

SCBA's, EMERGENCY EVACUATION and Respirator USE

What does Cal-OSHA Require, What Do the Regulations Require, What would be acceptable

. . .OR, *what's with this ASHRAE-15d, 2016*

- ▶ I have another presentation about, “What is a RAGAGEP” which I would love to give at another Ammonia or Chemical Safety Day. It is apropos, illuminating, FANTABULOUS (Well, maybe not fantabulous), and highly related to this presentation, as parts of ASHRAE 15 is a RAGAGEP.
- ▶ In 2002 proposals were published in addendums to remove the SCBA requirement in ASHREA 15.
- ▶ In 2016, the ASHREA 15, Safety Standard for Refrigeration Systems, Section 11.6 no longer had the requirement.



ASHRAE Technical FAQ

ID 90

Question

Are self contained breathing apparatuses (SCBA's) required outside of refrigeration machinery rooms?

Answer

[ASHRAE Standard 15-2016](#), Safety Standard for Refrigeration Systems, does not require that SCBA's be placed outside of the refrigeration machinery room.

The 1994 version of the Standard did have a requirement for SCBA's outside the machinery room (Section 11.6), but this requirement was eliminated from the Standard with the approval and publication of [Addendum 15d](#) to ASHRAE Standard 15-1994 in 2000. It is important to note that the change to Standard 15 for SCBAs required outside of machinery rooms does not imply that personal protective equipment is no longer needed. Specific requirements for respiratory protection are generally established by other agencies. **(We call this a punt)**

IS THIS "SAFE"?

Cal-OSHA thinks not.

Labor Code Jurisdiction

Can Cal-OSHA require you, an EMPLOYER, to be
"SAFE"?

Yes!

How?

Labor Code Section 6400 (a) provides that "Every employer shall furnish employment and a place of employment that is safe and healthful for the employees therein." Further, Labor Code Section 6403 provides that "No employer shall fail or neglect to do any of the following" (a) To provide and use safety devices and safeguards reasonably adequate to render the employment and place of employment safe. (b) To adopt and use methods and processes reasonable adequate to render the employment and place of employment safe. (c) To do **every other thing** reasonably necessary to protect the life, safety and health of employees."

Under Title 8 §5189, the PROCESS SAFETY Standard, states:

- ▶ (n) Emergency Planning and Response. The employer shall establish and implement an Emergency Action Plan in accordance with the provisions of Section 3220.
- ▶ This means you have to have an EFFECTIVE plan: *This section applies to all emergency action plans. The emergency action plan shall be in writing, except as provided in the last sentence of subsection (e)(3) of this section, and shall cover those designated actions employers and employees must take **to ensure employee safety from fire and other emergencies**.*
- ▶ *So, how do you get people out who are down?*

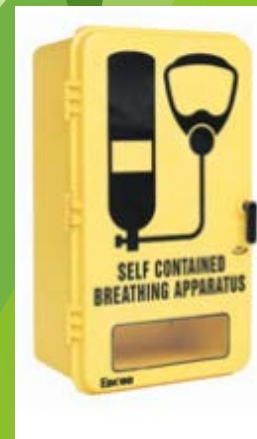
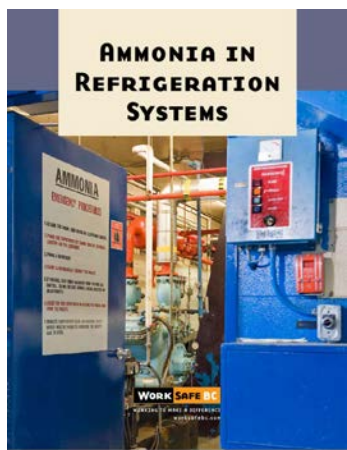
Other emergency ->





. . . When Ammonia is present

- 👉 Title 8 §5144 requires SCBA respirators for IDLH atmospheres.
- 👉 IDLH is assumed during unplanned emergency releases, unless the quantities in the air are known and below IDLH.
- 👉 Do we know the exact quantities in the air in a mechanical room, at the floor, with current technology, during a unplanned release when and employee cannot self-evacuate?



NO.

So, here we are going to use a bit of Hierarchy of Controls

How can we make this room safe for getting people out?

1. ELIMINATE the hazard . . .

If there is no acutely hazardous chemical present, at all, in the system from the get-go. Use CO₂, find some no-hazard refrigeration system that works as well so it does not matter if there is an uncontrolled release.

-Tried and failed many times, with some limited success, so next level.

2. ENGINEERING controls – maybe Quadruple redundant detectors with floor intake vents and 1,000,000 cu ft/second ventilation fan rate to the roof output ducts upon immediate detection of any leaks or amounts over 300ppm.

-Tried in various scenarios and thus far systems far too expensive for people to find practicable.

3. ADMINISTER out the problem - no one EVER goes into the mechanical room EVER to do any type of work on the system, until it is completely vacated of all Ammonia in the system - all of it.

-Also not very practicable, but various iterations have been attempted but not successfully.

4. PPE- SCBA's for going into IDLH atmospheres in an emergency!

So are we (I mean you) Stuck with SCBA's?

- ▶ Does this not seem like something that should be a RAGAGEP?
- ▶ Discuss
- ▶ Otherwise we have at minimum of two Title 8 violations, since you need a respirator and a plan, minimally, to get employees out of the mechanical room. Serious because when someone is down during an uncontrolled release in a mechanical room, DEATH is the "realistic possibility." How is that possible? No emergency evacuation program provides for removing employees who are unconscious or disabled in an uncontrolled release.
- ▶ Are there any possible acceptable methods of use of PPE besides full SCBA's to get employees out in an uncontrolled release?
- ▶ DISCUSS. (possible escape packs)

NOW Some slides from PREVIOUS PRESENTATIONS

- I have mentioned the following topics in a presentation called, “Busting Cal/OSHA Myths” given at other Ammonia/Chemical Safety Days
- Some seem relevant to this topic.

6. Is it true that inspections are scheduled to coincide with Ammonia/Chemical Safety days?

▶ **False...**

▶ CSHO's are usually at the same Ammonia/Chemical days as you all are for the same reason you all are - to learn what the community knows and to meet and great. We have a list of available PSM sites, accidents and complaints.

▶ If a CSHO is staying the night and you have been **RANDOMLY SELECTED** or have a complaint **PRIOR** to this day, they might come visit an employer, after, to save precious State Taxpayer dollars. But this is rare...

13. How “far” can a facility go to challenge/fight a citation (or two)?

- ▶ All the way to the California Supreme Court.

- ▶ OVERAA CONSTRUCTION, Plaintiff and Appellant, v. CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH APPEALS BOARD, Defendant and Respondent; Department Of Industrial Relations, Division of Occupational Safety and Health, Real Party in Interest and Respondent.

- ▶ No. C051245.

- ▶ Decided: January 31, 2007

14. When does the Agency involve the District Attorney?

- ▶ If a CSHO investigates a death they are obligated to refer the case to Cal-OSHA's Criminal Investigation Unit: the Bureau of Investigation (BOI)
- ▶ The function of the Bureau of Investigation (BOI) is to conduct criminal investigations and to refer the results of such investigations when appropriate to a city or county attorney or regional district attorney for necessary prosecutorial action.
- ▶ The two SCBA's, emergency evacuation, or equal alternate steps, to get an injured, down, employee out during an uncontrolled release is our wish to avoid having to contact the BOI and your local District Attorney. And Death.

The End

Any Questions?