

## RETA Chapter Meeting Schedule

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### MINNESOTA

NORTHERN PLAINS  
3<sup>rd</sup> Thursday; 6 pm

### N/S CAROLINA

CAROLINAS  
1<sup>st</sup> Thursday; time varies  
No meeting in June, July or August

### NEW YORK

WESTERN NEW YORK  
3<sup>rd</sup> Tuesday; 6 pm

### OREGON

WILL H. KNOX  
1<sup>st</sup> Monday

### OKLAHOMA

TULSA  
2<sup>nd</sup> Tuesday; 6:30 pm

### PENNSYLVANIA

NORTHEASTERN (NEPA)  
2<sup>nd</sup> Thursday; 6 pm  
SOUTHEASTERN (SEPA)  
2<sup>nd</sup> Tuesday; 6:30 pm  
No meeting in June, July or August  
PHILADELPHIA  
Not scheduled

### TEXAS

HIGH PLAINS  
3<sup>rd</sup> Tuesday; 7 pm  
DALLAS/FT. WORTH  
3<sup>rd</sup> Thursday; 7 pm  
HOUSTON  
4<sup>th</sup> Thursday; 6:30 pm  
No meeting in July, November or December

### WASHINGTON

CONNELL  
2<sup>nd</sup> Thursday; 6 pm  
TRI CITIES  
2<sup>nd</sup> Thursday; 6 pm  
YAKIMA  
Not scheduled  
PUGET SOUND  
2<sup>nd</sup> Wednesday; 6 pm

### WISCONSIN

MADISON  
2<sup>nd</sup> Wednesday; 6 pm  
No meeting in June, July or August  
MILWAUKEE  
2<sup>nd</sup> Thursday; 6 pm  
No meeting in June, July or August

Check out the Chapter News section of the RETA website for additional information on Chapter events and activities: [www.reta.com](http://www.reta.com)

## PSM/RMP Compliance

### DEVELOPING AN EFFECTIVE TRAINING PROGRAM

— Jennifer Green and Marjorie Buyson, SCS Tracer Environmental

As required by the Process Safety Management/Risk Management Program (PSM/RMP) regulations, facilities are required to develop and implement a training program in accordance with the following regulations:

- ▶ OSHA 29 CFR 1910.119(g), Process Safety Management (PSM), Training; and
- ▶ EPA 40 CFR Part 68.71, Risk Management Program, Training.

The purpose of establishing a training program is to ensure that regulated substances (i.e. ammonia) are handled in a consistent and safe manner. Basically, the goal of establishing a training program is to have adequately trained operators handling the regulated process. An effective training program will help operators understand the nature and causes of problems arising from process operations and will increase employee awareness with respect to the hazards involved in handling the regulated substance.

OSHA 29 CFR 1910.119(g) states that a training program should include:

- ▶ Initial training. Each employee presently involved in operating a process, and each employee before being involved in operating a newly assigned process, shall be trained in an overview of the process and in the operating procedures as specified in paragraph (f) of this section. The training shall include emphasis on the specific safety and health hazards, emergency operations including shutdown, and safe work practices applicable to the employee's job tasks.
- ▶ Refresher training. Refresher training shall be provided at least every three years, and more often if necessary, to each employee involved in operating a process to assure that the employee understands and adheres to the current operating procedures of the process. The employer, in consultation with the employees involved in operating the

process, shall determine the appropriate frequency of refresher training.

▶ Training documentation. The employer shall ascertain that each employee involved in operating a process has received and understood the training required by this paragraph. The employer shall prepare a record which contains the identity of the employee, the date of training, and the means used to verify that the employee understood the training.

