Midwest Consortium for Hazardous Waste Worker Training

**Industrial Emergency Response -- Operations Level Posttest**

**Version E (0603)**

____ 1. Four hundred gallons of polychlorinated biphenyls (PCBs), a suspected carcinogen, have spilled on a concrete floor. The area of the spill is the:
   a. Decontamination line.
   b. Cold zone.
   c. Hot zone.
   d. Warm zone.

____ 2. Which of the following respiratory protection devices should be used to enter an area that might have an IDLH atmosphere?
   a. SCBA.
   b. Single-use dust mask.
   c. Air purifying.
   d. Half-mask.

____ 3. You are responding to an overturned tank car filled with hydrochloric acid. An acid mist is forming. What is the lowest level of protection you should put on before proceeding to support the entry team?
   a. Level A, because the highest level of respiratory, skin, and eye protection is needed.
   b. Level B, because the highest level of respiratory protection is needed but the chances of being splashed by the acid are very small.
   c. Level C, because the type of airborne substance is known.
   d. Level D, because respiratory and skin hazards do not exist.

____ 4. You want to find an OSHA regulation and know that it is in the General Industry Standards. Which part of the numbering system for OSHA regulations shown below indicates General Industry?
   a. 29.
   b. CFR.
   c. 1910.
   d. 120.
5. A standard operating procedure needed for emergency response is:
   a. Emergency response plan.
   b. Dust masks use and resupply.
   c. Welding outside the machine shop.
   d. Lock-out/tag-out.

Answer the following two questions using the information provided in this label.

6. What does the 4 in the second box in the Health section tell you about the material?
   a. It is only a small health hazard to you.
   b. Exposure will cause lung scarring only.
   c. Your exposure should be 4 hours in an 8-hour day.
   d. It is a serious health hazard to you.

7. What does the X in the Personal Protection section tell you about the type of equipment that is needed?
   a. Specialized handling procedures are needed.
   b. An SCBA is needed.
   c. A NIOSH X-rated, chemical-protective suit is needed.
   d. A Xylidine chemical-protective suit is needed.
8. The Occupational Safety and Health Administration is responsible for:
   a. The Local Emergency Planning Committee.
   b. Preparing the in-house emergency response plan or emergency action plan.
   c. Enforcing training requirements under 1910.120(q).
   d. Enforcing the Clean Air Act.

9. In emergency response, confinement refers to:
   a. Plugging a leaking pipe.
   b. Diking or blocking a spill.
   c. Securing the control room.
   d. Evacuating.

10. In evaluating the air in a confined space, which of the following is measured first?
    a. Flammable vapors.
    b. Air flow velocity.
    c. Radiation.
    d. Oxygen.

11. Select the biological hazard from the list below:
    a. Benzene.
    b. Tuberculosis cultures.
    c. Slips, trips, and falls.
    d. Steam cloud.

12. Which of the following describes the concentration below which a material is “too lean to ignite”?
    a. Threshold Limit Value.
    b. Lower Explosive Level.
    c. Permissible Exposure Limit.
    d. Threshold Limit Value—Ceiling
13. You are the first member of the emergency response team to arrive at the scene of a spill from a punctured drum. Which of the following actions would you **not** do?
   a. Position yourself downstream of the spill.
   b. Note how high up on the drum the hole is.
   c. Determine the direction of the chemical flow.
   d. Try to read the label on the drum.

14. Which of the following are correct methods for dealing with possible chemical exposure to the eyes?
   a. All of the following methods are correct.
   b. Wear contact lenses to protect your eyes from chemicals.
   c. If exposed, rub your eyes to make them tear.
   d. If exposed, go to the nearest eye wash station and flush for 15 minutes.

15. Where would you find the hazard class on a placard or label indicating that the contents of a container are explosive?
   b. HMIS code book.
   c. Emergency Response Guidebook.

