

1 GENERAL INFORMATION EVALUATION

1.1 Review Objective

The objective of this U.S Nuclear Regulatory Commission (NRC) general information evaluation is to verify that the applicant's safety analysis report (SAR) includes a description (proprietary information may be provided as described in this chapter) of major components and operations adequate to familiarize reviewers with the pertinent features of the dry storage system (DSS) or dry storage facility (DSF) and to ensure that the applicant for a specific license has the relevant technical qualifications and quality assurance program. In addition, if the applicant submits an amendment application during or after a renewal of the license or certificate of compliance (CoC), the evaluation should ensure that all relevant aspects of aging management have been considered.

1.2 Applicability

This standard review plan (SRP) chapter applies to the review of applications for specific licenses for an independent spent fuel storage installation (ISFSI) or a monitored retrievable storage installation (MRS), categorized as DSFs. This chapter also applies to the review of applications for a DSS CoC for use by a general licensee. Sections of this chapter that apply only to specific license applications are identified with “(SL)” in the heading. Sections that apply only to DSS CoC applications have “(CoC)” in the heading. A subsection without an identifier applies to both types of applications. Applicants for a CoC will describe how their storage system was designed to ensure that a general licensee who chooses this system will be able to meet the applicable regulatory requirements.

1.3 Regulatory Requirements and Acceptance Criteria

This section summarizes those parts of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 72, “Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste,” that are relevant to the review areas addressed by this chapter. The NRC staff reviewer should refer to the exact language in the regulations. Table 1-1a matches the relevant regulatory requirements to the areas of review for an SL review. Table 1-1b matches the relevant regulatory requirements to the areas of review for a CoC review.

Table 1-1a Relationship of Regulations and Areas of Review for a DSF (SL)

Areas of Review	10 CFR Part 72 Regulations				
	72.24 (a)(b)(c)(f)(j)(l)(n)	72.28(a)	72.42	72.56	72.120 (b)(c)
Site Description	(a)		•	•	
DSF Description and Operational Features	(b)(c)		•	•	•
Engineering Drawings	(c)		•	•	•
Contents	(b)		•	•	•
Amendment Applications Submitted during the Renewal Review or after the Renewal Is Issued			•	•	
Qualifications of the Applicant	(j)	•		•	
Quality Assurance Program Description	(n)			•	

Table 1-1b Relationship of Regulations and Areas of Review for a DSS (CoC)

Areas of Review	10 CFR Part 72 Regulations		
	72.230 (a)	72.236 (a)(c)(g)(h)(m)	72.240
DSS Description and Operational Features	•	(g)(h)	•
Engineering Drawings	•	(g)	•
Contents		•	•
Amendment Applications Submitted during the Renewal Review or after the Renewal Is Issued		•	•
Conditions for DSS Transportability		•	

The bulk of this chapter focuses on the general description of the DSS or DSF designs, the DSF site, and the consistency of the general description with the contents of the remaining chapters of the SAR. All reviewers should evaluate the general description, regardless of their specific review assignments, to obtain an overall understanding of the DSS or DSF and DSF site; its structures, systems, and components (SSCs); and the protections afforded for public health and safety. The other chapters of this SRP present this information in more detail.

The general description should contain sufficient information to enable all reviewers to obtain an understanding of the principal functions and design features of the proposed DSS or DSF. The NRC staff should review the SAR for adequacy of descriptions and drawings of the DSS or DSF and its respective support systems. In addition, the staff should review the SAR for a DSF for the adequacy of the site description.

The following paragraphs briefly describe the acceptance criteria for the material provided in the general information evaluation.

1.3.1 Site Description (SL)

The SAR should contain a general description (including engineering drawings, sketches, and illustrations) of the site on which the proposed facility would be located, as well as a proposed schedule for construction and operations. This description should identify the geographical location and discuss the suitability and demography of the site in broad terms. It should contain sufficient information to enable all reviewers, regardless of their specific review assignments, to gain a general understanding of the proposed site.

