

CONTROL ROOM HABITABILITY

Computer Based Training Module



ABSTRACT

This CBT is a detailed, comprehensive, nuclear industry generic overview of Control Room Habitability. The primary learning objective of this CBT is to describe the regulatory basis, key design features, and testing related to Control Room Habitability.



INTENDED AUDIENCE

1. Experienced nuclear plant engineers who are developing expertise in Control Room Habitability
2. Site engineering Managers or Supervisors, who require a high-level understanding of Control Room Habitability



DURATION

- 2 hours
- An additional 8-12 hours for reading materials provided within the CBT

TERMINAL LEARNING OBJECTIVES

1. DESCRIBE the overall bases and objectives of Control Room Habitability (CRH).
2. DEFINE the CRH terminologies commonly used.
3. DESCRIBE the general concept and elements of Control Room Envelope (CRE).
4. IDENTIFY the typical pathways for released radioactive and hazardous chemicals (toxic gases) to enter.
5. IDENTIFY the NRC regulations and guidance documentation for CRH.
6. IDENTIFY and DESCRIBE the relevant OE and lessons learned related to CRH that have developed within the nuclear power industry.
7. DESCRIBE the approaches and considerations for tracer gas testing.
8. IDENTIFY and DESCRIBE the key CRH technical specification surveillance, testing and preventive maintenance considerations.
9. IDENTIFY the evaluation attributes for CRH compensatory measures.
10. DESCRIBE CRH radiological and toxic chemical release analysis methodologies to provide the ability to perform/review such evaluations.
11. IDENTIFY typical issues related to the use of CRH radiological and toxic chemical release analysis methodologies.
12. RECOGNIZE special CRH considerations for fuel handling accidents.

KEY INDUSTRY DOCUMENTS

1. NEI 99-03 Rev 0 Control Room Habitability Assessment Guidance
2. NHUG-C-001 Rev 0 Control Room Habitability Program Guide
3. RG 1.78 Rev 1 Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release
4. RG 1.196 Rev 1 Control Room Habitability at Light-Water Nuclear Power Reactors
5. RG 1.197 Rev 0 Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors
6. NUREG/CR 6624 Recommendations for Revision of Regulatory Guide 1.78
7. NRC Generic Letter 2003-01 Control Room Habitability
8. NUREG/CR-6210 Computer Codes for Evaluation of Control Room Habitability (HABIT) June 1996
9. ALOHA (Areal Locations of Hazardous Atmospheres) 5.4.4 November 2013
10. NHUG-C-002 Rev 0 Generic Control Room Habitability Assessment Guide