★中国核心期刊 (遴选) 数据库收录期刊

★中国学术期刊综合评价数据库 (CAJCED)统计源期刊

ISSN 1008-2263 CN 11-3945/TE

OIL DEPOT AND GAS STATION



SHIYOUKU YU JIAYOUZHAN



优必得石油设备(苏州)有限公司 www.opwglobal.com.cn

▮中国工厂





2016 **#** 6 **#**

第25卷 总第148期 Vol.25 Total No.148

万方数据



石油库的办证站

SHI YOU KU YU JIA YOU ZHAN

1992 年创刊(双月刊) 第 25 卷 第 6 期 总第 148 期 2016 年 12 月 20 日出版

编委会名誉主任:李春光 张海潮 编委会主任:左兴凯

副主任:郭飞鸿 王文联 王维民 王 靓

特邀顾问:吕 品 柴志明 **委**员:

张秀来 王洪川 徐福斌 张紫傲 冯培育 李玉杏 芮继强 陈必文 尹超明 任士宪 杜予斌 杨计明 黄 河 李一庆 郑京华 贾约鹏 罗开勇 阎 华 黄质利 柳湘滨 张天明 罗统华 牛竟民 王津培 韩庆跃 刘华斌 王 敏 韩 杰 王 安 戴福俊 周雪洪 夏凤梧 徐江桥 刘 胜 何 明 张 毅 卜文平 高劲松 杜道林 沈青祁 杜红岩 周家祥 韩 钧 金万刚 社长: 左兴凯

副社长:郭飞鸿 王文联

主编:王维民

副主编:金万刚

责任编辑: 齐凤云

主管:中国石油化工集团公司 主办:中国石化销售有限公司 编辑出版:《石油库与加油站》杂志社 国内发行:《石油库与加油站》杂志社 地址:北京市东城区广渠家园6号楼 303 室

邮编:100022

电话:(010)67006041;67006042

传真:(010)67006043

E - mail:sykjyz@ vip. sina. com **国外发行:**中国图书进出口总公司

国外发行代号:2263BM

印刷:廊坊飞腾印刷包装有限公司 厂址:廊坊市安次区永华道25号 邮编:065000

标准连续出版物号: ISSN 1008 - 2263 CN 11 - 3945/TE

广告许可证号:京东工商广字第8033号 国内定价:每册15元,全年90元

田田本刊对所教園 大排省 版材 「米路丸岩」本语诗或 或其制、茶符房 曾 毛 话 的 概例

目 次

| 储 | 运技术 | | |
|-----|---------------------------|------|------|
| 1 | 炼油厂储运系统助剂加注撬装化的设计 | 江 | 奎 |
| 3 | 某半地下覆土油罐换底大修施工的实践与启示 | 李 | 晓越 |
| 加气站 | | | |
| 6 | 基于高精度称重传感器的 LNG 加气站计量系统设计 | 闫 | 德林 |
| 9 | CNG 常规加气站主要工艺设备容量的匹配 | •••• | |
| | | 赵 | 永军 |
| 油 | 气管道 | | |
| 14 | 国内外油气管道清管技术的现状和发展趋势 | •••• | •••• |
| | 马志宇 蔡 亮 段秋生 | 马 | 伟平 |
| 安 | 全技术 | | |
| 20 | 水上加油站雷电防护的要点分析 刘冬冬 | 吴 | 彬 |
| 数 | 质量管理 | | |
| 25 | 地罐交接在零售损耗管理中的应用简析 | 张 | 海 |
| 28 | 油库油品质量管理中存在的误区及对策 | 詹 | 军 |
| 安 | 全管理 | | |
| 30 | 油气管道安全管理存在的问题及改进措施 | 严 | 文锐 |
| 33 | 加油站安全管理的重点内容 | 姜 | 伟 |
| 经 | 营管理 | | |
| 35 | 北京、沈阳、成都高端汽油营销要素的调查研究 | •••• | |
| | 张 蕾 赵春宏 | 王? | 梦茜 |
| 报i | 道及其他 | | |

- 5 《石油库与加油站》杂志 2016 年度合订本征订启事
- 19 2017 年《石油库与加油站》杂志征订启事
- 27 中国石化期刊研讨会在京召开
- 32 2016 年第 6 期广告目次
- 41 《石油库与加油站》2016 年总目次
- 44 《石油库与加油站》投稿须知



OIL DEPOT AND GAS STATION

Bimonthly, Started Publication in 1992 Vol. 25, No. 6 No. 148 totally Dec 20, 2016

Honorary Chairman of Editorial Committee: Li Chunguang, Zhang Haichao

Chairman of Editorial Committee: Zuo Xingkai Vice Chairman of Editorial Committee: Guo Feihong, Wang Wenlian, Wang Weimin, Wang Liang Special Consultants: Lu Pin, Chai Zhiming