1.3.2 DSS or DSF Description and Operational Features

The application should contain a broad overview and a general description (including engineering drawings, sketches, and illustrations) of the DSS or DSF. This information should clearly identify the functions of all principal components and principal auxiliary equipment and provide a list of those components classified as “important to safety.” Important aspects from all of the disciplinary areas should be summarized. If there are several versions of the DSS or DSF storage containers, the application should delineate the differences between the versions. The application should briefly describe typical operational sequences and procedures for loading and unloading the radioactive materials to be stored.

The application should include an index of any documents submitted to the NRC in other applications that are incorporated in whole or in part in the SAR, as well as provide a summary of such documents in the appropriate section of the SAR. The applicant should provide clear and specific references to the information incorporated by reference to ensure all relevant and intended information is clearly identified and irrelevant and unintended information is not incorporated from the referenced documents.

1.3.3 Engineering Drawings

Engineering drawings should be included in the first chapter of the SAR. The drawings should contain sufficient detail to allow the reviewer to understand the general arrangement and dimensions of the overall DSS or DSF design and various components and features so that the reviewer can verify the models used in the various safety calculations for the design. The drawings will also support the staff’s understanding of the key operation features of the DSS or DSF and any special equipment used for loading, unloading, transfer, or storage of or at the DSS or DSF. Also, the drawings should provide sufficient detail to allow the reviewer the option of developing a model for confirmatory calculations. The drawings should include allowable tolerances to support safety analyses.

1.3.4 Contents

The SAR should provide specifications for the contents expected to be stored in the DSS or DSF. For spent nuclear fuel (SNF) contents, these specifications may include, but are not limited to, type of SNF (i.e., boiling-water reactor (BWR), pressurized-water reactor (PWR), or both); number of SNF assemblies the DSS or DSF storage container can accommodate; maximum and minimum allowable enrichment of the fuel before irradiation; maximum burnup; minimum acceptable cooling time of the SNF before storage in the DSS or DSF (e.g., aged at least 1 year); maximum heat designed to be dissipated; maximum mass of SNF authorized for loading; condition of the SNF (e.g., intact, undamaged, damaged); weight and nature of nonfuel hardware; and inert atmosphere requirements. For specific license applications requesting approval to store reactor-related greater-than-Class-C (GTCC) waste and high-level radioactive waste (HLW) (MRS

only), these specifications should also include, but are not limited to, radionuclides and their maximum quantities, maximum mass of the GTCC waste, physical properties, and chemical compositions.

1.3.5 Amendment Applications Submitted during the Renewal Review or after the Renewal Is Issued

By regulation (10 CFR 72.42, “Duration of License; Renewal,” and 10 CFR 72.240, “Conditions for Spent Fuel Storage Cask Renewal”), applicants must demonstrate that SSCs important to safety will continue to perform their intended function(s) for the requested period of extended operation as a part of the renewal request. For *concurrent amendment and renewal applications*, the amendment application should include a scoping evaluation and an aging management review for that amendment to document the evaluation of the amendment’s SSCs (and associated subcomponents) for extended operation, or the renewal application should be supplemented to address the proposed amendment to document the evaluation of the amendment’s SSCs (and associated subcomponents) for extended operation. Any amendment application submitted after the renewal has been issued (post-renewal amendment applications) should include a scoping evaluation and an aging management review for that amendment.

For post-renewal amendment applications or concurrent amendment applications that include a scoping evaluation and an aging management review, the amendment application should either: (1) show that the in-scope SSCs (and associated subcomponents) described in the amendment are already encompassed in the time-limited aging analyses (TLAAs) or aging management programs included in the specific-license or CoC renewal application, or (2) include revised or new TLAAAs or aging management programs to address aging effects of any new in-scope SSCs (and associated subcomponents) proposed in the amendment application.

