



**Entergy Nuclear South**  
Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70057-3093  
Tel 504 739 6685  
Fax 504 739 6698  
wsteelm@entergy.com

**William J. Steelman**  
Acting - Licensing Manager  
Waterford 3

W3F1-2010-0045

May 27, 2010

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

Subject: Waterford 3 Exemption Request Regarding "10 CFR 26 Subpart I – Managing Fatigue" for Situations Related to Hurricane Conditions Waterford Steam Electric Station, Unit 3 (Waterford 3)  
Docket No. 50-382  
License No. NPF-38

References: 1. NRC Enforcement Guidance Memorandum EGM-09-008, "Dispositioning Violations of NRC Requirements for Work Hour Controls Before and Immediately After a Hurricane Emergency Declaration," dated September 24, 2009

Dear Sir or Madam:

Pursuant to 10 CFR 26.9, Entergy is submitting an exemption request for Waterford 3 to extend the exception currently provided in 10 CFR 26.207(d), which states: "Licensees need not meet the requirements of Sections 26.205(c) and (d) during declared emergencies, as defined in the licensee's emergency plan." Sections 26.205(c) and (d) establish work hour scheduling and duration limits for individuals performing certain types of duties as defined in Section 26.4.

The exemption request applies to Waterford 3, which is located in a coastal area. Waterford 3 has a reasonable likelihood of being affected by hurricane watches and warnings or inland hurricane wind watches and warnings caused by a hurricane impacting the coast.

Entergy's exemption request proposes to extend the exception provided by 26.207(d) for pre-defined entry and exit conditions related to hurricane events because the sequestering of plant personnel and related staff resource limitations may occur at times prior to and following the current entry and exit conditions (i.e., emergency declaration) specified in 26.207(d). The objective of the exception provided by 26.207(d) is stated in Enforcement Guidance Memorandum EGM-09-008: "... to

A001  
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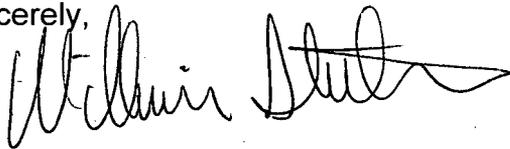
ensure that the control of work hours and the management of worker fatigue do not prevent a licensee from using whatever staff resources may be available to respond to a plant emergency and ensure that the plant reaches and maintains a safe and secure status.”

This exemption request, provided in Attachment I, is consistent with the Enforcement Guidance Memorandum (Reference 1) on this subject and provides the information required to show that the requested exemption:

- Is authorized by law;
- Will not endanger life or property or the common defense and security; and
- Is otherwise in the public interest.

This report contains no new commitments. Please contact William J. Steelman at (504) 739-6685 if you have questions regarding this information.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. Steelman", with a long horizontal flourish extending to the right.

WJS/RJP/ssf

Attachment 1: Exemption Request Regarding “10 CFR 26 Subpart I – Managing Fatigue” for Situations Related to Hurricane Conditions

cc: Mr. Elmo E. Collins, Jr.  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region IV  
612 E. Lamar Blvd., Suite 400  
Arlington, TX 76011-4125

NRC Senior Resident Inspector  
Waterford Steam Electric Station Unit 3  
P.O. Box 822  
Killona, LA 70066-0751

U. S. Nuclear Regulatory Commission  
Attn: Mr. N. Kalyanam  
Mail Stop O-07D1  
Washington, DC 20555-0001

Wise, Carter, Child & Caraway  
ATTN: J. Smith  
P.O. Box 651  
Jackson, MS 39205

Winston & Strawn  
ATTN: N.S. Reynolds  
1700 K Street, NW  
Washington, DC 20006-3817

Morgan, Lewis & Bockius LLP  
ATTN: T.C. Poindexter  
1111 Pennsylvania Avenue, NW  
Washington, DC 20004

Louisiana Department of Environmental Quality  
Office of Environmental Compliance  
Surveillance Division  
P. O. Box 4312  
Baton Rouge, LA 70821-4312

