

MAY 13 1974

50-286

Harold R. Denton, Assistant Director for Site Safety, L
THRU: William P. Gammill, Chief, Site Analysis Branch, L

MEETING AT LAMONT GEOLOGICAL OBSERVATORY REGARDING INDIAN
POINT NUCLEAR SITE AND THE RAMAPO FAULT

A meeting was held at Palisades, New York, on May 2, 1974, among representatives from Consolidated Edison and its consultant Dr. Marc Sbar, the State of New York, and AEC Regulatory. A list of attendees is enclosed. The purpose of the meeting was to discuss the evidence pointed out by the New York Geological Survey concerning the seismic and surface rupture potential of the Ramapo Fault. Investigations which could confirm our earlier finding that it is not a capable fault, as defined by the AEC Seismic and Geologic Siting Criteria, were also discussed.

Mr. Seth Coplan, AEC Regulatory staff, stated that the AEC position is the same as that described in the SER for Unit 3 - there are no known capable faults or other young geologic structures in the area; and that the staff would be interested in any additional information concerning the status of the fault. Mr. Coplan briefly summarized the circumstantial evidence pointed out by the New York Geological Survey during a meeting in Bethesda on April 22. The geological evidence includes:

1. The Ramapo Fault is a major crustal break which provided an outlet for the deep crustal or subcrustal igneous rock comprising the basalt sill of the Palisades;
2. The fault has been a major crustal break since at least the Late Precambrian, or about 700 million years ago;
3. There have been at least two major events since the end of the Precambrian: one in the Middle Ordovician, and the last in the Triassic, about 200 million years, and
4. Indications of minor offsets in Late Pleistocene glacial deposits in the Hudson Valley (although these offsets are not associated with the Ramapo structure, and their origin can probably be explained by processes other than faulting).

8111210127 740513
PDR ADOCK 05000286
PDR
A

[Handwritten signature]

MAY 13 1974

The seismic evidence includes:

1. Historical seismicity has occurred in the vicinity of the Ramapo fault, some epicenters being on the fault.
2. Existing fault-plane solutions, one near Lake Hopatcong in New Jersey and the other near Wilmington, Delaware, suggest regional stress consistent with past displacements along the Ramapo fault. The earthquakes analyzed were not associated with the Ramapo fault but only serve to illustrate that the regional stress condition that caused major movements in the Triassic may still exist.

A program of investigations which could confirm our position was discussed in detail. It was tentatively concluded that a microearthquake monitoring net composed of about 12 stations operating for a year would provide sufficient data to conclusively define the seismicity of the fault. Concurrently with the monitoring net the surficial geology through which the fault passes should be mapped.

The licensee will consider implementing a microearthquake monitoring net based on recommendations by Dr. Sbar. They will also contact Dr. Ratcliffe, who is probably the geologist most familiar with the geology associated with the Ramapo fault, for advice on geologic mapping along the surface trace of the fault.

Conrad indicated that when they had put together an investigation program, they might like to meet again with AEC and NY State.

Richard B. McMullen, Geologist
Site Analysis Branch
Directorate of Licensing

Enclosure:
List of Attendees

cc: See attached page.

Harold R. Denton

- 3 -

MAY 13 1974

cc: S. Hanauer
 J. Hendrie
 R. DeYoung
 D. Vassallo
 M. Aycock
 R. McMullen
 S. Coplan
 PDR
 Local PDR
 ACRS (10)

DISTRIBUTION:

Docket File ✓
 L-Rdg
 L-SAB
 L-AD/SS

OFFICE	L: SAB	L: SAB	L: SAB	L: AD/SS
NAME	<i>RBM</i> RMcMullen:bas	<i>SC</i> SCoplan	<i>WPA</i> WPGamm11	HRDenton
	5/7/74	5/9/74	5/13/74	5/ /74

LIST OF ATTENDEES

New York State

T. DeBoer
Dr. J. Davis
Dr. P. Pomeroy

Consolidated Edison

V. Gineloa
S. Barnes
R. Crane
Dr. M. Sbar (Consultant)

AEC

S. Coplan
R. McMullen