



121 North Henry Street  
Alexandria, VA 22314-2903  
T: 703 739 9543 F: 703 739 9488  
arsa@arsa.org www.arsa.org

January 28, 2011

BY E-MAIL TO: carol.e.giles@faa.gov  
Original by Certified Mail;  
Return Receipt Requested 7009 2250 0000 4119 2204  
Receipt No: \_\_\_\_\_

Carol E. Giles  
Manager, Aircraft Maintenance Division (AFS-300)  
Federal Aviation Administration  
950 L'Enfant Plaza, S.W., 5<sup>th</sup> Floor  
Washington, DC 20591-0001

RE: Maintaining High-Pressure Cylinders Under Titles 14 and 49 CFR

Dear Carol:

In December 2008, the Aeronautical Repair Station Association (ARSA) requested that the Federal Aviation Administration (FAA) resolve an issue facing repair stations performing maintenance on high-pressure cylinders.<sup>1</sup> These activities are controlled under both Titles 14 and 49 of the Code of Federal Regulations (14 and 49 CFR, respectively).

On December 22, 2010, the FAA issued "change 124" to amend Order 8900.1, Volume 3, Chapter 57, Section 1 (titled "Maintenance Requirements for High-Pressure Cylinders"). This update exacerbated the issue ARSA raised in 2008; industry confusion has intensified.

In addition to guidance previously identified, the association believes the change is not consistent with the plain language of the regulations dealing with maintenance, preventive maintenance and alteration of civil aviation products and articles.

As a result, ARSA respectfully asks the FAA to make adjustments to its guidance materials consistent with the proposal contained in this letter.

### **Problem**

There is a long history of back-and-forth agreements between the FAA and the Pipeline and Hazardous Materials Safety Administration (PHMSA)<sup>2</sup> regarding oversight responsibility for facilities performing maintenance and testing of pressure cylinders

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<sup>1</sup> A copy of the letter is attached.

<sup>2</sup> Which includes PHMSA's predecessor, the Research and Special Programs Administration (RSPA).

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(see Notice 8000.357).<sup>3</sup> Presently, the agreement provides that PHMSA is solely responsible for oversight of such facilities and, therefore, the FAA will no longer issue ratings for hydrostatic testing of pressure cylinders (see Order 8900.1, Volume 2, Chapter 11, Section 1).

The apparent rationale is that procedures for certifying facilities and maintaining cylinders are entirely contained within 49 CFR<sup>4</sup> and, consequently, PHMSA has sole jurisdiction and the FAA cannot be involved. That basis, however, fails to account for the fact that, following maintenance, the cylinders at issue *are* installed on aircraft.

A cylinder removed from an aircraft must be maintained in accordance with all pertinent requirements, which includes 14 CFR part 43. As required in that part, persons performing maintenance, preventive maintenance and alterations on articles installed on type certificated aircraft with a U.S. airworthiness certificate must have appropriate authority (see 14 CFR § 43.3).

A repair station is authorized to perform maintenance, preventive maintenance and alterations (14 CFR § 43.3(e)), but it cannot operate in violation of its certificate, rating or operations specifications (14 CFR § 145.5).

That means – under the present framework – a repair station authorized by PHMSA violates 14 CFR parts 43 and 145 when it performs maintenance on a cylinder destined for installation on an aircraft with a U.S. airworthiness certificate. Such maintenance cannot be performed solely under 49 CFR, as there is no exemption from 14 CFR part 43 in 49 CFR.

In other words, although 49 CFR controls who may perform the work and how a pressure cylinder is maintained (including inspection and test), it is not all-encompassing. Since maintenance is performed on an article that will be installed on an aircraft, the work cannot be done outside 14 CFR part 43.

Even if the expertise for determining the proper persons and methods for maintaining pressure cylinders resides in PHMSA, it does not eliminate the requirement for a repair station to be properly certificated under 14 CFR part 145 to perform the work.

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<sup>3</sup> Notice 8000.357, effective March 16, 2007, was cancelled on March 16, 2008.

<sup>4</sup> Pressure cylinders used in a variety of aircraft applications, including supplemental oxygen, fire extinguishers and escape door slide air cylinders, are classified as hazardous materials (see 49 CFR §§ 105.5 and 172.101). Persons must obtain approval from PHMSA to inspect, test, certify, repair or rebuild (i.e., maintain or rebuild) such cylinders (49 CFR § 107.805). The methods contained in 49 CFR §§ 180.205, 180.211 and 180.212 (Qualification, Maintenance and Use of Cylinders) must be followed to ensure cylinders are properly inspected, tested and approved for continued use.

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## **Resolution**

The FAA should issue a limited specialized service rating to repair stations approved by PHMSA to perform maintenance of pressure cylinders under Title 49. This will alleviate the problem of a repair station working outside its ratings.

Specifically, a repair station with 49 CFR § 107.805 approval should be issued a limited specialized service rating to perform maintenance on pressure cylinders in accordance with 49 CFR § 180.205.

Our proposed solution does not add oversight responsibility for the FAA. Instead, it recognizes the repair station's PHMSA qualifications (i.e., it has the requisite housing, facilities, equipment, data and personnel) to perform the work and simply transfers PHMSA's approval into an FAA rating.

## **Conclusion**

The FAA should revise its guidance materials and issue limited specialized service ratings to repair stations approved by PHMSA to work on high-pressure cylinders. For convenience, we have attached existing guidance with suggested revisions to this letter.

We appreciate your consideration of our proposed solution.

Sincerely,



Craig L. Fabian  
Vice President Regulatory Affairs and  
Assistant General Counsel

Attachments: December 2008 ARSA Letter  
Suggested changes to Order 8900.1, Volume 2, Chapter 11, Section 1  
Suggested changes to "change 124" to amend Order 8900.1, Volume 3,  
Chapter 57, Section 1