**Attachment 1**

**W3F1-2010-0045**

**Exemption Request Regarding  
"10 CFR 26 Subpart I – Managing Fatigue"  
For Situations Related to Hurricane Conditions**

EXEMPTION REQUEST REGARDING  
"10 CFR 26 SUBPART I – MANAGING FATIGUE"  
FOR SITUATIONS RELATED TO HURRICANE CONDITIONS

## 1.0 INTRODUCTION

Pursuant to 10 CFR 26.9, Entergy is submitting an exemption request for Waterford Steam Electric Station – Unit 3 (Waterford 3) to extend the exception currently provided in 10 CFR 26.207(d), which states: "Licensees need not meet the requirements of Sections 26.205(c) and (d) during declared emergencies, as defined in the licensee's emergency plan." Sections 26.205(c) and (d) establish work hour scheduling and duration limits for individuals performing certain types of duties as defined in Section 26.4.

Waterford 3 is located in a coastal area and has a reasonable likelihood of being affected by hurricane watches and warnings or inland hurricane wind watches and warnings caused by a hurricane impacting the coast.

Entergy's exemption request proposes to extend the exception provided by 26.207(d) for pre-defined entry and exit conditions related to hurricane events because the sequestering of plant personnel and related staff resource limitations may occur at times prior to and following the current entry and exit conditions (i.e., emergency declaration) specified in 26.207(d). The objective of the exception provided by 26.207(d) is stated in Enforcement Guidance Memorandum EGM-09-008: "... to ensure that the control of work hours and the management of worker fatigue do not prevent a licensee from using whatever staff resources may be available to respond to a plant emergency and ensure that the plant reaches and maintains a safe and secure status."

## 2.0 BACKGROUND

On March 31, 2008, the NRC published a final rule (73 FR 16965) for a revision to 10 CFR 26, Fitness for Duty Programs. An implementation deadline of October 1, 2009 was established for a new provision (Subpart I) in 10 CFR 26 regarding requirements and controls for fatigue management of all workers included in the fitness for duty population. The requirements included specific work hour limitations and controls for individuals performing certain defined tasks (a.k.a., covered work). Section 26.205(c) requires licensees to schedule the work hours of affected individuals in a manner consistent with the objective of preventing impairment due to fatigue. Section 26.205(d) provides specific limits on work hours in terms of:

- Maximum time limits for work periods,
- Minimum break times between work periods, and

- Minimum days off averaged over a specified duration.

Section 26.207(d) provides an exception which allows licensees to not meet the requirements 26.205(c) and (d) during declared emergencies as defined in the site emergency plan.

The NRC held a series of public meetings during 2008 and 2009 to support the implementation efforts of the industry, which included development of new procedures, software tools, and employee training. During one of these public meetings with the NRC on July 15, 2009, industry representatives discussed potential concerns with the wording of 26.207(d) which may not allow the exception to be applied in certain situations when it would be appropriate and consistent with the intent of this section. One scenario involves hurricane preparation and response in which the duration of the circumstances needing relief from the requirements of 26.205(c) and (d) may be driven by factors other than those which dictate entry into a declared emergency. A follow-up public meeting with the NRC was held on August 4, 2009 to further discuss this issue. In response to this meeting, one licensee (Dockets 50-498 and 50-499) submitted a draft exemption request to provide written information for NRC consideration. The NRC's position on this subject was subsequently documented in Enforcement Guidance Memorandum (EGM-09-008) dated September 24, 2009 which states, in part, that enforcement discretion may be granted when:

- The licensee has determined that conditions warrant a site lockdown. The licensee must document this determination and the times and dates that personnel were sequestered.
- Local weather conditions will reasonably reach conditions hazardous for personnel travel to or from the site (i.e., sustained winds greater than 40 mph).
- The site is located within the National Hurricane Center's forecasted Hurricane Watch Area.
- The licensee has site-specific procedural guidance that specifies the conditions necessary to sequester site personnel and provides provisions for opportunity and accommodations for rest when those individuals are not performing required duties.
- The licensee has requested an exemption from 10 CFR 26.205(c) and (d), or any part thereof, to allow for sequestering site personnel before and immediately after a hurricane.

