



## U.S. NUCLEAR REGULATORY COMMISSION

# STANDARD REVIEW PLAN

### 13.4 OPERATIONAL PROGRAMS

#### REVIEW RESPONSIBILITIES

**Primary** - Licensing organization

**Secondary** - Cognizant review organization per the SRP sections identified in the attached sample final safety analysis report (FSAR) Table 13.4-x.

#### I. AREA OF REVIEW

The areas of review for this standard review plan (SRP) section has been changed to address review and implementation of operation programs required by regulations for a combined license (COL) application. The former content regarding the review of the applicant's plan for conducting reviews of operating phase activities that are important to safety is addressed in SRP section 17.5, "Quality Assurance Program Description - Design Certification, Early Site Permit and New License Applicants."

The specific area of review is as follows:

Operational Program Description and Implementation. For a COL application, the staff reviews the final safety analysis report (FSAR) Table 13.4-x to ensure that all required operational programs are included. The staff review of the operational program description and the proposed implementation milestones is performed within the identified SRP sections reviews.

Revision 3 - March 2007

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### USNRC STANDARD REVIEW PLAN

This Standard Review Plan, NUREG-0800, has been prepared to establish criteria that the U.S. Nuclear Regulatory Commission staff responsible for the review of applications to construct and operate nuclear power plants intends to use in evaluating whether an applicant/licensee meets the NRC's regulations. The Standard Review Plan is not a substitute for the NRC's regulations, and compliance with it is not required. However, an applicant is required to identify differences between the design features, analytical techniques, and procedural measures proposed for its facility and the SRP acceptance criteria and evaluate how the proposed alternatives to the SRP acceptance criteria provide an acceptable method of complying with the NRC regulations.

The standard review plan sections are numbered in accordance with corresponding sections in Regulatory Guide 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition)." Not all sections of Regulatory Guide 1.70 have a corresponding review plan section. The SRP sections applicable to a combined license application for a new light-water reactor (LWR) are based on Regulatory Guide 1.206, "Combined License Applications for Nuclear Power Plants (LWR Edition)."

These documents are made available to the public as part of the NRC's policy to inform the nuclear industry and the general public of regulatory procedures and policies. Individual sections of NUREG-0800 will be revised periodically, as appropriate, to accommodate comments and to reflect new information and experience. Comments may be submitted electronically by email to [NRN\\_SRP@nrc.gov](mailto:NRN_SRP@nrc.gov).

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## Review Interfaces

The SRP sections referenced in the attached sample FSAR Table 13.4-x include the specific acceptance criteria and review procedures.

## II. ACCEPTANCE CRITERIA

### Requirements

There are no specific requirements for this SRP section. The applicable requirement for each operational program is identified in the attached sample FSAR Table 13.4-x.

### SRP Acceptance Criteria

The SRP sections referenced in the attached sample FSAR Table 13.4-x include SRP acceptance criteria for operational programs.

### Technical Rationale

In the Staff Requirements Memorandum on SECY-05-0197, the Commission provided the following directions regarding operational programs:

1. Include license conditions for operational programs in the COL, where implementation requirements are not specified in the regulations.
2. Identify the list of operational programs required to be included in a COL application.
3. Use of proposed generic emergency planning/emergency preparedness (EP) inspections, tests, analyses, and acceptance criteria (ITAAC) as a model for EP ITAAC to be included in COL applications.

The required operational programs are referenced in the attached sample FSAR Table 13.4-x.

## III. REVIEW PROCEDURES

1. The licensing organization coordinates the overall review of operational programs. The respective review occurs within the SRP section identified in the attached sample FSAR Table 13.4-x. The review ensures that the COL applicant fully describes the operational programs required by regulations and their implementation, including emergency preparedness (EP) and security, listed in the attached sample FSAR Table 13.4-x. In addition, non-programmatic aspects of EP, security, and the fire protection program (e.g., fire detection/suppression systems and fire barriers), will be subject to ITAAC. The review of ITAAC is performed under SRP Section 14.3, "Inspections, Tests, Analyses, And Acceptance Criteria."

In this context, "fully described" indicates 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 when implementation choices could materially and negatively affect the program effectiveness and acceptability.

