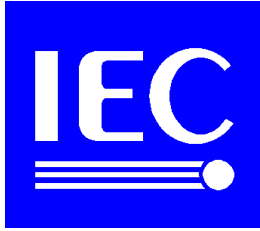# IEC and IAEA Digital I&C Standards and Correlation with DICWG Common Positions

Presented to

3rd MDEP Conference on Digital I&C Design Activities

Bethesda, MD

2014 May 15

Gary Johnson

Chairman, IEC SC45A

kg6un@mac.com

Key IEC Standards for Digital I&C

- DS431 Design of I&C Systems
  - While not an IEC standard, SC45A will take the approved version as the basic high level guidance that our standards support
- 61513 General Requirements for I&C
- 61226 Functional Categorization
- 60987 Design Requirements for Computer Hardware
- 61500 Category A Data Communications
- 62340 Coping with CCF
- 60880 Software for Category A Functions
- 62138 Software for Category B&C Functions
- 62566 Development of HDL Systems for Category A Functions
- 62671 Acceptance of Industrial Devices
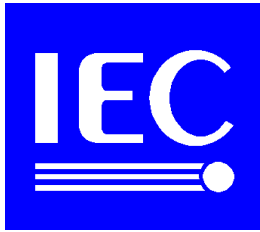
IEC & IAEA Work in Progress on Digital I&C

- DS431 Design of I&C for NPP
- 61226 Functional Categorization

- 62138 S/W for Cat B&C

- 62645 Computer Security Programs
- 62859 Coordinating Cyber Security and Safety
- IAEA Cybersecurity for Nuclear Facility I&C
- 62918 Selection and use of Wireless Devices (Tec Report)

- In publication
- Update for consistency with revised IAEA standards
- Align with DS431 and revisions to related IEC standards
- New
- New
- New
- New
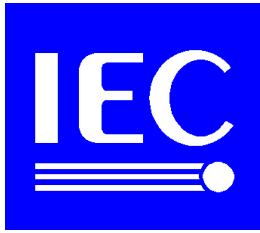
Coordination of DICWG CP with IEC & IAEA Standards

- DS431 Design of I&C Systems

  - DICWG-01 CCF
  - DICWG-04 Com. Independence
  - DICWG-06 Simplicity
  - DICWG-09 Architecture
  - DICWG-10 Configuration Mgmt.
  - DICWG-11 Pre-op testing

- 60880 Software for Category A Functions

  - DICWG-02 Tools
  - DICWG-03 V&V

- 62566 Development of HDL Systems for Category A Functions

  - DICWG-05 HDL

- 62671 Acceptance of Industrial Devices

  - DICWG-07 Industrial devices

- 62859 Requirements for Coordinating Cyber Security and Safety

  - DICWG-08 Security-Safety Interaction

- IAEA Cybersecurity for Nuclear Facility I&C

This slide shows the primary relationships.
Often more than one standard is coordinated with a common position.