William J. Cahill, Jr.
Vice President

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-3819

March 9, 1978
Re: Indian Point Unit No. 2
Docket No. 50-247
R.O.-77-2-14(A)
Update Report

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
Region 1
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Dear Mr. Grier

Transmitted herewith is an update report for Reportable Occurrence R.O.-77-2-14(A). Three copies of this letter and the attachment are enclosed as required.

Very truly yours,

William J. Cahill, Jr.
Vice President

Attach.

Copy to Director of Nuclear Reactor Regulation
ATTN: Dr. Ernst Volgenau, Director (40 copies)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Director of Nuclear Reactor Regulation
ATTN: Mr. William G. McDonald, Director (3 copies)
Office of Management Information and
Program Control
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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"UPDATE REPORT" - PREVIOUS REPORT DATE - July 15, 1977

LICENSEE EVENT REPORT

R.O. [illegible]7-2-14(A)

CONTROL BLOCK: [1] [6]

(PLEASE PRINT ALL REQUIRED INFORMATION)

	LICENSEE NAME	LICENSE NUMBER	LICENSE TYPE	EVENT TYPE
01	NYIPS2	00-00000-00	4111	01
7 8	9 14	15 25	26 30	31 32

	CATEGORY	REPORT TYPE	REPORT SOURCE	DOCKET NUMBER	EVENT DATE	REPORT DATE
01 CON'T		T	L	050-0247	072777	030978
7 8	57 58	59	60	61 68	69 74	75 80

EVENT DESCRIPTION

02
03
04 SEE ATTACHED SHEET
05
06

	SYSTEM CODE	CAUSE CODE	COMPONENT CODE	PRIME COMPONENT SUPPLIER	COMPONENT MANUFACTURER	VIOLATION
07	CB	E	PUMPXX	N	W120	Y
7 8	9 10	11	12 17	43	44 47	48

CAUSE DESCRIPTION

08
09 SEE ATTACHED SHEET
10

	FACILITY STATUS	% POWER	OTHER STATUS	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION
11	C	002	NA	A	Control Room Instrumentation
8	9	10 12	13 44	45	46 80

	FORM OF ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY	LOCATION OF RELEASE
12	Z	Z	NA	NA
8	9	10	11 44	45 80

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION
13	000	Z	NA
8	9 11	12	13 80

PERSONNEL INJURIES

	NUMBER	DESCRIPTION
14	000	NA
8	9 11	12 80

PROBABLE CONSEQUENCES

15 NA

LOSS OR DAMAGE TO FACILITY

	TYPE	DESCRIPTION
16	L	Failure of No. 23 Controlled Leakage Reactor Coolant Pump Seals
8	9	10 80

PUBLICITY

17 Press Release - July 5, 1977

ADDITIONAL FACTORS

18 NA

19

NAME: John M. Makepeace PHONE: 914-739-8823

EVENT DESCRIPTION

While critical at approximately 2 percent power, control room alarms and instrumentation indicated a failure of the seal package of No. 23 reactor coolant pump. A resultant decrease in pressurizer level was compensated for by placing a second charging pump in service. A concurrent decrease in pressurizer pressure was also observed. No. 23 reactor coolant pump was tripped, and the reactor was shut down. A plant cooldown was initiated, and a containment entry confirmed the seal package failure. Leakage from the seal package continued until the plant was depressurized and drained down. Total leakage to containment was calculated to be approximately 90,000 gallons, with a maximum leak rate of approximately 75 GPM. No requirement for the initiation of safeguards actuation existed at any time during the incident.

Due to the need for an expeditious cooldown following the seal failure, the Technical Specification cooldown rate of 100°F/Hr was marginally exceeded for a brief period of time. A maximum cooldown rate of 105°F/Hr was recorded between 4:00 A.M. and 5:20 A.M. while the RCS pressure dropped from 2150 psi to 700 psi during the same time interval.

An analysis was performed to assess the effect of this increased cooldown rate on the brittle fracture and fatigue life strength of the reactor vessel. This analysis indicated that there was no adverse effect on the integrity of the reactor vessel as a result of the slight variation from the cooldown rate limit.

[R.O.-77-2-14(A)]

CAUSE DESCRIPTION

The cause of this event was a failure of the seal package of No. 23 Reactor Coolant Pump. (Westinghouse, Controlled Leakage Pump, Model V11002-A1).

Investigation of the failure did not determine a definite cause of the seal failure. However, it was concluded, based on inspections of the failed parts and various thermal and stress analysis, that the No. 1 seal suddenly lost its lubricating film and rubbed as a result of: (1) a large quantity of foreign particles greater than 10 microns in size clogged the seal, or (2) one or more large chips spontaneiously spalled from one of the seal faces thus leading to immediate failure. The reactor coolant pump rotating element, including the seal package, was replaced with a spare assembly.