ISTD Snubber Training Course

INSTRUCTORS:

Karl Asmundsson & Glen Palmer

A PROFESSIONAL DEVELOPMENT PROGRAM
PRESENTED BY:

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“COMPREHENSIVE TRAINING SERVICES FROM INDUSTRY EXPERTS”
Background

This Snubber Program Preservice and Inservice training course is provided as an introduction to the requirements of the U. S. Nuclear Regulatory Commission, ASME Section O & M and other Industry related documents used for determining requirements for the preservice/inservice testing and examination of nuclear power plant system and component dynamic restraints (Snubbers). Specific emphasis will be placed on the ASME Code Program Transition process, Owner responsibilities, development of Snubber Program Documents, examination/testing/monitoring plans and schedules, and detailed requirements for the performance of the preservice/inservice examination, testing, and monitoring of dynamic restraints. Several examples will be used to illustrate the correct application of technical and regulatory requirements.
**ISTD Training Agenda**

- What is ISTD
- History of Snubber Program Requirements
- Interface between the ASME B&PV Code, Sections III and XI and ASME O&M Codes and Standards, Section IST
- U. S. Nuclear Regulatory Commission Requirements
  - 10CFR50.55a
  - USNRC RIS 2010-06
  - TI 2515/189, Temporary Instruction Procedure for Snubbers
- Review of questions from utilities to SNUG related to development and implementation of Snubber Programs and discussions on the correct answers. TI 2515/189, Temporary Instruction Procedure for Snubbers
- Discussion of what is involved in transitioning Snubber Programs to full ISTA/ISTD & Regulatory Compliance
- ASME Code Classification System for Components and Systems
- General Requirements (Subsection ISTA)
  - ISTA-1000 Introduction
  - ISTA-2000 Definitions
  - ISTA-3000 General Requirements
  - ISTA-4000 Instrumentation and Test Equipment
  - ISTA-9000 Records and Reports

**ISTD PRESERVICE AND INSERVICE EXAMINATION AND TESTING OF DYNAMIC RESTRAINTS (SNUBBERS) IN LIGHT-WATER REACTOR NUCLEAR POWER PLANTS**

- ISTD-1000 Introduction
- ISTD-2000 Definitions
- ISTD-3000 General Requirements
- ISTD-4000 Specific Examination Requirements
- ISTD-5000 Specific Testing Requirements
- ISTD-6000 Service Life Monitoring
• Interaction with ASME Section XI Subsection on Supports (IWF)
• Non Mandatory Appendices review
• Snubber Program Development requirements, criteria and examples
• Preservice Snubber Program Development details for the New Reactors – (an overview)
• Course review
• Back to school – a final EXAM!!
• Classroom discussion
INSTRUCTORS

Karl Asmundsson

Karl’s career spans more than 29 years in the commercial nuclear industry focused primarily in the development, implementation, and management of Snubber Programs and related services. Karl’s experience and industry involvement is in the area of ASME Programs, specifically in the areas of Snubber manufacturing, testing, and programs.

Over the years Karl has played a significant role in the design, qualification, and maintenance of dynamic restraints and associated components. He has been an active member of the O&M/ISTD dynamic restraints working group for over 20 years and has provided valuable guidance towards development of Snubber programs at various utility sites.

Additionally, Karl co-pioneered development, implementation, and standardization of several in-place test programs, equipment, and procedures foundational to many of the currently recognized utility “best practices”.

Glen Palmer

Glen Palmer, President and Owner of Palmer Group International, has provided IST program support, specializing in the area of snubbers, to the industry for many years. Projects have included outage support, assessments, program updates, testing, and seal life evaluations. With recent changes to the ASME Section XI Code requiring implementation of the OM Code ISTD, Palmer Group International has been instrumental in numerous program updates to meet this new requirement. Glen has nearly 30 years of ASME Code experience and is Chair of the Subgroup for Dynamic Restraints (ISTD).
NOTICE

The instructors for this training are recognized experts in their field and have extensive experience in the subject matter. However, the views expressed by the instructors do not necessarily represent the views of the American Society of Mechanical Engineers or the U. S. Nuclear Regulatory Commission. Attendance at this training session should not be construed to provide preferential treatment or advantage for the attendees or their organizations in any matter involving the ASME Boiler and Pressure Vessel Code Committee, or the U. S. Nuclear Regulatory Commission.

These notes are intended for use as educational material and are not intended to replace the applicable edition and addenda of the ASME Boiler and Pressure Vessel Code or the OM Code or, regulations set forth by the U. S. Nuclear Regulatory Commission. All requests for interpretation or other inquiries relative to the ASME Boiler and Pressure Vessel Code or, the OM Code, should be addressed to the Secretary, Boiler and Pressure Vessel Committee, American Society of Mechanical Engineers, United Engineering Center, Three Park Avenue, New York, NY 10016. Comments and questions related to the US NRC rulemaking may be addressed to Mr. Wallace E. Norris, U. S. Nuclear Regulatory Commission, Mail Stop 07D4, Washington, DC 20555, Telephone: (301) 415-3266, E-mail: wen@nrc.gov.

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Format / Course Outline

- What is ISTD

- Dynamic Restraints (Snubbers) – A Historical Perspective
  - ASME Sections III and XI
  - Tech Specs
  - TRM’s
  - OM Code Part 4
  - ISTD

- Federal Law Applicability
  - 10CFR50 Part 52
  - 10CFR50.55(a)
  - 10CFR50 Appendix B – Criteria IX & X
  - NRC Generic Letters
  - NRC Regulatory Guides
  - Individual Units Technical Specifications
  - FSAR’s
  - NRC Information Notices
  - NRC Regulatory Issues Summaries (RIS)
  - NRC Inspection Procedures

- ASME Codes and their interrelation
  - Section III
  - Section XI
  - OM Code
• Development of ASME Code Boundaries & Component/Snubber Classifications (ASME Class 1, 2 and 3 and BOP)
  o 10CFR50.2 for Class 1
  o Reg. Guide 1.26 for Class 2 & 3
  o Non ASME Classed Components

• General Introduction to ASME OM Code
  o Introduction
  o General
  o Owner Responsibilities
  o Committee Function
  o Standards Committee on Nuclear O & M Code
  o Sub Groups, Working Groups
  o Technical Inquiries to B&PV

• SUBSECTION ISTA GENERAL REQUIREMENTS
  o ISTA-1000 Introduction
  o ISTA-2000 Definitions
  o ISTA-3000 General Requirements
  o ISTA-4000 Instrumentation and Test Equipment
  o ISTA-9000 Records and Reports
  o ISTA-1400-1 Referenced Standards and Specifications
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- SUBSECTION ISTD PRESERVICE AND INSERVICE EXAMINATION AND TESTING OF DYNAMIC RESTRAINTS (SNUBBERS) IN LIGHT-WATER REACTOR NUCLEAR POWER PLANTS
  - ISTD-1000 Introduction
  - ISTD-2000 Definitions
  - ISTD-3000 General Requirements
  - ISTD-4000 Specific Examination Requirements
  - ISTD-5000 Specific Testing Requirements
  - ISTD-6000 Service Life Monitoring

- Nonmandatory Appendices
  - Snubber Program Development Requirements, Criteria and Examples
  - Preservice Snubber Program Development Details for the New Reactors – (An Overview)
  - Course Review/Discussion
  - Final Exam