The project manager (PM) and technical reviewers should verify that Chapter 8 of the application, “Materials Evaluation,” includes details on the amendment with regard to scoping evaluation, aging management review, and appropriate SAR changes to incorporate the results of this review (see also Section 1.4.4, Application Content,” of NUREG-1927, Revision 1, “Standard Review Plan for Renewal of Specific Licenses and Certificates of Compliance for Dry Storage of Spent Nuclear Fuel,” issued June 2016).

For concurrent amendment and renewal applications, if there are different PMs assigned to the renewal review and the amendment review, the PMs and technical reviewers should coordinate across the reviews to ensure that renewal aspects are covered for the amendment. Note that, before proceeding with the review of an amendment submitted *during* the renewal review, the PMs should consider how each review may affect the other, and decide, in conjunction with branch and division management, whether to proceed with both reviews or to delay one review until the other is complete. For additional guidance, refer to Regulatory Issue Summary 2004-20, “Lessons Learned from Review of 10 CFR Parts 71 and 72 Applications,” dated December 16, 2004 (NRC 2004).

The NRC staff may include a condition in the renewed license or CoC noting all future amendments would need to address aging management.

1.3.6 Qualifications of the Applicant (SL)

As required in 10 CFR 72.24(j) and 10 CFR 72.28(a), the SAR must include the technical qualifications of the applicant to engage in the proposed activities, including any contractors that

the applicant may employ (e.g., for design, construction, fabrication, aspects of facility operations). Qualifications should include training and experience.

1.3.7 Quality Assurance (SL)

The application should briefly describe the proposed quality assurance (QA) program and cite the applicable implementing procedures. Details of the QA program should be discussed in Chapter 15, "Quality Assurance Evaluation," of this SRP. This description should discuss how the QA program satisfies all requirements of Subpart G, "Quality Assurance," to 10 CFR Part 72. Chapter 15 of this SRP addresses NRC's detailed review of the QA program.

1.3.8 Consideration of Dry Storage System Transportability (CoC)

The application should include information on how the DSS design considered compatibility with removal of the stored SNF from a reactor site, transportation, and ultimate disposition by the Department of Energy per the requirement in 10 CFR 72.236(m).

1.4 Areas of Review

This chapter addresses the following areas of review:

- site description (**SL**)
- DSS or DSF description and operational features
- engineering drawings
- contents to be stored in the DSF or DSS
- amendment applications submitted during the renewal review or after the renewal is issued
- qualifications of the applicant (**SL**)
- quality assurance program description (**SL**)
- consideration of DSS transportability (**CoC**)

1.5 Review Procedures

Figure 1-1 shows the interrelationship between the general information evaluation and the other chapters described in this SRP.


