

May 20, 2016

EA-16-078

Ms. Carol G. Fischer  
Curtiss-Wright Corporation  
13925 Ballantyne Corporate Place  
Suite 400  
Charlotte, NC 28277

SUBJECT: EXPORT OF NUCLEAR EQUIPMENT AND COMPONENTS UNDER U.S.  
NUCLEAR REGULATORY COMMISSION LICENSING AUTHORITY AND  
NOTICE OF VIOLATION

Dear Ms. Fischer:

This letter refers to a review of information relating to the export of nuclear equipment and components by Curtiss-Wright Corporation to China on September 4, 2013. The exports involved nuclear equipment and components under the U.S. Nuclear Regulatory Commission's (NRC's) licensing authority. The review was initiated following our receipt of a March 23, 2016, letter from Mr. Rob Shaw, Associate General Counsel, Curtiss-Wright, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16097A436) notifying the NRC that a subsidiary of Curtiss-Wright, Curtiss-Wright Flow Control Service Corporation (d/b/a Scientech), exported four nozzle dams with associated nozzle dam control console and installation tools without a specific license authorizing the export. The NRC discussed its preliminary findings with you on April 15, 2016, in a telephone conversation with Ms. Brooke G. Smith, Chief, Export Controls & Nonproliferation Branch, Office of International Programs. During the telephone conversation, Ms. Smith informed you that the NRC had determined that an apparent violation of NRC requirements occurred and that the apparent violation was being considered for escalated enforcement in accordance with NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. Ms. Smith also informed you that, because Curtiss-Wright had provided a detailed account of the export in its voluntary disclosure, the NRC believed that it had sufficient information regarding the apparent violations and your corrective actions to make an informed enforcement decision without the need for a predecisional enforcement conference (PEC) or a written response from you. You indicated that Curtiss-Wright also did not believe that a PEC or written response was needed.

Based on its review of information provided in the March 23, 2016, letter and the subsequent discussions with Curtiss-Wright, the NRC has determined that a violation of NRC requirements occurred. The violation cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it is described in the detail in the subject Summary of Issues enclosed. The apparent violation involves Curtiss-Wright's export of four nozzle dams with associated nozzle dam control console and installation tools without a specific license authorizing the export. The nozzle dams are considered minor reactor components under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 110, Appendix A, "Illustrative List of Nuclear Reactor Equipment

Under NRC Export Licensing Authority,” paragraphs (5) – (9),<sup>1</sup> and the export licensing criteria in 10 CFR 110.42(b) applies. The failure to obtain a specific license before exporting the components raises significant regulatory concerns. Specifically, neither the NRC nor the U.S. Department of State was able to review the license application or obtain Executive Branch views, which would have included obtaining government-to-government peaceful use assurances from the Chinese Atomic Energy Authority. Therefore, this violation has been categorized in accordance with the NRC Enforcement Policy at Severity Level III.

In accordance with the NRC Enforcement Policy, a base civil penalty in the amount of \$14,000 is considered for a Severity Level III violation. 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. The comprehensive corrective actions Curtiss-Wright implemented included: 1) compliance training provided with emphasis on correctly analyzing equipment and components for export control, and 2) revising procedures to retain the export control and export license information on nozzle dams in a spreadsheet stored on Curtiss-Wright’s network. For this reason, credit is given for the *Corrective Action* factor considered for escalated enforcement.

Therefore, to encourage prompt identification and comprehensive correction of violations and in recognition of the absence of previous escalated enforcement action, I have been authorized not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

The NRC has concluded that information regarding: (1) the reason for the violation(s); (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance was achieved is already adequately addressed on the docket in the Voluntary Self-Disclosure dated March 23, 2016. Therefore, you are not required to respond to this letter 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.

In accordance with 10 CFR 2.390 of the NRC’s “Agency Rules of Practice and Procedure,” a copy of this letter, its enclosures and your response will be made available electronically for public inspection in the Public Document Room or from the NRC’s document system Agencywide Documents Access and Management System accessible from the NRC Website 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, 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 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).

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<sup>1</sup> 10 CFR Part 110, Appendix A, in effect on September 4, 2013, identified reactor components authorized to be exported to certain destinations under the general license in paragraphs (5) through (9). Appendix A was later amended on July 10, 2014, to identify the reactor components authorized to be exported under the general license in paragraphs (5) through (11).

