

# 1.0 GENERAL INFORMATION

## 1.1 FACILITY AND PROCESS OVERVIEW

### 1.1.1 PURPOSE OF REVIEW

The purpose of this review is to establish that the applicant provides a facility and process overview that demonstrates the purpose of the facility. The facility and process overview should also familiarize reviewers, NRC management, or the general public with the facility and process. The facility and process overview should be abstracted from, and therefore consistent with, material presented in the applicant's design basis (for the application for construction approval) or Safety Program Description and Integrated Safety Analysis (ISA) Summary (for the license application), the environmental report, and the emergency plan.

### 1.1.2 RESPONSIBILITY FOR REVIEW

Primary: Project Manager

Secondary: ISA Reviewer, Environmental Reviewer, Emergency Protection Reviewer

Supporting: None

### 1.1.3 AREAS OF REVIEW

The facility and process overview should be submitted as part of the application for construction approval and updated in the license application. The areas of review for the facility and process overview should include:

- A. The overall facility layout on scaled drawings. The following types of features should be identified on the scaled drawings:
  - i. The location of facility buildings such as plant structures, buildings, towers, and tanks and other major man-made or geographical features;
  - ii. Transportation right of ways;
  - iii. Major ingress and egress routes for the site, including public access, if applicable; and
  - iv. The controlled area, restricted area, or other boundaries proposed by the applicant, as appropriate.
- B. The movement of personnel, materials, and equipment during facility operations.
- C. A description of the major chemical or mechanical processes involving special nuclear material (SNM), including:

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- i. The chemical and physical forms of SNM in the process;
- ii. The maximum amounts of SNM in processes;
- iii. The building locations of major components in the processes;
- iv. A description of the process steps; and
- v. Types, amounts, and discharge points of wastes discharged to the environment.

D. A text index with titles that describes all features identified in the scaled drawings.

### **1.1.4 ACCEPTANCE CRITERIA**

#### **1.1.4.1 Regulatory Requirements**

The regulatory requirements for facility and process overview are 10 CFR 70.22, "Contents of Applications," and proposed 10 CFR 70.65, "Additional Contents of Applications."

#### **1.1.4.2 Regulatory Guidance**

There are no regulatory guides that apply to a general facility description for a mixed oxide (MOX) fuel fabrication facility.

#### **1.1.4.3 Regulatory Acceptance Criteria**

The reviewers should find the facility and process overview acceptable if:

- A. The level of detail in the facility and process overview is appropriate for general familiarization with the facility and process, is appropriate for the level of design, and conveys the purpose of the facility.
- B. The facility and process overview appropriately cross-references the material provided in support of Chapters 5.0, 8.0, and 14.0 of this SRP.
- C. The facility and process overview is consistent with, yet less detailed than, the information provided in the application in support of Chapters 5.0, 8.0, and 14.0 of this SRP.
- D. The applicant commits to update the facility and process overview to reflect the completed design in the license application.

## **1.1.5 REVIEW PROCEDURES**

### **1.1.5.1 Acceptance Review**

The primary reviewer should perform an acceptance review to determine if the application adequately addresses the specific items in Section 1.1.3, "Areas of Review." If the primary reviewer verifies that the facility and process overview is adequately addressed, the primary reviewer should accept the application for the safety evaluation in Section 1.1.5.2. If the primary reviewer identifies significant deficiencies in the material provided, the primary reviewer should request that the applicant submit additional information prior to the start of the safety evaluation.

### **1.1.5.2 Safety Evaluation**

After determining that the application for construction approval is acceptable for review in accordance with Section 1.1.5.1, the primary reviewer should perform a safety evaluation against the acceptance criteria described in Section 1.1.4. On the basis of its review, the staff may request that the applicant provide additional information or modify the application to meet the acceptance criteria in SRP Section 1.1.4.

The primary reviewer should consider the facility and process overview as background for the detailed descriptions provided in support of the application. Therefore, the primary reviewer should not perform a detailed technical analysis. However, the primary reviewer should coordinate with the supporting reviewers to ensure that the material presented here is consistent with material presented in support of other chapters of this SRP.

When the applicant updates the facility and process overview for the license application, the primary reviewer should focus the review on any new or changed material. The primary reviewer should also confirm that the material presented in the facility and process overview remains consistent with the material provided in the license application in support of other chapters of this SRP.

## **1.1.6 EVALUATION FINDINGS**

The primary reviewer should document the safety evaluation by preparing material suitable for inclusion in the appropriate Safety Evaluation Report (SER). The primary reviewer should describe the review, explain the basis for the findings, and state the conclusions.

The staff could document the safety evaluation for the application for construction approval as follows:

*The staff reviewed the facility and process overview for approval to construct [insert name of facility] according to Section 1.1 of NUREG-1718. The staff evaluated [insert a summary of the material reviewed] and found that [state the findings].*

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*The staff concluded that the (1) the level of detail in the facility and process overview provided an adequate understanding of the facility and process and conveyed the purpose of the facility, (2) the facility and process overview appropriately cross-referenced material presented in later sections of the application for construction approval, and (3) the facility and process overview is consistent with, yet less detailed than, material in later sections of the application. As a result, the staff finds that the application meets the regulatory requirements for the facility and process overview to allow construction approval for the [insert name of facility].*

The staff could document the safety evaluation for the license application as follows:

*The staff reviewed the facility and process overview for a license application to possess and use SNM at [insert name of facility] according to Section 1.1 of NUREG-1718. The staff evaluated [insert a summary of the material reviewed] focusing on new or changed material when compared to the safety evaluation for the construction approval for [insert name of facility]. The staff found that [state the findings].*

*The staff concluded that the (1) level of detail in the facility and process overview provided an adequate understanding of the facility and process and conveyed the purpose of the facility, (2) the facility and process overview appropriately cross-referenced material presented in later sections of the application for construction approval, and (3) the facility and process overview is consistent with, yet less detailed than, material in later sections of the application. As a result, the staff finds that the application meets the regulatory requirements for the facility and process overview for a license to possess and use SNM.*

### 1.1.7 REFERENCES

- A. Code of Federal Regulations, Title 10, Part 70, Domestic Licensing of Special Nuclear Material, U.S. Government Printing Office, Washington, D.C., 1999.
- B. Proposed 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material; Possession of a Critical Mass of Special Nuclear Material." 64 FRN 41338, July 30, 1999.