

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