

ADMINISTRATIVE PROCEDURE FOR RESOLUTION OF FINDINGS - INDEPENDENT
VERIFICATION OF SAN ONOFRE UNITS 2 AND 3 SEISMIC DESIGN

Page 1 of 3
Issued 23 December 1981

Revision 1 - 7 January 1982

1.0 INTRODUCTION

General Atomic Company, Torrey Pines Technology division has been engaged by Southern California Edison Company to perform an independent verification of the seismic design of selected systems for San Onofre Nuclear Generating Station, Units 2 and 3. General Atomic will prepare a record of verified findings of the review and will transmit these to SCE as the work progresses. The purpose of this administrative procedure is to define the process SCE will follow to accomplish prompt review and corrective action on the findings.

2.0 PROCEDURE

2.1 Upon identifying any condition which raises an open question, the General Atomic reviewer will initiate a potential finding report. This report will be transmitted to the Executive Vice President of Southern California Edison and to the responsible design organization. Upon receipt, Southern California Edison shall transmit this report to the NRC. Upon verifying any condition identified in a potential finding report, which may have an adverse impact, General Atomic will complete the finding report and transmit it to the Executive Vice President of Southern California Edison Company and to the responsible design organization. Upon receipt, Southern California Edison shall transmit the finding report to the NRC.

2.2 Referral of Findings

The Executive Vice President will transmit the Report of Finding to the Vice President, Advanced Engineering with a request to obtain documented corrective action. Concurrently, copies of the Findings will be transmitted to the Vice President, Nuclear Engineering and Operations, and the SCE Project Manager for San Onofre Units 2 and 3, and the NRC.

2.3 Requesting Documented Corrective Action

The Vice President, Advanced Engineering shall transmit the Finding to the Manager, Quality Assurance who shall initiate a Nonconformance Report (NCR) or Corrective Action Request (CAR), as appropriate, in accordance with established SCE quality assurance program procedures. The Findings, as submitted by General Atomic, shall be attached to the NCR or CAR and shall refer to the Findings by assigned number, descriptive title, revision number and/or date of issue. In addition to the distribution established by procedure, copies of NCR's and CAR's shall be sent to General Atomic and to the Manager, Generation Engineering and Design.

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PDR

Revision 1 - 7 January 1982

2.4 Corrective Action Response

The Manager of the responsible organization shall, in responding to the CAR or NCR, provide a plan and schedule for remedial and corrective action to be undertaken and shall, in addition to the distribution established by procedures, send copies to General Atomic and to the Manager, Generation Engineering and Design.

2.5 Review of Findings For Reportability to the NRC

Immediately upon receiving a copy of the Findings from General Atomic, the Manager of the organization responsible for the activity in which the condition was identified shall initiate a review of the condition to determine whether it meets the criteria for reporting to the NRC in accordance with 10CFR21 and/or 10CFR50.55(e). The Manager of the responsible organization shall provide notification to the SCE Manager, Quality Assurance as soon as possible but within 14 days of receipt of the Findings, of the status or results of the review for reportability. The Manager, Quality Assurance shall follow established quality assurance program procedures for notification and reporting to the NRC regarding potential or verified significant deficiencies.

2.6 References

The SCE quality assurance program documents listed below shall govern the disposition of conditions identified by General Atomic. The SCE Quality Assurance Organization shall assure that responsible external organizations process and document corrective actions in accordance with SCE-approved quality assurance program procedures.

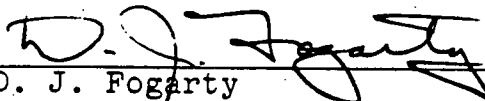
- A. Quality Assurance Manual - San Onofre Nuclear Generating Station, Units 2 and 3.
- B. Quality Assurance Procedure (QAP) N2.08 Reporting to the NRC in Accordance with 10CFR21.
- C. QAP N2.10 Identification and Resolution of NRC Action Items.

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- D. QAP N15.01 Instructions for Completing the Nonconformance Report (NCR).
- E. QAP N15.04 Reporting to the NRC of Deficiencies Found in Design and Construction.
- F. QAP N16.03 Instructions for Completing the Corrective Action Request (CAR).
- G. Engineering and Construction QA Reference Procedure E&C 24-10-10 Processing Corrective Action Requests.
- H. E&C 26-10-6 Processing SCE Nonconformance Reports for SONGS 2 & 3 Activities.
- I. E&C 40-9-9 Documenting, Evaluating and Reporting Problems Pursuant to 10CFR21 and 10CFR50.55(e) and SONGS Technical Specifications.


