U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

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

MAR 29 2016

Mr. Christopher R. Adams
Manager, Regulatory Affairs
FIBA Technologies, Inc.
P.O. Box 360
1535 Grafton Road
Millbury, MA 01527

Reference No. 15-0203

Dear Mr. Adams:

This letter is in response to your October 1, 2015, e-mail and letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to training requirements. Specifically, you refer to training for personnel who perform ultrasonic examinations to requalify seamless steel cylinders and tubes and ask if the training requirements for materials incorporated by reference in § 171.7(w) are acceptable under §§ 172.702(c) and 180.207(d)(1). We have paraphrased your questions and answered them in the order you provided:

Q1. Are personnel requalifying United Nations (UN) pressure receptacles in conformance with ISO 6406(E) *Gas cylinders—Seamless steel gas cylinders—Periodic inspection and testing, Second edition, February 2005* also required to comply with the qualification and experience requirements in ISO 9712 *Non-destructive testing—Qualification and certification of non-destructive testing personnel*? ISO 9712 is referenced in Clause 11.4.3.5 of ISO 6406 but is not specifically prescribed in § 171.7?

A1. The answer is yes. Because ISO 6406(E) is incorporated by reference into the HMR under § 171.7, one must comply with all the requirements prescribed in that standard, including the requirement to comply with ISO 9712, unless otherwise excepted under the HMR. Based on your description, this would be considered function-specific training under § 172.704(a)(2).

Q2. Are FIBA Technologies, Inc. staff authorized to perform periodic inspection and testing of seamless steel gas cylinders using the ultrasonic examination method applied in conformance with ISO 6406, excepting that the equipment shall be operated by, and its operation supervised by, personnel qualified and certified in conformance with The American Society for Non-destructive Testing (ASNT) Recommended

Practice No. SNT-TC-1A, *Personnel Qualification and Certification in Nondestructive Testing*? This recommended practice is not prescribed in the HMR.

A2. The answer is no. Please refer to Answer A1. FIBA is not authorized to perform testing using personnel certified only to ASNT. Personnel must also be certified in accordance with ISO 9712.

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
Standards and Rulemaking Division

Edmonson
§171.7
Reference Material
15-0203

**Dodd, Alice (PHMSA)**

**From:** Geller, Shelby CTR (PHMSA)
**Sent:** Tuesday, October 13, 2015 11:19 AM
**To:** Hazmat Interps
**Subject:** FW: FIBA Request for Letter of Interpretation Regarding UE Personnel Qualification
**Attachments:** FIBA Request for Letter of Interpretation Regarding NDT Training.pdf

Dear Shante and Alice,

I also wanted to follow up on this request as I could not find it in the database.

Thanks,
Shelby

---

**From:** Geller, Shelby CTR (PHMSA)
**Sent:** Thursday, October 01, 2015 3:53 PM
**To:** Hazmat Interps
**Subject:** FW: FIBA Request for Letter of Interpretation Regarding UE Personnel Qualification

Dear Shante and Alice,

Forwarded is a formal request for a letter of interpretation.

Thanks,
Shelby

---

**From:** Chris Adams [mailto:ChrisAdams@fibatech.com]
**Sent:** Thursday, October 01, 2015 3:30 PM
**To:** INFOCNTR (PHMSA)
**Subject:** FIBA Request for Letter of Interpretation Regarding UE Personnel Qualification

To Whom It May Concern:

Attached is a request for a formal letter of interpretation from your office regarding questions we have regarding training and qualifications of persons performing requalification of UN pressure receptacles. Please kindly confirm your receipt of this letter. Do not hesitate to contact me if you have any questions or need any additional information.

Very truly yours,

Christopher R. Adams
Manager, Regulatory Affairs
FIBA Technologies, Inc.

**FIBA TECHNOLOGIES, INC.**
P.O. Box 360
1535 Grafton Road
Millbury, MA 01527 U.S.A.
Tel: (508) 887-7100
Fax: (508) 754-2254
www.fibatech.com

**QUALITY PRODUCTS-SERVICE**

October 1, 2015

Standards and Rulemaking Division
Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
East Building
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

ATTN: Hazardous Materials Information Center

E-Mail: infocntr@dot.gov

SUBJECT: Request for a Letter of Interpretation

REF.: 49 CFR §§171.7(w), 172.702(c) and 180.207(d)(1)

To Whom It May Concern:

FIBA Technologies, Inc. ("FIBA") holds numerous requalifier identification numbers (see attached Exhibit A) and each of these locations has personnel trained and certified to perform nondestructive testing (NDT) in accordance with several special permits authorizing the use of NDT methods (rather than hydrostatic testing) to requalify cylinders and tubes (see attached Exhibit B). FIBA is a leader in the application of acoustic emission testing (AET) and ultrasonic examination (UE) to the requalification of seamless steel cylinders and tubes and has been so for many years. FIBA has been an active participant in the Compressed Gas Association (CGA) since 1977 and the FIBA Level III is a member of the American Society for Nondestructive Testing (ASNT).

