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RATIONALE

FEMA's Radiological Emergency Response Operations (RERO) Course is performance-based training that consists of 4 ½ days of hands-on, evaluated, exercised-based activities. Successful completion of the RERO course requires mastery level of certain knowledge before participation in the course. That knowledge is the focus of the RERO prerequisite courses, the *Fundamentals Course for Radiological Monitors* (FCRM), the *Fundamentals Course for Radiological Response Teams* (FCRRT) and this course, the *Radiological Emergency Response Independent Study*.

This course, deployed through the Emergency Management Institute (EMI) Independent Study Program, is available to RERO candidates and radiological instructors.

COURSE GOAL

The goal of the *Radiological Emergency Response Independent Study (RERIS)* course is to provide a learning experience in which participants demonstrate comprehensive understanding of radiological protection and response principles, guidelines, and regulations through a cycle of text, stimulus, response, and reinforcement. This course of instruction will improve the performance of radiological response team members.

COURSE OBJECTIVES

At the conclusion of this course, learners will be able to do the following:

- Differentiate between regulations, standards, law, license conditions, Regulatory Guides, Nuclear Regulatory Commission Regulatory (NUREG) documents, and Radiological Emergency Preparedness (REP) reports that apply to radiological emergency response operations;
- Apply basic concepts of nuclear and health physics appropriate to the needs of radiological emergency response personnel;
- Convert between traditional and SI units of radiation and radiation exposure;
- Convert between “standard notation” and “scientific notation”;
- Associate various biological effects with levels of exposure to ionizing radiation;
- Trace the pathway of radioactive material into, through, and out of the human body;
- Select appropriate external dosimetry for radiological emergency response operations and identify limitations of dosimetry devices;
- Associate radiation protection principles and procedures with characteristics of nuclear radiation;
- Define the Environmental Protection Agency (EPA) Protective Action Guides (PAGs) and the recommendations of the National Council on Radiation Protection and Measurements (NCRP);
- Summarize the Federal/State/local government relationship for different types of radiological emergencies;
- Plan radiological emergency response operations that are consistent with the Incident Command System (ICS)
- Differentiate between the roles of the media, the public information officer, and the radiological response team in radiological emergency response operations;
- Give reasons for and components of environmental monitoring in a radiological emergency;
- Apply knowledge of nuclear power plant structure, operations, and emergency response procedures to the role of the radiological response team member in a related emergency;
- Apply knowledge of radioactive materials transportation regulations to the role of the radiological response team member in responding to a related emergency; and
- Develop a checklist for analysis and control of a radiological hazard area.

HOW TO TAKE THIS COURSE

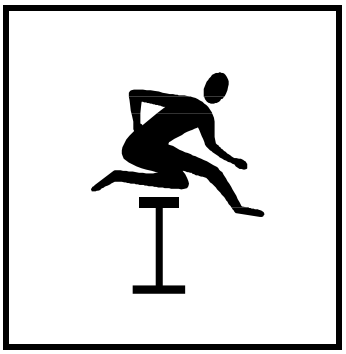
This independent study course is in a format called "programmed instruction." Programmed instruction has the following characteristics:

- You will work individually on instructional materials at your own pace.

- A relatively small amount of information is presented for you to read. Following this information, you will be asked to complete a statement or answer a question.

- You will be immediately informed whether the response is correct or not. If incorrect, you will be told how the answer is wrong. If your answer is correct, you will be instructed to move on to the next section.

In order to facilitate self-paced course completion, each unit includes a pretest question, also known as a "gate frame." The gate frame question is comprehensive of the unit's overall learning objectives.



If you answer the gate frame question correctly, you may skip to the first of two summary test questions for the unit. If the first summary question is answered correctly, you will be directed to move on to the next summary question. If you answer the second summary question correctly, you will be instructed to move on to the next unit. If you are an advanced learner, you could review the entire course through pretest and summary questions and complete the final examination. However, if you answer the summary questions incorrectly, you will be directed to go back and complete the unit's programmed instruction.

If you answer a gate frame question incorrectly, you should proceed with the unit's programmed instruction. Most learners will complete some or all of the programmed instruction before attempting the final examination.

This course includes a final examination that directly reflects the learning objectives of each unit. Because the course is intended to assure a mastery level of accomplishment of these objectives, a minimum examination score of 75 percent will be the criteria for successful completion.

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