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REVISION HISTORY

	Page: Section	Change Description
Amendment No. 9	Pages 1 and 1A	Added definitions of INTACT FUEL and UNDAMAGED FUEL ASSEBLIES
	Page 2: 2.1	Changed neutron source term for NUHOMS-32P canister. Added gamma source term for NUHOMS-32P canister.
	Page 5: 3.1.1(3),(8),(9)	Increased allowable maximum burnup for a NUHOMS-32P canister. Revised conditions for clarification.
	Page 11: 3.4.1.1	Increased the allowable air temperature rise from the horizontal storage module (HSM) inlet to the HSM outlet.
	Page 13:5.3	Added TS 5.3 - Combustible gas monitoring during top shield plug lid welding and cutting
Amendment No. 8	Page 13: 6.1	Changed the name of the operator to Calvert Cliffs Nuclear Power Plant, LLC.
Amendment No. 7	NA	Change in Final Safety Analysis Report design basis limit for the dry shielded canister, no changes to Technical Specifications
Amendment No. 6	Table of contents Page 2: 2.1 Page 5: 3.1.1(4), 3.1.1(5), 3.3.1(6), 3.3.1(7), and 3.3.1(9) Page 7: 3.2.1.1, 4.2.1.1, and 4.2.1.2 Page 5: 5.1 and 5.2	Renumbered section 5.1, and added section 5.2 Changed SAR table reference and added neutron source term for NUHOMS–32P canister Made changes to support use of either NUHOMS-24P or NUHOMS-32P canister increased the required spent fuel pool boron concentration, increased surveillance requirement action times. Renumbered section 5.1, and added section 5.2
Amendment No. 5	Page 4: Section 2.3 Page 13: Section 6.3	Removed reference to Transfer Cask drop height limit. Changed semi-annual reporting period to annual reporting period and corrected typographical error.

1.0 DEFINITIONS

The following definitions apply for the purpose of these Technical Specifications:

a. ADMINISTRATIVE CONTROLS: Provisions relating to organization operating, emergency, and management procedures, recordkeeping, review and audit, and reporting necessary to ensure that the operations involved in the movement, transfer and storage of spent fuel at the Calvert Cliffs ISFSI are performed in a safe manner.

b. DESIGN FEATURES: Features of the facility associated with the basic design such as materials of construction, geometric arrangements, dimensions, etc., which, if altered or modified, could have a significant effect on safety.

c. FUEL ASSEMBLY: The unit of nuclear fuel in the form that is charged or discharged from the core of a light-water reactor (LWR). Normally, will consist of a rectangular arrangement of fuel and non-fuel held together by end fittings, spacers, and guide tubes.

d. FUNCTIONAL AND OPERATING LIMITS: Limits on fuel handling and storage conditions necessary to protect the integrity of the stored fuel, to protect employees against occupational exposures, and to guard against the uncontrolled release of radioactive materials.

e. LIMITING CONDITIONS: The minimum or maximum functional capabilities or performance levels of equipment required for safe operation of the facility.

f. LOADING OPERATIONS: Loading Operations include all cask preparation steps prior to cask transport from the auxiliary building area.

g. SURVEILLANCE INTERVAL: A surveillance interval is the interval between a surveillance check, test or calibration. Unless specifically stated otherwise, each surveillance requirement shall be performed within the specified time interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

h. SURVEILLANCE REQUIREMENTS: Surveillance requirements include: (i) inspection, test, and calibration activities to ensure that the necessary integrity of required systems, components, and the spent fuel in storage is maintained; (ii) confirmation that operation of the installation is within the required functional and operating limits; and (iii) a confirmation that the limiting conditions required for safe storage are met.

i. INTACT FUEL ASSEMBLIES: Fuel assemblies meeting the following conditions are considered intact fuel assemblies for the purpose of storage in the Calvert Cliffs, ISFSI:

   1) the assembly is undamaged, and
   2) no known cladding breaches, as indicated by reactor operating records or fuel qualification testing (e.g., vacuum canister sipping, etc.)