Chapter 1 – General Information Evaluation					
Site Description (SL)	DSS or DSF Description and Operational Features		Engineering Drawings	Contents	
Amendment Applications After and During Renewal	Qualifications of the Applicant (SL)	Quality Assurance Program (SL)	Consideration of DSS Transportability (CoC)		
	Chapter 2 – Site Characteristics Evaluation (SL)				
	• Geography and Demography • Surface and Subsurface Hydrology		• Nearby Facilities • Geology and Seismology	• Meteorology	
	Chapter 3 – Principal Design Criteria Evaluation				
	• Classification of SSCs • Design Criteria for Safety Protection Systems		• Design Bases for SSCs Important to Safety • Design Criteria for Other SSCs (SL)		
	Chapter 4 – Structural Evaluation				
	• Description of the SSCs • Normal and Off-normal Conditions		• Design Criteria • Accident Conditions	• Loads	
	Chapter 5 – Thermal Evaluation				
	• Decay Heat Removal System • Analytical Methods, Models, and Calculations		• Material and Design Limits	• Thermal Loads and Environmental Conditions • Surveillance Requirements	
	Chapter 6 – Shielding Evaluation				
	• Shielding Design Description • Shielding Analyses		• Radiation Source Definition • Reactor-Related GTCC Waste Storage (SL)	• Shielding Model Specification	
	Chapter 7 – Criticality Evaluation				
	• Criticality Design Criteria/Features • Criticality Analysis		• Fuel Specification • Burnup Credit	• Model Specification • Reactor-Related GTCC Waste and HLW (SL)	
	Chapter 8 – Materials Evaluation				
	• General Review Considerations • Fuel Cladding Integrity and Retrievability		• Material Properties	• Environmental Degradation; Chemical and Other Reactions • Code Use and Quality Standards	
	Chapter 9 – Confinement Evaluation				
	• Confinement Design Characteristics • Nuclides with Potential for Release		• Confinement Analyses	• Confinement Monitoring Capability • Supplemental Information	
	Chapter 10A (SL)/10B (CoC) – Radiation Protection Evaluation				
	• ALARA	• Design Features	• Radiation Exposures	• Dose Assessment	• Health Physics Program (SL)
	Chapter 11 – Operation Procedures and Systems Evaluation				
	• Operation Description • Storage Container Handling and Storage Operations • Other Operating Systems (SL) • Analytical Sampling (SL)		• Storage Container Loading • Repair and Maintenance (SL) • Operation Support Systems (SL) • Fire and Explosion Protection (SL)		• Storage Container Unloading • Control Room and Control Area (SL)
	Chapter 12 – Conduct of Operations Evaluation				
	• Organizational Structure (SL) • Normal Operations (SL)		• Acceptance Tests • Personnel Selection (SL)	• Maintenance Program • Emergency Planning (SL)	• Preoperational Testing and Startup (SL) • Physical Security/Safeguards (SL)
	Chapter 13 – Waste Management Evaluation (SL)				
	• Waste Sources and Facilities • Solid Wastes		• Off-Gas Treatment and Ventilation • Waste Stream Radiological Characteristics and Dose Analyses		• Liquid Waste Treatment/Retention
	Chapter 14 – Decommissioning Evaluation (SL)				
	• Proposed Decommissioning Plan • Operational Features			• Design Features • Decommissioning Funding Plan	
	Chapter 15 – Quality Assurance Evaluation				
	• Organization and Program • Document Control		• Design and Nonconformance • Procurement and Test Control		• Procedures and Drawings • Inspections and Audits
	Chapter 16 – Accident Analysis Evaluation				
	• Cause of Event • Detection of Event		• Definition of Operating Environment and Physical Parameters • Summary of Event Consequences and Regulatory Compliance		• Corrective Course of Action
	Chapter 17 – Technical Specifications Evaluation				
	• Functional and Operating Limits, Monitoring Instruments, and Limiting Control Settings • Design Features			• Limiting Conditions • Administrative Controls • Surveillance Requirements	

Figure 1-1 Overview of General Description Evaluation

The following sections delineate review procedures applicable to the general description evaluation. Because the review of the general description of the DSS or DSF is interdisciplinary, coordinate with other reviewers (e.g., structural, thermal, shielding, criticality, materials) as necessary.

1.5.1 Site Description (SL)

Verify that the SAR presents the location of the ISFSI or the MRS and schedules for construction. Verify that the SAR provides an overview of the geographical location and discusses the site's suitability and the demography of the area around the site. Verify that this overview is consistent with the detailed assessment provided in the "Site Characteristics Evaluation" chapter of the SAR.

1.5.2 DSS or DSF Description and Operational Features

Verify that the application provides a broad overview of the DSS or DSF design that the reviewers and other stakeholders can use to become familiar with the features of the proposed DSS or DSF. Confirm that the description does the following:

- presents the principal characteristics of the DSS or DSF SSCs and features including their dimensions, weights, and construction materials and, for a DSF, physical locations relative to each other and site boundaries (e.g., controlled area boundary, restricted area boundary)
- clearly identifies all SSCs and features considered important to safety and those SSCs that are not important to safety but are relied upon by SSCs that are important to safety or that (in the event of failure) could impact the performance of SSCs important to safety
- identifies and describes features such as the confinement vessel, vessel internals (e.g., fuel basket, GTCC liner), valves, lids, seals, penetrations, trunnions or other items used for lifting, closure mechanisms, shielding design features, criticality control features, and impact limiters
- discusses special design features of the DSS or DSF such as a heat-removal system, neutron poisons, or monitoring instrumentation

Ensure that the application includes a clear definition of the primary confinement system of the DSS or DSF's storage containers.

