

Review of Operational Programs in a Combined License Application



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Agenda

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- **Background**
- **Proposed Approach for Combined License Operational Program Review**
- **Key Challenges for Review of Operational Programs**
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- **Some Suggested NRC Processes Which may Mitigate Challenges**
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Goals and Objectives for Combined License Operational Program Review

- Include acceptable implementation of operational programs as part of the combined license
- Ensure that key elements of operational programs are included in the safety analysis report to allow the NRC to make a reasonable assurance finding on the operational program when the combined license is issued
- For programs which do not have inspections, tests, analyses, and acceptance criteria, ensure that these programs and their implementation are fully described in the safety analysis report
- Ensure that operational programs can be inspected by the NRC prior to implementation

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Background

- Operational Programs Included in SECY-02-0067
 - ▶ Originally identified in NEI letter dated May 14, 2001
 - Emergency Planning
 - Quality Assurance
 - Radiation Protection
 - Fitness for Duty
 - Licensed Operator
 - Containment Leak Rate Testing
 - Inservice Inspection and Inservice Testing
 - Physical Security
 - Fire Protection
 - Access Authorization
 - Training
 - Reportability
 - Maintenance Rule
 - Equipment Qualification
- SRM-SECY-02-0067 endorsed inspections, tests, analyses, and acceptance criteria (ITAAC) for emergency planning

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Background (continued)

- SRM-SECY-02-0067 stated the following:
 - ▶ Although the NRC inspection process does not replace a particular ITAAC, an ITAAC should not be necessary if the program and its implementation are fully described in the application and found to be acceptable by the NRC at the COL [combined license] stage. The burden is on the applicant to provide the necessary and sufficient programmatic information for approval of the COL without ITAAC



Background (continued)

- SRM-SECY-04-0032 provided additional clarification:
 - ▶ ... "fully described" should be understood to mean that the program is clearly and sufficiently described in terms of the scope and level of detail to allow a reasonable assurance finding of acceptability. Required programs should always be described at a functional level and at an increased level of detail where implementation choices could materially and negatively affect the program effectiveness and acceptability.



Proposed Approach for Combined License Operational Program Review

- COL application would contain the following related to operational programs:
 - Safety Analysis Report (SAR) level information
 - Additional information for operational programs where implementation choices could materially and negatively affect the program effectiveness and acceptability
 - Discussion of the applicant's implementation plans, including schedule
- NRC final safety evaluation report to include staff evaluation of operational programs
- COL to include, where necessary, license conditions on implementation of operational programs, as described in the SAR (i.e., for programs that will not be implemented at the time the COL is issued)

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Proposed Approach for Combined License Operational Program Review (continued)

- Approach consistent with current process of including license conditions in renewed operating licenses
- Approach assumes that operational programs do not need ITAAC unless the staff determines that an implementation issue is inseparable from the finding on program acceptability, and an ITAAC is necessary
- COL applicants may propose ITAAC for implementation of any operational program
 - Program must be fully described in SAR in order for NRC to make a reasonable assurance finding

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Key Challenges for Review of Operational Programs

- Make a reasonable assurance finding on an operational program before a plant is constructed and operated
 - ▶ SAR needs to include level of detail sufficient to make a reasonable assurance finding
 - ▶ No inspection, tests, analyses, acceptance criteria (ITAAC) needed if program and its implementation can be fully described
- Ensure that the key elements of the operational program used by NRC to make reasonable assurance finding are included in the implementation of the operational program
 - ▶ Assurance provided by inspection of operational program prior to implementation

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Challenges with Operational Program Implementation

- Time period between COL issuance and program implementation
 - ▶ Could be several years after license is issued

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Changes to SAR after COL is Issued

- Allowed by 10.CFR 50.54 or 50.59
- Periodic reporting requirements to NRC
- Current regulations do not account for fact that will have final SAR years before a plant is built and operated



Some Suggested NRC Controls Which May Mitigate Challenges

- Controls on changes to operational program descriptions in SARs after COL is issued
- Timely exchange of information on changes to SARs that impact operational programs
- Ability to perform inspections of operational programs prior to implementation
- Process to resolve findings from these operational program inspections



Range of Implementation Options to Address Concerns

- **Option 1: Restrictive License Condition**
 - ▶ Changes in SAR on operational program information will require NRC approval until operational program fully implemented ("Tier 2* for Operational Programs")
 - ▶ Requires NRC notification prior to operational program implementation
- Verification of acceptable operational program implementation in license
- Restrictive
- Increased burden on NRC to review any changes
- Ensures that key elements of operational program remain in SAR until program implemented
- Program and its implementation remain fully described
- NRC informed of operational program implementation in preparation for inspection

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Range of Implementation Options to Address Concerns (continued)

- **Option 2: Informative License Condition**
 - ▶ Requires NRC notification prior to operational program implementation
 - ▶ Licensee submits most recent SAR changes related to operational programs since last report to NRC
- Verification of acceptable operational program implementation in license
- No restrictions on changes
- Allows NRC to review changes in timely manner to ensure that key elements of operational program supporting reasonable assurance finding have not been removed from SAR before implementation
- NRC only reviews changes prior to implementation of operational program
- Allows NRC to review changes to ensure program and its implementation remain fully described before implementation
- NRC informed of operational program implementation in preparation for inspection

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Range of Implementation Options to Address Concerns (continued)

- Option 3: No License Condition
 - Implementation of operational programs only discussed in SAR
 - No requirements for licensee to submit information or inform NRC of operational program implementation
- Verification of acceptable operational program implementation not in license
- No regulatory means to ensure that key elements supporting reasonable assurance finding remain in SAR when program implemented
- Program and its implementation may no longer be fully described when implemented
- No assurance that inspection may be performed before program is implemented
- No restrictions on changes
- NRC only reviews changes after required periodic updates submitted

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Option 2: Informative License Condition (continued)

License Condition Implementation:

- Notify NRC when program is about to be implemented
- Provide NRC with changes to SAR since last update required by 10 CFR 50.71(e) that impact the operational program being implemented
- Condition ends on specific operational program when either Commission provides authorization to load fuel or program required to be fully implemented

Purpose:

- Ensure that program is implemented as described in SAR
- Ensure that SAR fully describes operational program and its implementation
- Ensure that key elements used to reach reasonable assurance finding on operational program at COL remain in place
- Allow sufficient time to schedule and prepare for NRC inspection of operational program prior to implementation

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Option 2: Informative License Condition (continued)

Attributes:

- Licensee informs NRC that a operational program will be implemented in X months
- Licensee provides any additional changes to SAR implemented after last change report required by 10 CFR 50.71(e), which are related to the operational program, X months before implementation
- For programs with phased implementation, licensee reports on implementation milestone and relevant 10 CFR 50.71(e) reports X months before that phase of operational program is implemented



Illustrative Example

NEI 04-01, Section 4.3.9.12: FSAR Chapter 12, Radiation Protection

- Example Health Physics Program Description
 - Example taken from current operating plant FSAR
 - Inadequate information to review radiation protection operational program in COL application
- Parallel effort currently underway to work with NEI to modify this section in NEI 04-01
- Need to ensure that all operational programs described in SAR receive this level of consideration by COL applicants