

# JCCP NEWS

Special Issue

connected by technology, person-to-person

## Report of Activities Related to **Kuwait**



*FY2008 - FY2010*

Extracted from past issues of JCCP NEWS

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# “Human Resource Management & Development” for Kuwait (KNPC)

From February 2 to 13, 2009, JCCP held a twelve-day Customized Program-Japan (CPJ) on “Human Resource Management & Development” (CPJ-21-08) for a group of 15 members from the Human Resource Department of Kuwait National Petroleum Company (KNPC).

## 1. Background

This course was held as a follow-up to the Customized Program-Overseas (CPO) on “Human Resource Management (HRM)” (CPO-21-08), which was implemented in Kuwait last October. Initially, Mr. Ahmad Al-Mudaf, Director, Personnel Department, and Mr. Ali Abdullah, Team Leader, Career Development, took the opportunity of their visit to Japan in March 2008 to make the following two requests:

- (1) Implementation of a CPO and CPJ on Human Resource Development (HRD)

- (2) Time of implementation: CPJ is sometime between mid-June and early-July 2008, and CPO is sometime in January or February of the following year

After due consultation with the KNPC side, JCCP agreed to conduct a CPO on HRM in October 2008 and a CPJ on HRD in February 2009. However, during a meeting that was held after implementing the CPO last October, the KNPC side asked JCCP to design the subsequent CPJ so that it covers both HRM and HRD.

## 2. Course Overview

In the same procedure as a regular course, JCCP provided lectures on a general overview of HRM and HRD at JCCP Headquarters, followed by visits to three companies (including two refineries), where each company introduced practical examples. Then, the group learned HRD theory at a university.



Course participants:  
Tour of the training plant (Idemitsu Kosan Co., Ltd., Tokuyama Refinery)

(Lectures at JCCP)

- The situation of the oil industry and physical distribution in Japan
- Japanese-style HRM—transition and status quo, and HRD

(Onsite training and study topics)

- Idemitsu Kosan Co., Ltd., Tokuyama Refinery: HRM and TPM at a refinery
- JGC Corporation Head Office: HRM and HRD at an engineering company
- Nippon Petroleum Refining Co., Ltd., Negishi Refinery: Personnel, appraisal, and education systems in a Japanese oil company
- Meisei University, Hino Campus: General studies in training program planning (educational needs surveys, designing educational programs, evaluation of training results)

### 3. Course Details

#### (1) Japanese-style HRM—Transition and Status Quo, and HRD

Three days were spent on general lectures on HRM and HRD, divided into the following five parts:

Part 1:

Japanese history and Japanese mentality

Part 2:

Japan's post-war rapid economic growth and Japanese-style HRM

Part 3:

Recent social changes in Japan and changes in the HRM of Japanese companies

Part 4:

Issues and future direction of HRM in Japanese companies

Part 5:

Present state and future issues regarding HRD in Japan

The first day's lecture provided an insight into Japan's unique teamwork spirit and the reality of the rapid economic growth achieved by Japan, in reference to the two Japanese-style HRM practices of lifetime employment and seniority system. The

second day's lecture was on recent changes in Japanese society and companies, the performance-based system, and future HRM issues. The third day provided a lecture on general HRD focused on corporate education. The lectures intensively provided an overall understanding of the main theme of the course, and captured the participants' strong interest.

#### (2) Idemitsu Kosan Co., Ltd., Tokuyama Refinery: HRM and TPM at a Refinery

After a warm welcome by Mr. Shigeki Nakashima, Executive Officer and General Manager, refinery staff members gave a presentation on Idemitsu Kosan's basic philosophy concerning career development, principles of Total Productive Management (TPM), and examples of TPM activities. This was followed by an introduction of the refinery's training system, which boasts abundant experience in providing training to personnel from overseas, and a tour of the training plant. During the tour, young engineers of the refinery provided detailed explanations of actual examples of kaizen that were achieved through TPM activities.

The group seemed to take particular note of the green belt surrounding the refinery and other environmental considerations that are common to most Japanese refineries.



*At Idemitsu Kosan Co., Ltd., Tokuyama Refinery:  
Mr. Shigeki Nakashima, Executive Officer and  
General Manager (left of center)*

#### (3) JGC Corporation, Head Office: HRM and HRD at an Engineering Company

Mr. Eiki Furuta, Executive Officer, warmly



*Personality exercise using cards  
(JGC Corporation, Head Office)*



*Get-together with the KNPC Fourth Refinery  
Construction Project Team in Japan  
(JGC Corporation, Head Office)*

greeted the KNPC group and gave an introduction of the company. Then, staff members of the Personnel Department provided an overview of the company's personnel system, with particular reference to its present wage and personnel appraisal systems, followed by an introduction of employment practices, training systems, and various aspects of an engineering company, including career path planning.