Compare the sketches and diagrams provided throughout the SAR with the detailed drawings presented in the SAR chapter on general information. If the application includes proprietary drawings and descriptions that will remain proprietary upon approval of the license or CoC, the sketches, drawings, and diagrams that provide the general description and operational features need not show the proprietary features. This may be achieved by depicting less detail or by illustrating generic components that fulfill the design functions. However, these representations should show the operational concept and features important to safety in sufficient detail to form an acceptable basis for public review and comment.

In addition to information on an individual DSS or DSF storage container, ensure that the application describes any limitations on the arrangement of DSS or DSF storage container arrays. For a particular DSS or DSF storage container, these limitations may include the minimum spacing between adjacent DSSs and DSF storage containers or the maximum density of DSSs or

DSF storage containers in an array. For specific licenses, the limitations include the total number of storage containers for each content type (SNF, reactor-related GTCC waste, HLW) or the total amount of SNF, GTCC waste, or (for MRS) HLW that may be stored at the DSF. The reviewer should describe the acceptable limitations in the safety evaluation report (SER) and ensure that the CoC or license conditions or technical specifications include the necessary limitations (see Chapter 17, "Technical Specifications Evaluation," of this SRP). Ensure that the SAR has provided information on the configuration(s) of the DSS or DSF storage containers. Configuration information includes items such as above-ground or below or in-grade storage, use of a metal confinement vessel in a concrete overpack or vault, bolted or welded closures of the confinement vessel, canister-based or noncanister-based storage system or container, as appropriate, and orientation of the stored contents (e.g., horizontal or vertical). Ensure that the application describes the operational sequences for loading and unloading the DSS or DSF storage containers.

Damaged fuel may require canning for storage and transportation. The purpose of canning is to confine gross fuel particles to a known, subcritical volume during off-normal and accident conditions, and to facilitate handling and ready retrieval of contents. Canning of damaged fuel also provides geometry control of the SNF to avoid relocation, concentration, or both, of radiation sources that may create problems for radiation shielding. Therefore, verify that the application includes a description of how damaged fuel would be canned, the characteristics of the can, and the means in which the can would be placed in the storage container and either readily retrieved during normal operations or off-normal conditions or recovered after an accident condition (see Chapter 16, "Accident Analysis Evaluation," Section 16.4.5, "Recovery and Retrievability," of this SRP for further discussion).

(SL) Verify that the SAR provides a brief description of the operating systems, including fuel, reactor-related GTCC waste, HLW handling (MRS), or all three; decay heat removal; site-generated waste treatment; and auxiliary systems. Determine whether the application provides sufficient detail to allow for an understanding of the systems involved.

(SL) Verify that the application presents the principal function and design features of the installation. Ensure that the SAR describes the DSF facilities (e.g., administrative building, health physics facilities) needed to support DSF operations. Ensure that the description includes a layout of the DSF with all features clearly identified and appropriate distances between facilities and features marked.

(SL) Note that a specific license application may involve use of a DSS certified under Subpart L, "Approval of Spent Fuel Storage Casks," to 10 CFR Part 72 and include the final SAR (FSAR) for the certified DSS by reference. In this case, verify that the SAR for the DSF provides additional information relating to the DSS, including the applicant's evaluations that establish that site and design parameter limits and facility operations for the DSF are within the bounds of those established as limiting conditions as set forth in the referenced CoC and FSAR. The applicant does not need to re-perform the evaluations that were done for the certified DSS that are being incorporated by reference into the SAR for the DSF. Ensure that references are clear and specific (i.e., point to specific relevant pages or sections of a specific revision of the DSS FSAR and CoC, including the specific amendment number, that describe the information or analyses the applicant is including by reference).

