GAWDA
GASES AND WELDING DISTRIBUTORS ASSOCIATION

SAFETY & TECHNOLOGY ORGANIZER

DECEMBER 2013

ENCLOSED

Safety Topic: *"Filling Liquefied Products"*
Please contact GAWDA's OSHA and EPA Consultant, Mike Dodd for more information.

Traffic Bulletin: *"DOT Training, Documentation, and Frequency"*
Please contact GAWDA's DOT and Security Consultant, Mike Dodd for more information.

Medical Gas Bulletin: FAQs, Medical Gas Roundtables and Micro-audit
Please contact GAWDA Medical Gas Consultant, Tom Badstubner for more information.

GAWDA is pleased to distribute this information to: Distributor and Supplier Key Contacts and all Compliance Manual Owners. Please carefully review this mailing and be sure the information is passed to the appropriate person within your organization. Timely Safety data is a benefit of Membership in GAWDA

GASES AND WELDING DISTRIBUTORS ASSOCIATION
8669 NW 36th Street, #130, Miami, FL 33166 (877) 382-6440 Phone (305) 442-7451 Fax

Safety Meetings are important!
They: get your employees actively involved
encourage safety awareness
help identify problems before they become accidents
motivate employees to follow proper safety procedures
We are happy to provide you with a monthly topic for your agenda.

ROUTE TO:

- ☐ General Manager
- ☐ Safety Coordinator
- ☐ Supervisor Dept. _____
- ☐ Other _____
- ☐ Date of Meeting _____

FILLING LIQUEFIED PRODUCTS

Many of our members fill carbon dioxide cylinders and some fill nitrous oxide. Here are some suggestions to consider when filling these and other liquefied (liquid in the cylinder at room temperature) products. **This is not a complete checklist.** Please refer to the several CGA publications on the product and the filling of cylinders. As a reminder, if you have not already signed up, please check out the **"CGA & GAWDA Subscription Program"** at this website: http://www.cganet.com/customer/gawda.aspx This is a great service that is available for free to all GAWDA distributors.

Please note: Highly suggested CGA publications to read are **G-6.3, "Carbon Dioxide Cylinder Filling and Handling Procedures"** and **P-15, "Filling of Industrial and Medical Nonflammable Compressed Gas Cylinders".**

Here are just a few selected items from the above publications, but please read the publications for all the details involved in the inspection and filling process.

Carbon Dioxide and Nitrous Oxide Filling

- Check the ownership, DOT or ICC specification number, pressure rating, retest date, and label for gas service.
- Check for serious damage such as cracks and harmful dents, gouges, arc burns, fire burns, excessive corrosion, etc., and the need for repainting.
- Check for oil, grease, and other contaminates on the valve, neck ring, and cylinder exterior.
- Check the valve outlet and outlet connection for cleanliness. Check for thread damage. (Remember that racing nitrous uses a CGA 660 valve.)
- Check the pressure release device for damage and proper pressure rating.
- **Warning: No fusible metal backed safeties.** (The presence of fusible metal backed safeties has extreme fatality potential with liquefied products.)
- Any pure CO2 cylinders or cylinders with mixtures greater than 30% CO2 must have the "star" peened out of the last retest date. (49 CFR 180.209 (b)(3))
- Check for the presence of contaminants in the cylinder. (No odor test for health reasons.)
- Vent and evacuate as required to ensure the absence of contaminants.

- Dead ring test (hammer test)
  - Required for Nitrous Oxide to go 10 years on retest.
    - Please note that racing nitrous mixtures are not allowed to go 10 years between retest because of the addition of the sulfur dioxide.
  - Not required but highly recommended for steel CO2 cylinders.
- All cylinders should be tare weighted. The CGA publication G-6.3 says that if no tare weight is present, then do not fill it. Send it out to a manufacturer or authorized retester to have the proper tare weight stamped on it.
- All cylinders should be checked on the scale to verify the cylinder tare weight prior to hooking up the fill lead. If the weight is 1.5% more or less than the stamped tare weight, tag the cylinder and set it aside for further inspection.
  - Any cylinder over the tare weight should be checked for residual product or foreign material inside the cylinder. (A common item is water or beverage syrup inside CO2 cylinders.)
  - Any cylinder under the tare weight could indicate loss of metal due to corrosion and should be internally inspected.
- Cylinders without a residual pressure valve should be inverted and discharged prior to filling to ensure that all water, syrups, and other foreign materials are removed. Any evidence of water or other fluids requires removing the cylinder from service, removal of the valve, and internal inspection by an authorized cylinder retester. Water will cause internal corrosion in steel cylinders by the formation of carbonic acid.
- Fill by weight and do not exceed the maximum filling density for the product and size (water capacity) of the cylinder. For example, 68% of water capacity for CO2 is the maximum permitted filling density.
- Check to make sure that you have a proper decal with none of the words missing and the colored diamond is complete and not faded. For products that chill the cylinder during the filling process, you will need to affix the decals prior to filling.
- Secure the cylinder cap if it has provisions for a cap.