The presentation by the Personnel Department provided a distinct understanding of both HRM and HRD in a well-balanced manner, in response to KNPC's request for a program that combines both HRM and HRD topics, and seemed to be easy to understand for all participants.

The last item on the training program at JGC Corporation consisted of a "game" of self-diagnosis and evaluation/categorization of others, using cards. The group seemed to enjoy this exercise as a fun approach to learning about HRM.

During their break, the group had the chance to get together with the team of KNPC engineers who are presently staying in Japan at the JGC Head Office to receive guidance and support for KNPC's fourth refinery construction project.

**(4) Nippon Petroleum Refining Co., Ltd.,  
Negishi Refinery: Personnel, Appraisal,  
and Education Systems in a Japanese Oil  
Company**

The company used to provide mainly classroom lectures at its head office, but has recently begun to provide training at its Negishi Refinery, along with a tour of the refinery site. After a welcoming

speech from Mr. Katsuhiko Matsui, Deputy Director, the group received a brief description and tour of the Negishi Refinery. In the afternoon, refinery staff members provided an overview of Nippon Oil Corporation's personnel system and personnel appraisal system, and discussed its education system in both general and specific terms.

The company's new attempt at adding an introduction and tour of the refinery to conventional classroom lectures at the head office lent variation to the program and left an impression on the participants.



*At Nippon Petroleum Refining Co., Ltd.,  
Negishi Refinery*

**(5) Meisei University, Hino Campus: General  
Studies in Training Program Planning**

This two-day seminar is regularly included in the JCCP regular course on Training Management. Mr. Tetsuo Ogawa, President of the university, opened the seminar with a welcoming address.

The seminar was conducted by Dr. Hiromasa Tanaka, Professor in the School of Humanities and Social Sciences, and comprehensively introduced



*Welcome address by Mr. Tetsuo Ogawa, President (right), and Dr. Hiromasa Tanaka, Professor (left), Meisei University*



*With Meisei University students in the Shakespeare Hall (Meisei University, Hino Campus)*

the necessary knowledge for implementing education and training programs, such as methods of surveying educational needs, designing educational programs, and evaluating the results of training. Owing to the professor's proficiency in English and to the incorporation of a workshop, the seminar was extremely well received by all participants and was a great success.

Graduate students who assisted in the seminar and students from Professor Tanaka's research laboratory joined the KNPC group for lunch and enjoyed friendly conversation with the participants, followed by a tour of the campus. The participants seemed to appreciate the precious opportunity to interact with Japanese university students, who even showed the group the university's proud collection of Shakespeare's rare original works and the original copy of Sugita Genpaku's *Kaitai Shinsho* (New Book of Anatomy), at which even Japanese people would marvel.

#### **4. Summary**

The members of the KNPC group were all from KNPC's HR Department. Two of them also participated in the CPO (for five days) held last October. With the oldest aged 46, and the youngest,

26, it was a young group with an average age of 32. Five members were women.

The group completed an extremely tight schedule, arriving in Japan in the late night before commencement of the twelve-day course, and leaving Japan on the day subsequent to the end of the course. As their only weekend in Japan was spent on taking field trips to Kyoto and Hiroshima, they did not have even a single day off to themselves. As expected, some members expressed their impression at the end of the course that "the itinerary could have been more loosely arranged." Nevertheless, most members took an enthusiastic part in the program and seemed to enjoy their field trips to Kyoto and Hiroshima, though February in those cities must have been extremely cold for them.

According to the evaluation form filled in after the course, the majority of the participants gave high marks to the course content, commenting, for example, that it was extremely helpful to their present work, and that the program provided more than they had expected. Judging by the looks of their contented smiles and attitude on the final day of the course, we believe that they enjoyed the program and left for home with a favorable impression of Japan. We, on our part, hope this course has contributed to securing stable oil supplies to Japan.

*<by Akio Hoshino, Training Dept.>*

# Customized Program on “Human Resource Management (HRM)” in Kuwait (KNPC) and UAE (TAKREER)

In October and November 2008, JCCP implemented a Customized Program–Overseas (CPO) on human resource management (HRM) intended for Kuwait National Petroleum Company (KNPC) in Kuwait and TAKREER in Abu Dhabi, UAE. Both seminars featured the same program.