Members: Zhang Xiulai, Wang Hongchuan, Xu Fubin, Zhang ziao, Feng Peiyu, Li Yuxing, Rui Jiqiang, Chen Biwen, Yin Chaoming, Ren Shixian, Du Yubin, Yang Jiming, Huang He, Li Yiqing, Zheng Jinghua, Jia Yuepeng, Luo Kaiyong, Yan Hua, Huang bingli, Liu Xiangbin, Zhang Tianming, Luo Tonghua, Niu Jingmin, Wang Jinpei, Han Qingyue, Liu Huabin, Wang Min, Han Jie, Xia Fengwu, Wang An, Dai Fujun, Zhou Xuehong, Xu Jiangqiao, Liu Sheng, He Ming, Zhang Yi, Bu Wenping, Gao Jinsong, Du Daolin, Shen Qingqi, Du Hongyan, Zhou Jiaxiang, Han Jun, Jin Wangang

Director: Zuo Xingkai

Vice Director: Guo Feihong, Wang Wenlian

Editor-in-Chief: Wang Weimin Vice Editor-in-Chief: Jin Wangang Editor-in-Charge: Qi Fengyun

Responsible Department: China Petrochemical Corporation (SINOPEC)

Sponsor: SINOPEC Sales Company

Publisher: Editorial Office of Oil Depots and Oil Stations

Distributor (**Domestic**): Editorial Office of Oil Depots and Oil Stations

Address: Building No. 6, Guangqujiayuan, Dongcheng District, Beijing

Postcode: 100022

Tel: (010) 67006041; 67006042

Fax: (010) 67006043

E-mail: sykjyz@ vip. sina. com

Distributor (Abroad): China National Publication Import & Export Corporation

Printer: Fei Teng Printing Co. Ltd of Langfang Address: No. 25, Yonghua Dao Ave Langfang

Postcode: 065000

ISSN 1008-2263; CN11-3945/TE

No. of Ad. License: 8033, Dongcheng District,

Beijing

Domestic Price: RMB90 per year

Copyright gor all originally published reports.

Contents and Abstracts

STORAGE TECHNOLOGY

1 Design of Skid Mount Process for Additive Injection in Refinery Storage and Transportation System. Jiang Kui.

Abstract: The traditional design and layout of the additive injection process in refinery is introduced, the problems existing in the traditional injection process are pointed out, such as difficult adjustment of location and fire spacing, hidden security risks, negative effect on clean production, large labor intensity and great injection loss. The design ideas of using skid mount process to combine the injection tank, metering pump, and meter into a whole package is proposed.

Key words: refinery, storage and transportation system, additive, injection, skid mount, design.

3 Practice and Enlightenment of Overhaul Construction of Bottom Replacement of Semi Underground Buried Tank. Li Xiaoyue.

Abstract: The organization procedures, practical methods of the construction of bottom replacement of semi underground buried tank and problems needing attention are introduced, providing experience for similar construction.

Key words: semi underground, buried tank, bottom replacement, construction, experience, introduction.

GAS REFUELING STATION

6 Design of LNG filling station measurement system based on high precision weighing sensor. Yan Delin Abstract: There are three sections needing precision measurements in the operation of LNG filling station, which are purchase measurement, storage measurement and filling measurement. Due to the limitation of measurement technique, there still remain some problems in these sections. Offsite Loadometer is used in the purchase section, so there are blind spots. In storage measurement, there is only pressure differential type liquid level meter available, whose accuracy is only suitable for safety monitoring, so it can not meet the requirements of measurement management and ex—

K7mm | ists some fuzzy points. Although mass flowmeter is applied in the filling measurement , there are pain points owing to its complex technology , high cost and big cold energy loss. By using high precision weighing sensor, this program aims to build a weighing system of LNG tank and complete the measurements in LNG purchase, storage and filling sections. The system consists of sensors and signal transmission and management software, its accuracy can reach 0. 1% or even higher. This system is all – in – one solution which can achieve all measurements in LNG purchase, storage and filling section.

Key words: high precision weighing sensor LNG filling station measurement

9 Determination of Main Process Equipment Capacity of Conventional CNG Refueling Station. Shi Danyang, Li Jianhua, Huang Biao, Ma Yue, Zhang Hexin, Zhao Yongjun.

Abstract: Combining the actual situation of equipments in some gas stations in Henan province, the capacity matching situation of main equipments and existing problems in conventional CNG refueling station with a common design capacity of 20 000 m3/d are analyzed. According to the project construction and operation experience, combined with the theoretical calculation, the matching principle, methods and suggestions for the determination of main equipments in conventional CNG refueling station are proposed to provide a reference for related gas refueling stations to determine the matching capacity of equipments.

Key words: CNG refueling station, main equipment, capacity, matching, determination, discussion.

OIL AND GAS PIPELINE

14 The Current Situation and Development Trend of Oil and Gas Pipeline Cleaning Technology at Home and Abroad. Ma Zhiyu, Cai Liang, Duan Qiusheng, Ma Weiping.

Abstract: According to the current situation of oil and gas pipeline cleaning technology at home and abroad, the type of pipeline pig, the basis for type selection, quality control of pigging operation, the pigging cycle, control and prediction of pig speed, pig tracking and location, and determination of safety area of pigging operation, as well as the foreign advanced experience of pipeline cleaning technology are introduced. Some questions existing in the domestic pigging technology are pointed out, such as the unsatisfied cleaning effect and the lack of unified standards, providing a reference for improving the level of domes-

tic pipe cleaning technology.

