

Macau Technical Visit to Nam Kwong Natural Gas Co. Ltd./ Venetian Macau / Galaxy Macau on 1 December 2018

By Ir Charles Chan

This visit to the 3 locations in Macau was co-organized by HKIE Gas & Energy Division and IGEM Far East District Section. A total of 38 participants joined this event.

In the morning, we arrived at Nam Kwong's depot at Coloane. We were received by a team of technical experts, led by their Managing Director Mr. Tang Zhaohui. Through their introduction, we gained a good understanding on natural gas use in Macau. The network of piped-gas started in 2013 in Coloane and is steadily expanding to hotels and residential developments in Taipa. And plans are in place to expand the network to mainland Macau to reach the old urban areas.



We visited their gas supply network control center, where real time information on various points of the network can be seen at a click of a button. We were later shown around their gas receiving station, where incoming gas is filtered, pressure adjusted, metered and odorized for distribution.



Use of compressed natural gas (CNG) for transportation is also embraced by Macau. Fleets of public buses and hotel shuttle buses have already been running on CNG. We had the chance to see this operation first-hand when we visited their tube trucks unloading and CNG fuel dispensing facilities at the bus depot.



Through the conversion of natural gas for residential, commercial and transportation use, Macau is able to enjoy cleaner emission, more efficient land use and enhanced safety.



In the afternoon, we visited Venetian Macau to look at their heat pumps. We were hosted by Mr. Syed Mubarak, executive director of MEP and plant operations for Sands China Ltd., who is also the Chairman of ASHRAE Macau Chapter. Syed gave us a detailed talk on Sands group's effort in energy efficiency improvement and waste reduction. We were all impressed by their various intensive and innovative efforts in these areas, and their aggressive targets for the coming years. After the talk, we were shown around their plant to have a look at the facilities.



After Venetian, we visited Galaxy Macau next door. There we were received by Mr. Eric Wong, Galaxy's Senior Manager - Plant Operations and Engineering. To start off, we had a tour of their LPG compound. There Eric introduced us the plant's layout, the vaporizers and pressure regulator systems. He also shared with us some operational problems they encountered in the past.



After the LPG facilities, we went backstage to look at plant facilities for the hotel. Eric shared with us their experience in setting up and operating the air conditioning system. His detailed and in-depth analysis of the issues and how they overcame them were very insightful, and we learnt a lot through the discussions.

It was a very fruitful day, starting off in the 08:30 ferry to Macau, and lasting till 17:30 before we finished at Galaxy Macau. All participants felt that it was a worthwhile day well spent.