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50-286

ltr dtd 11-12-75

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N.Y. 10003
Telephone (212) 460-3519

November 10, 1975

Re Indian Point Unit No. 3
Docket No. 50-286

Mr. R. C. DeYoung
Assistant Director for
Light Water Reactors, Group 1
Division of Reactor Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. DeYoung

Item 1 of Enclosure 2 of your letter dated November 5, 1975 requested information regarding the results to date of our investigation of the faults discovered on the Indian Point site and the bases on which we contemplate licensing action before the final results of this investigation are completed.

Based on the attached letter from Dames and Moore reporting on the results of their investigations to date which indicates that the on-site faults are geologically old, we do not consider this item to be a licensing concern.

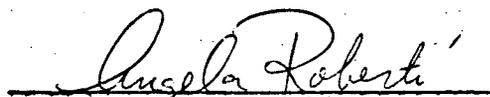
Very truly yours



William J. Cahill, Jr.
Vice President

enc.
mk

Sworn to before me this
10th day of November, 1975.


Notary Public

ANGELA ROBERTI
Notary Public, State of New York
No. 03-2593813

Qualified in Bronx County

Commission Expires March 30, 1976

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PRELIMINARY SUMMARY AND INTERPRETATION OF AGE OF LAST MOVEMENT OF ONSITE NORTH SOUTH TRENDING FAULTS

The Inwood and Manhattan Formations (primarily marble and schist, respectively) are the dominant litho-stratigraphic units cropping out at, and around the Indian Point Generating Station. Unit Numbers 1 and 3 are founded on the Inwood, while Unit Number 2 is founded on the Inwood-Manhattan contact (Plate 5.1-1).

Through-going faults oriented NE have been observed and mapped in the vicinity of the Indian Point Generating Station. Three of these faults are shown on Plate 5.1-1 and one of them is interpreted as going through Unit Numbers 2 and 3. These faults, which had not been previously mapped, are parallel to the general trend of the Ramapo Fault zone and at this time appear to be related to it. Evidence also indicates that these NE-trending through-going faults onsite have experienced, predominantly, strike-slip movements of a recurring nature during the geologic past.

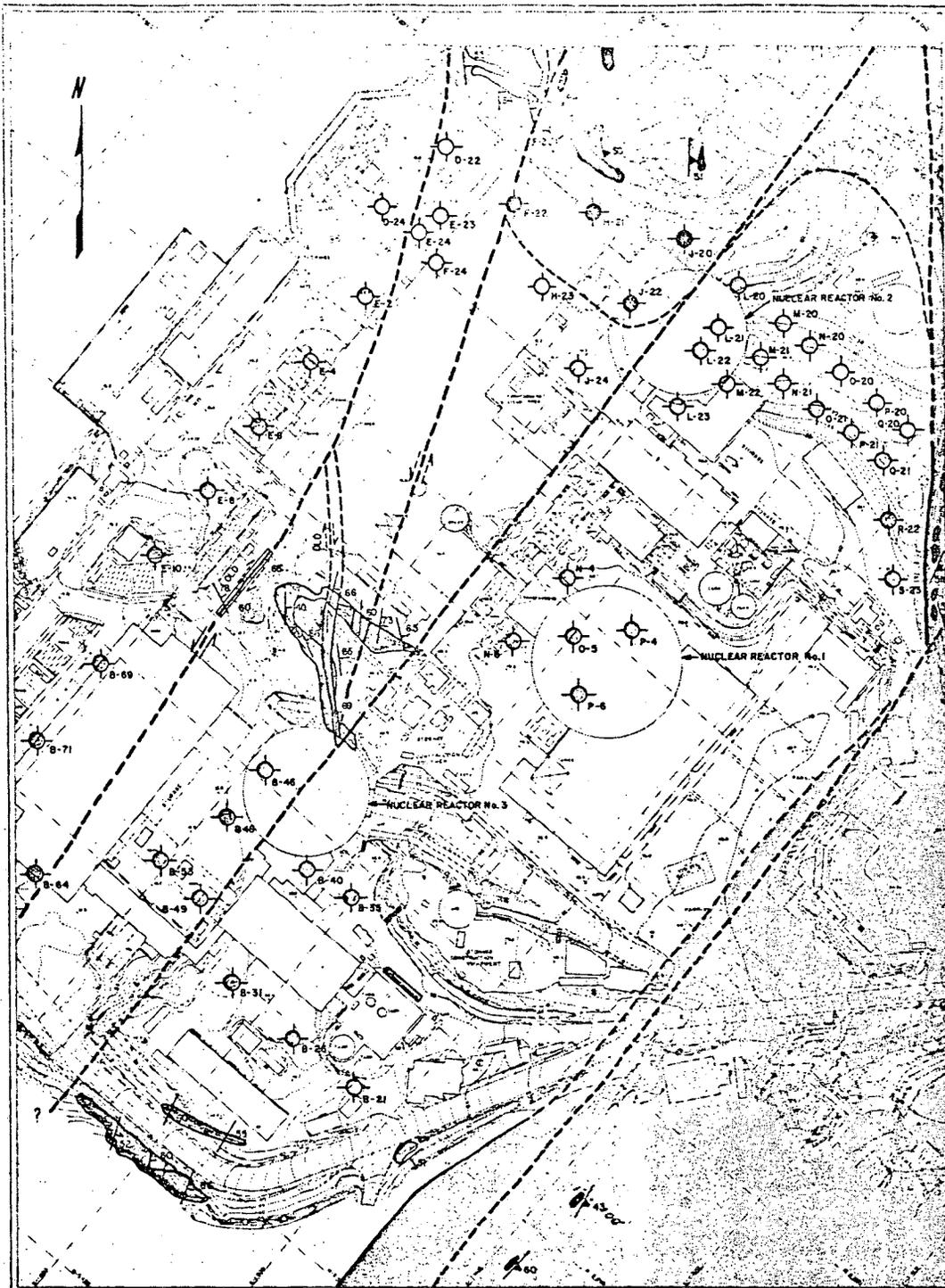
Based on the structural interpretation of deformation features observed at and near the Indian Point Generating Station, the last tectonic event appears to have been essentially a strike-slip (left lateral) displacement along the through-going system of faults oriented northeast. At that time, reactivation also occurred along numerous minor NS to NNW-trending faults, interpreted as second order faults to the through-going NE-trending system. These NS to NNW-trending faults appear onsite north of Unit Number 3.