Key words: oil and gas pipeline, pipe cleaning technology, pipeline pig, introduction.

SAFETY TECHNOLOGY

20 Analysis on Key Points of Lightning Protection of Waterborne Gas Station. Liu Dongdong, Wu Bin.

Abstract: The configuration, development status and existing problems of waterborne gas station are introduced briefly. It is pointed out that the static electricity generates mainly in oil pipelines, storage tank area and refueling area, and the protection measures of lightning protection, anti – static for waterborne gas station are put forward, which can provide guarantee for safe operation of waterborne gas station.

Key words: waterborne gas station, lightning protection, anti - static, measures.

QUANTITY AND QUALITY MANAGEMENT

25 Analysis on Application of Ground Tank Transfer in Management of Retail Loss. Zhang Hai.

Abstract: The calculation method and component factors of retail loss in gas station are introduced. The difference of retail loss calculation before and after ground tank transfer is compared. An example is used to illustrate the benefits to retail metering management brought by the implementation of ground tank transfer, and some questions which attention should be paid to in the follow – up of ground tank transfer are pointed out, i. e. the tank volume should be confirmed, the influence of long distance transport on oil temperature should be considered, various means of monitoring should be applied to ensure the accurate data during ground tank transfer, and the oil delivery system in oil depot and gas station level gauge should be regularly reviewed.

Key words: gas station, loss, management, ground tank transfer, analysis.

28 Misunderstandings of Oil Product Quality Management and Countermeasures. Zhan Jun.

Abstract: The misunderstanding on the quality changes during the storage of blended oil of same product from different manufacturers or different batches, the hazard of water in tank bottom, the resin content variation, and the containers and apparatus cleaning, etc., existing in oil quality management are introduced. The countermeasures is proposed to carry out comparison test between quality inspection labs and internal validation, regular comparison using retained samples and blind samples, repeated comparison test, strengthen technical training of testing personnel, en-

sure the test environment and equipment up to standards, and carry out traceability and strict approval for inspection report.

Key words: oil product, quality management, misunderstanding, countermeasure.

SAFETY MANAGEMENT

30 Problems in Oil and Gas Pipeline Safety Management and Improvement Measures. Yan Wenrui.

Abstract: Based on a brief introduction of current status of the oil and gas pipelines in China, the current problems existing in oil and gas pipeline safety management are pointed out, such as the imperfect laws and regulations, unclear organization function of safety management, lack of a complete supervision system and technology, imperfect mechanism of enterprise HSE management and emergency coordination, weak consciousness of the pipeline safety. The measures of improving pipeline safety management are put forward: one is to perfect the relevant laws and regulations and enhance operability; the second is to strengthen the linkage mechanism of the government and enterprises; the third is to establish a unified regulatory coordination mechanism and implement regulatory responsibility; the forth is to promote advanced management system, strengthen the pipeline integrity management, and establish HSE management and emergency coordination mechanism; the fifth is to improve the professional quality of personnel and enhance public safety awareness.

Key words: oil and gas pipeline, safety, problem,

improvement, measures.

33 Key Content of Safety Management in Gas Station. Jiang Wei.

Abstract: Combining with the practical work, the key positions, key links and key points of safety management in gas station which should be focused on are summarized. The common problems of oil products in gas station prone to occur at the key positions, key links and key points and the solving measures are introduced, providing a reference for the safe operation of the gas station.

Key words: gas station, safety work, key content, introduction.

OPERATION MANAGEMENT

35 Investigation on Marketing Factors of Premium Gasoline in Beijing, Shenyang and Chengdu. Zhang Lei, Zhao Chunhong, Wang Mengqian.

Abstract: The marketing factors of premium gasoline in Beijing, Shenyang, and Chengdu were investigated. The basic definition, positioning, and investigation target of premium gasoline are presented, and the questionnaire content and investigation method are introduced. The investigation results are obtained about the four aspects of customer group characteristics, customer marketing preference, price acceptance, and specific oil survey, and the suggestions for premium gasoline marketing and pricing are proposed to provide the reference for the relevant enterprises to carry out premium gasoline marketing.

Key words: Beijing, Shenyang, Chengdu, premium gasoline, marketing, investigation, research.











国家标准参与起草者 3DFF油罐自主知识产权 国家科技创新基金项目 中国人保质量承保 专注石油/化丁/环保产品

SF双层油罐

可承受罐顶覆砂石重量和50吨车载荷作用

罩棚下SF双层油罐

可承受罐顶覆砂石重量和110吨重车载荷作用











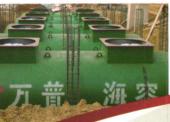


















山东万普海容石油设备科技发展有限公司

地址: 山东省滨州市经济开发区渤海24路799号 传真: 0543-5167333/5167111 邮编: 256600

服务专线: 400-188-0628

---www.oneupchina.com---

万方数据