

July 26, 1973

Docket No. 50-219

Jersey Central Power & Light Company
Attention: Mr. I. R. Pinfrack
Vice President of Power Generation
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

Gentlemen:

A letter to the Director of the Regulatory Operations Office, Region I, AEC, from The Millstone Point Company, dated July 18, 1973, was recently placed in the Public Document Room. The subject matter discussed in that letter is felt to have possible applicability to your plant and, accordingly, I have enclosed a copy for your information.

Sincerely,

R. T. Carlson, Chief
Facility Operations
Branch

Enclosure:

1. Copy of letter from The Millstone Point Company, dated July 18, 1973
- cc: Mr. J. T. Carroll, Plant Superintendent
Oyster Creek Nuclear Station
Jersey Central Power & Light Company
Forked River, New Jersey 08731

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OFFICE ▶	Caphton:her 7/26/73	Carlson <i>J.R.C.</i>				
SURNAME ▶	<i>J.P.C.</i>	<i>J.R.C.</i>				
DATE ▶						

**THE MILLSTONE
POINT COMPANY**

A NORTHEAST UTILITIES COMPANY

Director of the Regulatory Operations Office
United States Atomic Energy Commission
970 Broad Street
Newark, New Jersey 07102

P. O. BOX 270
HARTFORD, CONNECTICUT 06101
203-666-6911

July 18, 1973

Dear Sir:

In accordance with section 6.6.B.2 of the technical specifications, the following information concerning the shock arrestor failures at the Millstone I plant is herein submitted.

On June 29, 1973, an examination of the shock suppressors in the Millstone I plant was initiated in response to a telephone conversation with another plant concerning the failure of a number of their Bergen Patterson supplied shock suppressors. The results of the examination showed that either no or insufficient hydraulic fluid was present in 19 of the 44 units installed in the plant.

The questionable 19 units consisted of four HSSA-10 (#10,000) type shock suppressors connected to the main steam piping, three HSSA-20 (#20,000) type shock suppressors connected to the recirculation system and twelve HSSA-30 (#30,000) type shock suppressors connected to the recirculation system. All the above units had been installed prior to initial plant operation. The 25 operable indicating units consisted of two HSSA-20 (#20,000) type shock suppressors connected to the recirculation system and twenty three other units, which were connected to the main steam relief valve and associated piping. The two HSSA-20 units had also been installed prior to initial plant operation but were procured at a later time than the questionable units while the other twenty three units had been installed during the September 1972 refueling shutdown.

After the potential problem was discussed over the telephone with the shock suppressor supplier, Bergen Patterson, they arranged to have two of their representatives further investigate the problem at the plant. After arriving, a sample number of the 19 questionable units were disassembled and inspected. The inspection revealed that the "O" rings and seals had deteriorated which caused the hydraulic fluid to leak from the accumulators and main cylinders. The remaining questionable units were subsequently disassembled and also found to have similar "O" ring and seal deteriorated conditions. A more detailed description of the condition of the "O" rings and seals in the failed units is as follows:

Number & Type Units

Condition

Four HSSA-10

"O" rings broken and very brittle. Seal rings semi-brittle with outside surface of the seal having a black color and the inside surface having an amber-blackish color. (New seal color is amber throughout).

Three HSSA-20 and Twelve
HSSA-30

"O" rings deformed and of "gummy" consistency. Seal rings semi-brittle, amber color generally and in fair condition.

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The metal parts of all the units appeared to be in good condition.

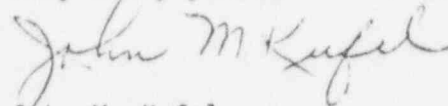
Since two of the operable indicating units were installed at approximately the same time as the failed units, one of the two units was also disassembled and inspected. The inspection showed the "O" rings and seals to be in good condition.

The 19 failed units were repaired and refilled using new "O" rings, seals and hydraulic fluid, which were provided by the vendor representatives. With exception of the hydraulic fluid, all the replacement parts were of the same design and material composition as that used during the original fabrication of the failed units. Since the hydraulic fluid used in the original fabrication of the units is not being produced anymore, the fluid, which is used in the vendor's presently designed units, was used in making the repairs.

After installation, the units were examined for proper installation and the settings of the accumulator pistons recorded. The setting of the operable indicating units were also recorded for future reference.

As a means of determining the failure mechanisms and a more permanent repair, Bergen Patterson has initiated a six week test program. Further action towards correcting the shock suppressor failure problem, shall be initiated after the results and recommendations of the test are completed.

Very truly yours,



John M. Kufel
Plant Superintendent

JMK/JO:jm