If the cylinder is marked with a DOT E (exemption) or DOT SP (special permit), then the provisions of the permit must be followed. Also, you must train your employees involved with the permit every 3 years on the provisions of the permit and document the training per 172.704.

As always, if there are questions or items that I can help you with, please don't hesitate to contact me.

Michael Dodd
GAWDA DOT, Security, OSHA, and EPA Consultant
MLD Safety Associates, LLC
P.O. Box 93
Poplar Bluff, MO 63902
(573) 718-2887
Email: MLDSafety@hotmail.com

TRAFFIC BULLETIN

December 2013

DOT Training, Documentation, and Frequency

Here is a compiled list of all required DOT training, documentation and frequencies.

Hazmat Training (172.700-.704)

A **hazmat employer must train, test and certify** (sign the training documentation form) **every hazmat employee** who, in the course of employment, has any function that directly affects hazardous materials transportation safety. The hazmat employee must be trained in General Awareness, Safety, Function Specific, and Driver issues as applicable to the employee's duties.

Function Specific items for our industry would include:

- Cylinder filling of high pressure, cryogenic liquids, liquefied gases such as carbon dioxide, LPG products, and acetylene
- Cylinder requalification such as high pressure (hydrotest), low pressure gases (visual inspection), and acetylene

Driver Training (177.816)

177.816 says that the driver must receive training on the safe operation of the motor vehicle that will be transporting hazardous materials. This section goes on to describe in detail the issues the driver must be trained on. Please note: 177.816 (c) states: The driver training requirements may be satisfied by compliance with the current requirements for a Commercial Driver's License (CDL) with a tank vehicle or hazardous materials endorsement.

GAWDA has an excellent Driver Training Manual available. This would be an excellent source of driver safety meetings. It is setup into 6 short training modules with each module having its own test. Then there is a final overall test covering all the topics in the manual. Each of these modules would make an excellent driver safety meeting training session of a few minutes each. If a company did one module every 2 months, they would cover the complete manual in the year and could start back over again the following year with refresher training.

Security

- **In-depth training on the written plan**

Hazmat employees of employers that are required to have a security plan must receive in-depth security training on the security plan and its implementation. In-depth security training must include company security objectives, specific security procedures, employee responsibilities, actions to take in the event of a security breach, and the organizational security structure.

Security (continued)

- **Security Awareness training**

Each hazmat employee must receive security awareness training. This training must include an awareness of security risks associated with hazardous materials transportation and methods designed to enhance transportation security. A component covering how to recognize and respond to possible security threats must be included.
DOT has issued a revised CD that covers the security awareness training very well. The program has the feature of allowing an employee to sign in, watch the CD to receive the training, answer questions, and then print a training document for your file. This CD is called **HAZMAT DIGIPACK 7.2** and is available for free at:
https://hazmatonline.phmsa.dot.gov/services/Pub_Free.aspx

Completion of this training module and the interactive test will meet the security awareness-training requirement.

Documentation of Training (172.704(d))

A record of current training, inclusive of the preceding three years, must be created and retained by each hazmat employer for each hazmat employee for as long as that employee is employed by the employer as a hazmat employee and for 90 days there after.

The record must include:

- Hazmat employee's name;
- Most recent training completion date of the hazmat employee's training;
- Description, copy, or the location of the training materials used to meet the training requirements;
- Name and address of the person providing the training; and
- Certification that the hazmat employee has been trained and tested. (This is where someone within the company **signs** the training documentation.)

Drug and Alcohol

- 382.601 covers two important points: a written policy and distributing that policy to your drivers. Drivers are not required to undergo formal training. However, the employer must provide a copy of the company written drug and alcohol policy to each driver. Written notice of the availability of these materials must be provided to union representatives. These materials must be distributed prior to the start of alcohol and drug testing. Each driver must sign a receipt that he/she has received a copy of the materials. The JJ Keller pamphlet 532-H does a great job of this.

