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August 17, 1973

Anthony Z. Roisman, Esq.
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Fourth Floor
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Washington, D. C. 20036

Re: Consolidated Edison Company
of New York, Inc.
Indian Point Unit No. 2
AEC Docket No. 50-247

Dear Mr. Roisman:

Enclosed is a copy of a letter from Mr. Cahill to Mr. O'Reilly, dated August 9, 1973, with accompanying attachments.

Very truly yours,

LEBOEUF, LAMB, LEIBY & MACRAE
Attorneys for Applicant

By Edward L. Cohen
Edward L. Cohen

BY HAND

Enclosure

cc w/enc: Samuel W. Jensch, Esq.
Mr. R. B. Briggs
Dr. John C. Geyer
Myron Karman, Esq.
Angus Macbeth, Esq.
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Hon. Louis J. Lefkowitz
Secretary, U. S. Atomic Energy Commission
Atomic Safety and Licensing Board Panel

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-3818

August 9, 1973

Docket No. 50-247

Mr. James P. O'Reilly, Director
Directorate of Regulatory Operations
United States Atomic Energy Commission
Region 1
631 Park Avenue
King of Prussia, Penn. 19406

Dear Mr. O'Reilly

In accordance with the request of your July 27, 1973 RO Bulletin No. 73-3, the following report describes our findings concerning the Bergen-Paterson and Grinnell hydraulic shock suppressors utilized in safety systems in the Indian Point Unit No. 2 plant.

(1) There are 527 Bergen-Paterson suppressors installed in Indian Point Unit No. 2 safety systems.

(2) All 527 Bergen-Paterson suppressors of the HSSA-3, HSSA-10, HSSA-20, and HSSA-30 model types were inspected.

(3) One hundred and twenty three (123) of the Bergen-Paterson suppressors were found to have less than the nominal amount of oil. Table I describes the maintenance action performed on these 123 suppressors.

a) Twenty-five (25) of the 123 suppressors were found with oil levels significantly below the nominal value, and special maintenance was required. These 25 suppressors and their locations are listed in Table II.

All required maintenance action has been completed and the oil level of all 527 Bergen-Paterson suppressors has been verified at the nominal fill level with no evidence of any leakage at this time. The Station Quality Assurance Engineer performed an independent check on this item. It is felt that each of the 527 suppressors will be capable of performing properly in accordance with the criteria for the Indian Point Unit No. 2 plant and that continued operation of the plant can be permitted without presenting a significant hazards consideration.

Con Edison was in the process of developing a shock suppressor in-service inspection and maintenance program at the time of your July 27, 1973 letter. This procedure will be updated to include any new developments that arise as a result of the following:

(1) disassembly and inspection to determine cause of leakage for the three (3) hydraulic cylinder assemblies as described in Table I.

(2) attendance of Con Edison personnel at the special school that Bergen-Paterson has established in Chicago.

(3) any developments from our observations and experience with the 527 installed suppressors.

Planned Surveillance Schedule for Suppressors and Restraints

Within approximately 2 months from the date of this letter, we will inspect all of the 25 suppressors that were initially found to have had significantly less than the required amount of oil.

If no low oil levels are found as a result of the above inspection, the program will revert to the annual program described below. If low oil levels are found in this initial inspection, the program will be expanded to include the inspection of additional suppressors.

We plan to inspect 100% of the Bergen-Paterson suppressors for proper oil level on an annual basis spaced over four (4) to five (5) inspection periods during the year.

A check within 2 months for the 25 suppressors, and a 100% inspection for all suppressors within one year, is considered sufficient to insure detection for any additional problems, if they should occur.

In response to part D of the Commission letter of July 27, 1973, Consolidated Edison personnel have inspected all suppressors other than the Bergen-Paterson type which are installed at the Indian Point Unit No. 2 plant. A total of twenty-four (24) Grinnel suppressors are installed, six (6) at each

of the four (4) steam generator support structures. A typical six (6) suppressor arrangement has one (1) oil reservoir which supplies four (4) upper suppressors, and one (1) oil reservoir which supplies two (2) lower suppressors. All twenty-four (24) suppressors were inspected, with the following results:

(a) The oil reservoirs for the No. 23 lower, No. 22 upper, and No. 24 upper were found empty.

