

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

April 11, 2006

NRC INFORMATION NOTICE 2006-09: PERFORMANCE OF NRC-LICENSED
INDIVIDUALS WHILE ON DUTY WITH RESPECT
TO CONTROL ROOM ATTENTIVENESS

ADDRESSEES

All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

PURPOSE

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice (IN) to inform addressees of recent instances in which on-duty control room operators were inattentive. This IN serves to reaffirm the necessity for high standards of control room professionalism and operator attentiveness to ensure safe operation of nuclear power facilities. It is expected that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice are not NRC requirements; therefore, no specific action or written response is required.

DESCRIPTION OF CIRCUMSTANCES

Recent NRC staff investigations at certain plants identified multiple examples of on-duty (i.e., on-shift) control room operators inattentive to licensed duties. In one case, the NRC determined that an on-duty licensed senior operator was asleep for approximately 4 minutes in the control room and was neither alert nor attentive to duties. This particular issue was further compounded when other crew members deliberately failed to take immediate action to wake the sleeping operator and implement procedural requirements to notify station management of the occurrence and complete a fitness-for-duty (FFD) evaluation.

In a separate case, the NRC determined that several on-duty licensed operators at another facility were inattentive when engaged in the non-business-related use of control room computers. This distracting activity could compromise their ability to monitor and respond to plant indications even though another reactor operator was assigned control panel monitoring duties, generally termed "at-the-controls." The operators engaged in this distracting activity at various times during their shifts.

In each of these examples, the plant licensees determined that the inattentiveness of the on-duty licensed operators was unacceptable control room behavior. The NRC and the licensees took prompt actions to address each occurrence.

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BACKGROUND

Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.54, "Conditions of Licenses," requires that an operator or senior operator licensed pursuant to 10 CFR Part 55, "Operators' Licenses," be present at the controls at all times during the operation of a facility. The operator at the controls of a nuclear power unit has many responsibilities that include, but are not limited to: (1) adhering to the unit's technical specifications, plant operating procedures, and NRC regulations; (2) reviewing operating data, including data logging and review, in order to ensure safe operation of the unit; and (3) being able to manually initiate engineered safety features during various transient and accident conditions. In order for the operator at the controls of a nuclear power unit to be able to carry out these and other responsibilities in a timely fashion, the operator's attention must be given to the condition of the unit at all times. The operator must be alert to ensure that the unit is operating safely and must be capable of taking action to prevent any progression toward a condition that may be unsafe.

Additionally, 10 CFR 50.54 requires that a senior operator be present in the control room at all times when a nuclear power unit is in an operational mode other than cold shutdown or refueling as defined by the unit's technical specifications. The staffing rule requires the continuous presence of a senior operator in the control room to ensure that (1) an individual is available who can provide the oversight function of the supervisor so that the probability of correctly detecting abnormal events early enough to mitigate potential adverse consequences is increased; (2) the senior operator in the control room is aware of plant conditions prior to and resulting from an abnormal event so that the senior operator's extra experience, training, and knowledge can be used to act promptly to mitigate that event; and (3) the operator at the controls is able to direct attention to performing the immediate actions necessary to mitigate an event, rather than having to brief the senior operator about the background of that event, if the senior operator had been absent from the control room. In order to fulfill these responsibilities, the senior operator must be attentive and alert.

The NRC has previously issued the following generic communications involving inattentive on-duty control room operators:

- NRC Office of Inspection and Enforcement (IE) IN 79-20, Revision 1, "NRC Enforcement Policy - NRC Licensed Individuals" (Agencywide Document Access and Management System (ADAMS) Accession Number ML031180160)
- NRC IE Circular 81-02, "Performance of NRC-Licensed Individuals While on Duty" (ADAMS Accession Number ML031220537)
- NRC IE IN 85-53, "Performance of NRC-Licensed Individuals While on Duty" (ADAMS Accession Number ML031180229)
- NRC IN 87-21, "Shutdown Order Issued Because Licensed Operators Asleep While on Duty" (ADAMS Accession Number ML031180011)

DISCUSSION

As described above, 10 CFR 50.54 states that an operator or senior operator licensed pursuant to 10 CFR Part 55 shall be present at the controls at all times during the operation of the facility and that the continuous presence of a senior operator in the control room is required to ensure that the operator at the controls is able to perform the actions necessary to prevent or mitigate an accident. It is essential that control room operators are (1) highly trained and qualified, (2) physically and mentally fit to carry out their duties, and (3) attentive to plant status relevant to their responsibilities to ensure the continued safe operation of nuclear facilities.

A positive relationship exists between the professionalism of operating personnel at a nuclear power plant and the degree to which the health and safety of the public are protected. Nuclear power plant operators have a professional responsibility to ensure that the facility is operated safely and within the requirements of the facility's license, including its technical specifications and the regulations and orders of the NRC. Mechanical and electrical systems and components required for safety can and do fail. However, the automated safety features of the plant, together with the operator, can identify at an early stage degradation in plant systems that could affect reactor safety. The operator can take action to mitigate the situation. Therefore, nuclear power plant operators on each shift should have knowledge of those aspects of plant status relevant to their responsibilities, should maintain their working environment free of distractions, and should be alert to prevent or mitigate any operational problems. Any behavior, condition, or use of materials that distracts a control room operator from performing assigned duties and responsibilities would cause them to be inattentive to duty.

Instances of on-duty licensed operators sleeping are of particular concern not only because this behavior is in violation of required licensee procedures but it may also represent a failure to recognize the responsibility to operate in a manner that merits public confidence. The NRC Enforcement Policy, Supplement I.C.3, lists inattentiveness to duty on the part of licensed personnel as an example of a Severity Level III violation. The deliberate failure to take immediate corrective actions to awaken a sleeping on-duty licensed operator and immediately relieve the operator of their duties is also a violation involving unacceptable behavior.

Although licensees have established policies to prohibit or minimize distracting activities, the following measures could reduce the possibility of such occurrences: (1) review and revise, as necessary, administrative controls regarding operator performance to ensure that these documents clearly define acceptable standards of operation and provide specific examples of activities that are prohibited while licensed personnel are on duty; (2) discuss these recent incidents with their operations staff to emphasize the importance of alertness, attentiveness, peer checking, and FFD matters; (3) consider applying the on-duty operator administrative controls to other plant personnel; and (4) confirm that the on-duty operator administrative controls are not compromised by other corporate policies.

CONTACTS

This information notice requires no specific action or written response. Please direct any questions about this matter to the technical contacts listed below or the appropriate Office of Nuclear Regulation (NRR) project manager.

/RA/

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