*So how should I proceed with developing an effective training program?* First, let's start with the basics. All training programs must consist of three main components: 1) initial training [29 CFR 1910.119 (g)(1)], 2) refresher training [29 CFR

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## Education Committee

John Sherrill, CIRO, RAI  
RETA Education Chairman

RETA's mission statement is: "To enhance the professional development of industrial refrigeration operating and technical engineers." Knowledge is the key to the universe, and RETA's volunteers are working to provide all of our members with that key. Hundreds of man hours, all volunteer, go into each book review and revision. The current revision of **Industrial Refrigeration Book 1 (IR-1)** represents nearly 1,000 volunteer hours of work. The work by volunteers allows RETA to keep the cost of the books at an affordable level. This is a priceless gift these volunteers give to RETA and, ultimately, to everyone who purchases a book from RETA. This gift is the reason RETA material is such a great value. Without this gift of time from our volunteers, the material would not be as good as it is and far fewer operators would be able to afford RETA material.

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## DEVELOPING AN EFFECTIVE TRAINING PROGRAM

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1910.119 (g)(2)], and 3) documentation/recordkeeping [29 CFR 1910.119 (g)(3)].

Let's begin with initial training for **all** employees. Upon hire, each employee at your facility should receive hazard identification and emergency response plan training specifically on:

- ▶ Safety issues associated with the regulated chemical, including general first aid as per the MSDS (Employee's Right to Know and Hazards Communications)
- ▶ Your facility's safe work practices
- ▶ Reporting leaks
- ▶ Emergency evacuation procedures

Beyond this, specific training regarding the employee's job duties should be given when he/she is assigned to a department prior to commencing work activities. [29 CFR 1910.119 (g)(1)(i)]

### Process-Specific Training

In addition to the general hazard identification and emergency evacuation training, employees who are **involved in operating and/or maintaining a regulated process** (i.e. an ammonia refrigeration system) should receive specific training **on the process itself**. It is beneficial to start the training program development process by defining your employee's job classifications or levels with respect to the regulated process (i.e. operator, technician, manager, etc.). Each classification or level can have specific tasks that require the person to have the skills, knowledge and competencies to perform these tasks. Each classification or level can also be dependent on experience and training.

As an example, an operations or entry level employee could receive the following training:

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## Executive Director Report

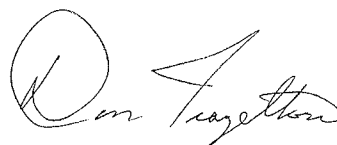
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provides a test candidate a chance to take an exam that has test questions that are from the exam question pool and are every bit as valid as the questions in the active exam pool. A feedback report to the candidate reports which book and chapter they should review because they missed a question that came from there. This is the closest we can approach pointing to the question content without crossing over the security restrictions. In the coming year we will be updating the question resource file to bring it into alignment with the new IR-1 that is now available.

We are working behind the scenes to develop security measures that will allow greater access to RETA certification through RAIs and other approved training providers. This involves on-line proctoring coupled with a video feed that is stored on RETA digital discs that document the activities in the testing centers while the exam is being administered. At this time,

we are working through the technology to test its feasibility and applicability. This focus on security is not only to protect the content of the tests from breaking out of its confines, but to also validate that no person(s) receive coaching or inappropriate assistance while taking their test. When this process is completed and proven to work without needing an IT guru wearing a three propeller beanie to operate the system we will be able to open a testing channel that can actually enter the conference or training rooms of employers, anywhere.

Yes – this has been an aggressive year.



# DEVELOPING AN EFFECTIVE TRAINING PROGRAM

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## Education Committee

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➤ **Overview of the Process:** Study the layout of the system, location of the equipment and instruments, how the system operates (i.e. process flow) and the system's normal operating parameters.

➤ **Hazards Associated with the Process:** Review the MSDS, handling and labeling requirements, any recent releases or near misses and location and use of safety equipment, such as eyewash/safety showers.

➤ **Normal System Operations:** What to look for during visual inspections of the system, how to properly fill out the operations log (if you have one) and the proper steps to take when irregularities are observed.

➤ **Operating and Maintenance Procedures:** Train employees on those procedures that they are required to perform.

➤ **Personal Protection Equipment:** Requirements, limitations, maintenance and the proper use of PPE.

