



**LONG ISLAND LIGHTING COMPANY**

SHOREHAM NUCLEAR POWER STATION

P.O. BOX 618, NORTH COUNTRY ROAD • WADING RIVER, N.Y. 11792

August 26, 1982

SNRC-759

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

PSI Relief Requests  
Shoreham Nuclear Power Station - Unit 1  
Docket No. 50-322

Dear Mr. Denton:

Attached please find Shoreham's relief requests for the Preservice Inspection Program. It must be noted that the PSI Program implementation is about 98% complete to date. If the final completion of this program results in any additional relief requests, they will also be forwarded to you. At present, it does not appear that additional relief will be required.

If you have any questions with respect to this matter, we will be happy to discuss them with you at your earliest convenience.

Very truly yours,

J. L. Smith  
Manager, Special Projects  
Shoreham Nuclear Power Station

CKS:mp

Attachment

cc: J. Higgins  
All parties

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RELIEF REQUEST NO. 1

I. IDENTIFICATION OF COMPONENTS:

Class I, Category J-1, pressure retaining welds in piping. (See Attachment.)

II. CODE REQUIREMENT

Paragraph IS-232 of the ASME Code Section XI, 1971 Edition, requires that a volumetric examination of 100% of circumferential and longitudinal pipe welds, excluding those welds exempt per IS-121, be performed completely (as preservice examination) prior to initial plant startup.

III. RELIEF DESCRIPTION

Relief is required from the ASME Section XI examinations noted on the attachment on the basis of partial inaccessibility of the weld and required volume due to plant design.

IV. BASIS FOR RELIEF

The basis for requesting relief from ASME Section XI examination requirements is as follows:

1. The structural integrity of the piping pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III. All welds were inspected in accordance with the appropriate Code requirements, weld techniques and

welders were qualified in accordance with Code requirements and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. Finally, the pressure boundary was "proof tested" after installation by the application of a 1.25 times the design pressure hydrostatic test.

2. Complete examinations meeting the requirements of the ASME Code Section XI were performed on welds of similar configurations which utilized the same weld techniques, procedures and materials. The inspected welds are subject to the same operating and environmental conditions as the partially inspected welds. It is, therefore, reasonable to extend the acceptable results on the inspectable welds to the partially inspectable welds.
3. Ninety percent (90%) or greater coverage of each of the partially inspectable welds (see attachment) was achieved. Since the construction, operating conditions and environmental conditions on the non-inspected portion of the weld are identical to the inspected area, it is reasonable to extend the satisfactory results to the non-inspected areas.

4. The Edition of the ASME Code Section XI which is currently applicable for Inservice Inspection actually decreases the volume required to be inspected. Therefore, for subsequent Inservice Inspection, the percentage of non-inspectable volume will either decrease or remain the same (see attachment). The effect will be to improve Shoreham's conformance to ASME Code requirements for future Inservice Inspections.