2. If an applicant included ITAAC in lieu of implementation information for a specific operational program, staff reviews the ITAAC information under SRP Section 14.3. The staff also notes that unique circumstances involving a particular application may raise an implementation issue on an operational program that is best resolved by an ITAAC. The staff expects such circumstances to be rare. Any ITAAC information will be reviewed under SRP Section 14.3.
3. COL applicants may choose to use an operational program 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-x of the FSAR and should fully describe the program and its implementation in the FSAR.

#### IV. EVALUATION FINDINGS

The staff of the U.S. Nuclear Regulatory Commission has reviewed FSAR Table 13.4-x and concludes that it is an accurate summary of the operational programs evaluated in the sections of the safety evaluation report noted in the table. The COL will contain suitable license conditions regarding those operational programs where implementation requirements are not specified in the regulations.

The license should include the following conditions:

1. (Name of the licensee) shall implement and maintain in effect the 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 \_\_\_\_\_).
2. The licensee shall fully implement and maintain in effect all provisions of the physical security plan, security 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 fuel is first received onsite, and continuing until all nuclear fuel is permanently removed from the site.<sup>1</sup>
3. 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 be included in the license. It will be as shown in the attached FSAR Table 13.4-x except it will specify only those operational programs that do not have implementation requirements in the regulations at the time the COL is issued. The resulting table will contain operational program milestones acceptable to the NRC staff. 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

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<sup>1</sup>In Reference 2, the Commission directed the staff to consider inclusion of program implementation requirement in fire protection and security Rules to eliminate the need for these license conditions.

program will have 4 implementation milestones (sources on site, fuel on site, fuel load, and first shipment of waste) whereas the motor-operated valve (MOV) program will be fully implemented at a specific milestone before plant startup. The portion of the program implemented at a particular milestone would be described in the implementation section of the FSAR.]

4. (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 ever comes first.

## V. IMPLEMENTATION

The staff will use this SRP section in performing safety evaluations of DC applications and license applications submitted by applicants pursuant to 10 CFR Part 52. Except when the applicant proposes an acceptable alternative method for complying with specified portions of the Commission's regulations, the staff will use the method described herein to evaluate conformance with Commission regulations.

The provisions of this SRP section apply to reviews of applications submitted six months or more after the date of issuance of this SRP section, unless superseded by a later revision.

## VI. REFERENCES

1. SECY-05-0197, "Review of Operational Programs in Combined License Applications and Generic Emergency Planning Inspections, Tests, Analyses, and Acceptance Criteria," October 28, 2005
2. "Staff Requirements - SECY-05-0197 - Review of Operational Programs in Combined License Applications and Generic Emergency Planning Inspections, Tests, Analyses, and Acceptance Criteria," February 22, 2006

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### PAPERWORK REDUCTION ACT STATEMENT

The information collections contained in the Standard Review Plan are covered by the requirements of 10 CFR Part 50 and 10 CFR Part 52, and were approved by the Office of Management and Budget, approval number 3150-0011 and 3150-0151.

### PUBLIC PROTECTION NOTIFICATION

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

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## ATTACHMENT

**Sample FSAR Table 13.4-x  
Operational Programs Required by NRC Regulation and Program Implementation**

Item	Program Title	Program Source (Required By)	FSAR (SRP) Section <sup>2</sup>	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)
2.	Inservice Testing Program	10 CFR 50.55a(f) 10 CFR Part 50, Appendix A	3.9.6 5.2.4	After generator on-line on nuclear heat	10 CFR 50.55a(f) ASME OM Code
3.	Environmental Qualification Program	10 CFR 50.49(a)	3.11	None specified	License Condition
4.	Preservice Inspection Program	10 CFR 50.55a(g)	5.2.4 6.6	Completion prior to initial plant start-up	10 CFR 50.55a(g) ASME Code Section XI IWB-2200(a)
5.	Reactor Vessel Material Surveillance Program	10 CFR 50.60; 10 CFR 50, Appendix H	5.3.1	None specified	License Condition
6.	Preservice Testing Program	10 CFR 50.55a(f)	3.9.6	None specified	License Condition
7.	Containment Leakage Rate Testing Program	10 CFR 50.54(o); 10 CFR 50, Appendix A (GDC 32); 10 CFR 50, Appendix J; 10 CFR 52.47(a)(1)	6.2.6	Fuel load	10 CFR 50, Appendix J Option A-Section III Option B-Section III.A
8.	Fire Protection Program	10 CFR 50.48	9.5.1	None specified	License Condition