1.5.3 Engineering Drawings

Engineering drawings are usually presented in the chapter of the SAR covering general information. Reviewers should be familiar with NUREG/CR-5502, "Engineering Drawings for 10 CFR Part 71 Package Approvals," issued May 1998. Although NUREG/CR-5502 was written for transportation packages, the criteria in NUREG/CR-5502 for drawings are also applicable to applications for DSSs or DSF storage containers.

Verify that all SSCs important to safety are sufficiently detailed to enable reviewers to evaluate their effectiveness. In addition, review information about items not important to safety to ensure they do not impede the systems that are important to safety.

Each reviewer should evaluate the level of detail furnished with the application. Ensure that the drawings specify those details of the DSS or DSF design that affect its evaluation.

Devote particular attention to ensuring that dimensions, materials, and other details on the drawings are consistent with those described in the text of the SAR as well as those used in safety analyses. Confirm that the dimensions shown on the general arrangement drawing(s) specify the overall size of the DSS or DSF storage containers, the location and configuration of the contents within the DSS or DSF storage containers, and the configurations and locations of the containers on the site for DSFs. Verify that all dimensions indicated on drawings include tolerances that are consistent with the DSS or DSF evaluation and that the tolerances are consistent with the assumptions used in the safety analyses.

1.5.4 Contents

Confirm that the application presents a general description of the contents proposed for storage in the DSS or DSF. Because a very detailed description of the proposed DSS or DSF contents is typically provided in the chapter of the SAR on principal design criteria, the general information discussion in the SAR is important only to the extent that it permits overall familiarization with the DSS or DSF.

1.5.4.1 *Spent Nuclear Fuel*

Verify that the application contains the key parameters for SNF, including the type of fuel (i.e., PWR, BWR, or both), number of fuel assemblies, parameters that adequately characterize the radiation source terms associated with these fuel assemblies, any nonfuel hardware stored with the assemblies (e.g., maximum burnup, minimum enrichment, minimum cooling time, hardware material specifications), preferential loading, and condition of the fuel assemblies (i.e., intact, damaged, or consolidated). The general information may also include additional characteristics such as maximum burnup, initial enrichment, heat load, and cooling time as well as the assembly vendor and configuration (e.g., Westinghouse 17 x 17). These characteristics may also be repeated in the principal design criteria. In addition, verify that the application identifies the cover gas, as applicable.

If the applicant proposes the storage of damaged fuel, confirm that the SAR defines the range of permissible conditions for the stored material. The regulation in 10 CFR 72.122(h)(1) allows for "canning" or use of other acceptable means for storing fuel with cladding that is not or may not remain intact and for unconsolidated assemblies (without intact cladding). Consistent with 10 CFR 72.236(c), the damaged fuel must be maintained in a subcritical condition, while 10 CFR 72.236(h) requires the damaged fuel to be compatible with wet or dry loading and

unloading facilities. If damaged fuel is to be stored, ensure that the application addresses how the following basic requirements will be met:

- Maintain subcriticality.
- Prevent unacceptable release of contained radioactive material.
- Avoid excessive radiation dose rates and doses.
- Ensure the application describes how the design will protect the fuel for a specific licensee, or for a CoC application, facilitate a general licensee's ability to protect the cladding against gross rupture or the fuel must be otherwise confined such that degradation of the fuel during storage will not pose operational safety problems with respect to its removal from storage and (10 CFR 72.122(h)(1)).
- Maintain ready retrieval of the contents.

