U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

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

MAY 2 1 2012

Mr. Steve Therneau
Chart Inc.
1300 Airport Drive
Ball Ground, GA 30107

Reference No.: 12-0065

Dear Mr. Therneau:

This responds to your February 27, 2012 letter requesting further clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the repair of Department of Transportation (DOT) 4 series specification cylinders. You request that the Pipeline and Hazardous Materials Safety Administration (PHMSA) reconsider a previously-issued letter of interpretation to you dated February 23, 2012 [Ref. No. 11-0237].

In your current letter, you state that it is your understanding that if the inner vessel of a DOT-4 series cylinder has not been compromised and repairs have only been completed on the outer vessel, § 180.211(c)(2)(i) is not applicable and there is no requirement to test the cylinder in accordance with the specifications under which the cylinder was originally manufactured.

As previously stated, your understanding with regard to cylinder repair is incorrect. The term "repair" is defined in § 180.203 as a procedure for correction of a rejected cylinder that may involve welding. A repair is not limited to the correction of a rejected cylinder that has had only its inner vessel compromised. Therefore, DOT-4 series cylinders requiring repair, as defined in § 180.203, must be done in accordance with § 180.211. In addition, DOT 4L cylinders must meet additional requirements for repair specified in § 180.211(c) including being pressure-tested in accordance with the specifications under which the cylinder was originally manufactured. DOT 4L cylinders which undergo procedures that are not defined as a repair in § 180.203 are not subject to the requirements of § 180.211(c) including the requirement to be pressure-tested in accordance with the specifications under which the cylinder was originally manufactured.

If a DOT-4 series cylinder requires repair as defined in § 180.203 and that cylinder is designed so that it is not possible to safely pressure test the cylinder in accordance with the specification with which the cylinder was originally manufactured, you may request a special permit to except the cylinder from the requirement to be subjected to the pressure tests specified in § 180.211(c) and (e). Your application should be directed to the Approvals and Permits Division and should include specific and detailed information concerning the

rationale for excepting the cylinder from the pressure test requirements. The procedures for applying for a special permit are found in 49 CFR Part 107, Subpart B. You may also obtain this information at our website at http://www.phmsa.dot.gov/hazmat/regs/sp-a.

Sincerely,

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

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Benedict
§180.211
§180.57
Cylinders
12-0065

February 27, 2012

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

Attn: Glenn Foster

Reference: Registration K-058, Interpretation Response 11-0237

Dear Mr. Foster,

We are in receipt of your response to our September 12, 2011 request for interpretation. As we noted in an earlier email to you, we feel we may have asked our question incorrectly based on the answer we received. We would like to restate our question in this request.

After discussions with DOT enforcement personnel and DOT engineering personnel, it was recommended that we request a formal interpretation related to CFR 49 paragraph 180.211 (c) (2) (i). The text in question states that "after repair, the cylinder must be pressure tested in accordance with the specifications under which the cylinder was originally manufactured:".

The situation is related to a repair/rebuild of a 4L vessel in accordance with CFR 49 180.211. In the majority of cases, no work is done to the inner vessel. In fact, measures are taken to ensure that the boundaries described in 180.211 (c) (1) (ii) are maintained to ensure that the inner vessel remains intact.

Since the work has only been done to the outer vessel and there are no manufacturing pressure test specifications defined for the outer vessel in CFR 49 180.57, the requirements of 180.211 (c) (2) (i) are moot. This is further reinforced by the fact that we are also approved manufacturers of DOT 4L products and know that there is no testing performed on the outer vessel other than mass spectrometer testing which is also performed on repair/rebuild tanks.

This situation was discussed at length with Duane Cassidy, Ben Smith, Wayne Chaney, John Heneghan, Rafaat Shafkey, and Mark Toughiry on August 31, 2011. We were lead to believe that our understanding was accurate.

We would like to obtain written confirmation that the requirements of CFR 49 paragraph 180.211 (c) (2) (i) do not apply when only the vessel jacket is compromised. We believe that to be the only possible answer based on the unique construction of DOT 4L cryogenic pressure vessels.

Thank you for your consideration. We look forward to a favorable response. Please advise if you have any questions or concerns. Thank you in advance for your prompt reply.

Regards,

Steve Therneau

Steve Therneau
Director of Quality – Biomedical/Canton Operations