

JCCP Launches New Project with Qatar Petroleum —New Project Signing Ceremony—

On September 22, 2010, JCCP and Qatar Petroleum (QP) held a signing ceremony for the “Study on Energy Efficiency Improvement, Corrosion and Fouling Issues at QP Refinery” at the QP Head Office. Mr. Hussain M. Al-Ishaq, Director Refining, Refining–Directorate, and Mr. Morihiro Yoshida, Managing Director of JCCP, signed the agreement under the witness of officials representing the two sides. The ceremony was attended by H.E. Mr. Yukio Kitazume, Ambassador, and First Secretary Mr. Yoshinori Satake from the Japanese Embassy in Qatar; Mr. Abdulaziz M. Al-Khoori, Operations Manager, Refining–Operations, and managers from other departments on the QP side; and Mr. Masahiko Hirajo, Director of Cosmo Engineering Co., Ltd., the project implementing company.

QP has recently commenced an HSE (Health, Safety & Environment) Managing Program in response to the currently heightened awareness concerning global environmental improvement. The program aims to implement full-scale environmental measures, such as by promoting the 4R (refuse, reduce, reuse, and recycle) concept, the supply of green products, reduction of gas emissions and waste, and improvement of energy efficiency.

According to Solomon Associates, a company that

measures the energy efficiency of worldwide refineries every other year, Qatar’s Energy Intensity Index (EII) indicates that it has room for more improvement compared to other Middle East/GCC countries. QP therefore regards energy efficiency improvement as one of its priority issues.

The project will apply refinery technologies and advanced energy conservation technologies that Japan has cultivated over many years, to assess the energy usage situation in the Mesaieed Refinery and to explore its potential for energy conservation through waste heat utilization and refining process modifications. It will also survey the state of corrosion and fouling in refinery facilities and examine the technical issues and economic efficiency of applying Japan’s proven corrosion technologies to the Mesaieed Refinery. Ultimately, it aims to establish countermeasures for reducing opportunities lost by the shutdown of operations and preventing accidents caused by problems stemming from material corrosion and fouling. In the area of operational efficiency improvement, a number of studies and projects have so far been implemented at the Mesaieed Refinery with the participation of Cosmo Engineering. They included a study of facilities to recover LPG from flare gas that is burned and released to the atmosphere from refining facilities, and studies on countermeasures for NOx contained in exhaust gas and measures for operational efficiency (maximization of throughput oil, etc.). QP is currently exploring ways of applying the results of these projects and studies to actual situations.

The new QP-JCCP joint project will be implemented as part of QP’s HSE program. Prior to its signing ceremony, Messrs. Al-Ishaq and Al-Khoori articulated their appreciation of JCCP for delivering many survey achievements during the past several years through JCCP programs, and also expressed their expectation and confidence that the new project will also produce significant results. Ambassador Kitazume stated that Qatar and Japan are “linked by a relationship based on



Right: Mr. Hussain M. Al-Ishaq, Director Refining,
Refining–Directorate
Left: Mr. Morihiro Yoshida, Managing Director of JCCP

energy supply and economic cooperation,” and voiced his expectation that the new JCCP project would further deepen cooperative ties between the two countries. Meanwhile, Mr. Yoshida assured QP that JCCP will provide follow-up support of the previous project on efficiency improvement in the Mesaieed Refinery and will contribute to developing the technical capacities of refining engineers through the project, and promised JCCP’s full cooperation in achieving those goals. Mr. Hirajo, as director of a subsidiary company of Cosmo Oil, which has become a QP shareholder by investing

in the Laffan Refinery, asserted the Cosmo Oil Group’s strong commitment “to deepen technical exchanges with QP in the future” as it engages in the new project and works to deliver consistent results.

On the day after the signing ceremony, Mr. Yoshida, Mr. Hirajo, and other members of the Japanese delegation visited the Mesaieed Refinery and inspected its facilities, thus completing the agenda of the signing ceremony.

Overview of the Planned Project

1. Project implementation period
April 1, 2010 – March 31, 2012 (two-year project)
2. Host refinery
QP Mesaieed Refinery
3. Participating company
Cosmo Engineering Co., Ltd.
4. Project goals
 - To examine and propose measures for energy efficiency improvement in refinery operations
 - To examine facility corrosion and fouling and propose countermeasures
5. Project details:
 - The installation of an air pre-heater in the furnace will be examined and proposed, for the recovery of heat from furnace fuel gas.
 - The processes involved in the utilization of an amine solution will be examined and proposed.
 - Measures for preventing corrosion/fouling in the condensate distillation column, diesel oil hydrodesulfurization unit, and continuous catalytic reformer will be examined and proposed.



Project agreement

<by Takeyoshi Haishima, Technical Cooperation Dept.>