C.IV.4 Operational Programs

On October 28, 2005, the staff of the U.S. Nuclear Regulatory Commission (NRC) submitted SECY-05-0197, "Review of Operational Programs in a Combined License Application and Generic Emergency Planning Inspections, Tests, Analyses, and Acceptance Criteria." This paper also included pertinent information from previous Commission papers on operational programs, specifically SECY-02-0067, "Inspections, Tests, Analyses, and Inspection Criteria (ITAAC) for Operational Programs (Programmatic ITAAC)," dated April 5, 2002, and SECY-04-0032, "Programmatic Information Needed for Approval of a Combined License Without Inspections, Tests, Analyses and Acceptance Criteria," dated February 26, 2004. In SECY-05-0197, the staff detailed its plan for reviewing operational programs in a combined license (COL) application. The Commission approved the staff's plan in the related staff requirements memorandum (SRM), dated February 22, 2006. The Commission codified its direction in Title 10, Part 52, "Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants," of the *Code of Federal Regulations* (10 CFR Part 52) such that COL applicants must fully describe certain operational programs and their implementation in the COL application.

C.IV.4.1 *Applicability*

Although numerous programs support the operation of a nuclear power plant, SECY-05-0197 focused on those programs that meet the following three criteria:

(1) required by regulation

(2) reviewed in a COL application

(3) inspected to verify program implementation as described in the final safety analysis report (FSAR)

The programs below that meet the above criteria are collectively referred to as "operational programs" and were identified in SECY-05-0197. The provisions of 10 CFR Part 52 address implementation milestones for several of these operational programs. The agency will use license conditions to ensure the implementation of those operational programs with an implementation requirement that NRC regulations do not address. Table 13.4-1 of this guide provides a summary list of the following operational programs and the sources for their implementation milestones:

- inservice inspection
- radiation protection
- inservice testing
- nonlicensed plant staff training
- environmental qualification
- reactor operator training
- preservice inspection
- reactor operation requalification
- reactor vessel material surveillance
- emergency planning
- preservice testing
- security
- containment leakage rate testing
- quality assurance—operations
- fire protection
- maintenance rule

- process and effluent monitoring and sampling
- motor-operated valve testing
- initial test

Use of the term "operational programs" in this regulatory guide refers to these specific programs unless otherwise stated. The staff continues to assess whether this list encompasses a complete set of operational programs. The staff might consolidate the operational programs identified above and in SECY-05-0197 in future rulemakings. For example, since the issuance of SECY-05-0197, clarifications in the scope of the operational programs for security have resulted in a reorganization and consolidation of the security programs designated in SECY-05-0197. Table 13.4-1 in Section C.I.13.4 of this guide reflects the reorganization and consolidation of operational programs for security. The vehicle control program, access authorization program, and fitness for duty program are part of the physical security program identified in Table 13.4-1. The weapons training program and weapons qualification and requalification program are part of the training and qualification program identified in Table 13.4-1 of this guide.

C.IV.4.2 *Treatment of Operational Programs in COL Applications*

In its SRM regarding SECY-05-0197, the Commission endorsed the staff's proposal that an operational program does not require inspections, tests, analyses, and acceptance criteria (ITAAC) in the COL application, provided that the application "fully describes" the program and its implementation. Thus, to avoid the need to propose ITAAC for a given operational program,[1] the COL applicant must fully describe the following:

(1) the operational program
(2) the implementation of the operational program

In the SRM for SECY-04-0032, dated May 14, 2004, the Commission defined "fully described" as follows:

> In this context, "fully described" should be understood to mean that the program is clearly and sufficiently described in terms of 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.

Toward that end, Section 13.4 of the FSAR should provide a table that lists each operational program, the sections of the FSAR that fully describes the operational program, and the associated implementation milestones. For example, the table entry for the inservice inspection program should be as follows:

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[1] Nonprogrammatic aspects of Emergency preparedness, security, and fire protection are subject to ITAAC.

Item	Operational Program	Program Source (Required By)	FSAR (SRP) Section[1]	Implementation	
				Milestone	Requirement
1	Inservice Inspection Program	10 CFR 50.55a(g)	5.2.4 6.6	Commercial Service	10 CFR 50.55a(g) ASME Section XI IWA 2430(b)

[1] Additional FSAR (SRP) sections may be identified under broad operational programs required by regulation (e.g., ISI, IST, etc.).

C.IV.4.3 ***Implementation of Operational Programs***

The provisions of the Regulations address implementation milestones for some operational programs. The NRC will use license conditions to ensure implementation for those operational programs whose implementation is not addressed in the Regulations.

The first implementation license condition approved in the SRM regarding SECY-05-0197 applies to the fire protection program as follows:

> (Name of Licensee) shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility (or as described in submittals dated _____) and as approved in the SER dated _____ (and Supplements dated _____).

The second implementation license condition approved in the SRM regarding SECY-05-0197 applies to the security program as follows:

> The licensee shall fully implement and maintain in effect all provisions of the physical security plan, security personnel training and qualification plan, and safeguards contingency plan, and all amendments made pursuant to the authority of 10 CFR 50.90, 50.54(p), 52.97 [, and Section VIII of Appendix to Part 52] when nuclear fuel is first received onsite, and continuing until all nuclear fuel is permanently removed from the site.

The NRC recommends that the table in Section 13.4 of the FSAR include specific implementation milestones and that the implementation of these operational programs should be fully described in the same section of the FSAR that fully describes the program. The COL will also include the subject table, which will be associated with the following license condition:

> The licensee shall implement the programs or portions of programs identified in Table __ on or before the associated milestones in Table __.

The table referenced in this license condition will specify only those operational programs that do not have implementation requirements in the regulations at the time the COL is issued. The number of implementation milestones would depend on whether the program was implemented on a phased basis or all at once. For example, the staff expects that the radiation protection program will have four implementation milestones (sources on site, fuel on site, fuel load, and first shipment of waste), whereas the motor-operated valve program will be fully implemented at a specific milestone before plant startup.

The implementation section of the FSAR will describe the portion of the program implemented at a particular milestone.

The NRC inspection of operational programs will be the subject of the following license condition in accordance with SECY-05-0197:

> (Name of the licensee) shall submit to the Director (the identification of the NRC Headquarters office responsible for oversight of the COL after issuance), a schedule, 12 months after issuance of the COL, that supports planning for and conduct of NRC inspections of operational programs listed in the operational program FSAR table. The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until either the operational programs in the FSAR table have been fully implemented or the plant has been placed in commercial service, whichever comes first.

C.IV.4.4 ***Optional Treatment of Operational Programs***

COL applicants may choose to use an operational program although the program is not explicitly required by regulation. For example, a COL applicant might adopt a sump strainer cleanliness program to satisfy the emergency core cooling system requirements in the regulations. In such instances, the COL applicant should add the operational program to its list of programs in Section 13.4 of the FSAR and should fully describe the program and its implementation in the FSAR.

COL applicants may propose ITAAC for a particular operational program as an alternative to fully describing the implementation of the program in the COL application. In that case, the COL applicant must fully describe the operational program in the COL application and state that it is proposing ITAAC for the implementation of that operational program in lieu of fully describing its implementation.