Enclosure 3

CONNECTICUT YANKEE ATOMIC POWER COMPANY

BERLIN, CONNECTICUT
P. O. BOX 270 HARTFORD, CONNECTICUT 06101

TELEPHONE
203-666-6911

February 1, 1978

Docket No. 50-213

Director of Nuclear Reactor Regulation
Attn: Mr. A. Schwencer, Chief
Operating Reactors Branch #1
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

References: (1) Letter from K. R. Goller to D. C. Switzer dated December 15, 1977.
(2) Letter from K. R. Goller to D. C. Switzer dated January 3, 1978.

Gentlemen:

Haddam Neck Plant
Questionnaire for Reliability Study of Standby Diesel Generator

References (1) and (2) requested responses regarding the demonstrated reliability of standby diesel generators. As requested, CYAPCO has completed the enclosed questionnaire and is forwarding a single copy. Although Reference (1) requested a response by January 20, 1978, the attached information was not available by that date. This delay was discussed with the NRC Staff and was acceptable.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY

D. C. Switzer
President

Attachment

S. Are any foreign gases such as propane, freon, halon, carbon dioxide, etc. stored in the: Diesel Engine room? Yes X No ____ or adjacent buildings? Yes X No ____

If yes, (other than hand portable fire extinguishers), then identify gases and give approximate tank size.

Gases	Volume (ft^3)
Fire Extinguishers	N/A

T. Does control system automatically bypass, in emergency starting, any engine temporarily out of service for maintenance? Yes ____ No X Redundant engine proven operable before maintenance.

If yes, then how many failures to bypass have occured?

_____

U. Does the control system automatically override the test mode under emergency conditions? Yes X No ____

V. Have repetitive mechanical failures occurred in any component part or subsystem of the engine, generator, or switch gear, etc.? Yes ____ No X

If yes, then which part or subsystem? _____

How many failures? _____

Give nature of failure. _____

_____

_____

W. Would periodic (yearly or other) evaluation and/or testing by "outside experts" contribute significantly to the diesel-generator reliability? Yes ____ No X

Give brief reasons for the answer. Our own P.M. Program has proven sufficient.

X. 1. Give the accumulated time-load operating record for each diesel-generator unit from installation to the present (Running Hours):

Preoperational Test Date 6-16-69

Engine Serial No.	Surv. Testing & Maintenance Hrs. No Load	Loaded	Emergency and Other Service Hrs.	Total Hours
1381	60	339	<10	409
1382	60	334	<10	404

2. Surveillance test load (percent of continuous rating) 100

3. Give the projected or planned time-load operation for each diesel-generator unit during the next 12 months.

Surveillance & Maintenance Hrs.	Emergency and other Service Hrs.	Total Hours	
2/month	0	24	

4. Provide the following summary of the periodic surveillance testing experience:

a. Starting date of surveillance testing (OL date) Began when plant came online in 1967, proceds were changed when diesels were replaced in 1970. ≈100
b. Periodic test interval Monthly
c. Total number of surveillance tests performed
d. Total number of test failures 11

failure to start 7 failure to accept load 0
failure to carry load 0 failures due to operator error 0
failure due to equipment not being operative during emergency conditions 0 Other 4

e. Supply a copy of the surveillance test procedures with this completed questionnaire.

Additional Comments

Air Motors (for starting) have In-Line Oilers, however, our main diesel problem was starting with two motors. If engine does not start with two air motors after 3 seconds, four motors (total installed) are used. Rust buildup in the motor was the cause. The air supply line was changed from the bottom of the air tank to the top to minimize water or moisture and also the motors were placed on a preventative maintenance program. These measures have removed the problem.

Y. General Suggestions

Briefly give constructive criticism or suggestions as to improvement in reliability of the diesel generators. These remarks may cover tests, maintenance, practices, orders, policy, adjustments, etc.

Preventative Maintenance was solved all minor problems and at this time we consider our diesels very reliable.