



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

May 27, 2022

EA-21-125

Mr. Charles Bollinger
Chief Operating Officer
Industrial Nuclear Company, Inc.
14320 Wicks Blvd
San Leandro, CA 94577

SUBJECT: EXPORT OF NUCLEAR MATERIAL UNDER U.S. NUCLEAR REGULATORY COMMISSION'S LICENSING AUTHORITY – NOTICE OF VIOLATION

Dear Mr. Bollinger:

This letter refers to a review of Industrial Nuclear Company's (INC) export of byproduct material under the U.S. Nuclear Regulatory Commission's (NRC's) licensing authority. The review encompassed INC's exports of byproduct material to four countries during the period of June 2019 through May 2021. In the letter transmitting the results of our review, dated January 19, 2022 (ADAMS Accession No. ML22012A236), we provided you the opportunity to address the apparent violations identified in the letter by either participating in a predecisional enforcement conference or by providing a written response before we made our final enforcement decision. In a letter dated March 15, 2022 (ADAMS Accession No. ML22080A016), you provided a response to the apparent violations.

Based on a review of the information provided in your letter dated March 15, 2022, the NRC has determined that two violations of NRC requirements occurred. These violations are cited in the enclosed Notice of Violation (Notice), and the circumstances surrounding them are described below in this letter.

For violation A, the NRC has assigned a Severity Level IV violation for exports of byproduct material. This violation involved the failure to provide complete and accurate information in advanced notifications to the NRC for 28 exports of Category 2 quantities of material listed in "Table 1 - Import and Export Limits," of Title 10 of the Code of Federal Regulations (10 CFR), Part 110, Appendix P, "Category 1 and 2 Radioactive Material." Exports to the United Kingdom, Ireland, Venezuela, and the United Arab Emirates (UAE) contained incomplete export information. The advanced notifications: (1) lacked updated documentation of the recipient's authorization to receive and possess the byproduct material to be exported, (2) lacked confirmation from the importing country that the receiving entity was authorized to receive the material, (3) contained a recording of incorrect radioisotopes, and (4) contained a recording of inaccurate quantities of radioisotopes. As such, INC was in noncompliance with NRC regulations found in 10 CFR Parts 110.50(c)(3)(i)(H), 10 CFR 110.32(g)(2), and 10 CFR 110.32(g)(3). These requirements specify that complete and accurate information must be provided to the NRC at least 24 hours prior to the shipment. Your corrective actions for these violations included: (1) correcting the discrepant permits, (2) submitting those revised permits to the NRC (confidential), and (3) implementing quality assurance practices to ensure license/permit information is complete and legible prior to approving shipments and submitting export notifications to the NRC.

C. Bollinger

For violation B, the NRC has determined that the export to UAE is categorized in accordance with the NRC Enforcement Policy as a Severity Level III violation. INC exported a component to a company located in the UAE without receiving the requisite authorization from either the company or the UAE regulator. The shipped component, containing 2.109 TBq of Se-75, exceeded the UAE established limit of 0.17 TBq. The NRC determined that the violation is significant because it resulted in the NRC not being able to conduct its regulatory responsibilities to ensure that the byproduct material was exported to an authorized recipient. As such, INC was in noncompliance with 10 CFR Parts 10 CFR 110.32(g)(2) and (g)(3). The issuance of this SLIII violation constitutes escalated enforcement action that may subject you to increased inspection effort in the future. The NRC Enforcement Policy may be found on the NRC website at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

Concerning violation B, because your facility has not been the subject of escalated enforcement actions within the last 2 years, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section 2.3.4 of the Enforcement Policy. Your corrective actions included implementing a policy of pre-reviewing permits to identify any inaccurate information contained on permits, immediately informing the broker of any inaccurate documentation, and correcting that information prior to submitting export notifications. Therefore, to encourage prompt identification and comprehensive correction of violations and in recognition of the absence of previous escalated enforcement action, the NRC will not propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

With respect to Violations A and B, the NRC has concluded that: (1) the reasons for the violations; (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance was achieved have already been adequately addressed on the docket in your March 15, 2022, letter mentioned above. Therefore, you are not required to respond to this letter and Notice unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

The January 19, 2022, letter mentioned above included three apparent violations (A, B, and C). For apparent violation C, INC provided documentation which confirmed that your exports of Ir-192 sources were authorized by the Venezuelan government. As such, the NRC determined that a violation for an unauthorized shipment did not occur. Instead, the six shipments mentioned in apparent violation C have been added to Violation A as additional examples of INC not providing complete and accurate information to the NRC (see Violation A above).

