

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, DC 20555-0001

September 30, 2009

NRC INFORMATION NOTICE 2009-21 INCOMPLETE MEDICAL TESTING FOR
LICENSED OPERATORS

ADDRESSEES

All holders of operating licenses for nuclear power reactors and research and test 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 examples where facility licensees did not meet NRC medical requirements for applicants and holders of reactor operator and senior operator licenses (referred to collectively as licensed operators from here forward). The NRC expects that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. Suggestions contained in this IN are not NRC requirements; therefore, no specific action or written response is required.

DESCRIPTION OF CIRCUMSTANCES

Several recent examples have occurred where licensed operators did not meet NRC medical requirements because the facility licensee failed to adequately perform the required medical testing specified in American National Standards Institute (ANSI)/American Nuclear Society (ANS)-3.4, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants." The examples are as follows:

- In August 2009, a power reactor facility licensee identified that it had not completed the olfactory sensitivity and neurological testing specified in ANSI/ANS-3.4 for its licensed operators. Specifically, the olfactory sensitivity testing verifies the ability to detect the odor of combustion products and of tracer or marker gases; the neurological testing verifies that tactile discrimination is sufficient to distinguish among various shapes of control room knobs and handles by touch. The facility licensee implemented immediate corrective action by testing its operators before they were allowed back on shift.
- In July 2009, at a second power reactor facility, an NRC inspector identified that the facility licensee had not performed tactile discrimination testing on all licensed operators. The facility licensee took action to ensure that its licensed operators were adequately tested and the site physician reviewed and documented all results. All licensed operators were satisfactorily tested with no failures.

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- In August 2008, at a third power reactor facility, NRC inspectors identified that some licensed operators had not received an electrocardiogram (ECG) test as part of their biennial medical examination. After a thorough review, the facility licensee identified several additional licensed operators who had not received an ECG during their last physical examination. The facility licensee promptly scheduled the required tests and verified that licensed operators for the oncoming shift had received complete biennial medical examinations.

BACKGROUND

Related NRC Generic Communications

- NRC IN 2004-20, "Recent Issues Associated with NRC Medical Requirements for Licensed Operators," dated November 24, 2004, Agencywide Documents Access and Management System (ADAMS) Accession No. ML042510509).
- NRC IN 1994-14, "Failure to Implement Requirements for Biennial Medical Examinations and Notification to the NRC of Changes in Licensed Operator Medical Conditions," dated February 24, 1994 (ADAMS Accession No. ML031060622), and Supplement 1 dated April 14, 1997 (ADAMS Accession No. ML031060468).
- NRC IN 1991-08, "Medical Examinations for Licensed Operators," dated February 5, 1991 (ADAMS Accession No. ML031190668).

DISCUSSION

The regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 55.21, "Medical examination," require every NRC-licensed operator to be examined by a physician every 2 years. The purpose of this examination is to determine if the individual meets the requirements of 10 CFR 55.33(a)(1), "Health," which states that the operator's (or applicant's) medical condition and general health will not adversely affect the performance of assigned operator duties or cause operational errors that could endanger public health and safety.

Furthermore, 10 CFR 55.23, "Certification," specifies that an authorized representative of the facility licensee shall complete and sign NRC Form 396, "Certification of Medical Examination by Facility Licensee," to certify the licensed operator's medical fitness every time he or she submits a license application (i.e., for a new license under 10 CFR 55.31, "How to apply," or to renew an existing license under 10 CFR 55.57, "Renewal of licenses"). By signing NRC Form 396, the facility licensee certifies that (1) the guidance in ANSI/ANS-3.4 was followed in determining the medical fitness of an operator for power reactors, or (2) the guidance in ANSI/ANS-15.4, "American National Standard for the Selection and Training of Personnel for Research Reactors," was followed in determining the medical fitness of an operator for non-power reactors. If the guidance in these documents was not used, a facility licensee may certify that an alternative method was used, and the NRC will consider the acceptability of that method. The NRC relies upon the facility licensee's certification against an accepted medical standard to make a finding that a licensed operator's medical condition and general health will not adversely

affect performance of assigned operator duties or cause operational errors that may endanger public health and safety.

The 1983 and 1996 versions of ANSI/ANS-3.4, which the NRC endorsed with Revisions 2 and 3 of Regulatory Guide 1.134, "Medical Evaluation of Licensed Personnel at Nuclear Power Plants," describe a number of specific operator health requirements and disqualifying conditions. In addition, these ANSI/ANS standards delineate specific minimum capacities required for medical qualification. The ANSI/ANS standards also specify medical tests and evaluations required to appropriately determine the medical fitness of licensed operators. If an operator license applicant's health does not meet the minimum standards, the facility licensee may still certify that the individual's health is satisfactory for licensing if it is possible to compensate for the individual's medical condition. However, in such cases, the facility licensee must request a conditional license in accordance with 10 CFR 55.23(b) and submit the appropriate medical evidence for evaluation with NRC Form 396. Following 10 CFR 55.33(b), "Conditional license," and 10 CFR 55.57(b), "Renewal of licenses," as applicable, the NRC will review the license application based on the facility licensee's certification and include any conditions on the license that might be necessary based on the facility licensee's recommendation and the supporting medical evidence.

CONTACTS

Please direct any questions about this matter to the technical contacts listed below.

/RA/

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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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