



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

November 8, 2017

Mr. Richard Proehl, Site Director
Mallinckrodt Nuclear Medicine LLC
2703 Wagner Place
Maryland Heights, MO 63043

SUBJECT: NRC SPECIAL INSPECTION REPORT NO. 03000001/2017002(DNMS) –
MALLINCKRODT NUCLEAR MEDICINE LLC

Dear Mr. Proehl:

On October 12, 2017, inspectors from the U.S. Nuclear Regulatory Commission (NRC) conducted a special inspection at your Maryland Heights, Missouri facility. The purpose of the inspection was to observe and evaluate the biennial emergency response exercise. The inspectors discussed the inspection findings with you and members of your staff during the onsite exit meeting.

The inspection was conducted to determine whether Mallinckrodt Nuclear Medicine LLC personnel could successfully implement the Contingency Plan for the Maryland Heights, Missouri facility. The inspection consisted of observation of selected exercise activities and evaluation of exercise performance. Areas observed and evaluated during the exercise included, in part, the licensee's preparation for and control of the exercise; the Emergency Control Center (ECC) activation and staffing; timeliness of required notifications; command and control of the exercise scenario from in the field and the ECC; Fire Department response; and staff accountability. The inspectors also observed and evaluated contamination control, use of protective equipment, personnel and area surveys, communication effectiveness, dose estimates to licensee personnel and members of the public, and the post-exercise critique by licensee staff.

Based on the results of this emergency response exercise, the NRC determined that Mallinckrodt Nuclear Medicine LLC personnel successfully demonstrated their capability to implement the Contingency Plan for the Maryland Heights, Missouri facility in response to a simulated radiological accident. The exercise of the Contingency Plan adequately tested the licensee's capability to respond to a radiological accident. Licensee staff completed an evacuation of several buildings and took appropriate and timely emergency response actions in response to the accident scenario. Command and control, hazard assessment, and communication were implemented according to the Contingency Plan. Licensee staff proposed several improvements to the emergency response during the post-exercise critique. The inspectors' findings were consistent with those identified by the licensee. No violations of NRC requirements were identified during this inspection.

The inspection also reviewed your implementation of corrective actions described in your letter dated July 31, 2017, in response to a violation identified during our inspection conducted on January 23-27, 2017, with continued in-office review through May 22, 2017. The inspectors determined that your corrective actions were adequate and consider the violation closed.

In accordance with Title 10 of the *Code of Federal Regulations* (CFR) Section 2.390 of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC's website at <http://www.nrc.gov/reading-rm/adams.html>.

Please feel free to contact Ms. Deborah Piskura of my staff if you have any questions regarding this inspection. Ms. Piskura can be reached at 630-829-9867.

Sincerely,

/RA/

Aaron T. McCraw, Chief
Materials Inspection Branch
Division of Nuclear Materials Safety

Docket No. 030-00001
License No. 24-04206-01

cc: Manuel Diaz, Radiation Safety Officer
State of Missouri

Letter to Richard Proehl from Aaron McCraw dated November 8, 2017

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MALLINCKRODT NUCLEAR MEDICINE LLC

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