(b) Loose fittings were found on the snubbers and tubing for the associated oil systems of the suppressors listed above.

All fittings were inspected, and the loose fittings previously mentioned were tightened. The oil reservoirs were refilled to the correct level with no subsequent evidence of leakage.

Although these Grinnell suppressors and their oil reservoirs were not found to be defective, all eight (8) reservoir levels will be checked at the 2 month interval. If a significant addition of oil is required, then the program will be expanded to include inspection of all twenty-four (24) suppressors and their fittings. Otherwise the Grinnell suppressors will be inspected on an annual basis.

Very truly yours,

William J. Cahill, Jr.
Vice President

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TABLE I

MAINTENANCE ACTION PERFORMED

22	Suppressors were found with low oil. Oil was added, and no further leakage was observed.
3	Suppressors were found with low oil. Oil was added but leakage was observed. The leaking units were removed. New hydraulic cylinder assemblies were installed. Oil was added and the units were bench tested satisfactorily prior to being installed in their original locations.
75	Suppressors were found with low oil but were judged to be operable. These seventy-five (75) contained a quantity of oil equal to the amount required for proper functioning of the suppressor plus a partial account of the reserve supply and thus were deemed to be operationally satisfactory. The reserve chambers were refilled on these seventy-five (75) suppressors, and no subsequent leakage was observed.
23	Suppressors had signs of leakage but insignificant loss of fluid, and were judged to be operable.
123	
2	Suppressors had been disconnected to permit access for maintenance on other components. These were inspected and found to be free of oil leakage. Subsequently the units were reconnected.

TABLE II

	Tag No.	Model No.	Location
1)	CE-949	EE3A-3	Seal water at reactor coolant pump
2)	SR-851	EESA-3	Pressurizer spray line (No. 23 reactor coolant loop)
3)	SR-887	EE3A-3	Pressurizer spray line (No. 24 reactor coolant loop)
4)	SR-1018A	EESA-3	Loop drain - No. 23 R. C. line
5)	SR-748	EESA-3	Recirculation line - EHR system
6)	SR-1053	EESA-3	Seal return on No. 24 R. C. pump
7)	SR-1112	EESA-3	Seal return on No. 22 R. C. pump
8)	SR-1113	EESA-3	Seal return on No. 22 R. C. pump
9)	SR-719	EESA-3	Safety injection header
10)	SR-1085	EESA-3	Seal leak-off R. C. pump No. 24
11)	SR-1087A	EESA-3	Continuation of seal leak-off R. C. pump No. 24
12)	SR-895	EESA-3	Charging line - CVCS
13)	SR-920B	EESA-3	Regenerative heat exchanger - inside containment
14)	SR-307*	EESA-3	Charging line - No. 22 charging pump - CVCS
15)	SR-917	EESA-3	Excess letdown line - CVCS
16)	SR-920	EESA-3	Excess letdown H. X. - CVCS

TABLE II (Cont'd)

17)	SR-919	HB3A-3	Excess letdown line - CVCS
18)	SR-63*	HE3A-10-6	Secondary boiler blowdown line - outside containment
19)	SR-906	HE2B-10-6	Letdown line - No. 22 R. C. pump
20)	GR-1041	HE2A-10-6	Component cooling - motor oil cooler for No. 23 R. C. pump
21)	SRM-6	HE3A-10-6	Main steam line No. 23 steam generator
22)	SRM-7	HE3A-10-6	Main steam line No. 23 steam generator
23)	GR-1035	HE3A-10-6	Component cooling system - bearing cooling for No. 23 R. C. pump
24)	SR-758*	HE2A-10-6	Containment spray - spray header
25)	GR-1036	HE3A-10-6	Component cooling - motor oil cooler for No. 23 R. C. pump

* Replaced with new hydraulic cylinder assemblies (see Table I)