

## 1.1 Definitions

<u>Term</u>	<u>Definition</u>
	integrity is such that geometric rearrangement of fuel is not expected. Damaged fuel stored in DFIs may contain missing or partial fuel rods and/or fuel rods with known or suspected cladding defects greater than hairline cracks or pinhole leaks.
BLEU FUEL	Blended Low Enriched Uranium (BLEU) fuel material are essentially identical to UO <sub>2</sub> fuel except for the presence of small amount of impurities.
FUEL DEBRIS	FUEL DEBRIS is ruptured fuel rods, severed rods, loose fuel pellets, containers or structures that are supporting these loose fuel assembly parts, or fuel assemblies with known or suspected defects which cannot be handled by normal means due to fuel cladding damage.
FUEL BUILDING	The FUEL BUILDING is the site-specific power plant facility, governed by the regulations of 10 CFR Part 50, where the loaded OVERPACK or TRANSFER CASK is transferred to or from the transporter.
GROSSLY BREACHED SPENT FUEL ROD	Spent nuclear fuel rod with a cladding defect that could lead to the release of fuel particulate greater than the average size fuel fragment for that particular assembly. A gross cladding breach may be confirmed by visual examination, through a review of reactor operating records indicating the presence of heavy metal isotopes, or other acceptable inspection means.
LOADING OPERATIONS	LOADING OPERATIONS include all licensed activities on an OVERPACK or TRANSFER CASK while it is being loaded with fuel assemblies. LOADING OPERATIONS begin when the first fuel assembly is placed in the MPC and end when the OVERPACK or TRANSFER CASK is suspended from or secured on the transporter. LOADING OPERATIONS does not include MPC TRANSFER.
MINOR DEVIATION FROM THE PRESCRIBED LOADING	Deviation in an MPC's permissible contents to allow one slightly thermally-discrepant fuel assembly to be

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	normal means. If irradiated dummy stainless steel rods are present in the fuel assembly, the dummy/replacement rods will be considered in the site specific dose calculations.
SPENT FUEL STORAGE CASKS (SFSCs)	SFSCs are containers approved for the storage of spent fuel assemblies at the ISFSI. The HI-STORM FW SFSC System consists of the OVERPACK and its integral MPC.
STORAGE OPERATIONS	STORAGE OPERATIONS include all licensed activities that are performed at the ISFSI while an SFSC containing spent fuel is situated within the ISFSI perimeter. STORAGE OPERATIONS does not include MPC TRANSFER.
TRANSFER CASK	TRANSFER CASKs are containers designed to contain the MPC during and after loading of spent fuel assemblies, and prior to and during unloading and to transfer the MPC to or from the OVERPACK.
TRANSPORT OPERATIONS	TRANSPORT OPERATIONS include all licensed activities performed on an OVERPACK or TRANSFER CASK loaded with one or more fuel assemblies when it is being moved after LOADING OPERATIONS or before UNLOADING OPERATIONS. TRANSPORT OPERATIONS begin when the OVERPACK or TRANSFER CASK is first suspended from or secured on the transporter and end when the OVERPACK or TRANSFER CASK is at its destination and no longer secured on or suspended from the transporter. TRANSPORT OPERATIONS includes MPC TRANSFER.
UNDAMAGED FUEL ASSEMBLY	UNDAMAGED FUEL ASSEMBLIES are: a) fuel assemblies without known or suspected cladding defects greater than pinhole leaks or hairline cracks and which can be handled by normal means; or b) a BWR fuel assembly with an intact channel, a maximum planar average initial of 3.3 wt% U-235, without known or suspected GROSSLY BREACHED SPENT FUEL RODS, and which can be handled by normal means. An UNDAMAGED FUEL ASSEMBLY may be a REPAIRED/RECONSTITUTED FUEL ASSEMBLY.

# TRANSFER CASK Heat Removal System

## 3.1.4

### 3.1 SFSC INTEGRITY

#### 3.1.4 TRANSFER CASK Heat Removal System

LCO 3.1.4 The HI-TRAC VW Version V or V2 Heat Removal System shall be operable

#### NOTE

The HI-TRAC Version V or V2 Heat Removal System is operable when 100% of the inlet and outlet vent areas are unblocked and available for flow. If surveillance shows partial blockage ( $\leq 100\%$ ) of the duct areas, the blockage shall be removed.

APPLICABILITY: This LCO is applicable when a loaded MPC is in the HI-TRAC VW Version V or V2 TRANSFER CASK AND completion of MPC drying operations in accordance with LCO 3.1.1.

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. HI-TRAC VW Version V or V2 Heat Removal System inoperable.	A.1 Restore HI-TRAC VW Version V or V2 Heat Removal System to operable status	8 hours
B. Required Action A.1 and associated Completion Time not met.	B.1 Continue to restore HI-TRAC VW Version V or V2 Heat Removal System to operable status	64 hours for Version V 8 hours for Version V2
C. Required Action B.1 and associated Completion Time not met.	C.1 Provide supplemental cooling OR C.2 Remove MPC from HI-TRAC	Immediately

TRANSFER CASK Heat Removal System  
3.1.4

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.4	Verify all HI-TRAC VW Version V or V2 inlets and outlets are free of blockage from debris.	Immediately and once every 8 hours

## 5.0 ADMINISTRATIVE CONTROLS AND PROGRAMS (continued)

5.3 Radiation Protection Program

- 5.3.1 Each cask user shall ensure that the Part 50 radiation protection program appropriately addresses dry storage cask loading and unloading, as well as ISFSI operations, including transport of the loaded OVERPACK or TRANSFER CASK outside of facilities governed by 10 CFR Part 50. The radiation protection program shall include appropriate controls for direct radiation and contamination, ensuring compliance with applicable regulations, and implementing actions to maintain personnel occupational exposures As Low As Reasonably Achievable (ALARA). The actions and criteria to be included in the program are provided below.
- 5.3.2 As part of its evaluation pursuant to 10 CFR 72.212(b)(2)(i)(C), the licensee shall perform an analysis to confirm that the dose limits of 10 CFR 72.104(a) will be satisfied under the actual site conditions and ISFSI configuration, considering the planned number of casks to be deployed and the cask contents.
- 5.3.3 Based on the analysis performed pursuant to Section 5.3.2, the licensee shall establish individual cask surface dose rate limits for the TRANSFER CASK and the OVERPACK to be used at the site. Total (neutron plus gamma) dose rate limits shall be established at the following locations:
- a. The top of the OVERPACK.
  - b. The side OVERPACK
  - c. The side of the TRANSFER CASK
  - d. The inlet and outlet ducts on the OVERPACK
- 5.3.4 Notwithstanding the limits established in Section 5.3.3, the measured dose rates on a loaded OVERPACK or TRANSFER CASK shall not exceed the following values:
- a. 15 mrem/hr (gamma + neutron) on the top of the OVERPACK
  - b. 350 mrem/hr (gamma + neutron) on the side of the OVERPACK, excluding inlet and outlet ducts
  - c. 6500 mrem/hr (gamma + neutron) on the side of the TRANSFER CASK
- 5.3.5 The licensee shall measure the TRANSFER CASK and OVERPACK surface neutron and gamma dose rates as described in Section 5.3.8 for comparison against the limits established in Section 5.3.3 or Section 5.3.4, whichever are lower.