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## Contents and Abstracts

### STORAGE TECHNOLOGIES

1 Application of Double - Layer Thermoplastics Pipeline in Gas Station. Zhen Yongqian, Liu Dong, Shan Xiaowen, Tao Bin, Zhang Weihua.

**Abstract:** The double - layer thermoplastics pipeline technology and the leak detection system of double - layer pipelines were briefly introduced, and the current problems existing in the application of double - layer thermoplastics pipeline in domestic gas stations are summarized. According to the absence of related standards and norms for the buried double - layer thermoplastics pipeline used in domestic gas stations, the advice is put forward that the relevant domestic departments should publish the standard and normative documents as soon as possible, in order to better promote the application of double - layer thermoplastics pipeline in gas station.

**Keywords:** gas station, non metal pipes, double - layer thermoplastics pipeline.

4 Oil Spill Risk Analysis and Prevention Strategy Research on Highway Automatic Oil Loading System. Li Rong.

**Abstract:** According to the analysis on the oil spill risk in current highway automatic oil loading system of oil depot, the definition of tank overflow time and anti overflow man - machine response time is put forward, and the evaluation method for overflow preventing ability of highway automatic oil loading system is presented. The oil spill risk prevention strategy for automatic filling of highway tanker is expounded, which is applicable to the design and construction of highway automatic oil loading system, and to the guide of the safety management of highway oil loading field as well.

**Keywords:** automatic oil loading system, tanker, oil spill, risk analysis, preventive measures.

8 Negative Pressure Test for Underground Oil Tank Leakage Detection. Xie Xinzhou.

**Abstract:** The negative pressure test of leakage detection for the underground tank is briefly introduced, which is the oil tank airtightness detection method certificated by the United States Environmental Protection Agency (EPA). It is an effective, fast, safe and convenient method for underground oil tank leakage detection with high adaptability. Since it is not necessary to empty the tank, the integral airtightness detection of oil tank can be achieved by this method with less impact on the oil station operation.

**Keywords:** underground oil tank, leakage detection, negative pressure detection.

#### GAS REFUELING STATION

11 Discussion on Feasibility of Implementing Boil - off Gas Recovery in LNG/LCNG Refueling Station. Chen Ziru, Xia Yunfeng, Yao Sansan, Li Hongjun.

**Abstract:** In order to reduce and eliminate the loss of boil - off gas in LNG/LCNG refueling station and achieve safe and environmental protection, on the basis of investigation, two process options were proposed: the recovered gas was introduced into the civil network nearby or CNG storage facilities in the gas refueling station. And the design schemes of the two kinds of recycling technology and equipment selection, investment estimation and cost recovery were presented as well.

**Keywords:** gas refueling station, boil - off gas (BOG), recovery, application.

15 Research and Application of Noise Reduction Measures in L - CNG Refueling Station. He Cai-ning.

**Abstract:** The noise sources in gas refueling station are introduced. In order to reduce the influence of noise on the physical and mental health of station staff and residents nearby, taking the Daqiao Station of SINOPEC in Foshan City, Guangdong Province as an example, the transformation for noise reduction was carried out, while the verification experiments are conducted. For the transient noise generated from the air gun exhaust, the noise was reduced by adding a return pipe to lead the air gun to buffer tank for discharge; for the noise generated on the vibra-

tion of piston pump, vaporizer and other equipments, the noise was reduced by installing sound insulation cover and concrete grouted base. The test results show that the noise reduction effect is obvious, which can meet the requirements of relevant national standards.

**Keywords:** gas station, noise, noise reduction, buffer tank, sound insulation cover, cement grouting.

#### OIL AND GAS PIPELINE

17 Discussion on Operation and Management of Oil Products Pipeline Surrounding City. Cao Guozheng.

**Abstract:** Taking an oil products pipeline around a large city as an example, the status quo of pipeline and the various causes of hidden danger of pipeline are introduced. The measures to strengthen the safe operation of pipeline are put forward, such as strengthening daily management of pipeline patrolling, establishing communication and linkage mechanism with relevant departments, enhancing the pipeline management technology, strengthening the construction of the pipeline emergency response, and working out practical emergency plan.

**Keywords:** peri - urban, oil products pipeline, safety management.

19 Quality Control of 3PE Joint Coating Material for Pipeline. Li Xiaoyue, Liu Xuhui.

**Abstract:** In consideration of that the 3PE joint coating construction quality is directly related to anti - corrosion and service life of pipeline, combined with engineering practice, the effect, material, performance, structure, and construction technology of widely - used heat shrinkable tapes (sets) is introduced, and the analysis of the reasons of anticorrosive coating quality problems and control measures of construction quality are emphasized.

**Keywords:** 3PE, oil pipeline, coating, quality control.

#### ENVIRONMENT PROTECTION

22 Occupational Health Management in Quality Inspection Room of Sales Enterprise and Occupational Disease Prevention. Li Baofeng.

**Abstract:** The measures to improve occupational health and occupational disease prevention of oil

quality inspector in oil products sales enterprise were discussed. The construction of quality inspection room should embody the " three simultaneous " of the occupational health management; and the occupational health of inspectors should be fully embodied in the health examinations before taking the post, on - the - job, and after leaving the post. The inspectors should implement strictly the relevant laws and regulations, and improve the occupational health management.

