



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

May 15, 2020

Mr. John P. Foster
Director of Reactor Operations
Nuclear Reactor Laboratory
Massachusetts Institute of Technology
138 Albany Street, MS NW12-116A
Cambridge, MA 02139

SUBJECT: MASSACHUSETTS INSTITUTE OF TECHNOLOGY – APPROVAL OF
EXEMPTION FROM SELECT REQUIREMENTS OF 10 CFR PART 55,
“OPERATORS’ LICENSES”

Dear Mr. Foster:

The U.S. Nuclear Regulatory Commission (NRC) has approved the requested exemption from specific requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55, “Operators’ Licenses,” for licensed operators at the Massachusetts Institute of Technology Reactor. This action is in response to the Massachusetts Institute of Technology (facility licensee) application dated May 11, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20135H166), related to an NRC letter dated April 14, 2020 (ADAMS Accession No. ML20104C071), describing a process to request expedited review of certain exemptions from 10 CFR Part 55 during the Coronavirus Disease 2019 (COVID-19) public health emergency (PHE).

Exemption from Medical Examination Requirements

The application requested exemption from medical examination requirements in 10 CFR 55.21 and 10 CFR 55.53(i) and provided the following information:

- The names and docket numbers of the licensed operators for whom the exemption is being requested.
- A description of the interim compensatory measures that the facility licensee is using to address delay in receipt of recommendations from a licensed physician concerning the licensed operators’ health.

Consistent with 10 CFR 55.11, “Specific exemptions,” the NRC may, upon application by an interested person, or upon its own initiative, grant such exemptions from the requirements of the regulations in 10 CFR Part 55 as it determines are authorized by law and will not endanger life or property and are otherwise in the public interest.

10 CFR 55.21 and 10 CFR 55.53(i) require a medical examination of each licensed operator every two years by a licensed physician who uses the applicable American National Standards Institute/American Nuclear Society (ANSI/ANS) standard. Based on this examination, the physician certifies whether the license operator has been found to meet the medical

requirements of 10 CFR 55.33(a)(1) and whether the licensed operator's license should be conditioned based on an identified health problem. Consistent with 10 CFR 55.25, "Incapacitation because of disability or illness," the facility licensee must notify the NRC if it learns that the licensed operator has developed a permanent condition that causes the licensed operator to fail to meet the health requirements. If the facility licensee alerts the NRC to a health concern, then the NRC uses a qualified medical expert to review the relevant medical information. Neither the facility licensee nor the NRC makes medical judgements of licensed operators.

A PHE requiring the use of social distancing and other practices intended to slow the spread of illness and the potential long-term unavailability of routine medical appointments due to a PHE were not considered during the rulemaking that established the medical examination requirements.

During the COVID-19 PHE, licensed operators might not be able to receive the required biennial medical examination from a licensed physician. The compensatory measure that the facility licensee (in coordination with the licensed operator) will implement during the exemption term will provide the results of a partial examination to the facility licensee, which will consider the recommendations as to whether the ANSI/ANS-15.4-2016 standard appears to be met based on available information. Consistent with 10 CFR 55.25, the facility licensee must continue to notify the NRC of permanent conditions that cause licensed operators to fail to meet the health requirements. Based on the proposed compensatory measure and the continued compliance with the regulatory requirements in 10 CFR 55.25, the NRC staff finds that the requested exemption will not endanger life or property.

The requested exemption from the biennial medical examination requirements addresses the fact that a licensed operator may not be able to obtain this examination during the COVID-19 PHE because of a limited availability of medical resources and the possibility that an in-office medical examination may expose the operator to COVID-19. The requested exemption ensures that licensed operators are not required to take actions that would conflict with practices recommended by the Centers for Disease Control and Prevention (CDC) to limit the spread of COVID-19.¹ Therefore, the NRC staff finds that the requested exemption is in the public interest.

The NRC staff determined that exemption from the medical examination requirements is permissible under the Atomic Energy Act of 1954, as amended, and other regulatory requirements. Therefore, the NRC staff finds that the requested exemption is authorized by law.