Entergy is therefore submitting this exemption request consistent with the information provided in the EGM.

### 3.0 PROPOSED EXEMPTION

Entergy is requesting an exemption from 10 CFR 26.205(c) and (d) to allow for sequestering site personnel before and immediately after a hurricane. The exemption effectively modifies the entry and exit conditions associated with invoking the 'plant

emergency' exception provided in 10 CFR 26.207(d). These proposed alternate conditions are associated with preparation for and recovering from hurricane conditions. Since 10 CFR 26.207(d) already provides an exception for the time period associated with a declared emergency, the exemption requested per 10 CFR 26.9 only applies to the applicable time periods prior to and following the 10 CFR 26.207(d) exception.

This exemption is being requested for Waterford 3 which is located in a coastal area and has a reasonable likelihood of being affected by hurricane watches and warnings or inland hurricane wind watches and warnings caused by a hurricane impacting the coast. Entergy has hurricane readiness and response procedures which includes Waterford 3. In addition, Entergy has established fleet procedure EN-EP-309, "Fatigue Management for Hurricane Response Activities" that specifically addresses fatigue management during hurricane response situations.

Facility Location Description

The Waterford 3 site is located on the west (right descending) bank of the Mississippi River near Taft, Louisiana in the northwest portion of St. Charles Parish. About three miles westward is the eastern boundary of St. John the Baptist Parish. The coordinates for the reactor are 29° 59' 42" north latitude and 90° 28' 16" west longitude.

The Waterford 3 site was most recently affected by Hurricanes Katrina (August 27, 2005) and Gustav (August 31, 2008). In both events, the site was under a Hurricane Warning. Widespread evacuations were required for both storms and response personnel were sequestered on site. The site entered an Unusual Event in both cases.

Entry and Exit Conditions for Exemption Applicability

The existing entry conditions for declaring an emergency based on hurricane conditions are shown in the following table.

Site	Unusual Event	Alert
Waterford 3	Hurricane force winds ( $\geq 74$ mph) expected to arrive on site in $\leq 12$ hours as projected by the National Weather Service for a hurricane event.	Tornado or high winds $> 100$ mph within PROTECTED AREA boundary and resulting in VISIBLE DAMAGE to any of the following plant structures/equipment or Control Room indication of degraded performance of those systems <ul style="list-style-type: none"> <li>• Containment</li> <li>• Reactor Auxiliary Building</li> <li>• Turbine Building</li> <li>• Cooling Tower Areas</li> </ul>

Weather forecasting technology generally provides advance notice and the ability to plan and prepare for natural event emergencies due to hurricane conditions. Therefore, in response to forecast data, Entergy commences physical activities at the plant and prepares for staffing adjustments in advance of hurricane conditions actually reaching the site property. The hurricane readiness and response procedures include guidance on commencing readiness preparations. These procedures also provide guidance for ordering a site lockdown, which involves sequestering designated individuals for minimum staffing requirements, and releasing non-essential personnel from the site. The decision-making responsibility for this action is assigned to the Site Vice President.

Criteria for ordering a site lockdown include one or more of the following:

- The site location is expected to be within a Hurricane Watch or Warning area.
- The site location is expected to be within an Inland Hurricane Watch or Warning area.
- Travel conditions are forecasted to be hazardous for employee commutes to and from the site (i.e. sustained wind conditions of greater than 40 mph).
- Local municipalities are preparing to declare restrictions on travel that would impact employee commutes and / or are preparing to order or recommended evacuations in areas that affect essential staffing levels for the site.

The timing for ordering the lockdown will depend on forecast data, the status of site preparations, and status of public evacuation orders.

