



Topics Covered in the Visual Cylinder Inspection

Workshop

- Review Reported Cylinder Explosion Incidents
- Review C.G.A. Guidelines & Federal Regs.
- EANx Cylinder Inspection Protocol
- History & Evolution of Cylinder Inspection
- 3AA, 3AL & Composite Cylinder Manufacture
- Composites-Fiber Glass, Kevlar, Carbon Fiber
- Proper Filling Procedures & Recommendations
- Sustained Load Cracking in Aluminum Cylinders
- Damage Limits of 3AA, 3AL & Composites
- Review of Eddy Current Inspection Devices
- Thread Standards & Cylinder Rejection Limits
- Cylinder Cleaning Procedures & Tumbling
- Eighteen Step Cylinder Inspection Protocol
- Cylinder Visual Inspection Frequency
- HAZMAT Training for Fill Station Operators
- HAZMAT Training for Cylinder Handlers

DOT Requires Hazmat Training For Fill Station Operators!!

INSTRUCTOR
GUIDE

GUIDE FOR FILL STATION
OPERATIONS

SCUBA / SCBA Multimedia Presentation



INSTRUCTOR
GUIDE

CYLINDER HAZMAT
TRAINING

SCUBA / SCBA Multimedia Presentation



Worldwide Training in Cylinder Safety

*Deluxe Multi-Media Guides
for Fill Station Operators &
Hazmat Training*

Powerpoint Slides

Student Handouts

Documentation

Worldwide recognition of PSI Training Standards for Visual Cylinder Inspection

U.S. Army & Navy	Coast Guard
U.S. Air Force	U.S. Marine Corps
NATO	Luxfer Gas Cylinders
Catalina Cylinders	Scott Aviation
Interspiro	Colorado Scuba Re- tailers Association
Cal. Edison N.A.S.A.	Smithsonian Institute
N.O.A.A.	Dept. of Interior
D.O.T. & O.S.H.A.	U.S. Dept. of Treasury
Seaworld of Texas	National Safety Coun.
Galiso	Hydro Test
U.S.A. Special Forces	Walt Disney World
Y.M.C.A.	Military Academy(s)
P.A.D.I.	Coyne Cylinders
N.A.U.I.	Taylor-Wharton

Fire & Police Departments, Hydrostatic Retesters,
Welders, Emergency Response Teams, Scuba
Diving Facilities and many, many others.

PROFESSIONAL SCUBA INSPECTORS, INC.

**Dave Leander PSI Inspector# 112
47450 Van Dyke Avenue
Shelby Township, MI 48317**

**Phone: (586) 254-7670
Fax: (586) 254-7520**

E-mail: dave@greatlakesdivecenter.com

**Course Host : Scubafest 2010
Crowne Plaza Hotel
6500 Doubtree Avenue
Columbus, Ohio 43229**

**E-mail: workshops@Scubafest.org
Website www.scubafest.org**

Professional Scuba Inspectors, Inc.



Visual Cylinder Inspectors Training Workshops



PROFESSIONAL
SCUBA
INSPECTORS

Includes Hazardous Material Training in:

- SCUBA & SCBA Fill Station Operators and/or Cylinder handlers
- SCBA's for Emergency Service

www.psicylinders.com

Visual Cylinder Inspector Workshop

More Defendable is More Dependable!

Qualified Training Reduces Fines Only when it is "FUNCTION SPECIFIC"

The Code of Federal Regulations (C.F.R.) require that employees who work with or handle hazardous materials must receive appropriate "function specific" safety related training. By definition, high-pressure cylinder contents (Scuba, SCBA, moisture separators/filters and storage) are hazardous materials. While OSHA and EPA regulations address some hazardous material applications. Title 49 C.F.R., subpart H, 172.700 in very general terms describes cylinder hazardous material training requirements.

Visual Inspector Training is required to be conducted every three years and within 90 days of hire and shall include the following:

1. General awareness/familiarization training
2. Function-specific training
3. Safety training concerning - Emergency

response, measures to protect employees, methods and procedures for avoiding accidents and safe handling procedures.

OSHA, Title (29)

"Each employer shall determine that compressed gas cylinders under his control are in a safe condition to the extent that this can be determined by visual inspection. Visual and other inspections shall be conducted as prescribed in the Hazardous Materials Regulations of the Department of Transportation . (Title 49 CFR 180). "

PSI, Inc. is the only full-service visual inspection corporation of its kind in the world. Both PSI's textbook and program have been cited by U.S. Courts as the authority in Visual Cylinder Inspection of SCUBA and SCBA.

"90% of Air Cylinder Explosions Occur During the Filling Process"

Over 16,000 inspectors trained in 13 Countries

Explosive failures each year demonstrate the need for technical cylinder inspector training. In 2000 there were nine cylinder failures, in 1999 there were eleven and in 1998 there were ten. Each of these was a catastrophic failure that could have been prevented with proper, formal training in our VCI workshop.

PSI, Inc. is a "one stop" shop providing both training and inspection materials. We can provide you with the tools you need to conduct visual cylinder inspections. We also provide a variety of other inspection related items to include tumblers and tumbling media, inspection lights, and O-rings.

