

**AUDIT WORKSHEET**  
**GALL REPORT AMP**

PLANT: \_\_\_\_\_

LRA AMP: \_\_\_\_\_

REVIEWER: \_\_\_\_\_

GALL AMP: **XI.M35, One-Time Inspection of ASME Code Class 1 Small Bore Piping**

DATE: \_\_\_\_\_

Program Element	Auditable GALL Criteria	Documentation of Audit Finding
Program Description	<p>A. This program is applicable to small-bore ASME Code Class 1 piping and systems less than -or equal to 4 inches nominal pipe size (NPS 4), which includes pipes, fittings, and branch connections. According to Table IWB-2500-1, Examination Category B-J Item No. B9.21 of the current ASME code, for small-bore Class 1 piping, a surface examination should be included for piping less than or equal to NPS 4 and greater than or equal to NPS 1. Also, Examination Category B-P requires system leakage and hydrostatic tests. However, the staff believes that, for a one-time inspection to detect cracking resulting from thermal and mechanical loading or intergranular stress corrosion, the inspection should be a volumetric examination. This is to provide additional assurance that either aging of small-bore ASME Code Class 1 piping is not occurring or the aging is insignificant, such that an aging management program (AMP) is not warranted. This program is applicable only to plants that have not experienced cracking of ASME Code Class 1 small-bore piping resulting from stress corrosion or thermal and mechanical loading. Should evidence of significant aging be revealed by a one-time inspection or previous operating experience, periodic inspection will be proposed, as managed by a plant-specific AMP.</p>	<p>Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No            Document(s) used to confirm Criteria:</p> <p>Comment:</p>
1. Scope of Program	<p>A. This program is a one-time inspection of a sample of ASME Code Class 1 piping less than or equal to NPS 4. The program</p>	<p>Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No            Document(s) used to confirm Criteria:</p>

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	includes measures to verify that degradation is not occurring; thereby either confirming that there is no need to manage aging-related degradation or validate the effectiveness of any existing AMP for the period of extended operation. The one-time inspection program for ASME Code Class 1 small-bore piping includes locations that are susceptible to cracking. Guidelines for identifying piping susceptible to potential effects of thermal stratification or turbulent penetration are provided in EPRI Report 1000701, "Interim Thermal Fatigue Management Guideline (MRP-24)," January 2001.	Comment
2. Preventive Actions	A. This program is an inspection activity independent of methods to mitigate or prevent degradation.	Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No Document(s) used to confirm Criteria:  Comment:
3. Parameters Monitored/ Inspected	A. This inspection detects cracking in ASME Code Class 1 small-bore piping.	Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No Document(s) used to confirm Criteria:  Comment:
4. Detection of Aging Effects	A. The inspection is designed to provide assurance, in plants that have not experienced cracking of ASME Code Class 1 small-bore piping due to stress corrosion or thermal and mechanical loading, that aging of this piping is not occurring or that the effects of aging are not significant. For ASME Code Class 1 small-bore piping, one-time inspections using volumetric examination are performed on selected weld locations to detect cracking.	Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No Document(s) used to confirm Criteria:  Comment:

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5. Monitoring and Trending	<p>A. This is a one-time inspection to determine whether cracking in ASME Code Class 1 small-bore piping resulting from stress corrosion or thermal and mechanical loading is an issue. A one-time volumetric inspection is an acceptable method for confirming that cracking of ASME Code Class 1 small-bore piping, as a result of stress corrosion or thermal and mechanical loading, is not occurring in plants that have not experienced cracking due to these aging effects. However, evaluation of the inspection results may indicate the need for additional examinations, i.e., a plant-specific AMP, consistent with ASME Section XI, Subsection IWB. This inspection should be performed at a sufficient number of locations to assure an adequate sample. This number, or sample size, will be based on susceptibility, inspectability, dose considerations, operating experience, and limiting locations of the total population of ASME Code Class 1 small-bore piping locations.</p>	<p>Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No  Document(s) used to confirm Criteria:</p> <p>Comment:</p>
6. Acceptance Criteria	<p>A. If flaws or indications exceed the acceptance criteria of ASME Code, Section XI, Paragraph IWB-3400, they will be evaluated in accordance with ASME Code, Section XI, Paragraph IWB-3131, and additional examinations are performed in accordance with ASME Code, Section XI, Paragraph IWB-2430.</p>	<p>Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No  Document(s) used to confirm Criteria:</p> <p>Comment:</p>
7. Corrective Actions	<p>A. The site corrective action program, quality assurance (QA) procedures, site review and approval process, and administrative controls are implemented in accordance with the requirements of 10 CFR Part 50, Appendix B. As discussed in the appendix to this report, the staff finds the requirements of 10 CFR Part 50, Appendix B, acceptable to address the corrective actions, confirmation process, and administrative controls.</p>	<p>Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No  Document(s) used to confirm Criteria:</p> <p>Comment:</p>
8. Confirmation Process	<p>A. See Item 7, above.</p>	<p>Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No  Document(s) used to confirm Criteria:</p>

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		Comment:
9. Administrative Controls	A. See Item 7, above.	Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No Document(s) used to confirm Criteria:  Comment:
10. Operating Experience	A. This inspection uses volumetric inspection techniques with demonstrated capability and a proven industry record to detect cracking in piping weld and base material. However, the application of the specific technique to ASME Code Class 1 small-bore piping needs to be qualified before the examination.	Consistent with GALL AMP: <input type="checkbox"/> Yes <input type="checkbox"/> No Document(s) used to confirm Criteria:  Comment:

EXCEPTIONS

Item Number	Program Elements	LRA Exception Description	Basis for Accepting Exception	Documents Reviewed (Identifier, Para.# and/or Page #)
1.				
2.				
...				

ENHANCEMENTS

Item Number	Program Elements	LRA Enhancement Description	Basis for Accepting Enhancement	Documents Reviewed (Identifier, Para.# and/or Page #)
1.				
2.				
...				

DOCUMENT REVIEWED DURING AUDIT

Document Number	Identifier (number)	Title	Revision and/or Date
1.			
2.			
3.			
4.			
....			