U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-322/80-15

Docket No. 50-322

License No. CPPR-95 Priority -- Category B

Licensee: Long Island Lighting Company

175 East Old Country Road

Hicksville, New York 11801

Facility Name: Shoreham Nuclear Power Station, Unit No. 1

Inspection at: Shoreham, New York

Inspection conducted: August 25-28, 1980

Inspectors: R. A. McBrearty for — 9/16/80
L. Narrow, Reactor Inspector — date signed

R. A. McBrearty — 9/16/80
R. A. McBrearty, Reactor Inspector — date signed

_____ — _____
date signed

Approved by: R. W. McGaughy — 9/16/80
R. W. McGaughy, Chief, Projects Section, RC&ES Branch — date signed

Inspection Summary:

Inspection on August 25-28, 1980 (Report No. 50-322/80-15)
Areas Inspected: Routine, unannounced inspection by two regional based inspectors of the QC program for receipt and installation of pipe snubbers; review of preservice inspection records; and, review of the status of outstanding items. The inspection involved 44 inspector hours on site.
Results: Of the two areas inspected no items of noncompliance were identified in one area and one item of noncompliance was identified in one area: lack of evidence that snubbers had been stroked in accordance with specified requirements during receiving inspection (Paragraph 3).

Region I Form 12
(Rev. April 77)

DETAILS

1. Persons Contacted

Long Island lighting Company

*D. Durand, Operating QA Engineer
*T. F. Gerecke, Engineering QA Manager
*W. Hunt, Systems Superintendent
T. F. Joos, QA Engineer
J. M. Kelly, Field QA Manager
*J. McCarthy, Assistant Instrument Supervisor
B. R. McCaffery, Assistant Project Manager
*M. H. Milligan, Project Engineer
E. J. Nicholas, Section Supervisor, Field QA
M. G. Smith, QA Engineer
*J. H. Taylor, Startup Manager

Stone & Webster Engineering (S&W)

*T. T. Arrington, Superintendent, FQC
*J. Carney, Head of SEO
P. Castrichini, Design Supervisor, SEO
*E. B. Fleming, Chief Engineer, Cost and Audit Division
*J. Hassett, Senior QC Inspector
*K. A. Howe, General Superintendent of Construction
R. Perra, Chief Inspection Supervisor, FQC
E. Richardson, Senior QC Inspector
W. Taylor, Inspection Supervisor

General Electric Company (GE)

R. Pulsifer, Site Manager

Nuclear Energy Services, Inc. (NES)

K. Dew, NDE Technician

* denotes persons in attendance at the exit interview.

The inspector also interviewed other licensee and contractor personnel during the inspection.

2. Plant Tour

The inspector observed work activities in progress, completed work and construction status in several areas. Work items were examined for obvious defects and for noncompliance with regulatory requirements and licensee commitments. Specific activities and completed work observed by the inspector included installation of pipe supports and status of modification of suppression pool and ADS (automatic depressurization system) discharge line restraints.

No items of noncompliance were identified.

3. Receipt Inspection of Mechanical Snubbers

The inspector reviewed E&DCR No. F-12159 which requested installation and inspection criteria for mechanical snubbers and specifically any additional inspection requirements at the time of receipts. The response to this E&DCR included, in part, a requirement that "All snubbers be stroked the full length of their travel to assure that there is no binding of the unit." The inspector was informed that stroking of the snubbers was included as part of the receipt inspection.

The inspector reviewed receiving inspection reports (RIR) for the following mechanical snubbers:

-- 1G33 * PSSP 201 received June 19, 1978, Material Receiving Report (MRR) No. 78-6577

-- 1G33 * PSSP-228, PSSP-229, PSSP-230 and PSSP-231 all of which had been received December 3, 1979, MRR No. 79-11514.

Although none of these RIR's specifically identified stroking of the snubbers as an inspection attribute, the report for IG33 * PSSP 201 did reference E&DCR F-12159 which indicates performance of all receiving inspection requirements identified in that document. However, the RIR's for the remaining snubbers showed no evidence that they had been stroked but nevertheless they had been released for construction on December 7, 1979.

This is considered to be in noncompliance with 10 CFR 50, Appendix B, Criterion V. (80-15-01).

4. Preservice Inspection (PSI) Data Review and Evaluation

The inspector reviewed available NDE data to ascertain completeness and accuracy in accordance with ASME Code, Section XI, and regulatory requirements.

Data sheets associated with the following were included in the inspector's review:

a. Ultrasonic Examination

Core Spray System

-- E21-IC59-FW5, 10" ell to pipe weld

-- E21-IC59-FW6, 10" ell to pipe weld

-- E21-IC59-FW7, Valve to 10" pipe weld

-- E21-IC59-FW8, 10" pipe to valve weld

-- E21-IC59-FW10, 10" pipe to valve weld

-- E21-IC59-FW11, Core spray nozzle N5A safe-end to 10" pipe weld

-- E21-27A, 10" pipe to ell weld

Reactor Core Isolation Cooling (RCIC) System

-- E51-259-H, 3" ell to pipe weld

-- E51-259-G, 3" pipe to ell weld

-- E51-259-C, 3" ell to pipe weld

-- E51-260-H, 3" pipe to ell weld

-- E51-IC60-FW2, 3" pipe to ell weld

-- E51-IC60-FW3, 3" pipe to valve weld

-- E51-IC60-FW5, 3" pipe to pipe weld

High Pressure Coolant Injection (HPCI) System

-- E41-3651-FWF

-- E41-IC181-FWF

-- E41-IC181-FW8, Valve to 14" pipe weld

-- E41-3651-A, 14" pipe to ell weld

-- E41-3651-B, 14" ell to pipe weld

b. Visual Examination

Core Spray System

-- E21-43A

-- E21-41-B, 10" ell to pipe weld

-- E21-HV-071A-b, bolting on loop A inner valve

HPCI

-- E41-MOV-042-b, HPCI supply outer valve

The inspector stated that the status of PSI data is considered unresolved based on the following:

