations in New Haven.

UI states this project would increase the power transfer capability of the existing double-circuit underground 115kV cable transmission line between the two substations. With the scheduled addition of new nuclear generation in 1986, UI believes that these cables could become overloaded. To prevent this, UI proposes to replace the existing nitrogen insulating system with a synthetic dielectric fluid known as Dichevrol along the 2.8 miles of this line. Pressurized at 200 psi, the Dichevrol would be circulated by means of pressurizing stations at the two substations. The circulation of this fluid would level out any hot spots along this line. The system would contain 65,000 gallons of fluid.

Dichevrol is a relatively inert material, containing no PCB's or dioxins. Commonly used as an insulating fluid, it is relatively non-flammable, non-toxic, and non-reactive. A copy of the chemical specification was provided.

UI has operated its existing nitrogen-filled line since 1961, and in that time has experienced no leaks. In the event of a leak or spill of Dichevrol, UI would clean up the leak using the same measures employed to remove a leak of oil.

To circulate the Dichevrol, pressurizing and circulating stations would be located at the West River and Grand Avenue substations. These stations would be housed within 10' x 28' equipment buildings, which would each contain a 5000 gallon dielectric fluid reservoir. To minimize the effects of any fluid spill, the equipment houses would rest on concrete foundations, below which would be a vessel to contain any overflow or spillage.

Since this project would utilize an existing cable-containing conduit, no excavation along this line would be necessary.

Robert K. Erling
Siting Analyst

RKE:cp