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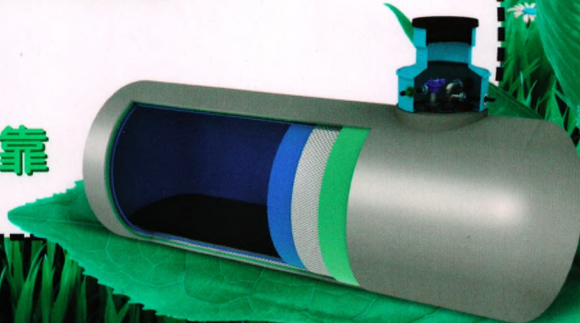
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Contents and Abstracts

STORAGE TECHNOLOGY

1 The Main Risks and Key Control Points of Double - Layered Tank Revamp in Gas Station. Lin Jiancheng.

Abstract: The revamp of double - layered oil tank in gas station is characteristic of tight time, heavy task and complex engineering, which involves seven kinds of high risk operations, including fire, lifting, temporary electricity, aloft work, blind plate plugging, moving earth, and entering restricted space. The construction process of tank pool and pipeline of double - layered tank is introduced respectively. On the basis of this, the control points for ten construction steps, such as bottom oil pumping and pipe flushing and then blocking blind plate, oil tank cleaning and nitrogen replacement, excavation of earth on the old tank area, old tank dismantling and lifting, excavation of new tank ditch and new tank area, new tank installation, earth backfill and filling water into tank, installation and commissioning of pipeline, completion acceptance, and disposal of waste tank and pipeline, are proposed respectively, which can provide reference for the construction and transformation of double - layered oil tank of gas station.

Key words: gas station, double - layered oil tank, revamp, construction, risk, control.

4 Application of Sand Blasting with Water - Cooling Technology in Anti - Corrosion of Oil Tank. Liu Weidong, Wang Zenghai.

Abstract: Due to the contradiction between rust removal and tank cleaning operations in oil depot, basing on the analysis of the advantages and disadvantages of manual derusting, derusting by electric tools, mechanical derusting technologies, the sand blasting with water - cooling technology is introduced. Taking an oil depot as an example, the working principle, advantages and disadvantages, scope of application, operation method and technical optimization of the technology are introduced. The application of this technology can greatly improve the work efficiency, reduce the generation of static electricity and dust, increase the safety factor of

construction, protect the working environment and save construction costs.

Key words: oil depot, storage tank, anti - corrosion, derusting, sand blasting with water - cooling technology, application.

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7 Discussion on Oil Vapor Recovery Technology in Overburden Oil Depot. Lu Xu

Abstract: Combined with the theory of gas phase molecular diffusion, engineering thermodynamics and chemical product enthalpy analysis, the oil volatilization, vapor recovery amount and energy loss in the process of gasoline storage in the overburden oil depot are analyzed. The results show that the closed oil vapor recovery technology is feasible, and its small breathing volatilization is lower than the national standard limit; the balanced oil vapor collection system can reduce oil vapor throughput by 90% during big breathing compared to the conventional oil vapor collection methods; the recovery process of adsorption and condensation is effective in energy - saving.

Key words: overburden oil depot, oil vapor recovery, process, comparison, discussion.

OIL AND GAS PIPELINE

11 Study on Interference Factors of High Voltage Transmission Lines to Ningbo - Shaoxing - Jinhua - Quzhou Oil Product Pipeline. Ruan Yigen.

Abstract: The interference of high voltage transmission lines to the buried metal pipe of SINOPEC Ningbo - Shaoxing - Jinhua - Quzhou oil product pipeline was analyzed and studied comprehensively. Using CDEGS software, the interference degree of different pipe diameters, pipeline wall thickness, conductor height, operation current, soil resistivity, parallel length of transmission line and pipeline, parallel spacing and crossing angle between pipeline and high voltage line on the induced potential, anticorrosive layer potential and pipeline current of pipeline were simulated and calculated. The influence law of various interference factors on pipeline was summarized and analyzed. Corresponding protective measures were put forward, which could provide reference for oil and gas pipeline protection.

Key words: oil product, oil pipeline, high voltage transmission line, interference, factors, research.

16 Failure Analysis on Start - Stop of Oil Pump of Pipeline Supervisory Control and Data Acquisition (SCADA) System. Xu Guoping.

Abstract: The control logic of automatic start - stop operation of the oil pump of the pipeline Supervisory Control and Data Acquisition (SCADA) system was briefly introduced, and the causes of start - stop failure of the oil pump of the SCADA system were analyzed. The corresponding measures and suggestions

were put forward to ensure the stable operation of the system and reduce the failure rate, which could provide reference for correct maintenance of oil pump.

Key words: oil pipeline, SCADA system, oil pump, failure, analysis.

