

U. S. ATOMIC ENERGY COMMISSION
REGION I
DIVISION OF COMPLIANCE

Report of Inspection

CO Report No. 286/68-1

Licensee: CONSOLIDATED EDISON COMPANY
Indian Point No. 3
License No. (Not Issued)
Category A

Dates of Inspection: November 20 and 21, 1968

Inspected by : G. L. Madsen 12/13/68
G. L. Madsen, Reactor Inspector Date
Reviewed by : N. C. Moseley 12/13/68
N. C. Moseley, Senior Reactor Inspector Date

Proprietary Information: None

SUMMARY

The concrete placement for the containment base pad was in progress. A review of IP-3 concrete specifications, review of records, and observation of activities in progress revealed no items of non-conformance with the PSAR requirements for concrete.

DETAILS

I. Scope of Visit

The Consolidated Edison Company (Con Ed), Indian Point No. 3 (IP-3) site was visited by Messrs. G. L. Madsen and D. Whitesell of Region I, Division of Compliance, on November 20 and 21, 1968.

The following persons were contacted:

Con Ed

Mr. A. Corcoran, Site Construction Engineer
Mr. P. Leo, Site Construction Engineer Assistant
Mr. J. Verberst, Site Construction Engineer Assistant

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United Engineers and Constructors (UE&C)

Mr. J. Fant, Quality Control Supervisor

U. S. Testing (UST)

Mr. E. Dadson, Quality Control Inspector

II. Results of Visit

A. General Construction Status

1. Production blasting and major earth removal has been completed.
2. Concrete placement of the containment building base mat is in progress.
3. The turbine building floor and turbine pedestal concrete placement is in progress.
4. Erection of the intake building has been initiated.

B. Containment Building

The previously authorized* concrete building base mat was in progress. A review of records and observations of the site indicated to the inspector that the provisions of 10 CFR 50.10 were not exceeded prior to the receipt of the authorized exemption. A review of erection specification and records by the inspectors, revealed the following:

1. Reinforcement Bars

The mill certificates from Bethlehem Steel Company, were reviewed. The reinforcement bar heat numbers, chemical composition, and physical strengths

*Letter to W. Donham Crawford, Administrative Vice President, Consolidated Edison from Harold L. Price, Director of Regulation dated November 15, 1968.

conformed to the requirements of ASTM-A432 as specified in the PSAR.* Pittsburgh Testing Laboratory (PTL) has been contracted to perform spot physical strength tests of the rebar material. Inspection of the rebar installed for the containment base mat indicated to the inspectors, that the required** rebar configurations, were attained.

2. Concrete

The inspectors reviewed the UE&C concrete specification, dated May 16, 1968, for Indian Point No. 3. The specification provides requirements for selection of materials, placement of reinforcement bars, placement and curing of the concrete which conforms to the requirements of ACI-318-63. The specification also provides requirement for cold weather conditions (ACI 306-66) and hot weather conditions (ACI 605-54). This concrete specification fulfills the PSAR requirements.*

The inspector reviewed PTL reports relative to testing of concrete, aggregates and preliminary trial mixes, for 2000, 3000 and 4000 psi at 28 days, concrete, containing various combinations of available aggregates. Each trial mix specification included sieve analysis, weight of ingredients, and average break strengths for three test specimens at seven-day curing and three specimens at 28-day curing. These concrete mixes were certified by PTL for use at IP-3.

A check of test cylinder strength records for the turbine building foundation indicated strengths ranging from 115 to 150 percent of the design, for 28-day cured concrete.

Surveillance of concrete placement in progress, revealed to the inspectors, that chutes and tremies were being used to maintain the integrity of the mix. The inspectors observed that representatives of PTL and quality control

*Supplement Two, Table 5.1-1.

**PSAR, Supplement Two, Section 2.4(a) pages 2, 3 and 4.

representatives from UE&C and Con Ed were present to monitor the concrete placement activities. The inspectors observed the preparation of test cylinders, performance of slump tests, and measurement of concrete temperatures. This information was recorded by PTL. The concrete being placed had slumps between 3 and 4 inches (5 inch specification), was consolidated by using vibrators, and was at a temperature of about 65° F. The inspectors also observed that a sufficient work force was available for moving chutes to maintain the level of the fresh concrete constant over the entire pouring area.

C. Management Interview

The inspector held an exit interview with Mr. Corcoran at the conclusion of visit and indicated that the initial review of concrete activities for IP-3, revealed no items of nonconformance.