



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

JUN 08 2016

Investigator Ji-hoon Chang
Intellectual Criminal Investigation Squad
Korea National Police
Korea

Ref No.: 15-0117

Dear Mr. Chang:

This letter is a follow-up to a response you received from the Pipeline and Hazardous Materials Safety Administration (PHMSA; Reference Number 15-0089) on May 13, 2015 and to your June 16, 2015 email inquiry and subsequent correspondence with an Investigator of PHMSA's Field Operations Division requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to Department of Transportation (DOT) Specification 3AAX seamless steel cylinders. Your questions pertain to the specific operations of a company, NK Company LTD, and have been paraphrased and answered as follows:

- Q1. Is adding thickness around the neck of a DOT-3AAX seamless steel cylinder to correct dimension irregularities considered "welding" or "brazing" for the purposes of § 178.37(e)(1)?
- A1. The answer is yes, adding thickness around the neck of a DOT-3AAX seamless steel cylinder is considered welding or brazing. Please be advised that as specified in § 178.37(e) of the HMR, welding or brazing for any purpose whatsoever is prohibited except for: (1) the attachment of neckrings and footrings which are non-pressure parts, and only to the tops and bottoms of cylinders having a service pressure of 500 psig or less; and (2) as permitted in paragraph (d) (Manufacture) of § 178.37. The neck of a cylinder is considered a pressure part.
- Q2. What criteria are used to determine whether a cylinder neckring or footring is a "pressure part" or a "non-pressure part" for the purposes of § 178.37(e)(1)?
- A2. Neckrings and footrings are non-pressure parts. For the purposes of § 178.37(e)(1), a neckring or footring can only be attached by welding to the top or bottom exterior of a cylinder with a service pressure of 500 psig or less. For the purposes of § 178.37(e)(1), any portion of the cylinder itself is considered a pressure part.

- Q3. Is PHMSA aware of any instances of failure as a result of welding around the neck of a DOT specification 3AAX cylinder?
- A3. No, we are not aware of any instances of failure as a result of welding around the neck of a DOT specification 3AAX cylinder.
- Q4. For the purposes of § 178.37(d) (Manufacture), does the phrase "...the surface may be machined or otherwise treated to eliminate these defects." include welding?
- A4. No, it does not include welding to eliminate a defect. For the purposes of § 178.37(d), welding refers to an end closure in the finished cylinder that is welded by spinning in the manufacturing process.
- Q5. Are there similar issues with welding on other DOT cylinder specifications?
- A5. The answer is yes. Each DOT cylinder specification's welding procedures are prescribed in Subpart C of Part 178. None of those specifications authorize welding to correct defects in the pre- or post-manufacturing process. This requirement is necessary to prevent a cylinder from rupturing, resulting in extensive property damage, serious injury, or death.

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

Sincerely,



T. Glenn Foster
Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division

Stevens
\$ 178.37
Cylinders
15-0117

Dodd, Alice (PHMSA)

From: Foster, Glenn (PHMSA)
Sent: Tuesday, June 16, 2015 12:20 PM
To: Dodd, Alice (PHMSA); Goodall, Shante CTR (PHMSA)
Cc: Stevens, Michael (PHMSA); Benedict, Robert (PHMSA); Betts, Charles (PHMSA); Foster, Glenn (PHMSA); Kelley, Shane (PHMSA); Pfund, Duane (PHMSA); Supko, Ben (PHMSA)
Subject: FW: I need your help :)

Ladies,

Please check the below in as a request for Letter of Interpretation and assign to Michael.