RELIEF REQUEST NO. 1  
Attachment

<u>WELD IDENTIFICATION NUMBER</u>	<u>SYSTEM</u>	<u>CONFIGURATION</u>	<u>NATURE OF OBSTRUCTION</u>	<u>ESTIMATED % OF SCAN COMPLETED</u>	<u>PREDICTED % COMPLETION OF SCAN FOR ISI</u>
B21-NS001-BW15	Main Steam	Pipe to Valve	Location of Branch Connection	97.5	98
B21-NS003-BW12	Main Steam	Pipe to Valve	Location of Branch Connection	97.5	98
B21-NS004-BW12	Main Steam	Pipe to Valve	Location of Branch Connection	97.5	98
B21-IC-173-FW6	Main Steam	Pipe to Valve	Location of Branch Connection	97.0	100
B21-IC-175-FW6	Main Steam	Pipe to Valve	Location of Branch Connection	97.0	100
B21-IC-173-FW1	Main Steam	Pipe to Valve	Location of Branch Connection	95.5	98
B21-IC-175-FW1	Main Steam	Pipe to Valve	Location of Branch Connection	94.9	98
RS-1-B2-A-U1	Recirc.	Longitudinal Weld on Tee	Geometry of Tee	90.0	90
RS-1-B2-A-U2	Recirc.	Longitudinal Weld on Tee	Geometry of Tee	90.0	90
B31-NS006-BW02-d1	Recirc.	Longitudinal Weld on Tee	Geometry of Tee	90.0	90
B31-NS006-3W02-d2	Recirc.	Longitudinal Weld on Tee	Geometry of Tee	90.0	90
RD-1-B2-E-d1	Recirc.	Longitudinal Weld on Tee	Geometry of Tee	90.0	90
RD-1-B2-E-d2					
RD-1-B3-E-u1	Recirc.	Longitudinal Weld on Cross	Geometry of Cross	90.0	90
RD-1-B3-E-u2					
E41-986E	HPCI	Pipe to Nozzle	Location of Branch Connection	95.8	98
RD-1-A2-E-d1	Recirc	Longitudinal Weld on Tee	Geometry of Tee	90.0	90
RD-1-A2-E-d2					
E41-IC182-FW3	HPCI	Pipe to Valve	Location of Branch Connection	96.2	98
RD-1-A3-E-u1	Recirc	Longitudinal Weld on Cross	Geometry of Cross	90.0	90
RD-1-A3-E-u2					
E41-IC182-FW2	HPCI	Pipe to Valve	Location of Branch Connection	96.2	98

RELIEF REQUEST NO. 2

I. IDENTIFICATION OF COMPONENTS:

Class I, Category J-1, pressure retaining welds in piping. (See Attachment.)

II. CODE REQUIREMENT:

Paragraph IS-232 of the ASME Code Section XI, 1971 Edition requires that a volumetric examination of 100% of circumferential and longitudinal pipe welds, excluding those welds exempt per IS-121, be performed completely (as a preservice examination) prior to initial plant startup.

III. RELIEF DESCRIPTION

Relief is required from the ASME Section XI examinations noted on the attachment on the basis of partial inaccessibility of the weld and required volume due to plant design.

IV. BASIS FOR RELIEF

The justification for requesting relief from ASME Section XI examination requirements is as follows:

1. The structural integrity of the piping pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III. All welds were inspected in accordance with the



appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. Finally, the pressure boundary was "proof tested" after installation by the application of a 1.25 times the design pressure hydrostatic test.

2. Complete examinations meeting the requirements of the ASME Code Section XI were performed on welds of similar configurations which utilized the same weld techniques, procedures and materials. The inspected welds are subject to the same operating and environmental conditions as the partially inspected welds. It is, therefore, reasonable to extend the acceptable results on the inspectable welds to the partially inspectable welds.
3. A substantial percent coverage of each of the partially inspectable welds (see attachment) was achieved. Since the construction, operating conditions and environmental conditions on the non-inspectable portions of the weld are identical to the inspected area, the satisfactory results of the inspected areas can be extended to the non-inspected area.

4. The Edition of the ASME Code Section XI which is currently applicable for Inservice Inspection actually decreases the volume required to be inspected. Therefore, for subsequent Inservice Inspection, the percentage of non-inspectable volume will either decrease or remain the same (see attachment). The effect will be to improve Shoreham's conformance to ASME Code requirements for future Inservice Inspections.