SAFETY TECHNOLOGY

20 Discussion on Building Emergency Pool in a Crude Oil Depot. Zhang Su.

Abstract: According to the design requirements by the Provincial Safety Supervision Bureau of the corresponding measures for oil leakage in a crude oil depot, and the relevant regulations and rules to prevent the leakage of the accident liquid under the accident state, from volume of tank farm, design of fire dike, capacity of roadside trench, etc., three solutions, i. e. construction, and non construction of accident liquid collecting pool, or construction of an accident liquid collecting pool in the surrounding area of the oil depot, were put forward respectively. All the three solutions for the oil depot were reasonable and feasible, which could solve the problem of collecting accident liquid under the accident condition, and were approved by the Provincial Safety Supervision Bureau.

Key words: oil depot, accident, leakage, installation, emergency pool, discussion.

25 Review on the Present Situation of Fire Prevention and Safety System for Storage Tanks at Home and Abroad. Li Wenjing, Ma Zhiyu, Meng Hulin, Ma Weiping.

Abstract: Combining with the present situation of safety management of oil depots in China, the key technical problems of fire prevention and safety system for storage tanks are discussed. From the aspects of three - level prevention and control system, tank leakage detection technology, tank overflow control, flammable gas detection system, fixed fire extinguishing system, automatic foam fire extinguishing system, mobile fire extinguishing system and so on, the advantages and disadvantages, applicability and application of domestic and foreign technologies are introduced respectively. Suggestions for improving fire prevention and safety system of oil storage tanks in China are put forward.

Key words: oil depot, storage tank, fire prevention, safety system, technology, introduction.

SAFETY MANAGEMENT

30 Suggestions on the Role of Safety Inspection Team. Zhao Jing.

Abstract: In order to give the full play to the role of the safety inspection team, it is proposed that, firstly, the safety inspection team should be correctly positioned, the relationship between the safety inspection team and the safety office should be properly handled; secondly, the working content and focus of

the safety inspection team should be determined; thirdly, the members of the safety inspection team should have corresponding political and professional qualities; fourthly, a good working atmosphere should be provided for the safety inspection team; fifthly, a sound system on the safety inspection team should be established.

Key words: oil sales enterprise, safety, management, inspection team, construction, role.

34 Discussion on Promoting HSE Standardization in Gas Stations. Lü Yanli.

Abstract: Based on the practice of HSE standardization in the gas station of a city oil sales company, the main problems in the construction of HSE standardization of gas stations at present are analyzed from the aspects of staff flow status, self capability quality, equipment and facilities integrity management, HSE performance assessment, and full-time security team. The countermeasures are put forward, such as implementing human based management to stabilize the staff team, strengthening the safety training to improve the professional skills, optimizing the management process to improve the work efficiency, implementing the classification management to give play to the professional advantages, and strengthening the training of talents to enrich the professional technical team, to provide the reference for the promotion of the HSE standardization in gas station.

Key words: gas stations, HSE, standardization, construction, problem, countermeasures.

OPERATION MANAGEMENT

39 Analysis on the Role Change and Function Transformation of SINOPEC Financial Personnel after Financial Sharing. Zhu Dongyuan.

Abstract: On the basis of brief introduction of the concept of financial sharing and the current situation of implementing financial sharing in China and the

SINOPEC, it is pointed out that financial sharing can support the transformation of financial functions, realize the transformation from financial handling to decision support, from focusing on single enterprise to benchmarking the excellent enterprise, which is beneficial to supporting strategy, strengthening control, unifying standards, improving efficiency, cost reduction, overall promotion of core competitiveness and benefit creation ability. It is proposed that the financial personnel should convert the role from "account making" to "account calculation", from "passive service" to "active participation", from "consuming resources" to "creating benefit", and should have large data and real-time data analysis ability. Efforts to further improve the financial sharing work are prospected.

Key words: SINOPEC, financial sharing, financial personnel, roles, functions, changes, discussion.

42 Application of Analytic Hierarchy Process in Site Selection of Gas Stations. Xie Huazhong.

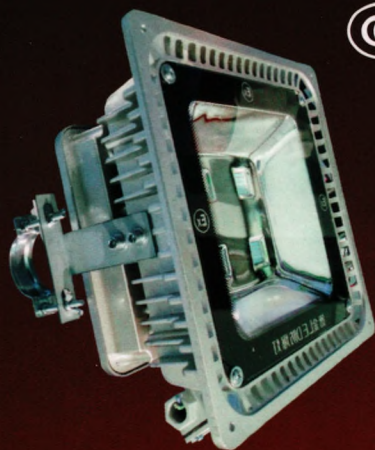
Abstract: In view of the problems of high development cost of gas station, fierce competition and difficulty in realizing the balance of quantity and efficiency at present, starting from five key indexes for evaluating the development of gas station, such as visibility, convenience, traffic flow, surrounding business circle and competitive environment, the correlation and affiliation of key indexes are determined by analytic hierarchy process. In order to determine the feasibility of the proposed development network, a hierarchical matrix is set up to determine comprehensively and quantitatively the weight and order of the proposed gas stations and the gas station in operation.

Key words: gas station, outlet, construction, location selection, feasibility, analytic hierarchy process, application.

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