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Contents and Abstracts

7. Preliminary Study on Equipment Management in Gas Station under New Situation. Zhao Jun.

Abstract: The status and major task of equipment management in gas station is introduced, and the approaches to improving equipment management level are discussed as well.

Keyword: gas station, equipment management, discussion.

SAFETY MANAGEMENT

10. Discussion on Deepening Management of Near – Accident. Lu Xinchun.

Abstract: The article discussed how to improve the understanding of near – accidents management, debottleneck near – accidents reporting, strengthen statistics and analysis of near – accidents, and share the warning education effect on near – accidents.

Keyword: near – accident, management, discussion.

12. Analysis on Human error in the Oil Depot Safety Accidents. Zhang Peichun Cui Cunmei

Abstract: The reasons causing human errors were analyzed from the perspectives of human's psychological factors, physiological factors and the external factors such as environment. The countermeasures were proposed to improve comprehensively human reliability, minimize the individual errors, and reduce the safety risk of oil depot.

Keyword: oil depot, human error, reason analysis, countermeasure.

16. Analysis on Safety Problems of United Stations and Countermeasures. Wu Yandong, Gao Qiuhua, Wu Yuguo.

Abstract: The united station is the important part of oilfield surface gathering and transportation system, which is the place for oil and gas gathering and distribution, and is also the place where high risks exist and concentrate. Based on the analysis of danger factors in the site and medium of united station, the safety management methods in united stations and the safety prevention measures are introduced.

Keyword: united station, safe operation, danger analysis, prevention measure.

SAFETY TECHNOLOGY

19. Analysis on Safety Distance in Oil Depot. Wang Chuntao, Zhao Xinying.

Abstract: Thermal radiation damage is the main damage mechanism for pool fires in open air. The damage criterion of thermal radiation was discussed and the method to predicting damage radius of pool fires was proposed. Taking an oil depot as example, numerical simulation calculation on the damage radius of probable pool fire was performed, and then the setting of safety distance in oil depot was analyzed. Based on the numerical simulation calculations of pool fire radius, the necessity to further subdivide the first – order oil depot (station and yard) was presented, and the oil depots (station and yard) of volume more than one million cubic meters should be classified individually, which safety standard should be improved.

Keyword: oil depot, pool fire, thermal radiation, numerical simulation.

23. Detection Technology for Submarine Crude Oil Leakage. Liu Xin.

Abstract: The basic status of submarine pipelines home and abroad was briefly introduced. The detection technologies for submarine crude oil pipeline leakage including pipeline inside detection, outside detection, and the newly arisen real – time detection were introduced.

Keyword: submarine pipeline, leakage, detection.

STORAGE TECHNOLOGIES

27. Discussion on Improving Application Level of Oil Products Depot Automatization and Information Technology. Xu Shu.

Abstract: In order to improve the application level of oil products depot automatization and information technology, the influencing factors including optimization of equipment configuration, increasing

application software development level, and improving the application and management level of operator were discussed.

Keyword: oil depot, automatization, information, application.

29. Study on Selection of Highway Oil Distribution Technology. Yan Delin.

Abstract: Based on the analysis of configuration, features and comparison of highway oil distribution technologies of oil depot, the applicability of various technologies was proposed. The general principle for technology selection and the method to selecting automatic control modes, controller, and offloading system for highway oil distribution of oil depot was presented.

Keyword: oil depot, highway oil distribution, technology analysis, selection.

33. Application of Energy－Saving Hydraulic CNG Secondary Fueling Station. Lei Jianping, Zhou Sanping, Li Shan.

Abstract: The structure, process flow, features and operation status of energy－saving hydraulic CNG secondary fueling station were introduced, and the problems needing to be solved in operation were presented.

Keyword: CNG secondary fueling station, structure, operation, problem.

35. Thoughts on Oil Vapor Recovery Equipment Selection in Gas Station. Cheng Jiacheng, She Shuping.

Abstract: The working principles of oil vapor recovery methods common used in gas station, such as absorption, adsorption, condensation and membrane separation were introduced, and the advantages and disadvantages of these methods were analyzed. Based on the analysis and comparison, it was proposed that condensation combined with adsorption method is suitable for gas station. The case analysis results showed that using condensation combined with adsorption method, the gas station could achieve better economic and social benefits.

Keyword: gas station, oil vapor recovery, economic benefit, analysis.

ENVIRONMENT PROTECTION

38. Prevention of Water Pollution Caused by Gas Station. Hu Yiping.

Abstract: The hazards of water pollution and the reasons causing water pollution by gas station were introduced. The prevention measures for water pollution caused by gas station were proposed such as strengthening the maintenance of equipments, improving the implementation of rules and regulations, establishing effective contingency plans, allocating reasonably prevention and control material, and nurturing the good operation habit.

Keyword: gas station, water pollution, prevention and control measure.

40. Oil Vapor Recovery Process Based on Refrigeration Technology. Li Shaohua, Liu Baoyu.

Abstract: In the course of storage and distribution of oil products, there is large amount of evaporation loss, which not only cause energy waste, but also bring about environment pollution. Oil vapor recovery is the most effective method to solve the problem. The principle of oil vapor recovery based on direct refrigeration and the application of combination process on oil vapor recovery were introduced.

Keyword: refrigeration, oil vapor recovery, combination process.