D. J. Fogarty

12/23/81
Date

Revisions are indicated by vertical bar and revision number in right margin.



TORREY PINES TECHNOLOGY

P.O. Box 81608
San Diego, California 92138
Telephone: (714) 455-2654

RECEIVED

JAN 13 1982

D. J. FOGARTY

GEORGE L. WESSMAN
Director

January 11, 1982

Mr. D. J. Fogarty
Executive Vice President
Southern California Edison
P. O. Box 800
Rosemead, California 91770

Dear Mr. Fogarty:

Attached are Potential Finding Reports 2408-PFR-0001 through 0007.

Sincerely,

George L. Wessman
Project Manager

Enclosures

cc: J. Hempe - Bechtel
J. Adrian - SCE

POTENTIAL FINDING REPORT
SONGS 2&3 SEISMIC DESIGN VERIFICATION

2408-PFR-0001

PFR NO. _____

REVISION _____

A. PREPARATION BY GA INITIATOR

AFFECTED ITEMS:

Safety Injection Line to Reactor Coolant Loop 1A

Piping Stress Analysis Package PSG 82

REQUIREMENT REFERENCE DOCUMENTS:

P&I Diagram 40112-10

BASIC REQUIREMENT:

Line 109-24" -C-LLQ should be included in the computer mathematical model.

DESCRIPTION OF POTENTIAL FINDING: Line 109-24" -C-LLQ is shown in Stress ISO Dwg. 1204-109-1 (Sh. 58 PSG 82), but no nodal points have been designated. Consequently, the runs Q45H25 or Q39H59 do not pick up this line in the mathematical model. There may be a potential error in Stress ISO Dwg. 1204-001-1 (Sh. 50 PSG 82) in interfacing with this line.

PREPARED BY: F. Lin

DATE: 1-11-82

REJECTION OF GA TASK LEADER COMMENTS BY: _____

DATE: _____

REJECTION OF ORIGINAL DESIGN ORG. COMMENTS BY: _____

DATE: _____

B. REVIEW BY GA TASK LEADER

COMMENTS

☒ AGREE PF IS VALID

BY

C. Cherman BS

DATE

1-11-82

☐ REQUEST RE-REVIEW

BY

DATE

☐ DISAGREE

BY

DATE

☐ REVIEW OF ORIGINAL DESIGN ORGS. COMMENTS BY: _____

DATE: _____

C. REVIEW BY ORIGINAL DESIGN ORGANIZATION

COMMENTS

☐ AGREE PFR IS VALID☐ DISAGREE

BY: _____ DATE: _____

D. RECOMMENDATION BY FINDINGS REVIEW COMMITTEE

DEFINITION ADEQUACY:

☐ ADEQUATE☐ INADEQUATE

VALIDITY:

☐ VALID☐ INVALID

10 CFR 21:

☐ NOT APPLICABLE☐ APPLICABLE

10 CRF 50.55(e):

☐ NOT APPLICABLE☐ APPLICABLE

CLASSIFICATION:

☐ OBSERVATION☐ FINDINGJUSTIFICATION:

CLASSIFICATION CRITERION NO. RESULTING IN "FINDING" _____

COMMENT ON "OBSERVATION" CLASSIFICATION _____

BY: _____ DATE: _____

E. TPT PROJECT MANAGER☐ ACCEPT☐ REJECT

BY: _____ DATE: _____

POTENTIAL FINDING REPORT
SONGS 2&3 SEISMIC DESIGN VERIFICATION

2408-PFR-0002

PFR NO: _____

REVISION: _____

A. PREPARATION BY GA INITIATOR

AFFECTED ITEMS:

Safety Injection Line to Reactor Coolant Loop 1A

Piping Stress Analyses Package PSG 82

REQUIREMENT REFERENCE DOCUMENTS:

P&I Diagram 40112-10

BASIC REQUIREMENT:

The cantilevered line holding valve 3/4" x 114 x C-376, which branches out of main run 002-24" - C-LLO, should be included in the computer run mathematical model.

DESCRIPTION OF POTENTIAL FINDING:

Computer runs Q45H25 or Q39H59 do not depict this line in the mathematical model, although Stress ISO 1204-004-1 (Sh. 50 PSG 82) identifies it as a dashed line at nodal point 46.