Item	Program Title	Program Source (Required By)	FSAR (SRP) Section <sup>2</sup>	Implementation	
				Milestone	Requirement
9.	Process and Effluent Monitoring and Sampling Program:				
	• Radiological Effluent Technical Specifications/Standard Radiological Effluent Controls (RETS/SREC)	10 CFR 20.1301 and 20.13.2 10 CFR 50.34a 10 CFR 50.36a 10 CFR 50, Appendix I, section II and IV	11.5	None Specified	License Condition
	• Offsite Dose Calculation manual (ODCM)	Same as above	11.5	None Specified	License Condition
	• Radiological Environmental Monitoring Program (REMP)	Same as above	11.5	None Specified	License Condition
	• Process Control Program (PCP)	Same as above	11.4	None Specified	License Condition
10.	Radiation Protection Program	10 CFR 20.1101	12.5	None specified	License Condition
11.	Non licensed Plant Staff Training Program	10 CFR 50.120 10 CFR 52.78	13.2.2	18 months prior to scheduled fuel load	10 CFR 50.120(b)
12.	Reactor Operator Training Program	10 CFR 55.13; 10 CFR 55.31; 10 CFR 55.41; 10 CFR 55.43; 10 CFR 55.45	13.2.1	None specified	License Condition
13.	Reactor Operator Requalification Program	10 CFR 50.34(b); 10 CFR 50.54(i); 10 CFR 55.59	13.2.1	Within 3 months after issuance of an operating license or the date, the Commission makes the finding under 10 CFR 52.103(g)	10 CFR 50.54 (i-1)

Item	Program Title	Program Source (Required By)	FSAR (SRP) Section <sup>2</sup>	Implementation	
				Milestone	Requirement
14.	Emergency Planning	10 CFR 50.47 Part 50, Appendix E	13.3	<p>Full participation exercise conducted within 2 yrs before the issuance of first full power operating license. Onsite exercise conducted within 1 yr before issuance of full power operating license.</p> <p>Applicants detailed implementing procedures for it's emergency plan submitted no less than 180 days prior to scheduled issuance of an operating license.</p> <p>Full participation exercise conducted within 2 yrs of scheduled date for initial loading of fuel.</p> <p>Onsite exercise conducted within 1 yr before the schedule date for initial loading of fuel.</p> <p>Applicant's detailed implementing procedures for its emergency plan submitted no less than within 180 days prior to scheduled date for initial loading of fuel.</p>	<p>10 CFR Part 50, Appendix E.IV.F.2a(i) (10 CFR Part 50 applicant)</p> <p>10 CFR Part 50 Appendix E.IV.F.2a(i) (10 CFR Part 50 applicant)</p> <p>10 CFR Part 50, Appendix E.V (10 CFR Part 50 applicant)</p> <p>10 CFR 50, Appendix E.IV.F.2a(ii) (10 CFR Part 52 applicant)</p> <p>10 CFR Part 50, Appendix E.IV.F.2a(ii) (10 CFR Part 52 applicant)</p> <p>10 CFR Part 50, Appendix E.V. (10 CFR Part 52 applicant)</p>

Item	Program Title	Program Source (Required By)	FSAR (SRP) Section <sup>2</sup>	Implementation	
				Milestone	Requirement
15.	Security Program:  Physical Security Program  Safeguards Contingency Program  Training and Qualification Program	10 CFR 50.34(c)  10 CFR 73.55 10 CFR 73.56 10 CFR 73.57 10 CFR 26  10 CFR 50.34(d) 10 CFR Part 73, Appendix C  10 CFR Part 73, Appendix B	13.6.1	None specified	License Condition  License Condition  License Condition
16.	Quality Assurance Program - Operation	10 CFR 50.54(a); 10 CFR 50, Appendix A (GDC 1); 10 CFR 50, Appendix B	17.5	30 days prior to scheduled date for the initial loading of fuel.	10 CFR 50.54(a)(1)
17.	Maintenance Rule	10 CFR 50.65	17.6	Fuel load authorization per 10 CFR 52.103(g)	10 CFR 50.65(a)(1)
18	Motor-Operated Valve Testing	10 CFR 50.55a(b)(3)(ii)	3.9.6	None specified	License Condition
19	Initial Test Program	10 CFR 50.34, 10 CFR 52.79(a)(28)	14.2	None specified	License Condition

<sup>2</sup>Additional FSAR (SRP) sections may be identified under broad operational programs required by regulation (e.g., ISI, IST, etc.)