CONNECTICUT YANKEE ATOMIC POWER COMPANY
HADDAM NECK PLANT
RR #1, BOX 127E, EAST HAMPTON, CONN. 06424

March 12, 1974
CYH-2611

50-213

Mr. A. Giambusso
Deputy Director for Reactor Projects
Directorate of Licensing
Office of Regulation
United States Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Giambusso,

As defined by Technical Specifications for Connecticut Yankee Atomic Power Station Section 5.3, the following information involving possible degradation of one of four containment air charcoal filters is reported as Abnormal Occurrence 74-4.

The Connecticut Yankee Reactor Containment Atmospheric Control System includes a filtration system for removing radioactive fission products from the containment atmosphere following an incident which releases radioactive fission products from the core. The filtration system utilizes the air recirculation fans as a driving force. The filters are located in four separate banks connected to the inlet plenums of the four air recirculation fans. The filter banks consist of moisture separators, absolute type filters and activated charcoal filters. Backup protection against overheating of the charcoal is provided in the form of a charcoal spray system. This system is included in each charcoal filter bank and supplies borated water from the Residual Heat Removal System to the face of the filters through nozzles.

During the routine weekly reactor containment inspection conducted on March 1, 1974, dry boric acid was observed on the floor adjacent to the #4 air recirculation fan unit. Further inspection within the filtration unit revealed boric acid deposits at the outlet or downstream side of at least twenty nine of eighty charcoal filter units. A detailed inspection of the charcoal filters from the inlet or upstream side revealed boric acid deposits of varying amounts on at least fifty five of the eighty filters in the #4 containment air recirculation fan unit. Leakage past the charcoal filter spray isolation valves provided the borated water path from the residual heat removal system to the filters in the #4 air recirculation unit.

Replacement charcoal filters have been ordered and are expected to be available within two to three weeks. Representative charcoal filters will be removed from the #4 air recirculation unit and will be tested for iodine

removal efficiency. Those filters selected for efficiency testing will represent the range from non-contaminated filters to filters having considerable boric acid position. The charcoal filter spray header isolation valve was disassembled and a mechanical obstruction in the gate valve groove was removed by filing.

The Containment Air Recirculation/Filtration System is designed to perform its function with only three of the four operable. The other three units were inspected and only one of two hundred forty charcoal units was observed to have slight boric acid contamination at the outlet. Further inspections from the inlet side of the other three units are planned.

Very truly yours,

F. W. Hartley
Plant Superintendent

RHG/bn
cc: James P. O'Reilly, Director
Region 1
Directorate of Regulatory Operations
U. S. Atomic Energy Commission
King of Prussia, Pennsylvania 19406