NFPA 470: 2022 Edition, Chapter 9.10 Hazardous Materials/WMD Operations Mission-Specific- Radiological Hazard-Specific

Below please find what has been previously approved by the Committee on Accreditation (COA) for this level of certification. This example does not take into consideration “Document Review”, “Portfolio”, or “Other testing methods.”

If your agency selects completing their online Assessment Methodology Matrix (AMM) utilizing these test methods, our Technical Analysts may place your application under a COA meeting consent agenda bypassing the usual COA review.

The spaces identified below with an “**X**” must be replaced with the appropriate cognitive test item numbers (e.g. Questions 1,4,6,7,9, etc.) or the score sheet numbers under Product, Psychomotor/Process methods as score sheet numbers (e.g.- SS 101, 202, and 304, etc.).

	Knowledge-Based Assessments (graded after submission)		**Performance-Based Assessments** (graded in real-time as they are performed)	
Section	**Cognitive** (e.g. Multiple Choice, Short Answer, Discretionary Time with Resources)	**Product** (e.g., document or develop a budget, proposal, lesson plan)	**Psychomotor** (Primarily an observable physical task. e.g., don, doff)	**Process** (Primarily a mental or verbalized task. e.g., inspect)
9.10 Radiological Hazard-Specific. 9.10.1 Perform radiological hazard assessment and provide strategic and tactical recommendations at a hazardous materials/WMD incident, given a hazardous materials/WMD incident involving a radiological hazard due to the presence or release of radioactive material, radiation dispersal device (RDD), radiation exposure device (RED), or an improvised nuclear device (IND); an assignment; policies and procedures; approved resources; detection, monitoring, sampling equipment, and PPE; and access to a Hazardous Materials Technician, an allied professional, an emergency response plan, or standard operating procedures, so that under the guidance of a Hazardous Materials Technician, an allied professional, an emergency response plan, or standard operating procedures; detection, monitoring, and sampling methods for radiological hazards are selected; approved PPE is selected and used; personnel are protected; safety procedures are followed; radiological hazards are identified, avoided, or minimized; detection, monitoring, and sampling operations are completed; results of detection, monitoring, and sampling are read, interpreted, communicated, and documented; and personnel, victims, tools, and equipment are decontaminated.			

9.10.1		X	X
9.10.1 (A) Requisite Knowledge. The importance of working under the guidance of a Hazardous Materials Technician, an allied professional, an emergency response plan, or standard operating procedures; definitions of different types of radioactive material (naturally occurring, manmade, fissile, and special nuclear material); the definitions of half-life, radioactivity, and the units of measure for radiation (roentgen, rad/gray, rem/sievert) and radioactivity (becquerel, curie); the types of radiological weapons of mass destruction (RDD, RED, and IND); potential locations where radiological hazards could be encountered; the four common types of ionizing radiation (alpha, beta, gamma, and neutron) and the potential harm associated with each; terms associated with a nuclear detonation, including fireball, shockwave, electromagnetic pulse, mushroom cloud, and fallout, and the potential harm associated with each; possible routes for internal exposure to radioactive material and the potential harm associated with each; considerations for identification of a concealed radiation source, including determination of exposure rate, isolation distance, and estimation of personnel exposure from the source; factors to be considered for selecting PPE for use at an incident involving radiological hazard due to the presence or release of radioactive material, RDD, RED or an IND; for personnel resources, how physical condition, location of contamination, and amount of radioactive material present influence selection of decontamination procedures for persons with localized external contamination (e.g., hands or feet), whole-body external contamination, or internal contamination; for resources other than personnel, how hard surfaces, porous surfaces, or equipment with inaccessible areas might limit the ability to survey for and decontaminate such items; factors to be considered in the identification and quantification of radioactive material, including sampling techniques for radioactive contamination; field test limitations, accuracy, and interpretation of results, field screening and overpacking consistent with local protocols, methods available for isotopic identification, preservation of material for laboratory testing and forensic evidence; local, state, and federal resources available to assist the Operations Level Responder to identify a radiological hazard and manage the incident; and factors to be evaluated as part of the use of radiological detection and monitoring systems.			
9.10.1 (A)	X		
9.10.1 (B) Requisite Skills. Selecting and using appropriate PPE for the radiological hazard present; field testing and operating approved detection, monitoring, and sampling equipment; reading, interpreting, and documenting the readings from detection, monitoring, and sampling equipment; communicating results of detection, monitoring, and sampling; decontaminating detection, monitoring, and sampling equipment; completing required reports and supporting documentation for detection, monitoring, and sampling operations; locating a concealed radiation source, identifying the initial isolation zone, identifying the source [i.e., isotope(s) involved], determining source exposure rate, and calculating a dose estimation for affected personnel; identifying and distinguishing between fixed and removable contamination; and describing procedures for decontamination, sampling, identification, field screening, packaging, and laboratory analysis of the material involved following the release of radioactive material from a hazardous materials/WMD incident.			

9.10.1 (B)		X	X