16. A disadvantage of personal air monitoring to measure dust exposure is:
   a. It provides an accurate measure of worker exposure.
   b. Results can be converted to TWA values.
   c. It documents exposure for the duration of the emergency.
   d. It requires laboratory analysis that may take a week or more.

17. One of the following types of air monitoring devices is not useful in determining if there is an immediate danger to life and health:
   a. Personal pump and filter.
   b. Oxygen meter.
   c. LEL meter.
   d. Combustible-gas indicator.
18. An MSDS must contain the following information:
   a. Manufacturer and contact person.
   b. Chemical properties of the hazardous material.
   c. Safety and health information.
   d. All of the above.

19. One of the following is a physical hazard that may affect industrial emergency responders:
   a. Acetone.
   b. Bronchioles.
   c. Choking.
   d. Electricity.

20. The units of concentration for the LEL display is:
   a. Parts per million.
   b. Feet per second.
   c. Percent.
   d. Milligrams per cubic meter.

21. Noise exposure can be monitored with a:
   a. Cutie pie.
   b. Personal dosimeter.
   c. Detector readout.
   d. Thermoluminescence detector.

22. Decontamination procedures:
   a. Will always be the same regardless of the hazards.
   b. Should be tailored to the specific hazards at the site.
   c. Should always use a minimum of 10 steps.
   d. Should be set up after the entry team enters the hot zone.
23. Hazardous chemicals can enter the body through:
   a. The kidney.
   b. Blue gums.
   c. Lymph system.
   d. Contaminated food.

24. Penetration of a chemical through a chemical-protective suit refers to:
   a. The physical destruction of the material.
   b. The process by which a chemical moves through the protective material on a molecular level.
   c. The flow of the chemical through zippers and stitched seams in the material.
   d. None of the above.

25. The bell on a SCBA goes off when:
   a. The face-to-facepiece seal is not tight enough.
   b. The by-pass valve is stuck in the closed position.
   c. The main-line valve is stuck in the closed position.
   d. The air pressure in the tank is getting low.

26. An emergency responder trained to the operations level could:
   a. Block a drain.
   b. Monitor the air for known hazards.
   c. Perform decontamination of the entry team.
   d. All of the above.

27. Which of the following is the most difficult to decontaminate and is often discarded after working on a chemical spill?
   a. Portable gas chromatograph.
   b. Tools with wood handles.
   c. SCBA tanks.
   d. Rubber parts of respirators.
28. An example of a reaction to a chronic exposure is:
   a. Skin burn from splash of a caustic such as lye.
   b. Collapse from lack of oxygen when entering a confined space.
   c. Lung cancer after many years of exposure to combustion products.
   d. Dizziness from inhaling solvent vapors.

29. If a person responds to an emergency with chemical-protective clothing but with no respiratory protection, he or she is wearing:
   a. Level C.
   b. Level A.
   c. Level D.
   d. Level B.

30. Which of the following respiratory protective devices would be the best choice to enter an area that has an unknown hazardous atmosphere?
   a. Full-face air-purifying respirator.
   b. SCBA.
   c. Half-mask air-purifying respirator.
   d. Single-use dust mask.

31. Which of the following contaminants cannot be removed during routine decontamination?
   a. Loose contaminants on the PPE.
   b. Liquids on the surface of the PPE.
   c. Solvents permeating into the PPE.
   d. Solids adhering to the PPE.

32. Respiratory protection is legally required for exposure:
   a. Below the Threshold Limit Value (TLV).
   b. Above the Permissible Exposure Limit (PEL).
   c. Above the Recommended Exposure Limit (REL).
   d. Above the Threshold Limit Value (TLV).
33. The site safety officer wants you to use a different type of glove because of "permeation problems." What does she mean?
   a. The glove is too thick.
   b. The glove is too difficult to remove safely.
   c. The cuff is not tight enough to keep chemicals from leaking in.
   d. The glove material allows chemicals to pass into or through it.

