Software Dedication

Brief Course Description:

The Software Dedication 1 day course examines the requirements and guidance available for using commercial grade computer programs and software services at nuclear facilities.

Key Topics:

- Understanding the terms and definitions applicable to computer programs and CGD.
- Determining what computer programs should be subject to the commercial grade dedication (CGD) process.
- Recognizing where requirements for computer programs can be found in NQA-1 and which are applicable to the CGD process.
- Discuss the relationship between the NQA-1-2012 guidance and the EPRI TR 1025243 Plant Engineering: Guideline for the Acceptance of Commercial-Grade Design and Analysis Computer Programs used in Nuclear Safety-Related Applications
- Review the non-mandatory guidance that will be provided in the NQA-1-2012 edition.
- Walk through the Technical Evaluation process for commercial grade computer programs and software services
- Understand the content of a CGD Plan for commercial grade computer programs and software services

Who Should Attend:

This course applies to any NRC or DOE facility, regulatory, customer, contractor, EPC, or supplier that must meet the requirement ASME NQA-1-2008 with the 2009 addendum. This includes positions such as design engineers, software engineers, IT personnel, quality engineers, procurement personnel, program managers, and auditors.

Prerequisites:

A basic understanding of the software QA requirements found in ASME NQA-1 Parts I and II is suggested. All participants are expected to bring a copy of the applicable sections of ASME-NQA-1-2008 with the 2009 Addendum.

Course Objectives:
Introduction

- Understand the student's interest in computer program dedication and how that interest fits within the process
- Become familiar with the basis for the need for dedication of computer programs

Software Terms and Their Use in CGD

- Understand the subtle differences between the terms "computer program" and "software" and what elements are associated with each.
- Recognize the different terms that are used within the context of Commercial Grade Dedication.
- Understand the types of software within the scope of the Standard.

ASME NQA-1 Requirements for Computer Programs

- Understand the History of Software in ASME NQA-1
- Recognize the ASME NQA-1 Requirements that address Computer Programs and Software

ASME NQA-1 Requirements for Computer Program Dedication

- Understand ASME NQA-1 Requirements as they apply to CGD of Computer Programs
- Recognize when the Requirements for CGD Apply to Computer Programs
- Understand how to address functional requirements that do not require CGD

Guidance for Computer Program Dedication

- Understand the Scope and Limitations of the Guidance
- Understand how the Guidance Aligns with the Requirements
- Recognize where content unique to computer programs is introduced
- Recognize other sources of guidance and how they are related

CGD Technical Evaluation Process

- Understand the required elements of a technical evaluation
- Identify the Categories of Critical Characteristics and typical critical characteristics within each
- Recognize acceptance criteria associated with typical critical characteristics
- Apply appropriate methods for accepting Commercial Grade Items and Services

CGD Plan Detailed Review

- Understand the essential elements of a dedication plan
- Recognize the documentation necessary to support a computer program dedication
- Be able to perform a CGD Plan detailed review

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