Drug and Alcohol (continued)

- 382.603 covers training for driver supervisors. Each employer shall ensure that all persons designated to supervise drivers receive at least 60 minutes of training on alcohol misuse and receive at least an additional 60 minutes of training on controlled substances use. The training will be used by the supervisors to determine whether reasonable suspicion exists to require a driver to undergo testing under §382.307 (reasonable suspicion testing). The training shall include the physical, behavioral, speech, and performance indicators of probable alcohol misuse and use of controlled substances. Recurrent training for supervisory personnel is not required.

Training Frequency

The hazmat (general awareness, safety, function specific (which includes driver training), and security awareness) must be done at least every 3 years.

The supervisor drug and alcohol awareness training is only one time training, but I suggest that you that conduct this training every few years to keep the supervisors aware of the requirements.

The security in-depth training is required every 3 years unless you update your security plan and then you must train on the changes to the plan.

If there are any questions regarding this Bulletin, please contact:

Michael Dodd
GAWDA DOT, Security, OSHA, and EPA Consultant
MLD Safety Associates, LLC
P.O. Box 93
Poplar Bluff, MO 63902
(573) 718-2887
Email: MLDSafety@hotmail.com

MEDICAL GAS BULLETIN

12/01/2013

Frequently Asked Questions

Q – We have a customer who wants to use medical oxygen (or helium) for SCUBA diving applications. Can we sell him the medical gas for diving gas blends?

A – Quick answer? No, medical gas should not be sold for diving gas applications.

Longer answer? Here are the circumstances that you can sell medical gases:

- To a patient with a valid prescription
- To another firm licensed to sell drugs (homecare company, distributor, pharmacy, etc.)
- To a bona-fide medical gas user (clinic, hospital, drug manufacturer, etc.)
- Oxygen to an emergency response unit (EMT, Ambulance Company, Fire Department, etc.) if they provide you with evidence of current training to administer medical oxygen. Note, the cylinder/container label must also explicitly state that the oxygen can be used for emergency use.
- Oxygen to any facility for emergency use, if they provide you with evidence of current training to administer medical oxygen. As above, the cylinder/container label must also explicitly state that the oxygen can be used for emergency use.

Gases used in diving applications should meet the applicable specifications:

- Helium – CGA G-9.9, 2009, Quality Verification Level (grade) N
- Air – CGA G-7.1, 2011, Quality Verification Level (grade) E
- Oxygen – 29 CFR 1910, Subpart T, Appendix C (6)(c) states that diving oxygen should meet the medical USP specifications (Type I, Quality Verification Level A) or aviator's breathing-oxygen specifications (Type I, Quality Verification Level E) of CGA G–4.3–2000 ("Commodity Specification for Oxygen"). See: http://www.gpo.gov/fdsys/pkg/CFR-2013-title29-vol5/pdf/CFR-2013-title29-vol5-part1910-subpartT-appC.pdf Keep in mind that the gas inside the cylinder may meet USP specifications, but the cylinder should not bear a USP/Medical label.

December Medical Gas Roundtable (12/06/2013) – Subparts J & K – Records and Reports/ Returned and Salvaged Drug Products.

These GAWDA Medical Gas roundtables are excellent sources of CGMP training and the latest industry compliance news. In December we will be discussing the various records required by the FDA. In addition, we will have an easy to use handout about how to document your Annual Records Review.

For your information, we are also conducting the following webinars in December:

- ISO 17025 - ISO 17025 - Propagation of Errors (developing an uncertainty budget)
- Specialty Gas - Gas Chromatography Column & Detector Selection / Troubleshooting

These and other webinars are available as a streaming recording at a time convenient to you. If you are unable to view the webinar live, just let us know and we will send you the link to the recording. If you would like to receive invitations to the training webinars, just send an email to juliet@asteriskllc.com.

GASES AND WELDING DISTRIBUTORS ASSOCIATION
8669 NW 36th Street, #130, Miami, FL 33166 (877) 382-6440 Phone (305) 442-7451 Fax

MEDICAL GAS BULLETIN

Micro-audit

This section of the Medical Gas Bulletin lists small steps you can take each month to improve your medical gas management system. These steps are not designed to be a full audit, but rather small steps to sample your compliance.

For this month, simply do these items:

1. **Complaints -** Verify that your complaint file has any instances of customers asking for credit because they thought the cylinder was not full**.** (Even if the complaint was found to be without merit).
2. **QCU Review -** Verify that your QCU reviews all complaints**.**
3. **Other Lots? –** Be sure your complaint investigations consider whether any other cylinders from the same or different lots should be investigated. Document your decision to not investigate other cylinders/batches on the complaint record.

Tom Badstubner
GAWDA Medical Gas Consultant
Telephone: 508-883-0927
Email: tom@asteriskllc.com