34. Employees were trying to cool a vat of acid when the safety valve vented, letting corrosive vapor escape into the air. Which of the following parts of an emergency response plan (ERP) would be important immediately?
   a. The name of the clean-up company.
   b. Alerting procedures and evacuation routes.
   c. The log of calls to outside personnel.
   d. The content of the last training session.

35. Which of the following is the best place to store your emergency response team respirator?
   a. In your locker on the clean side of the change area.
   b. In a refrigerated space to increase service life.
   c. In a sealed bag with the emergency response equipment.
   d. Hanging on the post near the degreaser.

36. Which of the following topics should be in your Emergency Response Plan (ERP)?
   a. All of the following.
   b. Communications network.
   c. Emergency procedures.
   d. Incident command structure.

37. The decon line should be set up and ready:
   a. After the entry team is in the hot zone.
   b. During termination.
   c. Before the first entry team enters the hot zone.
   d. Only if the chemical is in the solid state.
38. Even wearing the correct CPC and respirator, emergency responders trained at the Operations level cannot:
   a. Put absorbing material ahead of the flow of spill.
   b. Plug and patch a leaking drum.
   c. Build a dike to keep the chemical spilled from a drum from spreading.
   d. Participate in the decontamination of other first responders’ CPC and respirators.

39. When responders move through the decon line, they should always:
   a. Move from contaminated areas to cleaner areas.
   b. Go through as fast as possible.
   c. Remove their SCBA first.
   d. Move from clean areas to contaminated areas.

40. Before you put on a chemical-cartridge respirator, which of these should you do?
   a. All of the following.
   b. Positive-pressure check.
   c. Fit-test.
   d. Get an extra cartridge for back-up.

41. One of the following is conducted as part of critique and follow-up activities:
   a. Decontamination.
   b. Containment.
   c. Risk assessment.
   d. Inspection and restocking of equipment.

42. An acute exposure is:
   a. An exposure to a low concentration of a chemical over a long period of time.
   b. An exposure to a high concentration of a chemical over a short period of time.
   c. An exposure that results in no signs or symptoms of ill health.
   d. An exposure every day that is below the PEL.
43. One method to prevent exposure of the skin to harmful agent(s) is:
   a. Get plenty of sun.
   b. Wear clothing that is permeable.
   c. Substitute a less toxic chemical.
   d. Wash with mineral spirits.

44. According to HAZWOPER, which of the following situations (conditions) is defined as a hazardous materials emergency?
   a. Only liquid chemical spills, not chemical releases into the air.
   b. All chemical spills or releases on plant property—inside or outside the buildings.
   c. Chemical spills or releases that cannot be controlled by workers in the area or by maintenance people.
   d. Only chemical spills or releases contained inside the plant buildings.

45. Which of the following is most likely to be a safe absorbing material for liquid chemical spills?
   a. Wood chips.
   b. Dry fertilizer.
   c. Crushed limestone.
   d. Clay chips.

46. An SCBA or air line with escape bottle is required if the oxygen concentration is less than:
   a. 19.5%.
   b. 21.5%.
   c. 24.5%.
   d. 22.5%.

47. Chemical-protective clothing (CPC) should be inspected when:
   a. New respirator cartridges are received.
   b. Issued to a worker.
   c. The second side of the zipper tears out.
   d. Discolorations cannot be removed after two tries.
48. Last year you were assigned to the decon team and provided with an APR. You were involved in decon twice during the year. How often should your APR be inspected?
   a. Twice a year.
   b. Annually.
   c. Monthly.
   d. Weekly.

49. Which of the following should be considered when selecting chemical-protective clothing?
   a. Degradation.
   b. Permeation.
   c. Penetration.
   d. All of the above.

50. Which of the following equipment is legally required for emergency response?
   a. 24-hour guard or electronic system.
   b. Facility internal communication or alarm system.
   c. In-plant fire brigade on all shifts.
   d. SCBA for employees who may be exposed.