

## An Effective Controller Training Program

The Training Program section of the Control Room Management (CRM) regulation states, “Establish a controller training program and review the training program content to identify potential improvements...”

- Have you established a controller training program?
- Are you reviewing the training program content, all of the content?
- Have you identified any potential improvements during the review? If you identified any potential improvements, did you make the improvements?
- Does the controller training program contain elements that fulfill the other requirements for the Training Program CRM regulation?
- Does the controller training program elements fulfill the inspection questions and the FAQs?

At this point, I think almost all companies have some type of a controller training program. Some companies are reviewing the training program content, but some do not have a structured process for that review.

Some are identifying potential improvements and some believe the program is good enough year after year. It is not. If the program is not improving, it is at the least stagnant and at the worst deteriorating.

Most of the controller training programs we review do fulfill the other elements of the Training Program regulation except for one gap that we see often and that should be easy to fulfill. Perhaps companies just take it for granted that the training does this. There is an explicit requirement to train controllers “to carry out the roles and responsibilities defined by the” company. Many controllers cannot even describe their responsibilities, which leads me to think they are not trained on those responsibilities. Perhaps I am expecting too much, that individuals know their responsibilities because that makes it easier to fulfill their responsibilities.

We do not see many controller training programs that fulfill all of the inspection questions and FAQs. One of the reasons for that is that the people responsible for controller training programs do not look at the inspection questions and FAQs until their company receives notification of an upcoming CRM audit.

Let’s now think about effectiveness of a controller training program or a training program for any operations employee. Forget the regulatory requirements. What would a company do if there were no CRM, OQ, OSHA or any other requirements that stipulated employees be trained? What is the purpose of training?

The purpose of a training program ought to be that employees learn what to do and how to do it so that their performance is correct, productive, and safe. It would ensure that employees have the knowledge, skills, and attitudes. Procedures and other job aids would likely provide the basis for training, and on the job training would be the best method.

That purpose could be aligned with the purpose of the regulatory requirements that cause so much consternation nowadays. We developed some measures of training program effectiveness that are based on both the regulatory requirements and the purpose of a training program. There are 21 basic criteria for controller training program assessment and 11 controller training program effectiveness measures.

Here are some ways to measure effectiveness of a controller training program:

- Were there any operating errors caused by deficiencies in training or procedures or human performance?
- Were there any near misses caused by deficiencies in training or procedures or human performance?
- Did the normal operating procedures work during all normal operating events?
- Was the response by controllers to actual abnormal operating events effective?
- Did the abnormal operating procedures work during all abnormal operating events?
- Was the response by controllers to actual emergency events effective?
- Did the emergency operating procedures work during all actual emergency events?
- Are there realistic, practical scenarios for each abnormal operating condition and each emergency type?
- Did every controller participate in tabletop methods or simulator training using the realistic, practical scenarios?
- Were training materials and procedures developed for new projects and provided to every controller before every controller had to control and monitor the assets of the new project?
- Were controllers interviewed or surveyed on the effectiveness of the controller training program?