## 1. Overview of the Seminar

The 5-day seminars were held at hotels in Kuwait and Abu Dhabi. Following a general introduction of HRM under the heading, “Transitions and Status Quo of Japanese-style HRM,” one day each was spent on more details of HRM practices applied by a Japanese oil company and an engineering company. In addition to the general introduction and details of HRM, another day was allotted to topics in “Kaizen,” namely, “General Overview of Kaizen” and “Introductions of Kaizen Examples in Refineries,” as requested by the counterpart organizations. These lectures were provided as an aspect of personnel education, from the approach of “cultivating a Kaizen mind.”

## 2. Seminar Program

The seminar was organized as follows:

### [Day 1, Day 2] “*Transitions and the Status Quo of Japanese-style HRM*”

Two days were spent on a general discussion of the main theme of the seminar, divided into 4 parts: (1) Japanese history and Japanese mentality; (2) Traditional Japanese-style HRM system; (3) Environmental changes surrounding Japanese society and companies today; and (4) Issues and future direction of HRM in Japanese companies.

### [Day 3] “*HRM System of Nippon Petroleum Refining Co., Ltd.*”

A detailed description was given of the company’s HRM system, in reference to its ability assessment

and performance-based compensation systems, which were newly adopted when the company revamped its HRM system in 2002.

### [Day 4] “*HRM System of JGC Corporation*”

The engineering company’s current HRM system was comprehensively examined, including its performance-based personnel, recruitment, and evaluation systems, which were introduced to the company several years ago in response to the general trend of the times.

### [Day 5] “*General Overview of Kaizen*” and “*Kaizen Examples in Refineries*”

This session was intentionally designed to first provide a general overview of the concept of Kaizen prior to introducing Kaizen examples in refineries. It invited participants to consider the meaning of Kaizen and examine the unique “Kaizen mind” of the Japanese people, by explaining the process of implementing Kaizen activities, the “5S” as a means to achieving Kaizen, and the “Toyota method” as a successful example of continuous Kaizen efforts. The session finally expounded on what is necessary for entrenching the Kaizen mind in the workplace.

In a closer examination, specific examples of Kaizen that Idemitsu Kosan Co., Ltd. has actually adopted in its refinery were introduced, with the addition of examples of other companies, in UAE. Visuals were used to provide easy comparison between “before” and “after” implementation of Kaizen, in an easy-to-understand presentation.

The good combination of general and detailed discussions seemed well received and appreciated by all participants.

## Kuwait



*Seminar participants*

### 1. Background

In March 2008, two gentlemen from KNPC, Mr. Ahmad Al-Mudaf, Director, Personnel Department, and Mr. Ali Abdullah, Career Development Team Leader, visited JCCP and requested a CPO-CPJ combination program on human resource development (HRD), on the occasion of their visit. Thereafter, members of JCCP's Training Department and the KNPC side held working discussions on the specific content and schedule of the program, and agreed to conduct a CPO on HRM in October 2008 and a CPJ on HRD the following February.

### 2. Dates of Implementation

October 12–16, 2008

### 3. Lecturers

Akio Hoshino (JCCP Training Dept.)

Takayoshi Watanabe (Personnel Department,  
Nippon Oil Corporation)

Yutaka Yamashita (Personnel Department,  
JGC Corporation)

Nakaha Nishikawa (Quality Control Division,  
Idemitsu Kosan Co., Ltd. Aichi Refinery)

### 4. Summary of the Seminar

- (1) The seminar was attended by 15 HR-related personnel. With the exception of one participant from the Shuaiba Refinery, all were from the HR Department in the Head Office. Due to the administrative nature of the seminar, more than half the participants, or 8 to be exact, were women.
- (2) In this CPO program, the Japanese team included a female lecturer, possibly for the



*Seminar venue*





Mr. Takahiro Watanabe  
from Nippon Oil Corporation



Ms. Nakaha Nishikawa  
from Idemitsu Kosan Co., Ltd.



Mr. Yutaka Yamashita  
from JGC Corporation

first time in JCCP history. In response to JCCP’s request for a lecturer to take charge of the segment of the seminar on detailed Kaizen discussions, Idemitsu Kosan Co., Ltd. referred Ms. Nishikawa from the Aichi Refinery. As we were uncertain as to whether a female presence would pose a problem in terms of religion, we checked with the KNPC side and were told that she would be “more than welcome.” Though this was Ms. Nishikawa’s first overseas assignment, she fulfilled her duty impressively with youthful energy and courage.

- (3) Upon completion of the seminar, the JCCP and KNPC sides agreed to implement a CPJ program on HRM and HRD in February 2009, as requested by KNPC.
- (4) The seminar took place in a hotel that is famous for its restaurant designed in the shape of the traditional *dhow* ship. Since this was the first time for all three members of the Japanese team from JCCP member companies to visit

the Middle East, they were delighted to have had the opportunity of this visit.