RELIEF REQUEST NO. 2

Attachment

<u>WELD IDENTIFICATION NUMBER</u>	<u>SYSTEM</u>	<u>CONFIGURATION</u>	<u>NATURE OF OBSTRUCTION</u>	<u>ESTIMATED % OF SCAN COMPLETED</u>	<u>PREDICTED % COMPLETION OF SCAN FOR ISI</u>
B31-NS005-BW33	Recirc.	Pipe Cap	Part Geometry	77.7	98
B31-NS005-BW34	Recirc.	Pipe Cap	Part Geometry	63.2	98
B31-NS005-BW36	Recirc.	Pipe Cap	Part Geometry	31.8	65
B31-NS005-BW37	Recirc.	Pipe Cap	Part Geometry	63.2	98
B31-NS006-BW40	Recirc.	Tee to Pipe	Part Geometry	21	21
E11-298D	RHR	Pipe to Elbow	Part Geometry	81	100
B31-NS005-BW36	Recirc.	Tee to Pipe	Part Geometry	64	64
E11-303D	RHR	Pipe to Elbow	Part Geometry	64	100
B31-NS006-BW36	Recirc.	Tee to Pipe	Part Geometry	63	63
E11-290A	RHR	Pipe to Elbow	Part Geometry	54	100
CS-2A	Core Spray	Safe end to Pipe	Part Geometry	49	49
CS-2B	Core Spray	Safe end to Pipe	Part Geometry	49	49
G33-6137Q	RWCU	Pipe to Pipe	Obstruction with CRD Tube Bundle	85.0	85
G33-6137C	RWCU	Pipe to Elbow	Obstruction with CRD Tube Bundle	85.0	85
G33-IC1508-FW3	RWCU	Pipe to Valve	Part Geometry	76.2	95

RELIEF REQUEST NO. 3

I. IDENTIFICATION OF COMPONENTS:

Augmented inspection on selected pressure retaining welds in Class 2 piping which were inspected to Class 2, Category J-1 requirements using applicable PSI Program inspection procedures.

II. CODE REQUIREMENT:

There is no Code requirement applicable to Shoreham for inspection of these welds under the PSI Program. Inspection of these welds are a result of LILCO's intent to perform augmented examinations as described in appendices D-1, D-2, E-1 & E-2 in the PSI Program Plan.

III. GENERAL DESCRIPTION:

Relief is required from the augmented examinations on the basis of partial inaccessibility of the weld and required volume noted on the attachment due to plant design.

IV. BASIS FOR RELIEF:

The basis for requesting relief from the augmented examination is as follows:

1. The structural integrity of the piping pressure boundary was demonstrated during construction by meeting the requirements of the ASME Code Section III. All welds were inspected in accordance with the appropriate Code requirements, weld techniques and welders were qualified in accordance with Code requirements and materials were purchased and traced in accordance with the appropriate Code and NRC requirements and guidelines. Finally, the pressure boundary was "proof tested" after installation by the application of a 1.25 times the design pressure hydrostatic test.
2. Complete examinations meeting the requirements of the augmented examination were performed on welds of similar configurations which utilized the same weld techniques, procedures and materials. The inspected welds are subject to the same operating and environmental conditions as the partially inspected welds. It is, therefore, reasonable to extend the acceptable results on the inspectable welds to the partially inspectable welds.

3. A substantial percent coverage of each of the partially inspectable welds (see attachment) was achieved. Since the construction, operating conditions and environmental conditions on the non-inspectable portions of the weld are identical to the inspected area, the satisfactory results of the inspected areas can be extended to the non-inspected area.
4. The Edition of the ASME Code Section XI which is currently applicable for Inservice Inspection actually decreases the volume required to be inspected for the "break exclusion" weld. Therefore, a larger percentage of the weld will be inspectable to Code requirements, thus improving Shoreham's conformance.
5. The Edition of the ASME Code Section XI which is currently applicable for Inservice Inspection does not require the Class 2 welds listed on the attachment to be inspected. Therefore, for Inservice Inspection, full compliance for these welds will be achieved.

RELIEF REQUEST NO. 3  
Attachment

<u>WELD IDENTIFICATION NUMBER</u>	<u>SYSTEM</u>	<u>CONFIGURATION</u>	<u>NATURE OF OBSTRUCTION</u>	<u>ESTIMATED % OF SCAN COMPLETED</u>	<u>PREDICTED % COMPLETION OF SCAN FOR ISI</u>
N11-IC594-FW2	Main Steam	Pipe to Tee	Location of Branch Connection	98	*
E41-IC183-FW3 Class 2	HPCI	Pipe to Valve	Location of Branch Connection	96.8	*
N11-IC594-FW7 Class 2	Main Steam	Elbow to Valve	Part Geometry	73.8	*
E11-IC62-FW6 Class 2	RHR	Pipe fo Reducer	Location of Branch Connection	83.8	*
E11-IC62-FW20 Class 2	RHR	Pipe to Reducer	Location of Branch Connection	87.5	*
IG33-IC1120-FW3 Break Exclusion	RWCU	Pipe to Valve	Location of Welded Attachment	55.4	80

\* See "Basis for Relief Request," Item #5.

