EMPLOYEE TRAINING UNDER PSM/RMP

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I am frequently asked many questions relating to training needs under PSM and RMP. "Who is covered under the PSM and RMP regulations for training? What training do they need? How often do they have to be trained? How can this training be conducted? How do I evaluate their understanding of the material? Who is qualified to teach the training?"

Let's tackle the "who" first. Under 29 CFR 1910.119(g), employers are required to train "Each employee presently involved in operating a process, and each employee before being involved in operating a newly assigned process..." Part (j) of the standard further states that "The employer shall train each employee involved in maintaining the on-going integrity of process equipment..." This is an explicit requirement that BOTH maintainers and operators of a covered process must be trained under the PSM standard. This requirement is mirrored in the RMP rule as well. In the ammonia refrigeration industry, we usually consider our maintenance staff, or, in some cases, only the refrigeration staff, to be the operators and maintainers of the covered process. For some, the downfall here is that the employee is trained based on job title not the function they are performing within the covered process. For example, a production person who starts up and shuts down a spiral freezer would also be considered an operator of the covered equipment containing ammonia. What about the sanitation crew that is charged with cleaning that equipment? Often, they have to perform some tasks that could fall under maintenance or operation of that equipment. There is no strict interpretation of an operator in either the PSM or RMP regulations. Therefore, it is up to the facility to define who is considered an operator or maintainer of the covered process within their training program. This definition must be defensible as part of the performance based standard that is PSM. We must state what we are going to do and why we are going to do it that way.

For the "what" question, we look back at the standard. Part (g) of the PSM standard further states that, "This training is to include emphasis on the specific safety and health hazards of the process, emergency operations including shutdown, and safe work practices applicable to the employee's job tasks. Part (j) states that the training will include "an overview of that process and its hazards and ... the procedures applicable to the employee's job tasks to assure that the employee can perform the job tasks in a safe manner." Some of these can be fairly obvious. In ammonia refrigeration, we ensure that operators and maintainers are trained in the specific health and safety hazards of ammonia and what to do if someone is exposed. Safe work practices can be fairly straightforward, but only if you recognize that such a hazard exists in or around the covered process. It is unlikely that someone would try to argue that lock-out/tag-out does not apply to our process, but how many of you consider an evaporative condenser to be a confined space? How many wear fall protection when working atop those evaporative condensers? What about on ceiling hung evaporators? Emergency operations, including shutdown, become even more problematic. We often do a good job in training our operators and maintainers on how to shut down a system or piece of equipment in an emergency, but we often fall short in training them to recognize an emergency situation that warrants such measures. The same situations are often found in training the employees on routine tasks. We often assign daily rounds to the new kid in the department as a way to "learn the system." However, while we do a good job in showing that person where to find the information and how to record it, we often fall short on teaching that person on how to interpret what they are seeing and what to do about it. How many of you have the normal operating ranges of parameters listed on your daily log sheet next to the spot in which to record the reading? I could go on and on about "what" the operators and maintainers need to be trained upon.

However, for the purposes of this discussion, it suffices to say that the facility must define the training program, either on a level basis, or on an individual task basis. This definition is to include the specific information that the person needs to be taught in order to do a specific task or achieve a specific level. Using the Ammonia Refrigeration Training guide that was developed by RETA and IIAR is a good place to start.

Now on to the "how often." Part (g) of the PSM standard states that "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." In a nutshell, it is up to the facility managers, TOGETHER with the operators and maintainers to determine how frequently the training must be conducted up to a maximum of three years in between. This does not mean that they need to attend a multi-week class every three years to re-learn everything that they were previously taught. It does mean that the facility must define the frequencies within their program. For instance, they may choose to conduct ammonia awareness training as part of their annual Hazard Communication program. Perhaps they have a video that they use to review basic refrigeration system theory and operation that they view every three years. Alternatively, the facility may choose to require their operators to obtain a CARO or CIRO certification and maintain it through professional development hours (PDHs). Bear in mind that this certification, while valuable and defensible for basic qualifications, does not absolve the facility of the responsibility to review the operating procedures, including emergency procedures, with their operators and maintainers at least every three years.

Now that we've got the "who, what, and how often," we often ask ourselves "How do we conduct this training and how do we evaluate understanding?" The common lament that is heard is "I can't afford to send them to a class to learn this stuff." The response is that they don't have to do so. Training can be conducted as OJT, or on the job training. Perhaps the Lead Technician or Maintenance Supervisor watches while the other operators or maintainers perform a task and they sign a training sheet attesting that they have reviewed the performance of the employee and found it to be satisfactory for that task. Other items could be conducted as a simple tool box talk with a five question quiz at the end. It really is up to the facility to decide what works best for them and their

organization, as long as the operators and maintainers are involved in determining that.

Now that we've talked about how to evaluate understanding, the next question that rears its ugly head is "Who is qualified to conduct this training and evaluate understanding?" This is often a tricky one. For those that choose to send operators and maintainers to an outside class, the easiest way is to look at the instructor's credentials. An RAI, or RETA Authorized Instructor, is the best credential to look for as it is an ANSI accredited credential. However, other factors, such as simple training and experience of the instructor can serve equally well as qualifications. For specific pieces of equipment, you usually can't get any better than a representative of the Original Equipment Manufacturer. However, care should be taken to document their credentials. What about operating procedures? This is often a sticky wicket, so to speak, and creates potential issues in the "Who needs to be trained?" question earlier. For instance, let's say that we have a Maintenance Supervisor, who has 30 years of experience in the facility, has attended various refrigeration classes, and wrote all of the operating procedures way back in 1992 when the PSM standard was promulgated. Is it reasonable to say that this person still needs to be trained every three years at a minimum? The short answer is yes. However, the facility must define what training that they need every three years. It would be reasonable to state that this person is to obtain (if they haven't already) and maintain a RETA CIRO certification, which stands for Certified Industrial Refrigeration Operator. The facility could then state in their program that the PDHs obtained to maintain the certification serve as this person's "refresher" training. In order to define this person as an authorized trainer on the facility operating procedures, perhaps the facility will choose to send them to a Train the Trainer course, or obtain their RAI certification.

Part (g) states that "The employer shall ascertain that each employee involved in operating a process has received and understood the training required by this paragraph. There are three primary ways of meeting this requirement, written, verbal, or observation. The documentation should ascertain if one or multiple methods of verification are utilized. 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." A lot of facilities use written quizzes. However, if the facility has properly defined the qualifications of their trainers, there is no reason why the trainer cannot attest to having evaluated the employees' understanding by signing a form that describes the method used to evaluate understanding. Perhaps the evaluation is done through the use of questions during the class. Perhaps it was done by observing the employee perform a task.

Regardless of who, what, how often, who conducts, how is it conducted, and how is understanding evaluated, it all MUST be defined within the written training program that is part of your facility's PSM and RMP programs. This serves to provide a defensible position during inspections and helps to ensure that your facility operators and maintainers perform their jobs safely, which is really what it is all about.

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