PREPARED BY: A. Lin DATE: 1-11-82
REJECTION OF GA TASK LEADER COMMENTS BY: _____ DATE: _____
REJECTION OF ORIGINAL DESIGN ORG. COMMENTS BY: _____ DATE: _____

B. REVIEW BY GA TASK LEADER

COMMENTS

☒ AGREE PF IS VALID

BY

C. Charma BSO

DATE 1-11-82

☐ REQUEST RE-REVIEW

BY

DATE _____

☐ DISAGREE

BY

DATE _____

☐ REVIEW OF ORIGINAL DESIGN ORGS. COMMENTS BY: _____

DATE: _____

C. REVIEW BY ORIGINAL DESIGN ORGANIZATION**COMMENTS**☐ AGREE PF IS VALID☐ DISAGREE

BY: _____ DATE: _____

D. RECOMMENDATION BY FINDINGS REVIEW COMMITTEE

DEFINITION ADEQUACY:

☐ ADEQUATE☐ INADEQUATE

VALIDITY:

☐ VALID☐ INVALID

10 CFR 21:

☐ NOT APPLICABLE☐ APPLICABLE

10 CRF 50.55(e):

☐ NOT APPLICABLE☐ APPLICABLE

CLASSIFICATION:

☐ OBSERVATION☐ FINDINGJUSTIFICATION:

CLASSIFICATION CRITERION NO. RESULTING IN "FINDING" _____

COMMENT ON "OBSERVATION" CLASSIFICATION _____

BY: _____ DATE: _____

E. TPT PROJECT MANAGER☐ ACCEPT☐ REJECT

BY: _____ DATE: _____

POTENTIAL FINDING REPORT
SONGS 2&3 SEISMIC DESIGN VERIFICATION

2408-PFR- 0003
PFR NO. _____
REVISION _____

A. PREPARATION BY GA INITIATOR

AFFECTED ITEMS:

Safety Injection Line to Reactor Coolant Loop 1A
Piping Stress Analysis Package PSG 82

REQUIREMENT REFERENCE DOCUMENTS:

ASME B&PV Code, 1974 Edition

BASIC REQUIREMENT:

Input data for Seismic Anchor Movement (SAM) should be clearly specified in the Calculation Package.

DESCRIPTION OF POTENTIAL FINDING:

Sheet 39 of PSG 82 which identifies SAM data is not clearly documented and is not readily traceable. It needs more specific detailed description on the source and its validity of data and the application to mathematical model nodal points.

PREPARED BY: F. Lim

DATE: 1/11/82

REJECTION OF GA TASK LEADER COMMENTS BY: _____

DATE: _____

REJECTION OF ORIGINAL DESIGN ORG. COMMENTS BY: _____

DATE: _____

B. REVIEW BY GA TASK LEADER

COMMENTS

☒ AGREE PF IS VALID

BY

C. Charman

DATE 1-11-82

☐ REQUEST RE-REVIEW

BY

DATE

☐ DISAGREE

BY

DATE

☐ REVIEW OF ORIGINAL DESIGN ORGS. COMMENTS BY: _____

DATE: _____

POTENTIAL FINDING REPORT
SONGS 2&3 SEISMIC DESIGN VERIFICATION

2408-PFR-0004
PFR NO. _____
REVISION _____

A. PREPARATION BY GA INITIATOR

AFFECTED ITEMS: Safety Injection Line to Reactor Coolant Loop 1A
Piping Stress Analysis Package PSG-245

REQUIREMENT REFERENCE DOCUMENTS:

User's Manual ME 101 linear elastic analysis of piping systems.

BASIC REQUIREMENT:

ASME Section III NC-3673.2 requires that a stress intensification factor be used for reducers.

DESCRIPTION OF POTENTIAL FINDING: At node points 144 and 145 where the highest DBE seismic stress occurs (7180 psi) the reducer is not specified in the input and there is no stress intensification factor applied at that location. The code requires a stress intensification factor for reducers be used which would increase stresses.

PREPARED BY: N. Marsh 1-11-82

REJECTION OF GA TASK LEADER COMMENTS BY: _____ DATE: _____

REJECTION OF ORIGINAL DESIGN ORG. COMMENTS BY: _____ DATE: _____

B. REVIEW BY GA TASK LEADER

COMMENTS

☒ AGREE PF IS VALID

BY

C. Charman 1-11-82

DATE

1-11-82

☐ REQUEST RE-REVIEW

BY

DATE

☐ DISAGREE

BY

DATE

☐ REVIEW OF ORIGINAL DESIGN ORGS. COMMENTS BY: _____

DATE: _____

POTENTIAL FINDING REPORT
SONGS 2&3 SEISMIC DESIGN VERIFICATION

2408-PFR-0005

PFR NO. _____

REVISION _____

A. PREPARATION BY GA INITIATOR

AFFECTED ITEMS: Safety Injection Line to Reactor Coolant Loop 1A
Piping Stress Analysis Package PSG-78

REQUIREMENT REFERENCE DOCUMENTS: Pipe Support Drg No. S2-S1-059-H-006

BASIC REQUIREMENT:

Calculations use latest design loads.

