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SETTING THE STANDARD

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December 20, 2019

Ms. Louise Lund, Director
Division of Engineering
Office of Research
Mail Stop T10-A36
Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: **Request for NRC Endorsement of ASME NOG-1, Rules for the Construction of Overhead and Gantry Cranes (Top Running Bridge, Multiple Girder, and ASME NML-1, Rules for the Movement of Loads Using Overhead Handling Equipment in Nuclear Facilities**

Reference 1: Regulatory Issue Summary (RIS) 2005-25, Supplement 1, "Clarification of NRC Guidelines for Control of Heavy Loads,

Dear Ms. Lund,

ASME Board on Nuclear Codes and Standards is requesting NRC endorsement of ASME NOG-1 and ASME NML-1.

ASME NOG-1, Rules for the Construction of Overhead and Gantry Cranes (Top Running Bridge, Multiple Girder), was developed by the ASME Committee on Cranes for Nuclear Facilities to provide design, manufacture, testing, inspection, shipment, storage and erection requirements for the described cranes at nuclear facilities. ASME NOG-1 (2004) was endorsed by the NRC in Reference 1 as an acceptable method for meeting the guidance in NUREG-0554, "Single-Failure-Proof Cranes for Nuclear Power Plants." This endorsement was given with the understanding that there would be a comparison of the ASME NOG-1 design criteria to the criteria of NUREG-0554 included as an appendix to a future edition of ASME NOG-1.

ASME NOG-1, 2010 edition, includes Non-mandatory Appendix C, "NUREG 0554/ASME NOG-1 Conformance Matrix" which provides a comparison between NUREG-0554 and the related ASME NOG-1 requirements, specifically indicating a method or statement of NOG conformance to each NUREG guideline, with updates made to ASME NOG-1 to align with the criteria of NUREG-0554. The matrix and these updates remain in the 2015 edition.

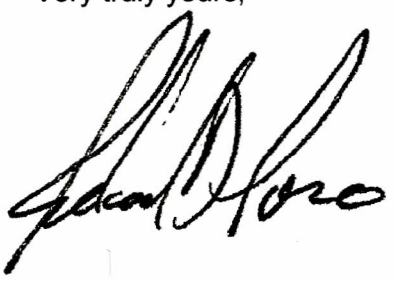
The ASME Cranes for Nuclear Facilities (CNF) Committee recognized the need for a guide for crane operations in nuclear facilities and put forth a number of outlines for such guidance. Following the fatal crane accident at Arkansas Nuclear One and given the age of NUREG-0612, the Nuclear Regulatory Commission, as well as the nuclear industry in general, recognized the need for a new standard to address

the control of heavy loads in nuclear power plants. Based on this, the ASME CNF Committee developed NML-1, Rules for the Movement of Loads Using Overhead Handling Equipment in Nuclear Facilities, to maintain consistency with principles found in NUREG-0612. Thus, lifting evolutions with potential radiological consequences greater than a fuel-handling accident are still considered critical, and the seven guidelines have been incorporated into this Standard. However, ASME NML-1 invokes newer standards for requirements specific to overhead handling equipment, below-the-hook devices, slings, and rigging hardware. NML-1 defines the requirements and guidelines for a safe, effective load-handling program at commercial nuclear facilities using overhead handling equipment. This standard was issued in June 2019.

As its title indicates, NML-1 includes requirements for the movement of all loads using overhead handling equipment within a nuclear facility. It applies a graded approach to the level of controls required for the variety of lifts performed in a nuclear facility, separating the lifts into three classifications: standard, special and critical. Within the critical lift classification, NML-1 includes a distinct classification, nuclear safety critical lifts, for lifts similar to those characterized in NUREG-0612. Non-mandatory Appendix A of this standard provides a matrix showing conformance of NML-1 to NUREG-0612.

ASME stands ready to provide assistance, as needed in the course of NRC review and endorsement. If you have any questions in regards to the contents of this letter, please direct them to Mr. Christian Sanna, Director, ASME Nuclear Codes & Standards by telephone (212) 591-8513 or by e-mail SannaC@asme.org.

Very truly yours,



Richard D. Porco, Chair
ASME Board on Nuclear Codes and Standards

cc: Officers, ASME Council on Standards and Certification
Officers, ASME Board on Nuclear Codes and Standards
Officers, ASME Standards Committee on Cranes for Nuclear Facilities