

HKSAR Government's Risk-based Approach on Regulating LPG Installations in Hong Kong

香港特區政府以風險為本規管液化石油氣裝置

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Abstract

LPG has been introduced into Hong Kong for nearly 50 years, but its consumption still remains at a significant amount in the fuel market today. LPG is a clean and versatile fuel which can be liquefied and transported in bulk to the point of usage. However, due to its pressurized liquefied state and the necessity to store within close distance from the consumption area, LPG is a potentially hazardous substance if it is not properly handled.

Under the Gas Safety Ordinance, the Gas Authority shall not grant construction approval of LPG installations unless the Gas Authority is satisfied that the installation will not present an unacceptable risk to members of the public in the vicinity of the installation. In the pursuance of ensuring the LPG installation is of acceptable risk level, the Gas Standards Office of the HKSAR Government has developed a methodology to assess the risk associated with different types of proposed LPG installations.

This paper would also share with the audience the experience of HKSAR Government in implementing mitigation measures to bring down the risk level of those LPG installations which already existed before the introduction of the Risk Guidelines in the 1980's. Furthermore, a strategy on allocating resources to conduct surveillance inspections of LPG installations through adopting a risk-based approach would also be presented in this paper.

摘要

液化石油氣作為一種清潔和用途廣泛的燃料，並且可以在液化後大量運送到使用的地點，所以自60年代以來，至今一直在本地燃氣市場佔有顯著的份額。然而，由於石油氣在壓力下的液態特性和受到必須在使用地點附近儲存等條件限制，如果在處理的過程有欠妥善，液化石油氣可被視為具潛在危險的物品。

氣體安全條例規定，氣體安全監督在審批建造液化石油氣裝置的申請時，只可以在同意該裝置不會對附近公眾人士構成不能接受的風險之情況下，才可准予建造。為了確保擬建造之液化石油氣裝置的風險是可被接受的，氣體標準事務處就評估不同類型液化石油氣裝置的風險制訂了一套方法。

本港在80年代推出《風險指引》之前，部分液化石油氣裝置已投入運作。本文會分享香港政府如何就減低這些裝置的風險推行相應措施。此外，本文也會介紹如何利用以風險為本的方法，就液化石油氣裝置的巡查訂立資源調配的策略。

Biography

Solomon Wong is a senior engineer of the EMSD. He joined the Gas Standards Office in 1998, where he was responsible for technical safety and risk related to LPG storage installations. He participates in the Coordinating Committee on Land-use Planning and Control relating to Potentially Hazardous Installations (CCPHI) and provides advice in risk assessment studies. He holds an M.Phil. in Mechanical Engineering and an M.Sc. in Electronic Commerce.