➤ **Safe Work Practices and Programs:** Depending on job duties, additional training may be required on OSHA safety programs such as Lockout/Tagout, Confined Space, Respiratory Protection and Hot Work.

➤ **Process Safety Management (PSM)/Risk Management Program (RMP):** A great way to train newly-hired operations level employees is to have them review your PSM/RMP, as it contains information on the hazards of the chemical and the process. In addition, operational or entry level employees should participate in Process Hazard Analyses and the annual SOP reviews, as this also constitutes as training.

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I challenge all of you to accept this gift and honor it by using the material RETA offers to help yourself or someone you know advance in our industry. Help yourself or someone you know to reach for a new, even higher level of professionalism. By doing that, you will be accepting the gift the volunteers have prepared and saying thank you in the way those volunteers will most appreciate. Like a chain, as an industry we are only as strong as our weakest link. Help us to forge strong links to make the whole chain stronger.

Next month we will look at some of the changes and improvements in the newest release of *Industrial Refrigeration Book 1*.

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## News From HQ

by Don Tragethon,  
Executive Director

The next few months will be focused on improvements in infrastructure at HQ. This past summer, work on website capability took place. We are planning on adding eCommerce so renewal of individual member category dues can be done via the website. The desire to develop a *virtual chapter* by way of webinar is high and is a priority. The webinar, dial in to the virtual chapter concept, is intended to build a stronger sense of community among the membership by connecting folks who are too far flung afield to attend conventional Chapter meetings. Watch for announcements regarding this outreach.

RETA now has more than 4,200 members and is welcoming new members every day. The educational material sales are strong and demand for certification is at an all-time high. The past five years have been the strongest years for RETA, from what I can tell.

The other day I was reading the minutes of the 1961 annual meeting. The great debate was centered on what name the National Association of Practical Refrigerating Engineers was going to take. It was a process that spanned two and one-half years. The most striking thing of all of that was that more than 1,300 votes were represented at that meeting – but there were less than 50 in attendance. The weight of

## DEVELOPING AN EFFECTIVE TRAINING PROGRAM

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Continuing on with our example, technical or supervisor level employees who oversee the operational/entry level employees should have successfully performed at the operations/entry level. In addition, they could be responsible to:

- ▶ Implement the Process Safety Management (PSM)/Risk Management Program (RMP)
- ▶ Perform system troubleshooting
- ▶ Make important decisions regarding operating strategies, setpoints, limits
- ▶ Optimize system operations for improved cost and reliability
- ▶ Recommend system upgrades and improvements
- ▶ Assist in training of operations level employees
- ▶ Schedule and perform or oversee major repairs or installations

- ▶ Coordinate shutdowns and pumpdowns
- ▶ Administer preventive and predictive maintenance systems
- ▶ Manage systems in the PSM/RMP (management of change procedures, incident investigation techniques, emergency evacuation drill training)

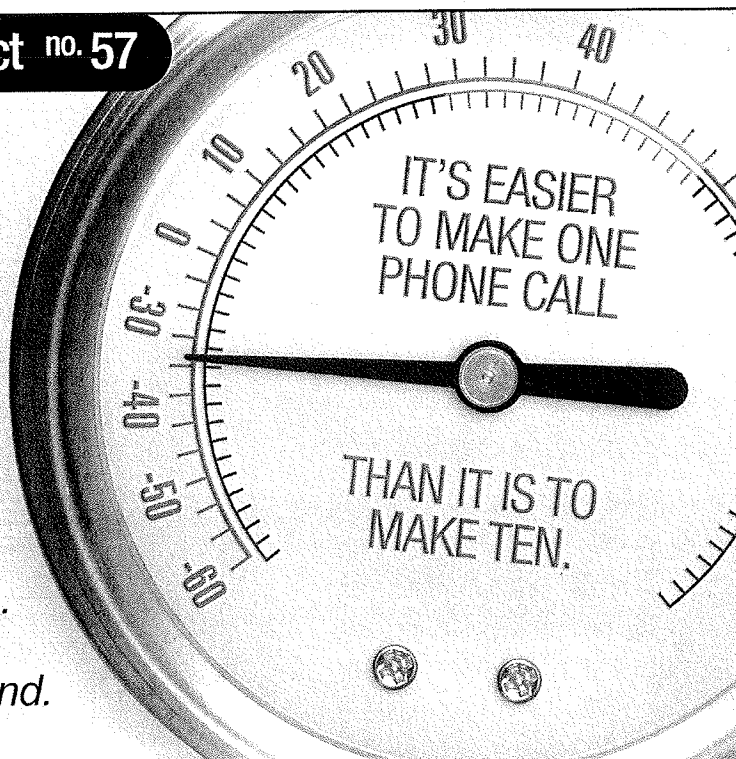
Technical/supervisory level employees should also be trained in the management systems included in the PSM/RMP document (*Management of Change, Incident Investigation, and Emergency Response*) as applicable to their responsibilities.

