

National Training Course on Chemicals and Waste Management in the Oil & Gas Sector

Assessment

Name of Participant (please print in block letters):

Circle the correct answer/s, as instructed: multiple correct answers are possible when indicated:

1. The oil industry value chain consists of the following: **Upstream oil and gas** (exploration, field development, production), **midstream** (storage, transportation etc) and **downstream** (processing, manufacturing, refining, etc):
 - a. True
 - b. False
2. In oil and gas exploration and production (upstream), which of the following activities does not belong:
 - a. Seismic surveys
 - b. Drilling
 - c. Well testing
 - d. Distribution and marketing
3. Circle the main types of drilling fluids (Hint: more than 1 answer is correct):
 - a. Chemical Based Drilling Fluid (CBDF)
 - b. Oil based drilling fluid (OBDF)
 - c. Water based drilling fluid (WBDF)
4. Hazardous substances may cause adverse effects as a result of their intrinsic properties (toxicity, potential for bioaccumulation and rate of degradation).
 - a. True
 - b. False
5. During oil/gas exploration and exploration drilling, the following chemicals will be used: production chemicals and utility chemicals.
 - a. True

- b. False
6. When evaluating chemical properties, the following questions are asked: Circle all correct answers
- a. Is it economically affordable for use in oil and gas development?
 - b. Is it legally allowed?
 - c. Is it toxic, bio-degradable and bio-accumulative?
 - d. None of the above
7. To evaluate the risks associated with chemicals, you should know all of its components:
- a. True
 - b. False
8. Oil based drilling fluids (OBDF) are most typically used in simple, shallow wells.
- a. True
 - b. False
9. Drilling fluids and cuttings are referred to as:
- a. Base fluid
 - b. Drilling mud
 - c. Drilling cake
10. Drilling fluids have many functions including (circle appropriate answer(s)):
- a. Cooling drilling bit
 - b. Removing drill-cuttings
 - c. Odour suppression.
 - d. Provision of hydraulic pressure
11. Water based drilling fluids (WBDF) when discharged into the environment is likely to have which effect:
- a. Hazardous effect
 - b. Harmful effect
 - c. No effect
12. Cementing chemicals are used to achieve the following (circle the correct answers):
- a. Fixation and sealing of the well
 - b. To ensure pressure integrity within the well
 - c. Support for Blow-Out Preventer (BOP)/well head

d. All of the above.

13. Produced water should, preferably, be:

- a. piped to holding chambers, then discharged to the environment without treatment
- b. piped to holding chambers, then discharged to the environment following removal of hazardous materials
- c. Re-introduced into the well.

14. What document provides essential health and safety information about products, substances or chemicals that are classified as hazardous substances or dangerous goods:

- a. Product Data Sheet (PDS)
- b. Material Safety Data Sheet (MSDS)
- c. Item Safety Sheet (ISS)

15. Who is responsible for displaying all safety information within the workplace:

- a. Manufacturers
- b. Staff
- c. Employers

16. Disposal contractors need to be aware of the possibility of radio-active substances within the waste stream

- a. True
- b. False

17. COSHH stand for:

- a. Chemicals Management for Occupational Safety, Hazards, and Health
- b. Chemicals On Site Harmful to Health
- c. Control of Substances Hazardous to Health

18. Which of the following is at the top of the waste management “triangle”:

- a. Minimisation
- b. Disposal
- c. Prevention

19. International oil companies should operate in line with national standards and guidelines as a first principle, at all times:

- a. True
- b. False

20. To be classified as “hazardous”, a material must be in a solid state

- a. False
- b. True

21. The European Waste Directive (2008/98/EC) adopts the principle of:

- a. Laissez-faire;
- b. Quid-pro-quo;
- c. Internalise the externality
- d. None of the above.

22. The Application of United Nations' criteria for Classification and Labelling of chemicals (UN GHS) in Europe seeks to:

- a. Simplify matters
- b. Avoid confusion
- c. Minimise accidents.
- d. All of the above.

23. This symbol means:



- a. Ecotoxic
- b. Carcinogenic
- c. Corrosive

24. This symbols means :



- a. Carcinogenic;
- b. Sensitising
- c. Acute Toxicity

25. The management of hazardous waste shall encompass the following principles (circle the correct answer(s)):

- a. Hazardous waste shall not be mixed with other waste;
- b. Dilution of wastes is encouraged;
- c. Materials shall be properly packaged, stored and labelled.
- d. None of the above.

26. The Operator’s responsibilities cease when an oil-field is no longer economically viable to operate:

- a. True
- b. False

27. The Waste Management Plan should be submitted by the operator once exploration drilling commences, as the operator will have a better understanding of the waste management requirements from the operations.
- True.
 - False.
28. Transportation of hazardous waste shall be accompanied by the following document(s):
- Health & Safety Plan;
 - Waste Management Plan;
 - Trip / Manifest Ticket;
 - All of the above.
29. International transportation of waste is regulated by which International Convention:
- London Convention
 - Basel Convention
 - Tokyo Convention
 - None of the above.
30. Compliance monitoring of the contractor's performance is best undertaken how:
- Over the phone
 - In the field
 - By reviewing annual reports
 - None of the above
31. To ensure high standards of environmental compliance – the following is the best monitoring strategy:
- The operator is left to monitor its own performance.
 - The operator hires an independent third party to meet compliance monitoring and reporting.
 - Multiple governments agencies/departments undertake joint inspections in a planned and well coordinated fashion.
32. Which statement is true:
- An operator may allow a government inspection team into his/her premises at his/her discretion.
 - An operator must allow government inspection teams access to his/her premises at all reasonable times.