

UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
OFFICE OF NEW REACTORS  
WASHINGTON, D.C. 20555-0001

August 8, 2011

**NRC REGULATORY ISSUE SUMMARY 2011-08  
FATIGUE MANAGEMENT DURING HURRICANE CONDITIONS  
10 CFR PART 26, SUBPART I**

**ADDRESSEES**

All holders of operating licenses for nuclear power reactors under the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

All holders of nuclear power plant construction permits and early site permits with a limited work authorization (LWA) and applicants for nuclear power plant construction permits that have an LWA under the provisions of 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," who have received special nuclear material in the form of fuel assemblies.

All holders of a combined license (COL) for a nuclear power plant under the provisions of 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," and applicants for a COL that have an limited work authorization, who have received special nuclear material in the form of fuel assemblies.

All contractors and vendors who implement fitness-for-duty (FFD) programs or program elements to the extent that the U.S. Nuclear Regulatory Commission (NRC) licensees and other entities rely on those contractor and vendor FFD programs or program elements to comply with 10 CFR Part 26, "Fitness For Duty Programs."

**INTENT**

The NRC is issuing this regulatory issue summary (RIS) to inform stakeholders on the details for requesting and receiving relief from the work hour controls in 10 CFR Part 26, Subpart I, "Managing Fatigue," before the onset of hurricane-force winds, or before entry into the site's emergency plan because of high-wind conditions. This relief is reserved for when licensees sequester plant staff on site to ensure personnel are available for relief of duties. The RIS also informs stakeholders that the NRC has issued an Enforcement Guidance Memorandum (EGM) providing NRC staff guidance for disposing certain violations of requirements for work-hour controls. This RIS requires no action or written response on the part of an addressee.

**ML101050361**

## **BACKGROUND INFORMATION**

On March 31, 2008, the NRC published a final rule amending 10 CFR Part 26 (73 FR 16966) in part to strengthen the effectiveness of FFD programs in ensuring that worker fatigue does not adversely affect public health and safety and the common defense and security. Licensees and other entities were required to implement the provisions and requirements specified in 10 CFR Part 26, Subpart I no later than October 1, 2009. The requirements specify the development of a fatigue management policy including procedures for recordkeeping, training, reporting to the NRC, work-hour controls, authorizing waivers and exceptions, self-declarations, and conducting fatigue assessments. The fatigue management requirements in 10 CFR 26.207(d) give licensees an exception to the work-hour scheduling and work-hour control requirements of 10 CFR 26.205(c) and (d) during declared emergencies, as defined in the licensee's emergency plan.

On July 15, 2009, the NRC conducted a public meeting (Agencywide Documents Access and Management System (ADAMS) Accession No. ML092050318) with industry representatives and members of the public to discuss issues regarding the licensees' implementation status for 10 CFR Part 26, Subpart I. During this meeting, the industry informed the NRC that, under impending hurricane conditions, licensees sequester enough staff on site to provide relief for operations, maintenance, security, fire brigade, and emergency preparedness personnel up to several days in advance of meeting the actual entry conditions for the emergency declaration.

On August 4, 2009, the NRC conducted another public meeting (ADAMS Accession No. ML092310257), during which the industry proposed a change to the rule to allow for an exception of work-hour controls, similar to the exception provided during declared emergencies, to allow licensees to sequester additional staff in preparation for and following a hurricane. The industry also requested enforcement discretion from the work-hour controls when the site sequesters staff before and immediately after hurricane conditions that are expected to result in a declared emergency.

The enforcement discretion also applies to the additional alternative requirements included in Section 26.205(d)(7), which was added to rule language in July of 2011.

## **SUMMARY OF ISSUE**

As stated in the various affected licensees' Emergency Plans, an Unusual Event can be declared when wind speeds reach a hurricane force of 74 miles per hour. Unsafe travel conditions exist when sustained wind speeds are greater than 40 miles per hour, as per the National Oceanic and Atmospheric Administration's wind advisories issued via the National Weather Service. Therefore, licensees may need to sequester site personnel well in advance of actually meeting the conditions for an Unusual Event. The industry estimates that, on average for a hurricane situation, a single-unit site will require on site approximately 150 personnel and a dual-unit site approximately 250 personnel who are subject to the work-hour control requirements. The licensee evacuates all other nonessential personnel from the site and expects them to return as soon as conditions allow. During the time that site staff is sequestered and before the declaration of an emergency, licensees would need to process many waivers for the work-hour controls to remain in compliance with 10 CFR 26.205(d)(1) through (d)(5)(i). The industry believes this will distract the operations and security managers

during a time when they need to focus on site and personnel safety. Once the emergency is declared, licensees need not meet the work-hour requirements specified in 10 CFR 26.205(c) and (d), as provided by 10 CFR 26.207(d). The Nuclear Energy Institute presented the information regarding the estimates for staffing needs prior to the declaration of an emergency during the August 4, 2009 public meeting.