I am writing to ask that your office provide FIBA with a formal Letter of Interpretation regarding a matter of training requirements. 49 CFR §180.207(d)(1) states:

*"Seamless steel: Each seamless steel UN pressure receptacle, including MEGC's pressure receptacles, must be requalified in accordance with ISO 6406 (IBR, see §171.7 of this subchapter). However, UN cylinders with a tensile strength greater than or equal to 950 MPa must be requalified by ultrasonic examination in accordance with ISO 6406."*

It is the position of FIBA that its UE technicians and managers, who are trained in accordance with ASNT Recommended Practice No. SNT-TC-1A, *Personnel Qualification and Certification in Nondestructive Testing*, are authorized by DOT to requalify seamless steel gas cylinders and tubes according to ISO 6406, *Gas cylinders – Seamless steel gas cylinders – Periodic inspection and testing*, even if they are not trained and certified according to ISO standard 9712, *Non-destructive testing – Qualification and certification of NDT personnel.*

Certification of NDT personnel in accordance with ASNT is recognized not only by the USA, but also world-wide, including countries within the European Union. Training offered by authorized testing facilities often utilizes reference materials produced by ASNT. For example, Lavender International in the United Kingdom lists ASNT training materials and references on their web site. ASNT materials are used by training providers in the USA, including Hellier, which has been widely respected for more than forty years as a leading provider of NDT training and Level III services. Reference and training materials produced by ASNT are used by agencies in the United States and the European Union to develop the required training courses.

FIBA Request for Letter of Interpretation Regarding UE Personnel Qualification

ISO 9712 mandates that an independent third party Level III be responsible for the certification, whereas ASNT certification is an employer-based certification provided by an employer-designated Level III. Likewise, testing for ISO is conducted by an independent third party and ASNT testing is conducted by the employer or his designated Level III. To require USA-based companies, who are currently using training and certification practices that have been in place for 40 years, to seek another certification from an overseas third party in order to comply with a European standard such as ISO 9712 when performing requalification in the USA would be a regrettable step for the DOT to take and an expensive one for US companies to comply with. It's bordering on being a barrier to free trade. FIBA has investigated the cost of getting its technicians certified to ISO 9712 and found that it would be approximately $6,500 for a seasoned technician and as much as $20,000 for a trainee. (Currently, there are no USA-based, approved training centers. Thus, technicians would travel to Europe for the training. It's anticipated that a "seasoned" inspector would still require 10 days of training and testing, while a new recruit would require as many as 24 days.) Obviously, this would be an expense to add to what FIBA has already invested in training and certification of its UE technicians (estimated to be approximately $22,540 per inspector).

FIBA notes that 49 CFR §172.702(c) states: "Training may be provided by the hazmat employer or other public or private sources." Additionally, it is noted that not all the ISO documents identified as normative references in ISO 6406 are listed as reference material in 49 CFR §171.7(w). ISO 11114-1 and ISO 11621 are referenced, but ISO 13341, ISO 13769 and, most notably, ISO 9712 are not referenced. It seems that your office specifically did not reference these documents because CGA standards adequately address the fitting of valves, 49 CFR §§178 and 180 stipulate stamp marking requirements, and the numerous NDT special permits released by DOT specify NDT training requirements.

Finally, I will take this opportunity to tell you that many members of the CGA Cylinder Specification Committee are participating on work item 13-043, which is tasked with writing a CGA document to provide members and, potentially, DOT regulators with guidelines for training, qualification, and certification of personnel performing periodic requalification. While not yet completed, this document is fundamentally based on the premise that US companies will have the ability to use in-house training, provided minimum standards for course content, training hours, experience, record-keeping, etc. are fulfilled.