*So how often do we need to re-train our employees?* [29 CFR 1910.119 (g)(2)] Refresher training involves periodic training on the procedures and policies outlined above in the initial training. It is designed to increase employee awareness with respect to the hazards specific to the employees' job

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# DEVELOPING AN EFFECTIVE TRAINING PROGRAM

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duties and to reduce injuries. All employees should receive regular safety training including periodic evacuation training (drills) and annual hazards communication (i.e. awareness) training.

Separately, refresher training for operations/maintenance employees should include: 1) reviewing items covered in initial training, 2) reviewing all accidents or near misses associated with the system, and 3) new process equipment that has been installed or changes in process parameters or procedures. This training should be performed as needed, but at a minimum every three years.

*What type of documentation do I need to maintain?* [29 CFR 1910.119 (g)(3)] Documentation should be maintained on the training for all employees, including contractors, in the employee's personnel file. Initial and refresher training records

should include the identity of the employee and the date of training. Training records should also include an employee sign-off, stating that he/she has received and understood the training provided. Finally, documentation should include the means used to verify that the training was understood (written test, demonstration or oral test). Based on the outcome of the testing/demonstration, the trainer can sign off on the employee's training, certifying they are qualified to begin working.

*What about the contractors who work on our system? Do we need to train them as well?* [29 CFR 1910.119 (h)] Contractor training is a little different from employee training. Although they are not your employees, it is your responsibility to ensure they are qualified to work on your system. [29 CFR 1910.119 (h)(2)] Your system training requirements can vary from a written statement verifying that employees have received the necessary training to a technical certification. They also need to be informed of potential fire, explosion or toxic release hazards related to their work. [29 CFR 1910.119 (h)(2)(ii)] Additionally, you should train your contractors on your facility's safety policies and rules [29 CFR 1910.119 (h)(2)(iv)] and provide them with your emergency action/response plan and any safety programs [29 CFR 1910.119 (h)(2)(iii)] they need to follow according to your Contractor Safety program.

*Finally, how do I ensure that the training program is effective?* To ensure the training program is accomplishing its goals, periodically evaluate the training program. This evaluation will help you to identify unsafe working conditions or practices. The inspection should include: 1) the name of the person conducting the inspection and date, 2) observed unsafe conditions or work practices, 3) actions needed to correct these conditions, and 4) employees observed to be incompetent. If deficiencies are found, then the refresher training frequency can be increased.

