
CHAPTER 9: TRAINING

Section 450-8.016(B)(1)(iii) of County Ordinance 98-48 requires stationary sources to train employees in the human factors program. The success of the human factors program at each stationary source relies heavily on employee (e.g., operator) input. Therefore, employees must have a basic understanding of human factors and should have specialized training to ensure that they can fulfill their specific responsibilities within the program. The intent of this chapter is to outline the general requirements of a human factors training program that each stationary source should customize to meet their particular needs. The chapter addresses identifying training participants (Section 9.1), initial training (Section 9.2), and refresher training (Section 9.3). Stationary sources adopting an alternative method to the one presented in this chapter must consult with CCHS representatives.

9.1 IDENTIFYING TRAINING PARTICIPANTS

The training curriculum and participants at each stationary source will vary to some degree depending upon the programs that comprise the overall human factors program. Stationary sources should therefore recognize all employee responsibilities within the human factors program (e.g., human factors program development, incident investigation team member, responsibilities to complete a latent conditions checklist). Stationary sources should then identify the employees that are best suited to fulfill those responsibilities. The stationary source should document the criteria they used to identify training participants. **NOTE:** All employees must receive human factors program training.

9.2 INITIAL TRAINING

The stationary source should develop an initial training curriculum for each group of employees identified in Section 9.1. Initial training should be provided to all employees currently working at the stationary source and upon hiring for new employees. Three general areas of initial training should address: basic awareness of human factors, training on the overall human factors program (once developed), and specialized training to ensure that employees can fulfill their specific responsibilities for implementing the program (e.g., completion of Latent Conditions Checklist, incident investigation team members). Stationary sources should maintain documentation on each course (e.g., course curriculum, instructor qualifications, course participants). Also, stationary source representatives should devise some method to verify that course participants understood the training.

9.2.1 Basic Awareness Training

All employees should be provided with basic awareness training on human factors. Each stationary source should develop and document their curriculum for human factors, however, the stationary source may find it beneficial to include:

- Philosophy and reasoning behind human factors
- Active failures versus latent conditions
- Types of active failures (e.g., slips, lapses, violations)
- Performance shaping factors – overview of categories
- Human failure analysis techniques
- Automation and impact on worker
- Management systems and human factors
- Possible effects of staffing, shiftwork, and overtime

Each stationary source should determine the most appropriate time for conducting training within the development of the human factors program. For example, stationary sources must ensure that employees participate in the development of the written human factors program (Chapter 8). For employees involved in the development of the program to have meaningful input, they should be provided with basic awareness training prior to development of the written program. This initial training must therefore occur very early in the development of the human factors program. Other employees, not directly involved in the development of the written human factors program, may not require basic awareness training until much later.

9.2.2 Overall Human Factors Program Training

All employees must be provided with training on the human factors program.. The training should describe how the program elements are interconnected and who has overall responsibility for the human factors program and for each of the elements.

9.2.3 Specialized Training

Prior to implementation of the human factors program elements (except employee participation), employees should have received a basic awareness training and training on the overall human factors program. Employees participating in completing the latent conditions checklist, conducting PHA's, developing operating procedures, conducting management of change, and conducting incident investigations should receive training or orientation on each program. For example, employees responsible for completing the latent conditions checklist should be trained in properly completing the checklist. They should also be trained

to understand that the focus of completing the checklist is to identify existing conditions that could cause someone to make a mistake not to assign blame. This orientation should be expanded to explicitly describe how the programs, including incorporation of human factors, are to be implemented.

Many of the programs described in the previous chapters of this section rely heavily on employees completing the latent conditions checklist included in Attachment A. Chapter 3 of this section describes how to customize/develop a checklist and how to apply the checklist. Employees should be trained to understand management's expectations for completing the checklist and the issues listed in Section 3.2 (e.g., Personnel applying the checklist should be trained to view the checklist indicators as examples to lead the thought process).

9.3 REFRESHER TRAINING

Employees should be provided with refresher training on each of the three topics discussed in Sections 9.2.1, 9.2.2, and 9.2.3 in accordance with the following schedule. The stationary source should consult with employees to determine the appropriate frequency and content of refresher training.

- Basic Awareness Training – Every three years, and more often if necessary, the stationary source should provide general human factors training. This training may be an extension of the material provided in the initial basic awareness training curriculum. Stationary sources may elect to focus the training on latent conditions that are prevalent at their facility
- Overall Human Factors Program Training – Every three years, and more often if necessary, the stationary source should provide refresher training to all employees regarding the human factors program
- Specialized Training – On an as-needed basis, the stationary source should provide refresher training to employees who have specific responsibilities for implementing the human factors program (e.g., completion of the Latent Conditions checklist, incident investigation team members).