



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, DC 20555 - 0001**

November 16, 2010

Mr. R.W. Borchardt  
Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**SUBJECT:** STANDARD REVIEW PLAN FOR RENEWAL OF SPENT FUEL DRY CASK STORAGE SYSTEM LICENSES AND CERTIFICATES OF COMPLIANCE (NUREG-1927)

Dear Mr. Borchardt:

During the 577<sup>th</sup> meeting of the Advisory Committee on Reactor Safeguards, November 4-6, 2010, we completed our review of the Standard Review Plan (SRP) for Renewal of Spent Fuel Dry Cask Storage System (DCSS) Licenses and Certificates of Compliance (COC), NUREG-1927. Our Radiation Protection & Nuclear Materials Subcommittee also reviewed this matter during its meeting on October 22, 2010. During our reviews, we had the benefit of discussions with representatives of the NRC staff. We also had the benefit of the documents referenced.

### **RECOMMENDATION**

The Standard Review Plan for Renewal of Spent Fuel Dry Cask Storage System Licenses and Certificates of Compliance, NUREG-1927, should be issued.

### **BACKGROUND**

A DCSS is a stand-alone system used to store spent nuclear fuel (SNF). It is a passive system, designed conservatively, and subject to a small number of aging mechanisms. These DCSSs are located at Independent Spent Fuel Storage Installations<sup>1</sup> (ISFSIs).

### **DISCUSSION**

10 CFR Part 72 provides the requirements for: (a) specific ISFSI licenses, (b) COCs for SNF DCSSs, and (c) general licenses for ISFSIs located at reactor sites. A general ISFSI license is used for licensees that operate a nuclear reactor under the provisions of 10 CFR Part 50. A general license is directly tied to the term of the associated 10 CFR Part 50 reactor license. If the license term of a DCSS COC is extended to 40 years, the authority to use a specific cask design under a general license would also be extended to 40 years.

---

<sup>1</sup> From 10 CFR 72.3 *Independent spent fuel storage installation or ISFSI* means a complex designed and constructed for the interim storage of SNF, solid reactor-related GTCC waste, and other radioactive materials associated with spent fuel and reactor-related GTCC waste storage. An ISFSI which is located on the site of another facility licensed under this part or a facility licensed under part 50 of this chapter and which shares common utilities and services with that facility or is physically connected with that other facility may still be considered independent.

To renew a specific license, an applicant must submit a license renewal application at least two years before the expiration of the license, and not less than 30 days before the expiration date of the COC. The NRC may renew a specific license or a COC for a term not to exceed 40 years.

The license renewal application should contain an aging management review, a time-limited aging analysis, and an aging management program. Additional information related to the updated final safety analysis report and changes or additions to technical specifications should also be contained in the application.

NUREG-1927 provides guidance to the staff to ensure that the applicant assesses the structures, systems, and components (SSCs) determined to be within the scope of renewal; identifies aging effects requiring management; and provides appropriate analyses of all SSCs with a time-dependent operating life. This SRP should be issued.

The staff should continue to participate in research activities to confirm the technical bases supporting the dry storage of SNF for extended periods and to update this SRP, as needed.

Sincerely,

*/RA/*

Said Abdel-Khalik  
Chairman

References:

1. Memorandum to Edwin M. Hackett, "NUREG-1927 Standard Review Plan for Renewal of Spent Fuel Dry Cask Storage System Licenses and Certificates of Compliance," 08/18/2010 (ML101440120)
2. SECY-10-0056, "Final Rule: 10 CFR Part 72 License and Certificate of Compliance Terms (RIN 3150-A109)," 05/03/2010 (ML100710052)
3. 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," 01/01/2010 (<http://www.nrc.gov/reading-rm/doc-collections/cfr/part072/>)

To renew a specific license, an applicant must submit a license renewal application at least two years before the expiration of the license, and not less than 30 days before the expiration date of the COC. The NRC may renew a specific license or a COC for a term not to exceed 40 years.

The license renewal application should contain an aging management review, a time-limited aging analysis, and an aging management program. Additional information related to the updated final safety analysis report and changes or additions to technical specifications should also be contained in the application.

NUREG-1927 provides guidance to the staff to ensure that the applicant assesses the structures, systems, and components (SSCs) determined to be within the scope of renewal; identifies aging effects requiring management; and provides appropriate analyses of all SSCs with a time-dependent operating life. This SRP should be issued.

The staff should continue to participate in research activities to confirm the technical bases supporting the dry storage of SNF for extended periods and to update this SRP, as needed.

Sincerely,

*/RA/*

Said Abdel-Khalik  
Chairman

References:

1. Memorandum to Edwin M. Hackett, "NUREG-1927 Standard Review Plan for Renewal of Spent Fuel Dry Cask Storage System Licenses and Certificates of Compliance," 08/18/2010 (ML101440120)
2. SECY-10-0056, "Final Rule: 10 CFR Part 72 License and Certificate of Compliance Terms (RIN 3150-A109)," 05/03/2010 (ML100710052)
3. 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," 01/01/2010 (<http://www.nrc.gov/reading-rm/doc-collections/cfr/part072/>)

Distribution:

See next page

Accession No: ML103120230

Publicly Available (Y/N): Y

Sensitive (Y/N): N

If Sensitive, which category?

Viewing Rights:  NRC Users or  ACRS only or  See restricted distribution

OFFICE	ACRS	SUNSI Review	ACRS	ACRS	ACRS
NAME	CBrown/MBenson	CBrown/MBenson	CSantos	EHackett	EHackett for SAbdek-Khalik
DATE	11/16/10	11/16/10	11/16/10	11/16/10	11/16/10

OFFICIAL RECORD COPY

Letter to Mr. R. W. Borchardt, EDO, NRC, from Said Abdel-Khalik, Chairman, ACRS, dated November 16, 2010

SUBJECT: STANDARD REVIEW PLAN FOR RENEWAL OF SPENT FUEL DRY CASK STORAGE SYSTEM LICENSES AND CERTIFICATES OF COMPLIANCE (NUREG-1927)

Distribution:

ACRS Staff  
ACRS Members  
B. Champ  
A. Bates  
S. McKelvin  
L. Mike  
J. Ridgely  
RidsSECYMailCenter  
RidsEDOMailCenter  
RidsNMSSOD  
RidsNSIROD  
RidsFSMEOD  
RidsRESOD  
RidsOIGMailCenter  
RidsOGCMailCenter  
RidsOCAAMailCenter  
RidsOCAMailCenter  
RidsNRROD  
RidsNROOD  
RidsOPAMail  
RidsRGN1MailCenter  
RidsRGN2MailCenter  
RidsRGN3MailCenter  
RidsRGN4MailCenter