DESCRIPTION OF POTENTIAL FINDING: Support X-rigid at node 143 Drg. No. S2-S1-059-H-006 shows design loads of (+29810 and -25100). Sheet 53 of PSG No. 78 is given as (+43510 and -39901) for the loading at that support. An unsubstantiated statement that higher loads are still within the margin of safety was made.

PREPARED BY: N. Marsh *N. Marsh* DATE: 1/11/82

REJECTION OF GA TASK LEADER COMMENTS BY: _____ DATE: _____

REJECTION OF ORIGINAL DESIGN ORG. COMMENTS BY: _____ DATE: _____

B. REVIEW BY GA TASK LEADER

COMMENTS

☒ AGREE PF IS VALID

BY C. Charman *C. Charman*

DATE 1-11-82

☐ REQUEST RE-REVIEW

BY _____

DATE _____

☐ DISAGREE

BY _____

DATE _____

☐ REVIEW OF ORIGINAL DESIGN ORGS. COMMENTS BY: _____

DATE: _____

POTENTIAL FINDING REPORT
SONGS 2&3 SEISMIC DESIGN VERIFICATION

2408-PFR-0006
PFR NO. _____
REVISION _____

A. PREPARATION BY GA INITIATOR

AFFECTED ITEMS: Safety Injection Line to Reactor Coolant Loop 1A
Piping Stress Analysis Package PSG-78

REQUIREMENT REFERENCE DOCUMENTS:

Pipe Support Drg. No. S2-S1-059-H-009; Computer Run Q22L27: ISO Drg No. 1204-059-1.

BASIC REQUIREMENT:

Support analyzed to correspond to support used.

DESCRIPTION OF POTENTIAL FINDING: ISO Drg. No. 1204-059-1 and sheet 63 of PSG-78 call for a spring support at node 147. Computer run Q22L27 calls for a rigid support with spring constant of 1080 lbs/in. (spring). Where as Drg. No. S2-S1-059-H-009 calls for Mech. Snubber at Node 147. This is inconsistent.

PREPARED BY: N. Marsh DATE: 1-11-82

REJECTION OF GA TASK LEADER COMMENTS BY: _____ DATE: _____

REJECTION OF ORIGINAL DESIGN ORG. COMMENTS BY: _____ DATE: _____

B. REVIEW BY GA TASK LEADER

COMMENTS

☒ AGREE PF IS VALID

BY

C. Chorman

DATE

1-11-82

☐ REQUEST RE-REVIEW

BY

DATE

☐ DISAGREE

BY

DATE

☐ REVIEW OF ORIGINAL DESIGN ORGS. COMMENTS BY: _____

DATE: _____

POTENTIAL FINDING REPORT
SONGS 2&3 SEISMIC DESIGN VERIFICATION

2408-PFR-0007
PFR NO. _____
REVISION _____

A. PREPARATION BY GA INITIATOR

AFFECTED ITEMS: Safety Injection Line to Reactor Coolant Loop 1A
Piping Stress Analysis Package PSG-78

REQUIREMENT REFERENCE DOCUMENTS:

Piping Stress Analysis Package PSG-78

BASIC REQUIREMENT:

The seismic response spectra used in the analysis be for the location to be analyzed.

DESCRIPTION OF POTENTIAL FINDING: Sheet 7 of Package PSG-78 refers to response spectra for nozzle (1A) from C. E. Transmittal 900-B-52-8. The response spectra used in the analysis is S 023-900-B-55-0 which is for nozzle (2B), Sheets 33 through 35. There is no statement to the effect that the response spectra is the same for both nozzles.

PREPARED BY: N. Marsh DATE: 1-11-82

REJECTION OF GA TASK LEADER COMMENTS BY: _____ DATE: _____

REJECTION OF ORIGINAL DESIGN ORG. COMMENTS BY: _____ DATE: _____

B. REVIEW BY GA TASK LEADER

COMMENTS

☒ AGREE PF IS VALID

BY C. Chaman / SC

DATE 1-11-82

☐ REQUEST RE-REVIEW

BY _____

DATE _____

☐ DISAGREE

BY _____

DATE _____

☐ REVIEW OF ORIGINAL DESIGN ORGS. COMMENTS BY: _____

DATE: _____