# U.S. NUCLEAR REGULATORY COMMISSION REGION I

Report Nos. 50-387/84-32 50-388/84-39
Docket Nos. <u>50-387 and 50-388</u>
License Nos. <u>NPF-14 and NPF-22</u> Priority Category <u>C</u>
Licensee: <u>Pennsylvania Power and Light Company</u>
Two North Ninth Street
Allentown, Pennsylvania
Facility Name: <u>Susquehanna Steam Electric Station, Unit 1 and 2</u>
Inspection At: Salem Township, Pennsylvania
Inspection Conducted: <u>September 4-7, 1984</u>
Inspector: A. A. Varela, Lead Reactor Engineer DCT. 15, 1984 date
Approved by: J. P. Durr, Chief, Materials and Processes Section, DETP Approved by: 10/16/84 date
Inspection Summany.

Inspection Summary: Inspection of September 4-7, 1984 (Report Nos. 50-387/84-32 and 50-388/84-39

<u>Areas Inspected</u>: Routine, unannounced inspection by one region based inspector of civil/structural activities relating to construction of the new emergency diesel generator building (NEDG). The inspection consisted of observation of construction activities, review of quality verification construction records, follow-up of corrective actions of previously identified items and verification of licensee quality assurance and enforcement activities. The inspection involved 26 inspector-hours on site and two inspector hours of in-office review.

<u>Results</u>: No violations were identified.

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## SUSQUEHANNA UNITS 1 AND 2

## DETAILS

## 1. Persons Contacted

#### Pennsylvania Power and Light (PP&L)

\*S.E. Davis, Project Engineer
\*S. L. Denson, Assistant Manager, Quality Assurance
\*R. H. Featenby, Assistant Project Director
\*G. G. Glorvigen, Quality Assurance Engineer
\*R. Smaley, Project Engineer
\*H. E. Stokes, Senior Project Engineer, Quality Assurance

#### Dravo Constructors, Incorporated (DCI)

- \*P. Antonick, Quality Control Supervisor
- \*G. Kesel, Construction Project Manager
- \*A. Leff, Project Engineer

#### U.S. Nuclear Regulatory Commission

\*R. Jacobs, Senior Resident Inspector

\*Attendees at exit interview

## 2. <u>Observation of Structural Concrete In-Process Construction and Review of</u> <u>Quality Records on Completed Work</u>

Structural concrete in-process construction activities were observed during this inspection. Preparations were witnessed for the placement of concrete within the forms for the NEDG's sump and oil separator walls between elevation 646' 3" and 652' 8", designated as Pour No. C-1A. The inspector determined by direct observation of work performance and partially completed work that the required work and inspection activities are being accomplished according to applicable specifications, drawings, codes, standards, and procedures, in the following areas:

- -- Installation of reinforcing steel in accordance with Gibbs and Hill Engineering drawings and Bethlehem Steel rebar detail drawings
- -- Forms properly secure, leak tight and clean
- -- Construction joints and water-stop prepared as specified
- -- Batch plant weight scales, concrete ingredients and mixer trucks qualified and readied for placement
- -- Preplacement inspection by contractor quality control personnel and verification by licensee engineers completed prior to placement



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-- Contractor's planning and training accomplished prior to placement in response to the licensee's previously established "hold" because of identified nonconformances and deficiencies.

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Due to unavailability of a rental concrete pump, the above concrete placement, Pour No. C-1A was rescheduled for the following week. The inspector performed a review of quality control and work performance records for work completed on August 31, 1984. The following work performance and quality control records were reviewed on Pour No. C-1B1:

- -- Work Plan identifies limits and requirements of the pour, including limited work authorization, field added records (work sketches), field material requisition, field work modification and pertinent steel detail drawings.
- -- Concrete placement record of 310 cubic yard volume including batch plant, truck mixing and in-process inspection records; concrete and grout test records and compressive strength records.
- -- Concrete cure and water proofing inspection reports.

No violations were identified in the above.

3. Follow-up of Previously Identified Item

(Closed) Unresolved item Number 50-387/84-30-01, 50-388/84-36-01: DCI has responded to licensee site audit QSAR 84-002 on 18 deficiency findings relating to discrepancies and incompleteness in documentation. The NRC inspector noted in the DCI response that corrective actions for the discrepancies were taken by DCI. However, the unresolved item identified by the NRC inspector related to DCI's lack of site level Quality Assurance office personnel to prevent deficiencies in documentation. This was responded to by DCI by the addition of Quality Control and project engineer personnel, to the staff. The inspector considers DCI's response to licensee site audit and DCI's additional personnel as being appropriate. This item is resolved.

### 4. Exit Interview

The inspector met with licensee and contractor personnel (denoted in Paragraph 1) at the conclusion of the inspection on September 7, 1984 at the construction site. He summarized the scope and findings of the inspection. The licensee acknowledged the inspector's comments. No written material was given to the licensee by the inspector during this inspection.



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