C. Fischer

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Please contact Brooke G. Smith at (301) 415-2347, if you have any questions regarding this matter.

Sincerely,

***/RA/***

Patricia K. Holahan, Director  
Office of Enforcement

Enclosures:

1. Summary of Issues
2. Notice of Violation

C. Fischer

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Please contact Brooke G. Smith at (301) 415-2347, if you have any questions regarding this matter.

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*/RA/*

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1. Summary of Issues
2. Notice of Violation

**DISTRIBUTION:**

OIP r/f	B. Smith	R. Fretz
OE r/f	A. Jones	

**ADAMS Accession No.: ML16117A290**

OFFICE	OIP/ECNP	BC:ECNP/OIP	DD:OIP	OE	OE
NAME	AJones	BSmith	GMiller (Acting)	RFretz	PHolahan
DATE	04/26/16	04/29/16	05/10/16	05/18/16	05/20/16

**OFFICIAL RECORD COPY**

## SUMMARY OF ISSUES

In February 2016, the Chiangjiang (China) Nuclear Power Plant (NPP) made an inquiry to the Curtiss-Wright Corporation<sup>2</sup> about procuring additional nozzle dam equipment that would be exported to the NPP during 2016. As a result, Curtiss-Wright initiated communications with the U.S. Nuclear Regulatory Commission (NRC), Office of International Programs (OIP), Export Controls and Non-proliferation Branch (ECNB), where it confirmed that nozzle dams are considered nuclear equipment and components under the NRC's licensing authority and are, thus, subject to the requirements of 10 CFR Part 110.

In a letter dated March 23, 2016, Curtiss-Wright voluntarily disclosed to the NRC that it made an earlier export of four nozzle dams with associated nozzle dam control console and ancillary equipment to Shanghai Electric, for ultimate use at the Changjiang NPP, without an NRC license authorizing the export (see ADAMS Accession Number ML16097A436). The letter detailed the circumstances surrounding the September 4, 2013, shipment stating that it exported the nozzle dams and related equipment, believing the equipment was under the export authority of the U.S. Department of Commerce (DOC) and that the equipment did not require specific export license issued by the NRC to China.

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<sup>2</sup> Curtiss-Wright Corporation submitted the voluntary self-disclosure on behalf of its subsidiary, the Curtiss-Wright Flow Control Service Corporation (d/b/a Scientech). Scientech is the manufacturer of steam generator nozzle dams that were exported to China in 2013.

## NOTICE OF VIOLATION

Curtiss-Wright Corporation  
Charlotte, NC

EA-16-078

During an NRC review of information relating to the export of nuclear equipment and components by Curtiss-Wright Corporation to China on September 4, 2013, conducted between February and May 2016, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

- A. Title 10 of the *Code of Federal Regulations* (10 CFR), Section 110.5 states, in part, that no person may export any nuclear equipment listed in 10 CFR 110.8 unless authorized by a general or specific license issued under 10 CFR Part 110.

Section 110.20(a) of 10 CFR states that a person may use an NRC general license as authority to export or import nuclear equipment or material, if the nuclear equipment or material to be exported or imported is covered by the NRC general licenses described in Sections 110.21 through 110.27. If an export or import is not covered by an NRC general license, a person must file an application for a specific license in accordance with 10 CFR 110.31 through 110.32.

Contrary to the above, on September 4, 2013, Curtiss-Wright Corporation exported nuclear equipment listed in 10 CFR 110.8 that was not authorized by a general or specific license issued under 10 CFR Part 110. Specifically, Curtiss-Wright exported four nozzle dams with associated nozzle dam control console and installation tools to China, for ultimate use at the Changjiang Nuclear Power Plant, without filing an application for a specific license in accordance with 10 CFR 110.31 through 110.32. This export was not covered by an NRC general license because 10 CFR 110.26, "General license for the export of nuclear reactor components," does not authorize the export of nuclear reactor components to China.

This is a Severity Level III violation (NRC Enforcement Policy, Section 6.15)

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved, is already adequately addressed on the docket in a letter from Curtiss-Wright dated March 23, 2016. 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-16-078," and send it to the U.S. Nuclear Regulatory Commission, 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 of Violation (Notice).

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>. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Enclosure 2

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

Dated this 20th day of May 2016