U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

JAN 30 2004

Ms. Carol Kaufman
Senior Environmental Specialist
Metropolitan Water District of
Southern California
Los Angeles, California 90012

Ref. No. 03-0241

Dear Ms. Kaufman:

This responds to your inquiry regarding the requirements for inspection and testing of MC-331 cargo tanks containing chlorine under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). This is a follow-up to your telephone conversation with Phil Olson of our Office of Hazardous Materials Technology regarding required inspection and testing requirements for DOT specification MC 331 cargo tank motor vehicles (CTMVs) as they relate to amendments adopted in a final rule published on April 18, 2003 [Docket HM-213, effective October 1, 2003].

You state that the Metropolitan Water District of Southern California (MWD), a public water provider, uses DOT specification MC 331 CTMVs in chlorine service. Annually, in accordance with §180.407, the MWD conducts a partial, visual external inspection of the steel cargo tank (insulation prevents a complete visual external inspection) and records the results in inspection reports. A visual internal inspection is not conducted concurrently, as every two years the cargo tanks are subjected to hydrostatic pressure testing and leakage tests. You ask if the annual, partial visual external inspection of an insulated MC 331 cargo tank used in chlorine service, combined with pressure and leakage testing every two years, complies with the requirements at §180.407(d).

Section 180.407 of the HMR contains the requalification requirements for DOT specification CTMVs. Paragraph (c) of this section includes a table that establishes test and inspection intervals for different types of CTMVs. Paragraphs (d) through (i) of this section describe how each required test and inspection must be performed. Section 180.407 must be read in its entirety in order to ascertain which tests and inspections are required for a specific CTMV.

On April 18, 2003, the Research and Special Programs Administration published a final rule [68 FR 19258; Docket HM-213; effective October 1, 2003] adopting a number of revisions to the HMR to update and clarify the regulations on the construction and maintenance of CTMVs. Paragraph (d)(1) of §180.407 was revised to provide the correct references for hydrostatic and pneumatic testing of cargo tanks, where a visual inspection is precluded because the cargo tank is lined, coated, insulated or designed so as to prevent access for external or internal inspection.

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180 407

Paragraph (d) of § 180.407 sets forth requirements for the performance of an external visual inspection. Paragraph (d)(1) generally requires an internal visual inspection in accordance with paragraph (e) of § 180.407 in place of the external visual inspection where insulation precludes performance of the external visual inspection. The table in § 180.407(c) is consistent with paragraph (d)(1); in accordance with the table, insulated cargo tanks are required to have an internal visual inspection every year. Note, however, that MC 331 CTMVs are excepted from this requirement. Instead, MC 331 CTMVs are required to have an internal visual inspection every five years.

You are correct that under the HMR, as amended by the HM-213 final rule, you need not perform an annual internal visual inspection of your insulated MC 331 CTMVs in place of the annual external visual inspection. An annual, partial visual external inspection, combined with pressure and leakage testing performed every two years in accordance with paragraphs (c), (g), and (h) of § 180.407, satisfies the test and inspection requirements applicable to MC 331 CTMVs in chlorine service. We note that this test and inspection regimen includes an internal visual inspection as part of the pressure test. Taken together, the test and inspection procedures utilized by MWD assures frequent evaluation of the integrity of the cargo tank while minimizing atmospheric exposure that could accelerate corrosion (which could be a potential consequence of an annual visual internal inspection).

I hope this information is helpful. If we can be of further assistance, please contact us.

Sincerely,

Edward T. Mazzullo

Edward T. Mazzullo
Director, Office of Hazardous Materials Standards

Engrum
§180.407

Cargo Tanks
03-0241

Gorsky, Susan

From: Kaufman,Carol Y [cykaufman@mwdh2o.com]
Sent: Monday, September 22, 2003 4:24 PM
To: Gorsky, Susan
Cc: Ford,Rick; Guillory,Dan; Clark,John E
Subject: FW: Request for Concurrence Re: Inspection and Testing Requirements for DOT MC 331 Chlorine Cargo Tanks

Importance: High

Hi Susan,

Per our discussion earlier this morning, below is the original e-mail correspondence requesting concurrence regarding the inspection and testing requirements for DOT MC 331 Chlorine Cargo Tanks.

Thank you again for your attention to this matter. I look forward to hearing back from you. If you have any questions, please do not hesitate to contact me.

Carol Kaufman
(213) 217-6207

-----Original Message-----
From: Kaufman,Carol Y
Sent: Tuesday, September 02, 2003 10:19 AM
To: 'philip.olson@rspa.dot.gov '
Cc: Clairday,John C; Clark,John E; Guillory,Dan; Ford,Rick; Beswick,Paul G
Subject: Request for Concurrence Re: Inspection and Testing Requirements for DOT MC 331 Chlorine Cargo Tanks

Hi Mr. Olson,

This is a follow-up to our August 25, 2003 telephone conversation regarding the required inspection and testing requirements for DOT MC 331 Cargo Tanks as they relate to the amendments adopted by the Department of Transportation (DOT), Research and Special Programs Administration (RSPA) on April 18, 2003.

As discussed, Metropolitan Water District of Southern California (MWD) is a public water provider and possesses in its fleet DOT MC 331 cargo tanks for chlorine service. Historically in accordance with the provisions of 49 Code of Federal Regulations (CFR), Section 180.407, we conduct a partial visual external inspection of the steel cargo tanks on an annual basis (insulation prevents a complete visual external inspection) and record the results on our inspection reports. A visual internal inspection is not conducted concurrently, as every two years the cargo tanks are subjected to hydrostatic pressure testing and leakage tests. This bi-annual testing provides the necessary safety check of tank integrity and the opportunity for a visual inspection of the internal area of the steel cargo tanks, while minimizing the frequency of atmospheric exposure which could accelerate corrosion (which could be a potential consequence of an annual visual internal inspection).

Prior to the April 18, 2003 amendments, the wording in 49 CFR Section 180.407 (d) specifically stated that, "Where insulation precludes external visual inspection, the cargo tank, other than an MC 330 or MC 331 cargo tank, must be given a visual internal inspection...". However, in the recent amendments the entire wording of this section was

modified, and in so doing, the wording excepting the MC 331 cargo tanks does not appear in the amended section. However, based on the inspection and testing provisions identified in the Section 180.407 (c) Table, it appears that the previous annual visual external inspection coupled with the bi-annual pressure testing continues to be a compliant practice. Additionally, a new requirement to conduct visual internal inspections of the MC 330 or MC 331 cargo tanks would have been a significant amendment, and therefore, would have been called out in the preamble to the specific regulatory changes in the Federal Register publication, which it was not.

Metropolitan is asking for your concurrence in our understanding of the inspection and testing requirements as they were amended on April 18, 2003. Specifically, it is our understanding that the annual partial visual external inspections for MC 331 cargo tanks, combined with pressure and leakage testing every two years continue to be in compliance with the 49 CFR Section 180.407 requirements.

Thank you for your attention in this matter. We look forward to hearing back from you regarding this issue. If you have any questions, please do not hesitate to contact me.

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