The exit conditions established in the procedure for resuming the administrative controls used for implementing the requirements of 10 CFR 26.205(c) and (d) are:

- Hurricane Watches / Warnings or Inland Hurricane Watches/Warnings have been canceled.
- Weather conditions and highway infrastructure support safe travel.
- Relief crews are available to restore normal shift rotation

#### Administrative Controls

The Entergy fleet procedure for hurricane response fatigue management requires provision for onsite relief personnel and bunking for sleep accommodations. Waterford 3 specific procedure guidance includes the limitation of site-wide announcements, pre-established shift schedules and pre-planned bunking areas with maximum occupancy for sleep accommodations. Bunking materials are also stored and periodically inventoried to support onsite sequestering and bunking.

The Entergy fleet procedure for hurricane response fatigue management requires documentation of the decision to sequester site personnel and apply the exception provided by the exemption request. This procedure also requires documentation of entry and exit from the sequestering condition/exemption.

#### 4.0 JUSTIFICATION FOR EXEMPTION

Pursuant to 10 CFR 26.9, the Commission may grant exemptions from the requirements of 10 CFR 26 provided that a determination is made that the requested exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Factors to consider relative to these provisions are as follows:

- The requested exemption is authorized by law

The NRC has the authority under the Atomic Energy Act of 1954, as amended, to grant exemptions from its regulations if doing so would not violate the requirements of law. The granting of this exemption to 10 CFR 26.207(d) for limited and specific circumstances is authorized pursuant to 10 CFR 26.9. The regulations established in 10 CFR 26 for Fitness for Duty Programs are not mandated by statute and the granting of the requested exemption would not violate the requirements of law.

- The requested exemption will not endanger life or property or the common defense and security

The regulations established in 10 CFR 26 for Fitness for Duty Programs include provisions for managing fatigue to ensure that individuals subject to Part 26 are reliably able to perform specified duties without mental or physical impairment caused by acute or chronic fatigue. Fatigue management methods include the work hour scheduling requirements of 10 CFR 26.205(c) and the work hour controls of 10 CFR 26.205(d).

The requested exemption does not modify the activities being performed which assure safe operation of the facility and which assure that the security of the facility is maintained.

- The requested exemption is otherwise in the public interest

The requested exemption modifies an existing regulatory provision regarding a relaxation of certain administrative limits and controls during conditions classified as an emergency in the site emergency plan. The exemption assures that Entergy can take actions to support site staffing during certain conditions related to hurricane preparation and recovery which may occur prior to and / or immediately following the

conditions required for an emergency declaration. Providing this exception to support the safety and security of plant operations is in the public interest.

Additionally, this is similar to the impact of the exemption on personnel manning during an emergency declaration described in 10 CFR 26.207(d), which states: "Licensees need not meet the requirements of Sections 26.205(c) and (d) during declared emergencies, as defined in the licensee's emergency plan." Although the proposed exemption would allow Waterford 3 not to meet work hour controls during hurricane related preparation activities, sufficient numbers of management and supervision will be available to ensure that public health and safety is adequately protected.

The proposed exemption from the implementation of the requirements of 10 CFR 26.205(c) and (d) during declaration of severe weather conditions, would not significantly affect plant safety and would not have a significant adverse effect on the probability of occurrence of an accident. The proposed action would not result in any increased radiological hazards beyond those previously evaluated by the NRC staff. There will be no change to radioactive effluents that affect radiation exposures to plant workers and members of the public. Therefore, no changes in or different types of radiological impacts are expected as a result of the proposed exemption.

The proposed action does not result in changes to land use or water use, or result in changes to the quality or quantity of non-radiological effluents. No changes to the National Pollution Discharge Elimination System permit are needed. No effects on the aquatic or terrestrial habitat in the vicinity of the plant, or to threatened, endangered, or protected species under the Endangered Species Act, or impacts to essential fish habitat covered by the Magnuson-Steven's Act are expected. There are no impacts to the air or ambient air quality.

There are no impacts to historical and cultural resources. There would be no impact to socioeconomic resources. Therefore, no changes to or different types of non-radiological environmental impacts are expected as a result of the proposed exemption.

Denial of the exemption request would result in no change in current environmental impacts. If the proposed action were denied, Waterford 3 would have to comply with the fatigue rules in 10 CFR 26.205(c) and (d). This would cause unnecessary burden without a significant benefit in environmental impacts.