(1) Visual examination report number 473-554 dated 9/13/79 was issued for core spray weld number E21-43A. This weld is not shown on the current NES core spray weld map, revision 3, figure 07-01, but was shown on revision 0 of figure 07-01. Revision 3 was issued to show the as-built configuration of the core spray system. At the time report 473-554 was issued, weld E21-43A did not exist.

(2) Ultrasonic data sheet number 481-127 for welds in the RCIC system attributes indications to "surface noise" and/or "root noise." Ultrasonic noise of the magnitude reported, 90% to 200% of DAC, would obscure relevant indications in the area where the noise is prevalent. Indications greater than 50% of DAC must be reported.

(3) Ultrasonic indication plot sheets do not identify welds to which they apply.

(4) Ultrasonic data sheets do not state whether indications can be found from both sides of the weld as required by Note 3 on the report form.

(5) Ultrasonic indication evaluations based on thickness measurements do not include the measurements upon which the evaluation is based.

(6) Ultrasonic data sheet 481-123 lists weld E41-3651-FWF and weld E41-IC181-FWF. Weld E41-IC181-FWF does not appear on the NES HPCI weld map, figure 08-01.

This item is unresolved pending clarification of the above item by the licensee and subsequent review by an NRC inspector. (80-15-02)

5. NDE Personnel Certification Records

The inspector reviewed qualification and certification records associated with NES personnel who performed NDE at Shoreham.

The review disclosed the following unresolved item:

The Shoreham Nuclear Power Station preservice inspection program plan references NES procedure CPTP-1 for certification of examination of personnel in the liquid penetrant method.

CPTP-1 requires 520 hours experience under the supervision of either a certified PT Level II or PT Level III individual, plus 12 hours training in an approved training course to certify an individual to Level II in the liquid penetrant method.

The available records for an individual certified to PT Level II on 8/13/80 do not indicate that the above experience and training requirements were met.

This is considered unresolved pending availability and NRC review of the substantiating documentation. (80-15-03)

6. Installation of Mechanical Snubbers

The inspector discussed in process and final inspection of mechanical snubbers with cognizant QC personnel and observed the installed condition or partial installation of the following mechanical snubbers:

-- G33 * PSSP-301, Bergen-Paterson Model 2540-6.0

-- G33 * PSSP-228, PSSP-229, PSSP-230 and PSSP-231, Bergen-Paterson Model 254-1.5

The inspector performed a visual inspection of selected welded joints, protection from corrosion and from foreign material, evidence of corrosion or damage; and installation of hardware.

No items of noncompliance were identified.

7. Potential Problems Reported at Other Nuclear Sites

a. NRC was in receipt of a report, in accordance with 10 CFR 21, stating that certain pipe supports supplied by NPS Industries (NPS) included forging which were of an AISI grade not consistent with the requirements of ASME III for support. Although NPS was not known to be a supplier

to the Shoreham plant, this information was furnished to the licensee who confirmed that no support had been supplied to this plant. The information was also furnished to procurement for future reference.

b. The licensee was informed that water soluble purge dam material identified as 7-0015-3 CWS polyvinyl alcohol film manufactured by Mono-Sol Division of Chris-Craft Industries had been found not to be water soluble after being subjected to heat. Review by the licensee showed that this material had not been used at the Shoreham site and that water soluble purge dam material was no longer being used at the site.

The inspector had no further questions concerning this item.

8. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (79-07-01): Fit up gaps at CRD support bracket welds did not conform to the applicable weld data sheets. The inspector examined the following records:

a. Reactor Controls (RCI) Procedure/Performance Specification QI-10 and Weld Procedure Qualification Test which shows a 1/8 " maximum gap.

b. Memorandum dated September 26, 1979 RCI to S&W and QC Hold No. 122-40-F stating that three CRD support brackets had been rejected for gaps of 1/8" to 5/16" between the bracket and the RPV support wall. Copies of QC Hold No. 122-40-F had been forwarded to RCI, San Jose, California and General Electric Company (GE) for disposition.

c. Letter, September 28, 1979, from GE to RCI stating that although the GE drawing does not show an allowable gap between the bracket and wall GE design engineering requires that the gap not exceed that allowed in the weld qualification procedure.

d. RCI memorandum dated October 10, 1979 stating that all bracket to wall gaps had been inspected and attaching inspection report for engineering evaluation. The inspection shows six brackets with gaps larger than 1/8".

e. GE Field Deviation Disposition Request (FDDR) which dispositioned the oversize gaps "Accept as is" based on calculations showing that the parts will meet all of the original functional, performance, licensing and safety requirements and referencing analysis DRF No. B13-224-7.

f. DRF No. B13-224-7 providing analysis of worst case conditions for 12" and 16" deep brackets.

The inspector had no further questions concerning this item.

9. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, or items of noncompliance. Unresolved items identified during the inspection are discussed in paragraphs 4 and 5.

10. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on August 28, 1980. In addition, the NRC Resident Inspector, Mr. J. C. Higgins attended the meeting. The inspector summarized the scope and finding of the inspection.