Thanks,
Glenn

From: Smith, Chevella (PHMSA)
Sent: Tuesday, June 16, 2015 11:17 AM
To: Foster, Glenn (PHMSA); Raksnis, Richard (PHMSA)
Cc: Cassidy, Duane (PHMSA); Taisee, Kimberly (PHMSA); Paquet, Ryan (PHMSA); Schoonover, William (PHMSA); Charnota, April (PHMSA); Espinoza, Jaime (PHMSA); Sorah, Jay (PHMSA); Generette, Aris (PHMSA); Shafkey, Refaat (PHMSA); Freeman, Cheryl (PHMSA)
Subject: RE: I need your help :)

Thanks Glenn

Chevella Smith
Compliance Investigator
PHMSA/SWR

-----Original Message-----

From: Foster, Glenn (PHMSA)
Sent: Tuesday, June 16, 2015 10:49 AM Eastern Standard Time
To: Smith, Chevella (PHMSA); Raksnis, Richard (PHMSA)
Cc: Cassidy, Duane (PHMSA); Taisee, Kimberly (PHMSA); Paquet, Ryan (PHMSA); Schoonover, William (PHMSA); Charnota, April (PHMSA); Espinoza, Jaime (PHMSA); Sorah, Jay (PHMSA); Generette, Aris (PHMSA); Shafkey, Refaat (PHMSA); Freeman, Cheryl (PHMSA)
Subject: RE: I need your help :)

Hello Chevella,

We will treat the additional questions as a new request for a letter of Interpretation that references the previous 15-0089 Interp. I will advise with a completion estimate and let you know if there are any additional questions or concerns once I have spoken with Tech.

Thanks,
Glenn

From: Smith, Chevella (PHMSA)
Sent: Tuesday, June 16, 2015 9:22 AM
To: Raksnis, Richard (PHMSA); Foster, Glenn (PHMSA)
Cc: Cassidy, Duane (PHMSA); Taisee, Kimberly (PHMSA); Paquet, Ryan (PHMSA); Schoonover, William (PHMSA); Charnota, April (PHMSA); Espinoza, Jaime (PHMSA); Sorah, Jay (PHMSA); Generette, Aris (PHMSA); Shafkey, Refaat (PHMSA)
Subject: FW: I need your help :)

Good morning,

The email below was received from Korea National Police. They have additional questions regarding welded cylinders performed by NK Co Ltd and is requesting:

1. DOT official document(Ref No. : 15-0089) be redrafted and sent again via Interpol.
2. Provide letter of interpretation for questions 1-5; address to Korean National Police via Interpol

Let me know at your earliest when the request can be completed and if you have additional questions or concerns.

Thanks!

Chevella Smith
Compliance Investigator
PHMSA/SWR

-----Original Message-----

From: 장지훈 [changji82@police.go.kr]
Sent: Tuesday, June 16, 2015 05:39 AM Eastern Standard Time
To: Smith, Chevella (PHMSA); Charnota, April (PHMSA)
Subject: I need your help :)

Dear. Ms Smith,

Korea National Police has been received official documentation from DOT regarding NK. However, we have additional inquiry to this issue, therefore sending this below question to DOT again via Interpol. Please provided your answers on DOT official document with its logo on. Please understand that Korea National Police has their own policy for procedures, to this end, we have to received the DOT official documentation via Interpol.

Korea National Police will fully cooperated with DOT regarding DOT's NK investigation, so then DOT investigation on NK gets over soon.

※ Please provided DOT official document(Ref No. : 15-0089) again via Interpol, which is the documentation that Korea National Police has received on May 13th, 2015.

<Question>

Q1. Can it be determined as 'welding', adding thickness around neck to 'correct' dimension, not to fix 'crack'? Was there a case similar to this explanation?

Q2. What is the logical base for determining neck-ring as 'not pressurized part', and around-neck as 'pressurized part'?

Q3. Is there any case of problem from welding around neck? If it happened, what was the contents of the case?

Q4. In the sentence of 'If not originally free from such defects, the surface may be machined or otherwise treated to eliminate these defects' referred in the section of '§178.37(d) Manufacture', what are specific examples correspond to 'If not originally free from such defects', and 'machined or otherwise treated'? Can 'otherwise treated' be regarded as welding?

Q5. Is there any similar cylinder specification to be an issue for the 'welding' perviously? If so, then please let us know the specific example.

Would you please let us allow to provided your contact information(email/tel(713-272-2820) to Interpol, so they can communicate directly to you?

If this is allowable, then it would be a lot of support to Interpol to find out relevant personnel at DOT.

**Best regards,
JI-hoon Chang**