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedures," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room and 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>. If you choose to respond to this letter and Notice, 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. If personal privacy or proprietary information is necessary to provide an acceptable response, 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.

C. Bollinger

If you request withholding of such information, 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). The NRC also includes significant enforcement actions on its Web site at

<http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions>.

Please contact Ms. Andrea R. Jones at (404) 997- 4443, if you have any questions regarding this matter.

Sincerely,

Mark D. Lombard, Director
Office of Enforcement

Enclosure:
Notice of Violation

SUBJECT: EXPORT OF NUCLEAR MATERIAL UNDER U.S. NUCLEAR REGULATORY
COMMISSION'S LICENSING AUTHORITY – NOTICE OF VIOLATION
DATED: MAY 27, 2022

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OFFICE	DD:OIP	D:OE		
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DATE	05/25/2022	05/27/2022		

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NOTICE OF VIOLATION

Industrial Nuclear Company
San Leandro, CA

EA-21-125

Based on the U.S. Nuclear Regulatory Commission's (NRC's) evaluation of Industrial Nuclear Company's (INC) activities associated with the export of byproduct material from June 2019 through May 2021, two violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the violations are listed below:

- A. 10 CFR 110.7a states, in part, that information required by statute or by the Commission's regulations shall be complete and accurate in all material respects.

10 CFR 110.50(c)(3)(i)(H) states, in part, that advanced notifications for exports must contain a copy of the foreign recipient's authorization or confirmation of that authorization from the government of the importing country as required by 110.32(g) unless the authorization has already been provided to the NRC.

10 CFR 110.32(g)(2) states that, for proposed exports of Category 2 quantities of material listed in Table 1 of appendix P to this part, pertinent documentation that the recipient of the material has the necessary authorization under the laws and regulations of the importing country to receive and possess the material. This documentation must be provided to the NRC at least 24 hours prior to the shipment.

10 CFR 110.32(g)(3) states, in part, that pertinent documentation shall consist of a copy of the recipient's authorization to receive and possess the material to be exported or a confirmation from the government of the importing country that the recipient is so authorized.

Contrary to the above, from October 2019 to May 2021, INC submitted to the NRC advanced notifications for exports that were not complete and accurate in all material respects. Specifically, INC failed to provide complete and accurate information in their advanced notifications to the NRC for 24 exports of Category 2 quantities of Ir-192, Se-75, and Co-60 to the United Kingdom (UK), Ireland, and Venezuela as evidenced by the following specific examples:

1. On May 07, 2021, INC submitted an advanced notification for the export of one source (0.703 TBq of Ir-192) to the UK, and the foreign recipient's authorization did not specify the radionuclide or activity level.
2. On March 23, 2021, INC submitted an advanced notification for the export of two sources (1.073 TBq of Ir-192 and 2.109 TBq of Ir-192) to the UK, and the foreign recipient's authorization did not specify the radionuclide or activity level for the 2.109 TBq source.
3. On January 07, 2021, INC submitted an advanced notification for the export of four sources (8.658 TBq of Ir-192) to the UK, and three of the four foreign recipient's authorizations did not specify the radionuclides or activity levels.
4. On November 11, 2020, INC submitted an advanced notification for the export of two sources (1.702 TBq of Se-75 and one source containing 1.924 TBq of Ir-192) to the

UK, and the foreign recipient's authorization did not specify the radionuclides or activity levels.

