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**3D Attach F Sample Seismic Qualification Data Package (SQDP)**

SQDP File #	_____	REVISION #	_____
Prepared	_____	Date	_____
Reviewed	_____	Date	_____
Approved	_____	Date	_____

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TAB A

QUALIFICATION SUMMARY/CONCLUSION



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A QUALIFICATION SUMMARY/CONCLUSION



TAB B

REVISION HISTORY



B REVISION HISTORY

PAGE(S) REVISED

BASIS FOR CHANGE

TAB C

REFERENCES

## C REFERENCES

1. IEEE Std 344-2004<sup>1</sup>, "IEEE Recommended Practice for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations".

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1. Section 3.11 provides the justification for the use of the latest version of the IEEE standards referenced in this section that have not been endorsed by existing Regulatory Guides. AREVA NP maintains the option to use current NRC-endorsed versions of the IEEE standards.





TAB D

OPEN ITEMS



D OPEN ITEMS

TAB E

COMPONENT DESCRIPTION/LOCATION/MOUNTING

E. Component Description/Location/Mounting	Reference #
<p>1. Component Name: _____ Tag #: _____</p> <p>Component Location Building: _____ Floor Elevation: _____ Room: _____</p>	
<p>2. Vendor: _____ Model #: _____</p>	
<p>3. Physical Description Weight: _____ Dimensions: _____</p>	
<p>4. Field Mounting Conditions Line Mounted: _____ Floor Mounted: _____ Wall Mounted: _____ Weld Length: _____ Bolt Size: _____ # of Bolts: _____</p> <p>Other: _____ _____</p>	
<p>5. System in which Component is Located: _____</p> <p>Active: _____ Passive: _____</p> <p>Functional Description: _____ _____</p>	

TAB F

DESIGN SPECIFICATION/REQUIRED LOADS

Reference #

## F. Design Specification/Required Loads

1. Design Specification(s): \_\_\_\_\_

2. Required Response Spectra: \_\_\_\_\_  
(Attach RRS- if applicable)

3. Required Damping: \_\_\_\_\_

4. Required Accelerations in Each Direction:  
Vertical: \_\_\_\_\_ Front/Back: \_\_\_\_\_ Side/Side: \_\_\_\_\_5. Other Loads to be Considered:  
Fatigue Effects: \_\_\_\_\_ Vibration Loads: \_\_\_\_\_  
Internal Pressure: \_\_\_\_\_ Piping/Nozzle Loads: \_\_\_\_\_

Other Loads (if any):

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TAB G

QUALIFICATION METHODS/QUALIFICATION REPORTS



	Reference #
<b>G. QUALIFICATION METHODS/QUALIFICATION REPORTS</b>	
1. Qualification Method(s):	
Analysis: _____ Test: _____	
Combination of Analysis and Test: _____	
2. Qualification Report(s):	
Report #/Rev #/Date: _____	
Report Title: _____	
_____	
_____	
Report Prepared By: _____	





TAB H

QUALIFICATION BY TEST

	Reference #
<p><b>H. QUALIFICATION BY TEST</b>            (For Qualification by combination of Analysis and Testing complete both sections H &amp; I)</p>	
1. Single Frequency: _____ Multi-Frequency: _____ Random: _____	
2. Single Axis: _____ Multi-Axis: _____ Tri-Axial: _____ <small>(Provide justification in Subsection H.15)</small>	
3. Natural Frequency (Hz) in Each Direction Vertical: _____ S/S: _____ F/B: _____	
4. Number of Tests: OBE: _____ SSE: _____	
5. Frequency Range: _____	
6. TRS Envelopes RRS: Yes _____ No _____ N/A _____	
7. TRS Damping Used: _____	
8. Test Duration Meets IEEE 344 Requirements: Yes _____ No _____	
9. Input Acceleration Level OBE Vertical: _____ S/S: _____ F/B: _____ SSE Vertical: _____ S/S: _____ F/B: _____	
10. Functional Operability Verified: Yes _____ No _____	
11. Laboratory Mounting: Bolted: _____ Bolt Size: _____ # of Bolts: _____ Welded: _____ Weld Length: _____	
12. Orientation of Tested Equipment: Vertical _____ Horizontal _____ Other: _____ _____	

