



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD.
KING OF PRUSSIA, PA 19406-2713**

March 1, 2018

Mr. John T. Jensen
Chief, Radiation Safety Division
U.S. Department of Agriculture
Office of Homeland Security and
Emergency Coordination
Radiation Safety Division
5601 Sunnyside Avenue, Mailstop 5510
Beltsville, MD 20705

**SUBJECT: UNITED STATES DEPARTMENT OF AGRICULTURE - NRC INSPECTION
REPORT 03006923/2017001 AND NOTICE OF VIOLATION**

Dear Mr. Jensen:

This letter refers to the inspection conducted on November 6, 2017, at your facility in Phoenix, Arizona, and continuing in-office follow-up with you through January 30, 2018. This was performed to examine activities conducted under your license as they relate to public health and safety, and to confirm compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of facilities and equipment, independent radiation measurements, and interviews with personnel. The preliminary inspection findings were discussed with Mr. Eoin Davis at the conclusion of the onsite inspection on November 6, 2017. A final telephonic exit briefing was conducted with you on January 30, 2018.

Based on the results of this inspection, the NRC has determined that violations of NRC requirements occurred. The violations are being cited in the enclosed Notice because they were identified by the NRC during the inspection. The violations were evaluated in accordance with the NRC Enforcement Policy, which can be found at the NRC's Web site at www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html.

The violations cited in the Notice involved the failure to: (1) use instruments that meet the licensee's commitment regarding radiation monitoring; (2) maintain a current copy of the operating and emergency procedures at each irradiator control panel or post a notice describing the procedures and stating where they may be examined; and (3) implement and maintain procedures for routine maintenance of self-shielded irradiators according to each manufacturer's written recommendations and instructions. These violations have been categorized as Severity Level IV violations in accordance with the NRC Enforcement Policy, which is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC review of your response to the Notice will also determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Current NRC regulations and guidance are included on the NRC's Web Site at www.nrc.gov; select **Nuclear Materials; Med, Ind, & Academic Uses**; then **Regulations, Guidance and Communications**. The current Enforcement Policy is included on the NRC's Web Site at www.nrc.gov; select **About NRC, Organizations & Functions; Office of Enforcement; Enforcement documents**; then **Enforcement Policy (Under 'Related Information')**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

If you have any questions regarding this matter, please contact Todd Jackson of my staff at 610-337-5308 or via electronic mail at Todd.Jackson@nrc.gov.

Thank you for your cooperation.

Sincerely,



Arthur L. Burritt, Chief
Commercial, Industrial, R&D
and Academic Branch
Division of Nuclear Materials Safety

Docket No.: 030-06923
License No.: 19-00915-06

Enclosure:
Notice of Violation

cc w/Enclosure: Brian Goretzki, Director
Arizona Radiation Regulatory Agency
4814 South 40th Street
Phoenix, AZ 85040

NOTICE OF VIOLATION

U.S. Department of Agriculture
Phoenix, Arizona

Docket No. 030-06923
License No. 19-00915-06

During an NRC inspection conducted during November 6, 2017, at the U.S. Department of Agriculture facility in Phoenix, Arizona, with in-office review continuing through January 30, 2018, three violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

1. License Condition 19 of NRC License Number 19-00915-06, Amendment No. 66, dated August 17, 2016, requires, in part, that the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed in License Condition 19.

Letter dated April 8, 2016, Section 10.2, "Instruments," specifies, in part, that the licensee will use instruments that meet the radiation monitoring specifications in Appendix K to NUREG-1556, Volume 5, "Program Specific Guidance About Self-Shielded Irradiator Licenses."

Appendix K provides criteria, including performance of source checks and periodic calibrations for survey instruments and room monitors to be used with moving-source gamma irradiators, such as the licensee's JL Shepherd Model 484C self-shielded irradiator.

Contrary to the above, from at least February 19, 2017, to November 6, 2017, the licensee failed to use instruments that meet the radiation monitoring specifications in Appendix K to NUREG-1556, Volume 5, "Program Specific Guidance About Self-Shielded Irradiator Licenses." Specifically, from at least February 19, 2017, to November 6, 2017, the licensee used a JL Shepherd Model 484C self-shielded irradiator with moving sources and failed to have a survey instrument or room monitor that satisfied the specified criteria for source checks and periodic calibration. Survey instruments possessed by the licensee were not checked with a source of radiation at the beginning of each day of use to ensure they will respond consistently to radiation and were not calibrated annually. The room monitor possessed by the licensee was not checked with a source of radiation at the beginning of each day of use to ensure that it will respond accurately to radiation and alarm at 2 mrem per hour.

This is a Severity Level IV violation (Section 6.3).

2. License Condition 19 of NRC License Number 19-00915-06, Amendment No. 66, dated August 17, 2016, requires, in part, that the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed in License Condition 19.

Letter dated April 8, 2016, Section 10.6, "Operating and Emergency Procedures," specifies, in part, that the licensee will develop, implement, maintain, and distribute operating and emergency procedures that meet the criteria in the section entitled

"Radiation Safety Program Operating and Emergency Procedures" in NUREG-1556, Volume 5, "Program Specific Guidance About Self-Shielded Irradiator Licenses."

NUREG-1556, Volume 5, "Radiation Safety Program Operating and Emergency Procedures" specifies, in part, that a current copy of the operating and emergency procedures be maintained at each irradiator's control panel, or if this is not practicable, post a notice describing the procedures and stating where they may be examined.

Contrary to the above, the licensee failed to maintain a current copy of the operating and emergency procedures at each irradiator's control panel or post a notice describing the procedures and stating where they may be examined. Specifically, on November 6, 2017, a copy of the procedures or a notice describing where to find the procedures was not immediately available to licensee personnel, and became available only when staff determined which locked file cabinet contained the procedures and identified personnel who had a key to unlock the cabinet.

This is a Severity Level IV violation (Section 6.3.d.).

3. License Condition 19 of NRC License Number 19-00915-06, Amendment No. 66, dated August 17, 2016, requires, in part, that the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed in License Condition 19.

Letter dated April 8, 2016, Section 10.8, "Maintenance," specifies, in part, that the licensee will implement and maintain procedures for routine maintenance of its self-shielded irradiators according to each manufacturer's written recommendations and instructions.

The manufacturer's operating manual containing written recommendations and instructions for the JL Shepherd Model 484 irradiator specifies, in part, that safety systems checks be performed at six month intervals, including checks of the source interlock system and the door interlock system.

Contrary to the above, the licensee failed to implement and maintain procedures for routine maintenance of its self-shielded irradiators according to each manufacturer's written recommendations and instructions, including checks of the source interlock system and the door interlock system according to the manufacturer's written recommendations and instructions. Specifically, the licensee failed to perform checks of the source interlock system and the door interlock system from September 28, 2016 to June 26, 2017, a period exceeding six months.

This is a Severity Level IV violation (Section 6.3).

Pursuant to the provisions of 10 CFR 2.201, U.S. Department of Agriculture is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region I, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include, for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level; (2) the corrective steps that have been taken and the

results achieved; (3) the corrective steps that will be taken; and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued requiring information as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Your response will be made available electronically for public inspection in the NRC Public Document Room or in the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 1 date of march 2018