5. On November 05, 2020, INC submitted an advanced notification for the export of two sources (4.033 TBq of Ir-192) to the UK, and one of the two foreign recipient's authorizations did not specify the radionuclide or activity level.
6. On October 05, 2020, INC submitted an advanced notification for the export of two sources (1.961 TBq of Se and 943.478 TBq of Cobalt-60) to the UK; however, the foreign recipient's authorization did not specify the radionuclides or activity levels.
7. On September 10, 2020, INC submitted an advanced notification for the export of one source (0.925 TBq of Ir-192) to the UK, and the foreign recipient's authorization did not specify the radionuclide or activity level.
8. On August 27, 2020, INC submitted an advanced notification for the export of one source (2.997 TBq of Ir-192) to the UK, and the foreign recipient's authorization did not specify the radionuclide or activity level.
9. On June 25, 2020, INC submitted an advanced notification for the export of two sources (1.4319 TBq of Ir-192) to the UK, and the foreign recipient's authorization did not specify the radionuclide or activity level.
10. On May 27, 2020, INC submitted an advanced notification for the export of one source (3.145 TBq of Ir-192) to the UK, and the foreign recipient's authorization did not specify the radionuclide or activity level.
11. On March 11, 2020, INC submitted an advanced notification for the export of one source (2.183 TBq of Se-75) to the UK, and the foreign recipient's authorization did not specify the radionuclide or activity level.
12. On February 26, 2020, INC submitted an advanced notification for the export of one source (0.999 TBq of Ir-192) to the UK, and the foreign recipient's authorization did not specify the radionuclide or activity level.
13. On October 22, 2019, INC submitted an advanced notification for the export of two sources (1.4319 TBq of Ir-192) to the UK, and the foreign recipient's authorization did not specify the radionuclide or activity level.
14. On November 18, 2020, INC submitted an advanced notification for the export of two sources (1.776 TBq of Se-75 and one source of 1.147 TBq of Ir-192) to Ireland, and the foreign recipient's authorization did not specify the radionuclides or activity levels.
15. On July 25, 2020, INC submitted an advanced notification for the export of one source (2.331 TBq of Se-75) to Ireland, and the foreign recipient's authorization did not specify the radionuclide or activity level.
16. On April 16, 2021, INC submitted an advanced notification for the export of one source (3.922 TBq of Ir-192) to Venezuela, and confirmation from the government of the importing country that the recipient is so authorized was not provided. Specifically, the importing country's permit authorized Cs-137 instead of Ir-192.

17. On March 04, 2021, INC submitted an advanced notification for the export of one source (3.848 TBq of Ir-192) to Venezuela, and confirmation from the government of the importing country that the recipient is so authorized was not provided. Specifically, the importing country's permit authorized Cs-137 instead of Ir-192.
18. On February 05, 2021, INC submitted an advanced notification for the export of one source (3.922 TBq of Ir-192) to Venezuela, and confirmation from the government of the importing country that the recipient is so authorized was not provided. Specifically, the importing country's permit authorized Cs-137 instead of Ir-192.
19. On September 14, 2020, INC submitted an advanced notification for the export of a source (3.959 TBq of Ir-192) to Venezuela, and confirmation from the government of the importing country that the recipient is so authorized was not provided. Specifically, the importing country's permit authorized Cs-137 instead of Ir-192.
20. On November 06, 2019, INC submitted an advanced notification for the export of a source (3.922 TBq of Ir-192) to Venezuela, and confirmation from the government of the importing country that the recipient is so authorized was not provided. Specifically, the importing country's permit authorized Cs-137 instead of Ir-192.
21. On June 24, 2019, INC submitted an advanced notification for the export of a source (3.811 TBq of Ir-192) to Venezuela, and confirmation from the government of the importing country that the recipient is so authorized was not provided. Specifically, the importing country's permit authorized Cs-137 instead of Ir-192.

This is a Severity Level IV Violation (NRC Enforcement Policy Section 6.15.d).

- B. 10 CFR 110.50(c)(3)(i)(H) states, in part, that advanced notifications for exports must contain a copy of the foreign recipient's authorization or confirmation of that authorization from the government of the importing country as required by 110.32(g) unless the authorization has already been provided to the NRC.
- 10 CFR 110.32(g)(2) states, in part, that for proposed exports of Category 2 quantities of material listed in Table 1 of appendix P to this part, pertinent documentation that the recipient of the material has the necessary authorization under the laws and regulations of the importing country to receive and possess the material.
- 10 CFR 110.32(g)(3) states, in part, that pertinent documentation shall consist of a copy of the recipient's authorization to receive and possess the material to be exported or a confirmation from the government of the importing country that the recipient is so authorized.

Contrary to the above, on May 9, 2021, INC submitted an advanced notification for the export of one source (2.109 TBq of Se-75) to the UAE, and pertinent documentation did not consist of a copy of the recipient's authorization to receive and possess the material to be exported or a confirmation from the government of the importing country that the recipient is so authorized. Specifically, INC exported equipment containing 2.109 TBq of Se-75 to a company located in the UAE without receiving the requisite authorization from either the company or the UAE regulator. The equipment contained 2.109 TBq of Se-75, which exceeded the UAE established limit of 0.17 TBq

This is a Severity Level III Violation (NRC Enforcement Policy Section 6.15.c.4).

The NRC has concluded that information regarding the reason for the two violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved, was already adequately addressed in your March 15, 2022, letter submission. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation; EA-21-125" and send it to the NRC, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Director, Office of International Programs, within 30 days of the date of the letter transmitting this Notice. 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.

If you choose to respond, 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, proprietary, or safeguards 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).

Dated this 27th day of May 2022.