When you have an effective training program, you will have increased employee

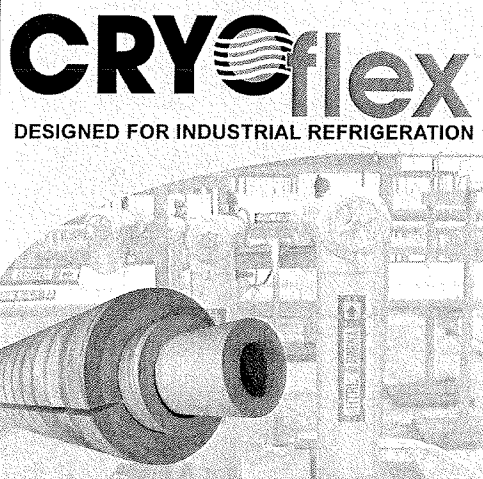
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## News From HQ

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all those votes was borne by the proxy carriers. Voting was taken very seriously in that day. Being heard through the Chapter's designated representative was facilitated by the proxy method. Even though the vote representation to attendee ratio was 26:1, the process was valid and, from what I can gather from the record, the issues were well discussed and debated. Those leaders (our grandfathers) did a very good job indeed. Our name describes those we serve, exactly.

The survey regarding the Certification Program is delivering great information. Dr. Rodgers and the Certification Committee are preparing for some real study and work to come from this input. The people who took the survey became eligible to be in a drawing for a \$50 Home Depot gift card. Everyone who completes the survey also receives a RETA lapel pin to wear and show their RETA pride. The survey is open until December 10, 2010. The annual audit for ANSI is under way now. Dr. Rodgers is working with Scott Henderson and the Certification committee, compiling all the required information regarding processes, problems, resolutions and test performance. We will be visited by an ANSI auditor this winter. We look forward to the visit and the positive review to come.



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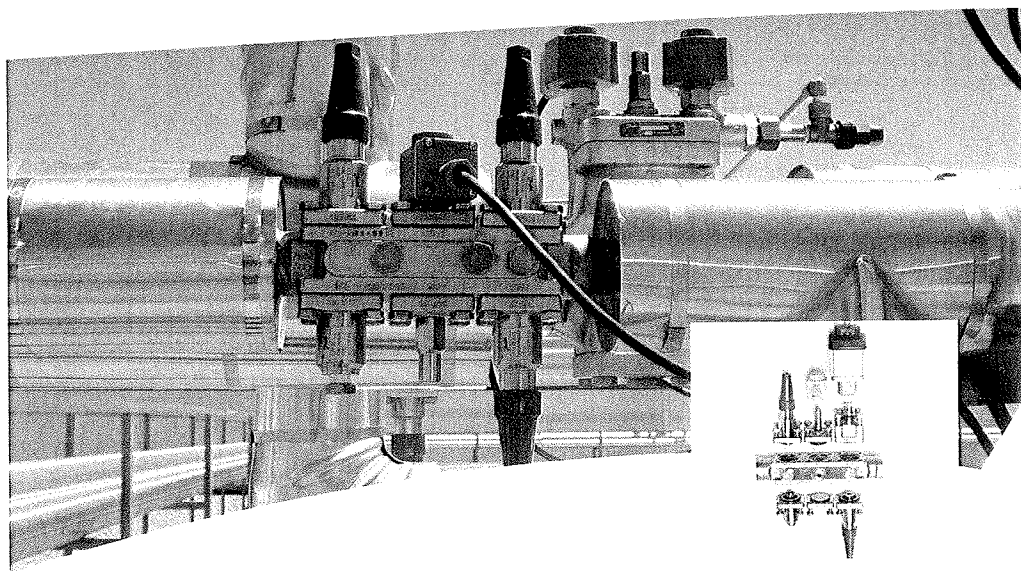


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## DEVELOPING AN EFFECTIVE TRAINING PROGRAM

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awareness with respect to the hazards involved in handling regulated substances. Operators will also understand the system better, as well as the nature and causes of problems arising from process operations and ways to address/avoid those problems. When your training program works, you will minimize the likelihood of an industrial accident and further ensure the safety of your employees.

While the training section of PSM seems straightforward with only three items as listed earlier, many of the PSM/RMP program elements specifically mention *training*. Further investigation into each PSM element reveals that *training* is a key component throughout the standard. This is illustrated in Figure 1 (right). Therefore remember that an effective training program will include all aspects of your PSM/RMP program.