The objective of the exception provided by 10 CFR 26.207(d) is to ensure that the control of work hours and management of worker fatigue do not prevent a licensee from using whatever staff resources may be available to respond to a plant emergency and to ensure that the plant reaches and maintains a safe and secure status. The NRC notes that high winds that make travel unsafe could exist for several days before the threshold for an emergency declaration can be met. The unpredictability of hurricane paths and the speed at which the hurricane approaches the plant contribute to whether the plant is in a declared emergency. Due to these factors, the plant may not meet the threshold of an emergency while experiencing high winds. Additionally, after the hurricane has passed, the amount of damage to the plant and the surrounding area may prohibit the immediate return of offsite personnel to provide for shift relief and immediate compliance with work-hour controls, even though wind conditions have subsided and the plant has exited its applicable emergency action level.

The NRC reviewed industry's request and agreed that preparing sites for the onset of hurricane conditions, which includes sequestering enough essential personnel to provide for shift relief, is necessary to ensure plant and personnel safety and the common defense and security. The Statement of Considerations for the Part 26 final rule state that "plant emergencies are extraordinary circumstances that may be most effectively addressed through staff augmentation" (73 FR 17148).

In certain circumstances involving emergency plant staff augmentation that results in non-compliance with 10 CFR Part 26, Subpart I, enforcement discretion may be available. The NRC Office of Enforcement issued EGM-09-008, "Enforcement Guidance Memorandum—Dispositioning Violations of NRC Requirements for Work Hour Controls Before and Immediately After a Hurricane Emergency Declaration," dated September 24, 2009, to give NRC staff guidance for dispositioning certain 10 CFR Part 26 violations and potentially granting enforcement discretion for the affected requirements (ADAMS Accession No. ML092380177).

Enforcement discretion for 10 CFR 26.205(c) and (d) before and after a hurricane may be granted when the conditions set forth in EGM-09-008 exist. The licensee must have site-specific procedural guidance that specifies the conditions necessary to sequester site personnel and have 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. If the licensee must sequester before an exemption has been submitted, the licensee must agree, in writing, to request the exemption no later than 6 months before the onset of the next hurricane season, as established by the National Oceanic and Atmospheric Administration's National Hurricane Center. Also, once the licensee has determined that conditions warrant a site lockdown, the licensee must document this determination and the times and dates that it sequestered personnel.

## **BACKFIT DISCUSSION**

The NRC is issuing this RIS to inform stakeholders that the agency has issued EGM-09-008 to give staff guidance on the disposition of violations of certain requirements in 10 CFR Part 26, Subpart I, for managing fatigue. The NRC is not imposing or requiring any new positions on licensees. This RIS does not require licensees to change or modify procedures or processes. Any action on the part of an addressee in response to the information in this RIS is strictly voluntary. The NRC has evaluated this RIS against the criteria of 10 CFR 50.109, "Backfitting," and determined that it does not represent a backfit. Consequently, the staff did not perform a backfit analysis.

## **FEDERAL REGISTER NOTIFICATION**

A notice of opportunity for public comment on this RIS was not published in the *Federal Register* because this RIS is informational. Furthermore, although this RIS refers to an enforcement discretion regarding regulatory requirements as detailed in EGM-09-008, it does not impose new or more stringent requirements. The NRC intends to continue working with stakeholders in consideration of proposed rulemaking related to these matters.

## **CONGRESSIONAL REVIEW ACT**

The NRC has determined this RIS is a rule under the Congressional Review Act (5 U.S.C. 801-808). The Office of Management and Budget has determined that this RIS is not a major rule.

## **PAPERWORK REDUCTION ACT STATEMENT**

This RIS contains and references information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget (OMB), approval number 3150-0146.

## **PUBLIC PROTECTION NOTIFICATION**

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

## CONTACTS

Please direct any questions about this matter to the technical contact listed below or to the appropriate NRR project manager.

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Note: NRC generic communications may be found on the NRC public Web site, <http://www.nrc.gov>, under Electronic Reading Room/Document Collections.

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