

Protecting People and the Environment

IEC Endorsement Project: Review of Goals and General Philosophy

Steven A. Arndt August 29, 2019

Introduction

- Stakeholders have expressed interest in NRC endorsement of (IEC) 61513 suite of standards for use in U.S. nuclear power plants digital I&C applications
- NRC transformation task force also highlighted the potential for use IEC standards
- NRC has already endorsed some IEC standards (directly or indirectly)

Project Goals

- Coordinate with industry stakeholders to determine:
 - Which industry stakeholders are interested in, and will use an endorsement of IEC standards as another acceptable way to meet NRC regulations
 - Which specific set of IEC standards should be evaluated
 - How various stakeholders, including both licensees and vendors, intend to use these IEC standards
 - What potential digital I&C systems can be used for performing a table top exercise using these standards

Project Goals (continued)

- Lessons learned from implementation of the Integrated Action Plan has shown that stakeholder engagement is critical to the success of guidance development
 - Formation of a Industry Working Group
 - Active participation from licensees as well as vendors is essential

Harmonization of IEC and IEEE Standards

- Efforts to develop "dual logo" standards or endorse IEC standards directly
 - Completed
 - IEC 60780/IEEE 323 Environmental qualification dual logo
 - IEC 63147/IEEE 497 Post Accident Monitoring
 - IEC 61000 on EMI/RFI endorsed by NRC
 - In progress
 - IEC 60980/IEEE 344 Seismic qualification dual logo
 - IEC 62566 FPGA being considered for endorsement by NRC
 - IEC 63113 Spent Fuel Pool Instrumentation dual logo work is progressing
 - Possible new dual logo for IEC 61266 on Classification
 - Possible new dual logo for IEC 62340 on CCF

General Philosophy

- We will limit the guidance to a specific set of regulatory requirements
- With the large number of IEC standards, it would likely be more effective to look at only one specific set of the IEC 61513 suite
- We will try to develop Regulatory Guidance with little or not additional regulatory positions or exception to the endorsed IEC guidance

Questions?