

STP-NU-015

A GUIDE TO AMERICAN CRANE STANDARDS

For Electric Overhead Traveling Cranes,
Hoists, and Related Equipment for Nuclear
Facilities



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Standards for Electric
Overhead Traveling Cranes,
Hoists and Related
Equipment for Nuclear
Facilities**

Prepared by:

ASME Committee on Cranes for Nuclear Facilities

ASME STANDARDS
TECHNOLOGY, LLC

Date of Issuance: April 8, 2008

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ASME Standards Technology, LLC
Three Park Avenue, New York, NY 10016-5990

ISBN No. 0-7918-3141-8

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FOREWORD

Numerous standards applicable to the design and manufacturing of overhead cranes exist in the United States. Heretofore there have been no published guidance criteria to assist the prospective owner or user of cranes in determining which standards should be invoked for a particular application or facility. This is particularly the case for nuclear facilities and other applications where crane requirements often exceed the minimum industry standards. The ASME Committee on Cranes for Nuclear Facility produced this “Guide to American Crane Standards” to provide such guidance.

ASME has been involved in nuclear codes and standards since 1956. The Society created Section III of the Boiler and Pressure Vessel Code, which addresses nuclear reactor technology, in 1962. ASME Standards promote safety, reliability and component interchangeability in mechanical systems.

Established in 1880, the American Society of Mechanical Engineers (ASME) is a professional not-for-profit organization with more than 127,000 members promoting the art, science and practice of mechanical and multidisciplinary engineering and allied sciences. ASME develops codes and standards that enhance public safety, and provides lifelong learning and technical exchange opportunities benefiting the engineering and technology community. Visit www.asme.org for more information.

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ABSTRACT

This document provides information and guidance regarding applicable U.S. industry and government documents and standards to users specifying requirements for overhead and gantry cranes for nuclear facilities. This includes documents and standards written specifically for cranes, as well as others having provisions specific to cranes. Some are codified in U.S. law. Others are national or industry consensus standards. Of the latter, some are applicable to nearly all crane applications and are typically invoked by owner specifications. Others apply to special-purpose crane applications and are not necessarily appropriate for commercial or standard industrial cranes.

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1 OVERVIEW

The purpose of this document is to provide information and guidance regarding applicable U.S. industry and government documents and standards to users and specifiers of overhead and gantry cranes for nuclear facilities. This includes documents and standards written specifically for cranes, as well as others having provisions specific to cranes. Some are codified in U.S. law. Others are national or industry consensus standards. Of the latter, some are applicable to nearly all crane applications and are typically invoked by owner specifications. Others apply to special-purpose crane applications and are not necessarily appropriate for commercial or standard industrial cranes.

It is common for one standard to list many others as references, and to invoke specific provisions of the referenced standards. This document does not attempt to cover every standard which may have some application to cranes, or which may become part of a “chain” of references. The intent is to cover the primary crane standards and selected additional standards in an attempt to be helpful to the user without being overly lengthy.

The guidance in this document includes summaries of the provisions of each standard, and when appropriate, recommendations as to when it should be invoked. Note, however, that the determination of standards, codes, regulations and laws applicable to a project and the load handling equipment used is the responsibility of the owner.