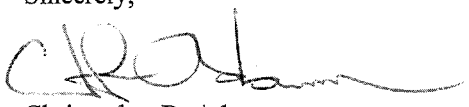
**QUESTIONS**:

1. *Is it the DOT's intention that personnel performing requalification of UN pressure receptacles in accordance with ISO 6406 also be required to comply with the qualification and experience requirements of ISO 9712, which is referenced in Clause 11.4.3.5 of ISO 6406?*

2. *Is FIBA authorized to perform periodic inspection and testing of seamless steel gas cylinders using ultrasonic examination applied in accordance with ISO 6406, excepting that the equipment shall be operated by, and its operation supervised by, personnel qualified and certified in accordance with ASNT SNT-TC-1A?*

We look forward to learning of your interpretation. We hope that you'll recognize the NDT qualification and certification practices of the USA for the past nearly 40 years. If you have any questions or need any other information, please do not hesitate to contact me.

Sincerely,



Christopher R. Adams
Manager, Regulatory Affairs
FIBA Technologies, Inc.
TEL: 774-696-3459
E-Mail: chrisadams@fibatech.com

# EXHIBIT A

## FIBA REQUALIFICATION FACILITIES

**Littleton, MA**: FIBA Technologies, Inc., 53 Ayer Road, Littleton, MA 01460, U.S.A. This facility holds U.S. DOT manufacturer registration number M6235 as well as requalifier identification number (RIN) I441. This Littleton, MA facility also holds ASME U Certificate Number 48,231 and U.S. DOT Approval CA2008090018 authorizing manufacture of various UN ISO 11120 specification tubes.

**Millbury, MA**: FIBA Technologies, Inc., 1535 Grafton Road, Millbury, MA 01527, U.S.A. This facility holds U.S. DOT manufacturer registration number M5635 as well as RIN A748. This Millbury, MA facility also holds ASME U, U2 and U3 Certificate Numbers 34,410, 45,218 and 36,419 respectively and U.S. DOT and CT Numbers 1177346 and 3455 respectively.

**Louisville, KY**: FIBA Technologies, Inc., 1120 Industrial Blvd., Louisville, KY 40219, U.S.A. This facility holds U.S. DOT RIN B935. This Louisville, KY facility also holds ASME U Certificate Number 24,061 and U.S. DOT and CT Numbers 1177346 and 589 respectively.

**Rayne, LA**: FIBA Technologies, Inc., 245 Lexington Drive, Rayne, LA 70578, U.S.A. This facility holds U.S. DOT RIN C290. This facility holds U.S. DOT and CT Numbers 1177346 and 3583 respectively.

**East Greenville, PA**: FIBA Technologies, Inc., 1645 State Street, East Greenville, PA 18041, U.S.A. This facility holds U.S. DOT RIN D031. This facility holds U.S. DOT and CT Numbers 1177346 and 7272 respectively.

**Midvale, OH**: FIBA Technologies, Inc., 3211 Brightwood Road, Midvale, OH 44653, U.S.A. This facility holds U.S. DOT RIN I216 and ASME U certificate number 45,886. This facility holds U.S. DOT and CT Numbers 1177346 and 12951 respectively.

**Adelanto, CA**: FIBA Technologies, Inc., 17909 Adelanto Road, Adelanto, CA 92301, U.S.A. This facility holds U.S. DOT RIN I521. This facility holds U.S. DOT and CT Numbers: 1177346 and 12877 respectively.

# EXHIBIT B

## FIBA SPECIAL PERMITS FOR REQUALIFICATION

**DOT-SP 9847**: Acoustic Emission Testing – 3A, 3AA, 3AX, 3AAX, 3T Cylinders, non-DOT Cylinders (made under SP 13230 and 13258) and DOT UN Tubes (made in accordance with ISO 11120) – 5-Year (10-year for DOT UN tubes transporting Division 2.1 and 2.2 gases).

**DOT-SP 10922**: Ultrasonic Examination – 3A, 3AA, 3AX, 3AAX, 3T Cylinders and DOT UN Tubes (made in accordance with ISO 11120) – 5-Year (10-year for DOT UN tubes transporting Division 2.1 and 2.2 gases).

**DOT-SP 12607**: Ultrasonic Examination – 3AL Cylinders.

**DOT-SP 14453**: Ultrasonic Examination – 3A, 3AA, 3AX, 3AAX and 3T Tubes and Cylinders – 10-Year.

**DOT-SP 14661**: Acoustic Emission Testing – 3A, 3AA, 3AX, 3AAX and 3T Tubes and Cylinders – 10-Year.

**DOT-SP 15867**: Acoustic Emission Testing – DOT-107A Tank Car Tanks (Tubes) – 10-Year.