Exemption from Licensed Operator Active Status Requirements

The application requested exemption from licensed operator active status requirements in 10 CFR 55.53(e) and provided the following information:

- A request for exemption from the minimum of four hours per calendar quarter requirement normally needed to maintain active status under 10 CFR 55.53(e).
- A description of the alternative measures being used for the hours under the four-hour minimum of 10 CFR 55.53(e).

¹ CDC, "How to Protect Yourself and Others," April 18, 2020 (ADAMS Accession No. ML20125A069).

- A statement that an authorized representative of the facility licensee will certify completion of alternative measures.

Consistent with 10 CFR 55.11, "Specific exemptions," the NRC may, upon application by an interested person, or upon its own initiative, grant such exemptions from the requirements of the regulations in 10 CFR Part 55 as it determines are authorized by law and will not endanger life or property and are otherwise in the public interest.

10 CFR 55.53(e) states that to maintain active status, the licensed operator shall actively perform the functions of an operator or senior operator for a minimum of four hours per calendar quarter.

A PHE requiring the use of social distancing and other practices intended to slow the spread of illness was not considered during the rulemaking that established the licensed operator active status requirements.

During the COVID-19 PHE, facility licensees may need flexibility in managing personnel resources to avoid creating a situation where licensed operators are required to perform functions in close proximity to each other. The compensatory measures that the facility licensee will implement during the exemption term include providing refresher training on operating procedures to licensed operators to ensure that operator competency is maintained. Additionally, the facility licensee will have all licensed operators perform six hours of licensed duties after the exemption term. An authorized representative of the facility licensee will certify completion of the compensatory measures. Based on the proposed compensatory measures, the NRC staff finds that the requested exemption will not endanger life or property.

The requested exemption from the licensed operator active status requirements provides increased flexibility to facility licensees to shut down or otherwise minimize the number of licensed operators considered essential personnel to reduce the possibility of exposures to COVID-19 while also maintaining the knowledge and competency of licensed operators. Therefore, the NRC staff finds that the requested exemption is in the public interest.

The NRC staff determined that exemption from the licensed operator active status requirements is permissible under the Atomic Energy Act of 1954, as amended, and other regulatory requirements. Therefore, the NRC staff finds that the requested exemption is authorized by law.

Granting the requested exemption from medical examination requirements in 10 CFR 55.21 and 10 CFR 55.53(i) and licensed operator active status requirements in 10 CFR 55.53(e) is categorically excluded under 10 CFR 51.22(c)(25) and there are no special or extraordinary circumstances present that would preclude reliance on this exclusion. The NRC staff determined, per 10 CFR 51.22(c)(25)(vi)(E), that the requirements from which the exemption is sought involve education, training, experience, qualification, requalification, or other employment suitability requirements. The NRC staff also determined that approval of the requested exemption involves no significant hazards consideration because it does not authorize any physical changes to the facility or any of its safety systems, nor does it change any of the assumptions or limits used in the facility licensee's safety analyses or introduce any new failure modes; no significant change in the types or significant increase in the amounts of any effluents that may be released offsite because the exemption does not affect any effluent release limits as provided in the facility licensee's technical specifications or by the regulations in 10 CFR Part 20, "Standards for Protection Against Radiation"; no significant increase in individual or cumulative public or occupational radiation exposure because the exemption does

not affect limits on the release of any radioactive material or the limits provided in 10 CFR Part 20 for radiation exposure to workers or members of the public; no significant construction impact because the exemption does not involve any changes to a construction permit; and no significant increase in the potential for or consequences from radiological accidents because the exemption does not alter any of the assumptions or limits in the facility licensee's safety analyses. In addition, the NRC staff determined that there would be no significant impacts to biota, water resources, historic properties, cultural resources, or socioeconomic conditions in the region. As such, there are no extraordinary circumstances present that would preclude reliance on this categorical exclusion. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the approval of the requested exemption.

Based on the above, the NRC staff finds that (1) the exemption is authorized by law, (2) the exemption will not endanger life or property, and (3) the exemption is otherwise in the public interest.

The exemption is effective upon issuance until 90 days after the COVID-19 PHE is ended or until December 31, 2020, whichever occurs first.

Sincerely,

/RA Brian W. Smith for/

John D. Monninger, Director
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

Docket No. 50-020

cc: See next page

Massachusetts Institute of Technology

Docket No. 50-020

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