



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

APR 05 2017

Mr. Jeffrey M. Embleton, Esq.
MansourGavin, LPA
1001 Lakeside Avenue, Suite 1400
Cleveland, OH 44114

Reference No. 16-0111

Dear Mr. Embleton:

This letter is in response to your June 21, 2016, letter on behalf of your client requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the inspection of threads on DOT 3A, 3AX, and 3E seamless steel cylinders. You state that in order to ensure the threads are built “to gauge,” your client uses a statistical sampling size of $C = 0$, $AQL = 1.5\%$ (per Acceptance Number Sampling Plans, N.L. Squeglia, ASQC, 4th Edition), along with additional processes identified in an established quality plan. You also provide examples of more stringent statistical sampling sizes, such as $C = 0$, $AQL = 0.4\%$ and $C = 0$, $AQL = 0.1\%$, and specifically ask which is the most appropriate method for the inspection of cylinder threads.

In accordance with §§ 178.36(h)(1) and 178.42(e)(1), the threads on a DOT 3A, 3AX, or 3E cylinder are required to be “clean cut, even, without checks, and to gauge.” It is the manufacturer’s responsibility determine how best to ensure the threads on each cylinder meet the appropriate specification, whether by testing each or by some sample set according to a quality plan.

Please note that a DOT 3A, 3AX, or 3E cylinder is also required to be inspected and analyzed by an inspector as designated in § 178.35(b)^a. Specifically, the designated inspector is required in accordance with § 178.35(c)(3)(vi) to “verify threads by gauge” to determine cylinder compliance with the applicable specification. Furthermore, § 178.35(c)(4) requires that the inspector’s report be prepared in accordance with Compressed Gas Association (CGA) C-11. Specifically, CGA C-11 requires that for seamless cylinders, “threaded openings in each cylinder shall be inspected and gauged for compliance with the design specification as well as quality.

^a As specified in § 178.35(b), a DOT 3A or 3AX cylinder must be inspected and verified by an Independent Inspection Agency (IIA). A DOT 3E cylinder must be inspected and verified by either an IIA or a competent inspector of the manufacturer.

Performance of this inspection shall be verified by the inspector.” Therefore, in addition to the manufacturer’s responsibility, the designated inspector must inspect the cylinders in order to verify and assure that the threads are built “to gauge.”

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Dirk Der Kinderen". The signature is fluid and cursive, with a large initial "D" and "K".

Dirk Der Kinderen
Chief, Standards Development Branch
Standards and Rulemaking Division

Geller
\$ 178.36 (1)(1)
Cylinder
16-0111

Dodd, Alice (PHMSA)

From: Rivera, Jordan CTR (PHMSA)
Sent: Friday, June 24, 2016 1:46 PM
To: Hazmat Interps
Subject: FW: Gauging of threads on Specification Cylinders
Attachments: Request re Gauging of Threads on spec cylinder 6-21-16.pdf

Hi Shante/Alice,

Please submit this as a letter of interpretation. Please let me know if you have any questions.

Thanks,
Jordan

From: Ellen Stefanac [<mailto:ESTefanac@mggmlpa.com>] **On Behalf Of** Jeffrey Embleton
Sent: Tuesday, June 21, 2016 10:16 AM
To: PHMSA HM InfoCenter
Subject: Gauging of threads on Specification Cylinders

Jeffrey M. Embleton



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Jeffrey M. Embleton, Esq.
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Direct Dial 216-453-5905

June 21, 2016

U.S. DOT
PHMSA Office of Hazardous Materials Standards
Attn: PHH-10
East Building
1200 New Jersey Avenue, SE.
Washington, DC 20590-0001

In re: Request for Interpretation Regarding
Gauging of Threads on Specification Cylinders

Dear Representative,

Our Client ("Company A") is a registered manufacturer of DOT Specification Cylinders. As a result, Company A is subject to the inspection requirements set forth in 49 CFR 178.36(h)(1) and 178.42(e)(1) (together, the "Regulations"), which address the specifications for 3A and 3AX seamless steel cylinders and 3E seamless steel cylinders, respectively. On behalf of Company A, we are seeking an interpretation of the Regulations.

With respect to the inspections referenced in the Regulations, Company A has historically used statistical sampling sizes of C=0, AQL = 1.5% (per Acceptance Number Sampling Plans, N.L. Squeglia, ASQC, 4th Edition), coupled with in-process inspection according to a pre-determined quality plan for the relevant products. These sampling plans are widely accepted quality control techniques used in a variety of industries, and have been successfully utilized by Company A for more than twenty years.

However, a recent review of the Regulations has resulted in our client seeking this request for interpretation, specifically as to the requirement that "Threads must be clean cut, even, without checks, and to gauge." See 49 CFR 178.36(h)(1), 49 CFR 178.42(e)(1). Accordingly, we submit the following questions for your consideration:

Q1: Can proven statistical sampling, as described above in the second paragraph, be used for thread inspection and meet the requirement "... to gauge" as cited in to 49 CFR 178.36(h)(1) and 49 CFR 178.42(e)(1)?

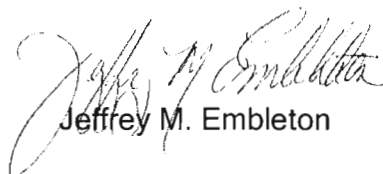


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Q2: If the sampling plan noted in Q1 is interpreted as not meeting the requirement "... to gauge" as cited in to 49 CFR 178.36 (h)(1) and 49 CFR 178.42(e)(1), would a more stringent statistical sampling plan be deemed acceptable towards meeting this aforementioned requirement, such as C=0, AQL = 0.4%; or C=0, AQL = 0.1%? If so, please advise which of these sampling plans would be deemed acceptable.

Your help in interpreting the Regulations with respect to thread gauging sampling plans is greatly appreciated. Feel free to contact the undersigned for any questions or reply if you have any questions.

Best regards,



Jeffrey M. Embleton

JME:ens