Reference #

H. QUALIFICATION BY TEST (CONT'D)

13. Test Results/Anomalies

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14. Other Tests Performed

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15. Justification When Using Single-Axis Testing

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TAB I

QUALIFICATION BY ANALYSIS

Reference #

I. QUALIFICATION BY ANALYSIS

(For Qualification by combination of Analysis and Testing complete both sections H & I)

1. Qualification Using Static Analysis:

SDOF Model: YES \_\_\_\_\_ NO \_\_\_\_\_

Natural Frequency (Hz): \_\_\_\_\_

DLF Used: \_\_\_\_\_

Frame Type

Model: YES \_\_\_\_\_ NO \_\_\_\_\_

Natural Frequency in Each Direction (Hz):

Vertical: \_\_\_\_\_ S/S: \_\_\_\_\_ F/B: \_\_\_\_\_

Dynamic Load Factor (DLF) Used:

Vertical: \_\_\_\_\_ S/S: \_\_\_\_\_ F/B: \_\_\_\_\_

Method of Combining Responses

SSRS: \_\_\_\_\_ ABS: \_\_\_\_\_ Other: \_\_\_\_\_

Computer Code Used: \_\_\_\_\_

2. Qualification Using Dynamic Analysis:

Response Spectrum: \_\_\_\_\_ Time History: \_\_\_\_\_

Response Spectra Used: \_\_\_\_\_

Natural Frequency (Hz) in Each Direction

Vertical: \_\_\_\_\_ S/S: \_\_\_\_\_ F/B: \_\_\_\_\_

Acceleration used

Vertical: \_\_\_\_\_ S/S: \_\_\_\_\_ F/B: \_\_\_\_\_

Dynamic Load Factor (DLF) Used

Vertical: \_\_\_\_\_ S/S: \_\_\_\_\_ F/B: \_\_\_\_\_

Frequency Range: \_\_\_\_\_

No. of Modes Considered: \_\_\_\_\_

Mass Participation: \_\_\_\_\_

Method of Combining Dynamic Responses

SSRS: \_\_\_\_\_ ABS: \_\_\_\_\_ Other: \_\_\_\_\_

Computer Code Used: \_\_\_\_\_

Reference #

I. QUALIFICATION BY ANALYSIS (CONT'D)

3. Loading Applied

Dead Weight: \_\_\_\_\_  
 Seismic Loads \_\_\_\_\_  
 Pressure Loads \_\_\_\_\_  
 Piping Loads \_\_\_\_\_  
 Other Loads: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

4. Stress Summary

Critical Component	Calculated Stress	Allowable Stress
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

5. Deflection Summary

Critical Component	Calculated Stress	Allowable Stress (for Operability Evaluation)
_____	_____	_____
_____	_____	_____
_____	_____	_____



TAB J

INSTALLED VS. ANALYZED OR TESTED EQUIPMENT

		Reference #
J.	INSTALLED VS. ANALYZED OR TESTED EQUIPMENT	
1.	A. Model Analyzed or Tested	
		_____
		_____
	B. Model Installed	
		_____
		_____
	C. Basis for Accepting Differences	
		_____
		_____
2.	A. Equipment Mounting Analyzed or Tested	
		_____
		_____
	B. Equipment Mounting Installed	
		_____
		_____
	C. Basis for Accepting Differences	
		_____
		_____
		_____
		_____





TAB K

MAINTENANCE REQUIREMENTS



K MAINTENANCE REQUIREMENTS

LIST OF ATTACHMENTS

- A. Equipment Drawings
- B. Required Response Spectra
- C. Test Response Spectra