j. UNDAMAGED FUEL ASSEMBLIES:

Fuel assemblies meeting the following conditions are considered undamaged for the purpose of storage in the Calvert Cliffs ISFSI:

1) no deformation of the fuel rods such that structural, criticality safety or radiological design functions are adversely impacted (e.g., deformation other than uniform rod bowing that does not significantly open up the lattice spacing);
2) no missing fuel rods such that structural, criticality safety or radiological design functions are adversely impacted (e.g., a dummy rod that displaces a volume equal to, or greater than, the original fuel rod, placed in the missing rod location is acceptable);
3) no missing, displaced, or damaged structural components such that radiological and/or criticality safety is adversely affected (e.g., significantly changed rod pitch);
4) no missing, displaced, or damaged structural components such that the assembly cannot be handled by normal means (e.g. no consolidated fuel),
5) no gross cladding breaches (other than pinhole leaks or hairline cracks), as indicated by reactor operating records (or other records); and
6) no debris that would adversely impact the structural, criticality safety, or radiological design function.

2.0 FUNCTIONAL AND OPERATING LIMITS

2.1 FUEL TO BE STORED AT ISFSI

SPECIFICATION: Any fuel not specifically filling the requirements of Section 3.1 for maximum burnup and post irradiation time may be stored if it meets the minimum cooling time listed in the Calvert Cliffs ISFSI SAR Table 9.4.1 and all the following requirements are met:

Neutron Source Per Assembly (NUHOMS-24P)	$\leq 2.23 \times 10^{8}$ n/sec/assembly, with spectrum bounded by Table 3.1-4 of the Calvert Cliffs ISFSI SAR
Neutron Source Per Assembly (NUHOMS-32P)	$\leq 4.175 \times 10^{8}$ n/sec/assembly, with spectrum bounded by Table 3.1-4 of the Calvert Cliffs ISFSI SAR
Gamma Source Per Assembly (NUHOMS-24P)	$\leq 1.53 \times 10^{15}$ MeV/sec/assembly with spectrum bounded by that shown in Table 3.1-4 of the Calvert Cliffs ISFSI SAR
Gamma Source Per Assembly (NUHOMS-32P)	$\leq 1.61 \times 10^{15}$ MeV/sec/assembly with spectrum bounded by that shown in Table 3.1-4 of the Calvert Cliffs ISFSI SAR

APPLICABILITY: This specification is applicable to all spent fuel to be stored in the Calvert Cliffs ISFSI.

ACTION: If the requirements of the above specification are not met, do not load the fuel assembly into a DSC for storage.

3/4.1 FUEL TO BE STORED AT ISFSI

LIMITING CONDITION FOR OPERATION

3.1.1 The spent nuclear fuel to be received and stored at the Calvert Cliffs ISFSI shall meet the following requirements:

(1) Only fuel irradiated at the Calvert Cliffs Units 1 or 2 may be used. (14 x 14 CE type PWR Fuel)

(2) Maximum initial enrichment shall not exceed 4.5 weight percent U-235.

(3) Maximum assembly average burnup shall not exceed 47,000 megawatt-days per metric ton uranium (NUHOMS-24P) or 52,000 megawatt-days per metric ton uranium (NUHOMS-32P).

(4) Minimum burnup shall exceed the minimum specified in SAR Figure 3.3-1. (Applicable only to NUHOMS-24P.)

(5) Maximum heat generation rate shall not exceed 0.66 kilowatt per fuel assembly.

(6) Fuel shall have cooled as specified in ISFSI SAR Table 9.4.1.

(7) Maximum assembly mass including control components shall not exceed 1450 lb.(658 kg).

(8) Fuel shall be undamaged.

(9) Fuel shall be intact (NUHOMS-32P), only if air is the blowdown medium for DSC drying.

APPLICABILITY: This specification is applicable to all spent fuel to be stored in Calvert Cliffs ISFSI.

