

DIGITAL I&C PROJECT PLAN

PURPOSE:

The NRC Digital Instrumentation and Controls (I&C) Project Plan defines the process to improve deployment of digital I&C technology for new reactors, operating reactors, and fuel facilities. The project plan accounts for issues related to digital upgrades at operating reactors and fuel facilities, and requirements for both near term and longer term combined license applications.

OBJECTIVES:

The specific short term objective of this plan is to identify and resolve issues that will result in more efficient licensing activities. The long term objective is to establish regulatory or revise requirements, standards, and guidelines, as appropriate, that will allow licensees to forward-fit digital enhancements efficiently and without unnecessary regulatory burden.

BACKGROUND:

The basis for the project plan comes from the November 8, 2006, Commission meeting, the December 6, 2006, Staff Requirements Memorandum (ADAMS Accession No. ML0640033), and the January 12, 2007, memorandum from the EDO that chartered the Digital I&C Steering Committee (ADAMS Accession No. ML063390606).

DIGITAL I&C STEERING COMMITTEE:

The Digital I&C Steering Committee provides oversight and guidance on key digital I&C technical and regulatory issues and interfaces with industry on those issues. The primary responsibilities of the Steering Committee is (1) to interface with industry representatives on plans for resolution of digital I&C issues, (2) to oversee and facilitate resolution of technical and regulatory issues related to the deployment of digital I&C, and (3) to ensure effective interoffice coordination on digital I&C issues. The Steering Committee will monitor the NRC line organizations' progress on Digital I&C Project Plan implementation and review specific goals and deliverables. The Steering Committee will approve the initial Digital I&C Project Plan and subsequent revisions to the plan.

NRC TASK WORKING GROUPS:

The NRC staff formed Task Working Groups (TWGs) to focus on the six key areas of concern. The NRC representatives of the TWGs are responsible for the development of each TWG project plan. The TWGs will coordinate actions between groups to ensure consistency and alignment.

INDUSTRY CONTACTS:

The TWGs are interfacing with industry identified contacts in each of the key areas. The industry contacts will interact as necessary with reactor vendors, licensees,

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applicants, and other industry stakeholders to obtain design information that may be needed to support input to the work of the TWGs.

The industry contacts have provided input to the problem statements, deliverables, and milestones related to individual TWG project plan objectives. The industry contacts will provide input on the schedules for completing the deliverables. Some industry contacts have indicated that they will provide technical papers to the TWGs to address specific issues. It is the responsibility of the industry contacts to interact as necessary with reactor vendors and others to obtain design information needed to support the work of the TWG.

NRC LINE ORGANIZATIONS:

The NRC line organizations will schedule and perform tasks identified in the individual TWG project plans. The line organizations will interface with the TWGs and report to the Steering Committee on progress, status, problems, and timeliness for preparing NRC deliverables such as interim guidance, revised regulatory guides, revised regulations, and recommendations for revisions to industry standards.

INDIVIDUAL TWG PROJECT PLANS:

The TWGs have developed an individual TWG project plan for each of the 6 key areas:

- Cyber Security TWG #1
- Diversity and Defense-in-Depth TWG #2
- Risk-Informing Digital I&C TWG #3
- Highly Integrated Control Room – Communications TWG #4
- Highly Integrated Control Room – Human Factors TWG #5
- Licensing Process Issues TWG #6.

UPDATE PROCESS:

The Steering Committee will approve the initial Digital I&C Project Plan and the individual TWG project plans. Subsequent revisions to the Digital I&C Project Plan and the individual TWG project plans will be submitted to the Digital I&C Steering Committee for approval.

APPENDICES:

1. Project Plan - TWG # 1 Cyber Security
2. Project Plan - TWG # 2 Diversity and Defense-In-Depth
3. Project Plan - TWG # 3 Risk-Informing Digital I&C
4. Project Plan - TWG # 4 Highly Integrated Control Room - Communications
5. Project Plan - TWG # 5 Highly Integrated Control Room - Human Factors
6. Project Plan - TWG # 6 Licensing Process Issues