**Keywords:** occupational health, occupational disease, chemical hazards, protection.

25 Analysis on Oil Vapor Recovery System in Gas Station and Countermeasures. Huang Nan

**Abstract:** Based on the analysis of the various problems existing in the application of oil vapor recovery system in gas station, the main technical problems in oil vapor recovery system were found out. Through the continuous monitoring and testing on the operation of oil vapor recovery equipments in a gas station, collecting data, and analyzing the causes of problems, the solutions were obtained.

**Keywords:** gas station, oil vapor recovery, operation management, monitoring and testing.

#### SAFETY MANAGEMENT

29 The Hidden Danger of Traffic in Gas Stations and Management Measures. Zhang Yunpeng, Hou Xinran.

**Abstract:** The hidden safety problems in traffic safety management of gas stations were analyzed, such as converse running of vehicles, sluggish traffic, pushing in the line, disordered vehicles parking, and illegal left - turning when entering into or exiting from gas station. The harms were pointed out, and the measures to strengthen traffic safety management of gas station were put forward.

**Keywords:** gas station, traffic safety, safety problems, measures.

#### OPERATION MANAGEMENT

32 Exploration of Petrochemical Sales Business Development Mode through Application of New Technology. Zhao Liang.

**Abstract:** This paper discusses the application of mobile applications in the oil products sales enter-

prise to realize synergistic effect and polymerization effect of oil business and non - oil business with e - commerce, promote the conversion of customers from oil products business to both the oil business and the non oil business, push innovatively the development of the non - oil business and e - commerce, foster loyal customers, and enhance the overall service level. The application plan and realization method of mobile technology are put forward, and a preliminary prospect of the realized value and benefit are presented.

**Keywords:** mobile internet, e - commerce, smart phones, synergistic marketing.

37 Practice and Discussion on Manager Handover in Gas Station. Wang Yuelong

**Abstract:** In recent years, due to the extension and upgrading of gas station sales scale, some problems, such as loss of customers, decreased sales, debt collection, appeared after the new gas station manager took up the post, which explained the necessity to implement standardized, fine management, to replace the extensive management of the handover of gas station manager. According to the practice of handover of the gas station manager in recent years, the specific content of the handover, such as inventory check, assets transfer, personnel connection, long - term customer handover and some matters needing attention are put forward. The regulation of management of gas station manager handover is discussed briefly.

**Keywords:** work handover, standardization, post adjustment, fine management.

#### NON - OIL BUSINESS

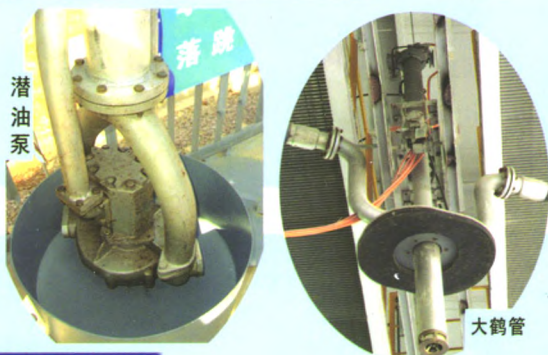
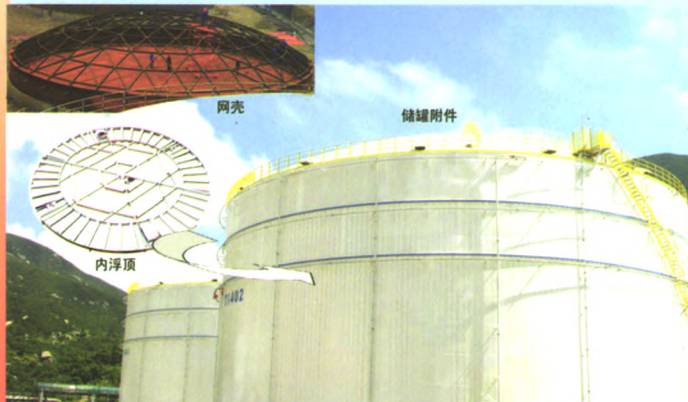
40 Discussion on Several Key Problems of O2O Operation Mode in SINOPEC EasyJoy Convenience Stores. Lin Jiancheng.

**Abstract:** The concept and advantages of O2O (Online to Offline) operation mode were introduced. And several key problems needing to be solved about establishing O2O operation mode in the Sinopec EasyJoy convenience stores were described.

**Keywords:** O2O mode, EasyJoy convenience store, value - added service.

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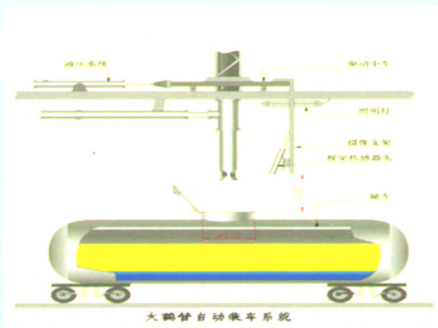
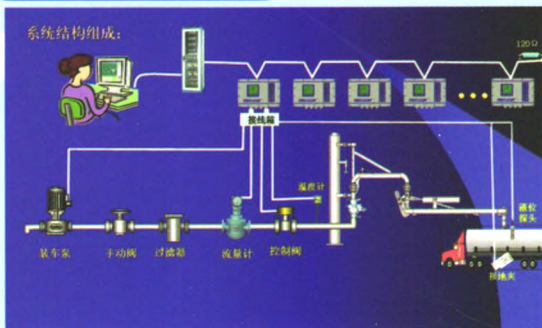
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