

Industrial Safety - Test # 5

Please turn test in on Thursday, March 22 at the end of class

Name _____

Textbook – Intro to Oil and Gas Operational Safety

Please write your answers on this page

Please read Chap 9 (Plant Operations) and 10 (Start-up and Shutdown)

1. True or False. Maintaining asset integrity means functioning effectively and efficiently without creating hazards to people or environment. Pg. 72
2. True or False. Commissioning happens between the end of construction and the startup of a facility. Pg. 72
3. Circle the activity that is NOT day to day maintenance - training, monitoring, testing, annual turnaround, corrosion prevention, inspection. Pg. 72
4. True or False. Safety critical elements (equipment) are to control or mitigate incidents. Pg. 72
5. True or False. Safety critical equipment examples are drilling rig BOPs, fire deluge systems and fire and gas detection systems. Pg. 72
6. True or False. An emergency shutdown valve is designed to open automatically and release hazardous contents to the ground to prevent over-pressure. Pg. 73
7. True or False. Fire and gas systems only detect methane. Pg. 73
8. True or False. We inspect safety equipment to ensure it operates when it is needed. Pg. 73
9. True or False. Corrosion is always easy to detect by weekly visual walk-arounds. Pg. 74
10. True or False. Training and personnel competency are required to ensure facility integrity. Pg. 75
11. True or False. Risk based maintenance means checking systems every 3 months before a failure occurs. Pg. 75
12. True or False. We inspect equipment to monitor wear and tear. Pg. 76
13. True or False. A pre-start-up review is only needed if it is a new type of plant that hasn't been built very often. Pg. 77
14. List 6 activities that are part of a pre-start-up review. Pg. 77, Section 9.3.1

15. List 4 sources of ignition. Pg. 77, Section 9.4.1

16. List 5 control measures that should be in place to control ignition sources in hazardous areas. Pg. 78, section 9.4.1
17. What is an inerting operation? Pg. 79
18. What is asphyxiation? Pg. 79
19. True or False. Running a plant at full operating load is more dangerous than starting a plant up or shutting it down. Pg. 81
20. List 6 topics that must be included in a "startup and shutdown operating procedure. Pg. 82
21. True or False. Shutdown is less hazardous than startup and should be done as quick as possible. Pg. 84, section 10.1.3
22. True or False. Hydrates form when water and hydrocarbons are present. Pg. 85
23. List and describe 8 commissioning activities. Pg. 86-87, Section 10.3.1

Each question is 4 points