DEC 1 1 1980

Docket No. 50-311

LICENSEE: Public Service Electric and Gas Company (PSE&G)

FACILITY: Salem Nuclear Generating Station, Units 1 & 2

SUBJECT: MASONRY WALL MEETING SUMMARY

A meeting was held on November 20, 1980 between NRC and representatives of PSE&G to discuss safety-related masonry walls (Ref. IEB 80-11). Attendees are listed in Enclosure 1. The agenda for the meeting is found Enclosure 2.

A site tour was held prior to the meeting to examine the walls under investigation. During the meeting, the Licensee stated that there were no design criteria or QA/QC programs established for the initial construction of the masonry walls. The Licensee stated that the as-built condition of the walls investigated is as follows:

1) Wall surrounding battery rooms - some horizontal reinforcement bars missing;

2) Walls in control room area - horizontal reinforcement bars in approximately every other joint missing; vertical expansion joint present; walls in close proximity to safety-related cable trays and ESF cabinets;

3) Corridor wall between Units 1 and 2 - horizontal reinforcement bars randomly missing; one void found; safety-related control air piping supported by wall (7 hangers); wall in close proximity to safety-related cable trays;

4) Doorway walls (2) - horizontal reinforcement bars randomly missing; walls in close proximity to safety-related cable trays.

The Licensee's consultant, Compu-Tech, presented the design criteria and analysis methods used to analyze the remedial actions taken by the Licensee. Compu-Tech is using ACI 531-79 as the basis for the design review. The interim NRC criteria were discussed with the Licensee. The Licensee's criteria and the interim NRC criteria differ in the allowable stresses assumed for an OBE and SSE. For an OBE, the Licensee's criteria allow 40 psi in tension, whereas the NRC criteria allow only 25 psi. For an SSE, the NRC criteria state that the allowable stress in tension should be assumed to be zero. The Licensee stated that their analysis results may comply with NRC criteria for an OBE, but would probably not comply with NRC criteria for an SSE. The Licensee also stated that their analysis assumes an initially uncracked wall. The Licensee then discussed their proposed remedial actions. Construction of the proposed fixes is expected to be completed in early December.

The following is a summary of the staff conclusions:

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1) The interim NRC criteria contain an error in the section on allowable stresses. The word "increased" in Criterion 5 should be changed to "multiplied".

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SURNAME					
DATE	8101060797				

2) The NRC interim criteria are the most appropriate criteria for use at this time. However, other criteria may be proposed and justified by the Licensee. Preferably, applicable test data would form the basis for the Licensee's justification. Proposed criteria must be submitted and reviewed by the NRC.

3) The Licensee understands the NRC criteria. The Licensee does not agree with the NRC criteria and may propose alternative criteria.

4) The proposed remedial actions appear to be reasonable pending further NRC review.

5) The staff requires that the partition walls between the maintenance rooms in the control room area be analyzed to verify that the failure of those walls (one in each unit) has no adverse impact on the associated safety-related control room walls.

6) Since a void was found, the staff requires that the Licensee assess the impact of voiding on the proposed remedial actions. If the impact is adverse, the Licensee should sample additional spots to establish reasonable confidence that significant voiding is not present.

7) Analyses of all walls investigated should be submitted, including an analysis of the battery room walls. Design change requests should be under QA control.

8) A justification for the material properties assumed in the analysis should be provided.

9) A complete response to IEB 80-11 should be submitted for NRC review. While completing the analyses required, both units should comply with the action statements in IEB 80-11.

10) Since the Licensee has identified non-conforming cases and has stated that there was a lack of QA/QC coverage for the walls investigated, the staff has concluded that the implications of these findings upon the adequacy of all other safety-related masonry walls should be evaluated and submitted for NRC review.

11) A copy of all submittals can be sent directly to NRR to expedite the NRC review.

12) Upon receipt of the information requested and completion of all proposed remedial actions, Unit 1 will be allowed to resume power operation based on the NRC's current understanding of the Licensee's proposal.

J. Kerrigan
Licensing Branch #3

cc: See next page

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DATE	12/1/80	12/1/80	12/10/80			

MEETING SUMMARY DISTRIBUTION

Docket File
NRC PDR
Local PDR
TIC/NSIC/Tera
NRR Reading
LB#3 Reading
H. Denton
E. Case
D. Eisenhut
R. Purple
B. J. Youngblood
A. Schwencer
F. Miraglia
J. Miller
G. Lainas
R. Vollmer
J. P. Knight
R. Bosnak
F. Schauer
R. E. Jackson
Project Manager J. Kerrigan
Attorney, OELD
J. Lee
OIE (3)
ACRS (16)
R. Tedesco

NRC Participants:

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R. Lipinski
D. Jeng
J. Kerrigan

G. Lear
V. Noonan
S. Pawlicki
V. Benaroya
Z. Rosztoczy
W. Haass
D. Muller
R. Ballard
W. Regan
D. Ross
P. Check
R. Satterfield
O. Parr
F. Rosa
W. Butler
W. Kreger
R. Houston
T. Murphy
L. Rubenstein
T. Speis
W. Johnston
J. Stolz
S. Hanauer
W. Gammill
T. Murley
F. Schroeder
D. Skovholt
H. Ernst
R. Baer
C. Berlinger
K. Kniel
G. Knighton
A. Thadani
D. Tondi
J. Kramer
D. Vassallo
P. Collins
D. Ziemann

bcc: Applicant & Service List

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

DEC 11 1980

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J. Kerrigan
Licensing Branch #3

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Hancocks Bridge, New Jersey 08038

Enclosure 1

Meeting Attendants

Name	Organization	Title
L. Norrholm	U.S. NRC	Sr. Resident Inspector
F. Shen	PSE&G	Principal Staff Engineer
L. R. Jones	Compu-Tech	President
R. Crapo	PSE&G	Principal Staff Engineer
R. Lipinski	U.S. NRC	NRR/SEB
D. Jeng	U.S. NRC	NRR/SEB
F. A. Marian	PSE&G	Senior Staff Engineer
J. Kerrigan	U.S. NRC	Project Manager

ENCLOSURE 2 AGENDA

FOR MEETING AT THE

SALEM GENERATING STATION

November 20, 1980 11:00 a.m.

SUBJECT

1. Site tour of the masonry walls under review

Lunch

2. General description of design criteria, drawings Q/A and Q/C programs for the walls under review

3. Discussion of deviations between design criteria, specifications, drawings and as-built conditions

4. Discussion of design criteria being used by the Compu-Tech

5. Discussion of Interim NRC design criteria for masonry walls and comparison with design criteria listed in items (2) and (4)

6. Discussion of the applicant's proposed remedial actions regarding design and construction of the masonry walls in compliance with NRC criteria

7. Action items, documentation and schedular commitments

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