RELIEF REQUEST NO. 4

I. IDENTIFICATION OF COMPONENTS:

Class I, Category A reactor pressure vessel welds.

II. CODE REQUIREMENT:

Paragraph IS-232 of the ASME Section XI, 1981 edition code requires that a volumetric examination of 100% of pressure containing welds in reactor vessel belt line region be performed completely as a Preservice examination requirement prior to initial plant startup.

III. RELIEF DESCRIPTION

Relief is required from the ASME Section XI examination requirements on the basis of partial inaccessibility of the weld and required volume due to vessel design. The Purchase Order date for the reactor pressure vessel, dated February, 1967, resulted in vessel design prior to issue of the ASME Section XI Code.



IV. BASIS FOR RELIEF:

The justification for requesting relief from ASME Section XI examination requirements is as follows:

1. The structural integrity of the vessel pressure boundary is not in question. All of the affected welds were subject to examination and testing requirements of ASME Section III.
2. Complete examinations meeting the requirements of the ASME Code Section XI were performed on welds of similar configurations which utilized the same weld techniques, procedures and materials. The inspected welds are subject to the same operating and environmental conditions as the partially inspected welds. It is, therefore, reasonable to extend the acceptable results on the inspectable welds to the partially inspectable welds.
3. A substantial percent coverage of each of the partially inspectable welds (see attachment) was achieved. Since the construction, operating conditions and environmental conditions on the non-inspectable portions of the weld are identical to the inspected area, the satisfactory results of the inspected areas can be extended to the non-inspected area.

## RELIEF REQUEST #4

Attachment

<u>WELD IDENTIFICATION NUMBER</u>	<u>SYSTEM</u>	<u>CONFIGURATION</u>	<u>NATURE OF OBSTRUCTION</u>	<u>ESTIMATED % OF SCAN COMPLETED</u>
1-308A	RPV	Shell Course Weld	Vessel Nozzle	99
1-308E	RPV	Shell Course Weld	Vessel Support Lug	97
1-308F	RPV	Shell Course Weld	Vessel Geometry & Support Lug	95
1-308G	RPV	Shell Course Weld	Vessel Taper	99
1-308H	RPV	Shell Course Weld	Vessel Taper	99
1-308J	RPV	Shell Course Weld	Vessel Taper	99
1-313	RPV	Shell Course Weld	Vessel Taper	95
1-307B	RPV	Shell Course Weld	Vessel Taper	97
1-307C	RPV	Shell Course Weld	Vessel Taper	97
4-308A	RPV	Shell Course Weld	Vessel Support Lug	93
4-308B	RPV	Shell Course Weld	Tapered Transition Between Plates	99
3-318	RPV	Closure Head Weld	Vessel Nozzle	89
1-318B	RPV	Closure Head Weld	Vessel Head Lifting Lug	98
1-318D	RPV	Closure Head Weld	Vessel Head Lifting Lug	98
1-318F	RPV	Closure Head Weld	Vessel Head Lifting Lug	98
1-318H	RPV	Closure Head Weld	Vessel Head Lifting Lug	97
1-306D	RPV	Bottom Head Weld	Nozzle Pad	93
4-316A	RPV	Nozzle to Shell	Instrument Nozzle Pads	85
4-316A-r	RPV	Nozzle Inner Radius	Instrument Nozzle Pads	89
4-316C	RPV	Nozzle to Shell	Instrument Nozzle Pads	85
4-316C-r	RPV	Nozzle Inner Radius	Instrument Nozzle Pads	89