The N-S striking fault described at the outcrop north of Unit Number 3 lies in between and terminates against two parallel NNW-trending faults. Last movement on these faults occurred as a result of left lateral reactivation along pre-existing faults in response to left lateral displacement along the main northeast-trending shear.

Small euhedral crystals of undeformed calcite occur within the NS and NNW trending faults north of Unit Number 3. Samples were collected from both the NNW and NS fault planes. The crystals are small (1 mm) and display well developed crystal faces. Textural relationships indicate post-tectonic formation in an open fracture system. The results of homogenization tests, performed during fluid inclusion studies, yielded filling temperatures of 160 to 170°C. The minimum corresponding depths (pressures) to attain such boiling points is on the order of 150 feet.

The undeformed nature of the calcite crystals and the range of depths required for their formation indicates that the faults containing these crystals have not moved since they were buried at those depths. This area was subjected to glacial scouring and the rate of erosion cannot be precisely determined. However, by using a conservative estimate of 6 inches/1,000 years, it can be concluded that the NS to NNW-trending faults north of Unit Number 3 have not moved during the past 300,000 years. In addition, the suggestion of an even older age can, at the present time, be predicated on the filling temperatures of primary inclusions in unstrained crystals (160° to 170°C). These temperatures reflect a significant thermal episode probably related to igneous activity which is not known to have occurred during the last 500,000 years.

PRELIMINARY DRAFT



INTERPRETIVE GEOLOGICAL MAP
 OF INDIAN POINT GENERATING STATION NEAR
 PEEKSKILL, NEW YORK



KEY:

-  ORDOVICIAN MANHATTAN FORMATION
-  CAMBRO-ORDOVICIAN INWOOD FORMATION
-  LITHOLOGIC CONTACT, DASHED WHERE INTERPRETED
-  FAULT, DASHED WHERE INTERPRETED, WITH OBSERVED MOVEMENT SENSE SHOWN SOLID WHERE OBSERVED, DASHED WHERE INTERPRETED; WHERE BOTH DEXTRAL AND SINISTRAL SENSES OCCUR, OLDER SENSE IS LABELED OLD
-  AREA OF ROCK CUTS AND OUTCROPS
-  DRILL HOLE INTO BEDROCK, OBTAINED FROM LOGS BY WARREN GEORGE CO. AND SPRAGUE & HENWOOD CO.

REFERENCE:
 THE BASE OF THIS MAP WAS PREPARED FROM;
 DRAWING NUMBER 808 FROM THE OFFICE OF J.W. DELANO,
 12 BOND ST., WHITE PLAINS, N.Y., 10603

DAMES & MOORE

NOTE - PLANT GRID IS 38 1/2° EAST OF NORTH

ENCLOSURE 2

Item 2. Steam Generator Cladding

(a) Fatigue Evaluation

A discussion of the fatigue evaluation that was performed to provide assurance that the existing cladding condition will not adversely affect the integrity of the steam generators is presented in the attached Westinghouse report entitled, "Evaluation of Channel Head Flaw Growth by Corrosion Fatigue; Consolidated Edison Indian Point Unit No. 3 Steam Generators".