If the application requests approval to store nonfuel hardware together with the SNF assemblies (e.g., control spiders, burnable poison rod assemblies, control rod elements, thimble plugs, fission chambers, and primary and secondary neutron sources, or BWR channels that are an integral part of the fuel assembly that do not require special handling), confirm that the application presents summary descriptions of those components in the SAR's chapter on general information. The NRC has made a practice of carefully characterizing components as being "associated with or integral to" the fuel assembly, which the NRC refers to as nonfuel hardware. Chapter 3, "Principal Design Criteria," of this SRP covers the evaluation of nonfuel hardware in more detail.

1.5.4.2 Greater-Than-Class-C Waste and High Level Waste (SL)

Verify that the application lists the key parameters for reactor-related GTCC waste, such as the physical and chemical form of the GTCC waste (e.g., activated metal, process waste), the maximum quantity of GTCC waste to be stored at the DSF, and the radionuclide inventory. Confirm that the application lists the key parameters for HLW proposed for storage at an MRS, including the physical and chemical properties of the HLW as well as the radionuclides present and the quantities of these radionuclides present in the HLW.

Ensure the application reflects 10 CFR 72.2, "Scope," and 10 CFR 71.120(b) and (c), which require reactor-related GTCC wastes, if stored at an ISFSI or an MRS, to be in solid form and stored in a separate container (i.e., GTCC wastes may not be stored together with SNF in the same storage container). Verify that the application reflects that liquid reactor-related GTCC wastes may not be stored at an ISFSI or an MRS.

1.5.5 Amendment Applications Submitted during the Renewal Review or after the Renewal Is Issued

Ensure that, for concurrent amendment and renewal applications, the amendment application includes a scoping evaluation and an aging management review for that amendment to document the evaluation of the amendment's SSCs (and associated subcomponents) for extended operation, or that the renewal application is supplemented to address the proposed amendment to document the evaluation of the amendment's SSCs (and associated subcomponents) for extended operation. Verify that any amendment application submitted after the license or CoC has been renewed includes a scoping evaluation and an aging management review for that amendment.

For post-renewal amendment applications or concurrent amendment applications that include a scoping evaluation and an aging management review, verify that the amendment application either: (1) shows that the in-scope SSCs (and associated subcomponents) described in the amendment are already encompassed in the TLAAs, aging management programs included in the specific-license, or CoC renewal application, or (2) includes revised or new TLAAs or aging management programs to address aging effects of any new in-scope SSCs (and associated subcomponents) proposed in the amendment application.

The PM and technical reviewers should verify that Chapter 8 of the application, "Materials Evaluation," includes details on the amendment with regard to scoping evaluation, aging management review, and appropriate SAR changes to incorporate the results of this review (see also Section 1.4.4 of NUREG-1927, Revision 1).

For concurrent amendment and renewal applications, if there are different PMs assigned to the renewal review and the amendment review, the PMs and technical reviewers should coordinate across the reviews to ensure that renewal aspects are covered for the amendment. Note that, before proceeding with the review of an amendment submitted during the renewal review, the PMs should consider how each review may affect the other, and decide, in conjunction with branch and division management, whether to proceed with both reviews or to delay one review until the other is complete. For additional guidance, refer to Regulatory Issue Summary 2004-20.

The NRC staff may include a condition in the renewed license or CoC noting all future amendments would need to address aging management.

1.5.6 Qualifications of the Applicant (SL)

Confirm that the SAR clearly designates the applicant and the prime agents, consultants, and contractors, if known, for design, fabrication, and testing of the proposed DSF SSCs and features. In addition, verify that the SAR clearly defines the division and assignment of responsibilities among those parties. Although specific subcontractors may not be known at the time the SAR is submitted, the SAR should clearly identify any activities the applicant will not perform. In addition, verify that the SAR describes the technical qualifications, previous experience, and suitability of all organizations participating in the proposed activities.

