

Rules Comments

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To: rules.comments@mms.gov
Subject: API Spec 2C - Comments

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To:
Department of the Interior
Minerals Management Service
Mail Stop 4024
381 Elden Street
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Ref: Adoption of API 2C Rules by MMS

Subject: Aspects of structural compliance

Rules Processing Team (RPT):

I agree with the claim that older cranes (pre 1983) can be readily and economically upgraded to comply with the mechanical & control aspects of API 2C - 95. Compliance with the structural requirements of API 2C - 95 is another matter. Beginning in the early 1980- s, API began requiring low temperature Charpy testing of materials used in slewing bearings, regardless of crane design temperature. In most cases, slewing bearings manufactured prior to 1983 and incorporated into API monogram cranes do not meet the current low temperature impact energy absorption requirements for steel material as stated in the API 2C - 95 rules. I have recently verified this fact with Rotek, a major supplier of such slewing bearings. Required compliance with this aspect of the API 2C - 95 rules will force producers to replace virtually all slewing bearings on offshore cranes manufactured prior to 1983.

Likewise, the API 2C rules require that primary load carrying components (boom chords, gantry members, etc.) and the assembly of such components by welding comply with an acceptable low temperature impact resistance program. In earlier versions of the API 2C rules, special low temperature materials and welding procedures were required only for certain 'cold climate' cranes. Required compliance with this aspect of the API 2C - 95 rules could force oil production companies to destructively test coupons cut from chords, gantries, and pedestals of their older machines.

The lowest mean daily temperature (LMDT) at a permanent installation site is commonly used to select the design temperature for a crane. (See DNV Crane Rules) Offshore in the Gulf of Mexico, the coldest LMDT values are found just off the coast of Louisiana, and are about 52 to 55 degrees F. Structural steels commonly found in older cranes behave in a ductile manner at such temperatures. Destructive testing of materials used in existing cranes located in the Gulf of Mexico would be a waste of time & money. Older cranes used in mild climates should be exempt from compliance with the new impact testing requirements contained in

the API 2C - 95 rules.

Respectfully submitted,

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