ACTION: If any fuel does not specifically meet the requirements for maximum burnup and post irradiation time (items 3 & 6 above), confirm to see if the requirements of Section 2.1 are satisfied. If any other requirements of the above specification are not satisfied, do not load the fuel assembly into a DSC for storage.

3/4.4 HORIZONTAL STORAGE MODULE (HSM)

3/4.4.1 MAXIMUM AIR TEMPERATURE RISE

LIMITING CONDITION FOR OPERATION

3.4.1.1 The air temperature rise from the HSM inlet to the HSM outlets shall not exceed 64°F (35.6°C).

APPLICABILITY: Applicable to all HSMs.

ACTION: If the temperature rise is greater than 64°F, (35.6°C) the air inlet and outlets should be checked for blockage. If any blockage is cleared and the temperature rise is still greater than 64°F, (35.6°C) the DSC and HSM cavity shall be inspected, using video equipment or other suitable means. Analysis of the existing conditions shall be performed to confirm that conditions adversely affecting the fuel cladding integrity do not exist. Subsequent actions to return to acceptable conditions such as, providing temporary forced ventilation and/or retrieval of the DSC and verification that an assembly fuel with no more than 0.66 kW was loaded shall be performed.

SURVEILLANCE REQUIREMENTS

4.4.1.1. The maximum temperature rise from the HSM inlet to outlets shall be checked at the time the DSC is stored in the HSM, again 24 hours later, and again after 7 days.

4.4.1.2 The HSM shall be visually inspected to verify that the air inlet and outlets are free from obstructions when there is fuel in the HSM. The visual inspection frequency shall be every 24 hours.

5.0 DESIGN FEATURES

5.1 GENERAL

The Calvert Cliffs ISFSI design approval was based upon review of specific design drawings, some of which have been deemed appropriate for inclusion in the Calvert Cliffs ISFSI Safety Evaluation Report (SER). Drawings listed in Section 1.5 of the Calvert Cliffs ISFSI SER have been reviewed and approved by the NRC. These drawings may be revised under the provisions of 10 CFR 72.48 as appropriate.

5.2 NUHOMS-32P DRY SHIELDED CANISTER (DSC)

The NUHOMS-32P DSC poison plates shall have a minimum B10 areal density of 0.0100g/cm^2.

5.3 COMBUSTIBLE GAS MONITORING DURING TOP SHIELD PLUG LID WELDING AND CUTTING

During top shield plug lid-to-shell welding and cutting operations, combustible gas monitoring of the space under the top shield plug lid is required, to ensure that there is no combustible mixture present.

6.0 ADMINISTRATIVE CONTROLS

6.1 GENERAL

The Calvert Cliffs ISFSI is located on the Calvert Cliffs Nuclear Power Plant site and will be managed and operated by the Calvert Cliffs Nuclear Power Plant, LLC, staff. The administrative controls shall be in accordance with the requirements of the Calvert Cliffs Nuclear Power Plant Facility Operating Licenses (DPR-53, and -69) and associated Technical Specifications as appropriate.

6.2 ENVIRONMENTAL MONITORING PROGRAM

The licensee shall include the Calvert Cliffs ISFSI in the environmental monitoring for Calvert Cliffs Nuclear Power Plant. An environmental monitoring program is required pursuant to 10 CFR 72.44(d)(2).

6.3 ANNUAL ENVIRONMENTAL REPORT

The annual radioactive effluent release reports under 10 CFR 50.36(a)(2) license requirements for the Calvert Cliffs Nuclear Power Plant shall also specify the quantity, if any, of each of the principal radionuclides released to the environment in liquid and gaseous effluents during the ISFSI operation and such other information as may be required by the Commission to estimate maximum potential radiation dose commitment to the public resulting from effluent releases. Copies of these reports shall be submitted to the NRC Region I Office and to the Director, Office of Nuclear Material Safety and Safeguards. The report under this specification is required pursuant to 10 CFR 72.44(d)(3).