



# STATE OF CONNECTICUT

POWER FACILITY EVALUATION COUNCIL

STATE OFFICE BUILDING HARTFORD, CONNECTICUT 06115

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Petition No. 15  
Millstone Point  
August 25, 1978

Patricia Smith, John Cox, and Duncan Reid met Richard Schmit of NUSCO to review completed petition #15.

This petition consisted of the construction of a reinforced concrete building to contain carbon filtration systems involved in the collection and treatment of gaseous radioactive isotopes, such as iodine, xenon and krypton. The project was undertaken to ensure that the gaseous radioactive wastes would be reduced to comply with EPA and NRC guidelines.

With this new installation, gasses from the BWR of Unit 1 are filtered through charcoal tanks and are detained in the new structure until their radioactivity decays totally or is reduced. The system is designed to retard passage of xenon isotopes for 50 days. The half-lives of these isotopes range from a maximum of 5 days to a few minutes. Krypton isotopes pass through the system in 1.3 days. The half-lives of these isotopes range from 32 seconds to 10.7 years. Proportionally, the xenon isotopes comprise the majority of radioactive gasses. The residuals of this process, mostly krypton 85 (half-life = 10.7 hrs) are discharged through the 375' high plant stack. This process works best with cold dry air. The structure contains facilities (and back-ups) to dry the air to 90°F dew point and 30°F temperature. There are four charcoal racks, each containing 5 tons of charcoal. The facility is designed to be practically maintenance-free and is expected to last the life of Unit one. This type of unit is not necessary for Units II and III because PWR have different gaseous waste management systems.

The system is operating within its design specifications. Final approval of this petition is recommended.

Duncan Reid  
Environmentalist