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W3F1-2012-0040

May 30, 2012

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Technical Specification Bases Update to the NRC for the Period November 1, 2011 through April 30, 2012
Waterford Steam Electric Station, Unit 3
Docket No. 50-382
License No. NPF-38

Dear Sir or Madam:

Pursuant to Waterford Steam Electric Station Unit 3 Technical Specification (TS) 6.16, Entergy Operations, Inc. (EOI) hereby submits an update of all changes made to Waterford 3 Technical Specification Bases since the last submittal per letter W3F1-2011-0080 (ADAMS Accession No. ML113130367), dated November 9, 2011. This TS Bases update satisfies the submittal frequency requirement listed in 10CFR50.71(e)(4).

There are no commitments associated with this submittal. Should you have any questions or comments concerning this submittal, please contact Michael E. Mason at (504) 739-6673.

Sincerely,

Michael E. Mason FOR W.J. STEELMAN
MICHAEL E. MASON

WJS/RJP

Attachments:

1. Waterford 3 Technical Specification Bases Change List
2. Waterford 3 Technical Specification Bases Revised Pages

A001
NRR

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Attachment 1 to

W3F1-2012-0040

Waterford 3 Technical Specification Bases Change List

Waterford 3 Technical Specification (TS) Bases Change List

T.S. Bases Change No.	Implementation Date	Affected TS Bases Pages	Topic of Change
70	10/20/11	B 3/4 9-3	Change No. 70 to TS Bases section 3/4.9.7 "Crane Travel – Fuel Handling Building" was implemented by Engineering Change (EC) 32267 as a result of License Amendment 227. The amendment revised Technical Specification 3/4.9.7 to permit certain operations needed for dry cask storage of spent nuclear fuel. Previous wording of Technical Specification 3/4.9.7 prohibited travel of the lid for the spent fuel storage canister over irradiated fuel in the canister during canister operations. The change to this Technical Specification (while continuing to prohibit travel of a heavy load over irradiated fuel assemblies in the spent fuel pool) permits travel of loads in excess of 2,000 lbs over a transfer cask containing irradiated fuel assemblies, provided a single-failure-proof handling system is used. Change No. 70 to TS Bases section 3/4.9.7 explains that movements of loads using a single failure proof handling system, consisting of a crane that has been upgraded to meeting the single-failure-proof criteria of NUREG 0554 and NUREG 0612, and lifting devices that meet the requirements of ANSI N14.6 or ASME B30.9, do not require the assumption of a dropped load, and activity releases assumed in the safety analysis are not affected.

Attachment 2 to

W3F1-2012-0040

Waterford 3 Technical Specification Bases Revised Page

(There is one unnumbered page following this cover page)

3/4.9.6 REFUELING MACHINE

>(EC-17724, Ch. 62)

The OPERABILITY requirements for the refueling machine ensure that: (1) the refueling machine will be used for movement of CEAs and fuel assemblies, (2) each hoist has sufficient load capacity to lift a CEA or fuel assembly, and (3) the core internals and pressure vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations. The Technical Specification Actions 'a.' and 'b.' statements allow the movement of a fuel assembly or CEA to safe condition using administrative controls in the event of a refueling machine failure.

<(EC-17724, Ch. 62)

3/4.9.7 CRANE TRAVEL - FUEL HANDLING BUILDING

>(EC-32267, Ch. 70)

The restriction on movement of loads in excess of the nominal weight of a fuel assembly, CEA, and associated handling tool over other irradiated fuel assemblies in the Fuel Handling Building, except over assemblies in a transfer cask using a single-failure-proof handling system, ensures that in the event this load is dropped (1) the activity release will be limited to that contained in a single fuel assembly, and (2) any possible distortion of fuel in the storage racks will not result in a critical array. This assumption is consistent with the activity release assumed in the safety analyses. Movements of loads using a single failure proof handling system, consisting of a crane that has been upgraded to meeting the single-failure-proof criteria of NUREG 0554 and NUREG 0612, and lifting devices that meet the requirements of ANSI N14.6 or ASME B30.9, do not require the assumption of a dropped load, and activity releases assumed in the safety analysis are not affected.

<(EC-32267, Ch. 70)

3/4.9.8 SHUTDOWN COOLING AND COOLANT CIRCULATION

>(DRN 03-375, Ch. 19)

The requirement that at least one shutdown cooling train be in operation ensures that (1) sufficient cooling capacity is available to remove decay heat and maintain the water in the reactor pressure vessel below 140°F as required during the REFUELING MODE, and (2) sufficient coolant circulation is maintained through the reactor core to minimize the effects of a boron dilution incident and prevent boron stratification. If SDC loop requirements are not met, there will be no forced circulation to provide mixing to establish uniform boron concentrations. Suspending positive reactivity additions that could result in failure to meet the minimum boron concentration limit is required to assure continued safe operation. Introduction of coolant inventory must be from sources that have a boron concentration greater than that which would be required in the RCS for minimum refueling boron concentration. This may result in an overall reduction in RCS boron concentration, but provides acceptable margin to maintaining subcritical operations.

<(DRN 03-375, Ch. 19)

The requirement to have two shutdown cooling trains OPERABLE when there is less than 23 feet of water above the top of the fuel seated in the reactor pressure vessel ensures that a single failure of the operating shutdown cooling train will not result in a complete loss of decay heat removal capability. When there is no irradiated fuel in the reactor pressure vessel, this is not a consideration and only one shutdown cooling train is required to be OPERABLE. With the reactor vessel head removed and 23 feet of water above the top of the fuel seated in the reactor pressure vessel, a large heat sink is available for core cooling, thus in the event of a failure of the operating shutdown cooling train, adequate time is provided to initiate emergency procedures to cool the core.