1.5.7 Quality Assurance (SL)

Confirm that the application describes the proposed QA program, citing all implementing procedures in a manner that satisfies the 18 criteria defined in Subpart G to 10 CFR Part 72. The description only needs to refer to procedures that implement the QA program, and these procedures do not need to be explicitly included in the application. Verify that the QA program addresses design, fabrication, construction, testing, operation, and modification activities for the SSCs that are important to safety. Verify that the application also discusses the activities to be performed under the QA program and how these activities will be controlled to ensure compliance with all of the requirements of Subpart G. These controls may be applied to the various activities using a graded approach as presented in NUREG/CR-6407, "Classification of Transportation Packaging and Dry Spent Fuel Storage System Components According to Importance to Safety," issued February 1996 (i.e., QA efforts expended for a given activity should be consistent with that activity's system classification and function).

In accordance with 10 CFR 72.140(d), a QA program previously approved by the NRC and established, maintained, and executed for another DSF will be accepted as satisfying the

requirements for a QA program for the purpose of this application. Additionally, previously approved QA programs that meet the requirements of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," or Subpart H, "Quality Assurance," to 10 CFR Part 71, "Packaging and Transportation of Radioactive Material," will be acceptable provided they also meet the recordkeeping requirements in 10 CFR 72.174, "Quality Assurance Records." Ensure that any reference to a previously approved QA program identifies the program by date of submittal to the NRC, docket number, and date of NRC approval. Coordinate with the review under SRP Chapter 15, "Quality Assurance Evaluation."

1.5.8 Consideration of Dry Storage System Transportability (CoC)

Coordinate the review with all of the technical disciplines to ensure the SAR demonstrates that the DSS design includes, to the extent practicable, consideration of transportation of the SNF from the licensees' sites per 10 CFR 72.236(m). For most DSS designs, this evaluation is fairly simple and straightforward and does not require significant effort on the part of the reviewers; the adequacy of the consideration of transportation should be fairly obvious from the design. For DSS designs with uncommon or unusual features or construction, that lack common important features, or that exhibit unusual responses to off-normal or accident conditions, use more care when evaluating the design's adequacy in this regard. Consider whether or not the applicant may need to provide further justification or analyses to demonstrate appropriate consideration of transportation to meet 10 CFR 72.236(m).

1.6 Evaluation Findings

The reviewer should prepare evaluation findings upon satisfaction of the regulatory requirements in Chapter 1. If the documentation submitted with the application fully supports positive findings for each of the regulatory requirements, the statements of findings should be similar to the following:

- | | |
|-----------|---|
| F1.1 (SL) | The site description and a discussion of the suitability of the site for a DSF, as presented in SAR Section(s) _____, are sufficient to familiarize a reviewer or stakeholder with the site and its suitability. |
| F1.2 | The general description and discussion of the [DSS or DSF] presented in SAR Section(s) _____, with special attention to the design and operating characteristics, unusual or novel design features, and principal considerations important to safety, are sufficient to familiarize a reviewer or stakeholder with the design. |
| F1.3 | Drawings for the SSCs important to safety are presented in SAR Section _____. A listing of those drawings (including dates and revision numbers) that were relied upon as a basis for approval appears in SER Section _____. |
| F1.4 | The specifications for the [SNF/HLW/reactor-related GTCC waste] to be stored [in the DSS/at the DSF] provided in SAR Section _____ are sufficient to familiarize a reviewer or stakeholder with the contents to be stored. Additional details concerning these specifications are presented in SAR Section _____ and SER Section _____. |

F1.5 (SL) The technical qualifications of the applicant to engage in the proposed activities are identified and described in SAR Section _____ and determine that the applicant has the technical qualifications to design, build, and operate a DSF.

F1.6 (SL) The QA program and implementing procedures are sufficiently described in SAR Section _____.

The reviewer should provide a summary statement similar to the following:

The staff concludes that the general information presented in the SAR satisfies the requirements for the general description under 10 CFR Part 72. This finding is reached on the basis of a review that considered the regulation, itself, applicable regulatory guides, and accepted practices.

1.7 References

10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities."

10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste."

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