

We should make more use of commercial equipment

- New technology will first appear in commercial markets
 - There is a larger market
 - Developing only for nuclear risks marketing dead-end
 - Exception, nuclear specific functions and equipment
- Many needed technologies already exist
 - Network field devices
 - Wireless & battery powered field devices
 - Intelligent field devices
 - Multivariable transmitters
 - Industrial network protocols
 - Modern F. L, and T sensors



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Nuclear use of I&C Equipment Certified for Commercial Safety Use

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Commercial industry now has certification processes for safety systems & equipment

- Based upon IEC 61508, UL 1998 and others
- Examples
 - Rosemount Pressure and temperature transmitters
 - Siemens AS-I limit switches, position sensors, light curtains, logic
 - Green Hills RTOS
 - Phoenix Contract relays
 - Yokogawa ProSafe PLC, EJX pressure transmitters
 - ABB Metcon PT
 - Samson 3730 positioner
 - Triconix Trident PLC
 - Emerson Delta V logic solver, Fieldvue valve controller
 - Maxcon air operated valves
 - ADS Tech single board computer
 - Wind River RTOS
 - Honeywell SafetyManager PLC
 - Allen-Bradley GuardPLC
 - Schmersal limit switches
 - Ominfles annunciators
- We should have ways to take advantage of this work

This will take some work

- Understand the commercial certifications
 - How should and how can commercial certification be supplemented for nuclear?
- Certification of the certifiers
- Responsibility for defect reporting to industry
- Traceability between certified and delivered items

Problem: This could greatly benefit the industry as a whole, but is any single is likely to profit from such work?