### 5. Visit to the Mina Abdullah Refinery and the KNPC Head Office

After completing the seminar, the Japanese members visited the Mina Abdullah Refinery, one of KNPC’s three refineries. After receiving a welcome from Mr. Sami Malallah, Operation Manager, they received a presentation on an overview of the refinery from Mr. Ahmed Al-Baghli, Senior Process Engineer. As Mr. Al-Baghli had just participated in a Study Tour on Practical Technology for Energy Saving (ST-21-07) this past February, he was full of good impressions of JCCP and fond memories of Japan. In his presentation, Mr. Al-Baghli mentioned an interesting plan that is being considered, to link the other two neighboring refineries (the al-Ahmadi and Shuaiba Refineries) with pipes to enable centralized operations.



Japanese members  
with the dhow ship



Presentation of the completion certificate

# Tailor-made Program on Practical Technology for Energy Saving Held in Japan for Kuwait (KNPC)

## 1. Background

In recent years, JCCP has placed primary emphasis on promoting tailor-made courses. As part of that scheme, an Expert Service (ES) program (a program conducted by Japanese experts dispatched to an oil-producing country) on “Energy Saving at the Refinery” (ES-20-07) was implemented in late October 2007. JCCP took the opportunity of the ES program to specifically propose a Study Tour (ST) program (a program held in Japan for a group of participants from a specific country) on the same theme, and the proposal was accepted by Kuwait National Petroleum Company (KNPC).

The ST program was held over a 10-day period, from February 26 to March 6, 2008, under the theme, “Practical Technology for Energy Saving (ST-21-07)”. Today, many countries are actively engaging in energy-saving measures at refineries, in response to increasing global concern over global warming and environmental issues. Kuwait is certainly no exception, and KNPC has even established a project team to promote company-wide energy-saving measures. Five engineers each from KNPC’s Shuaiba and Mina Abdulla Refineries participated in the recent program. The participants were carefully selected, in consideration of their field of expertise and career background, and composed a well-balanced group.

## 2. Program Content

The program was roughly divided into two parts. The first part consisted of lectures at JCCP Headquarters, by both JCCP lecturers and external lecturers.



At Mitsubishi Heavy Industries' Yokohama Works/Kanazawa Plant

The second part consisted of onsite training, aimed at providing first-hand experience in studying technologies and activities at various oil facilities. Visits were made to two refineries and two equipment manufacturers.

### (1) Lectures at JCCP

- Present state of Japan's oil industry
- Refinery energy-saving measures
- Latest energy-saving technologies (I)  
Improvement of heat efficiency by cogeneration; thermal/electric energy balance based on combined cycle systems; energy-saving methods for VVVF and other rotary equipment; high temperature combustion technology (HiCOT)
- Latest energy-saving technologies (II)

Overview of pinch technology; energy-saving designs for plants; new heat converter models; plant power recovery systems

The lectures on the latest energy-saving technologies, which provided

details of the functions and performance of the combined cycle system, HiCOT, and other advanced technologies, seemed to be highly appreciated by the participants, particularly because to many of them, it was the first time they have learned about the technologies in so much detail.

### (2) Onsite training

- *Cosmo Oil Co., Ltd., Yokkaichi Refinery*

The participants received lectures on the configuration of refinery equipment, framework and systems for promoting energy saving, and an introduction on various energy saving activities,



Lecture on the latest energy saving technologies (JCCP)



At Cosmo Oil's Yokkaichi Refinery



Lecture session at TLV International



Lecture session at Mitsubishi Heavy Industries' Yokohama Works



Training at Toa Oil's Keihin Refinery

followed by a tour of the production site. By observing actual onsite energy saving and small maintenance activities, the participants were able to gain helpful insight and tips on improving energy saving activities at KNPC.

- *TLV International, Inc., Kakogawa Head Office*

The participants received lectures on the thermal dynamic properties, applications, and functions of steam, and on the basic principle, structure, and maintenance management of steam traps. They were also shown a demonstration of equipment operations and received a tour of the equipment manufacturing shopfloor. The precise, easy-to-understand lectures, given in an impressively well-organized facility, were highly appreciated by all participants.

- *Mitsubishi Heavy Industries, Ltd., Yokohama Works/Kanazawa Plant*  
The participants received lectures on

various technologies, trouble cases, and improvement examples related to boiler facilities, as well as on the cogeneration system and improvement measures for steam turbines. The lectures were followed by a tour of the equipment manufacturing shopfloor, which was buzzing and busy with activity. The tour provided a precious experience for the participants, most of whom had never before observed the manufacture of large-scale boilers and turbines.

- *Toa Oil Co., Ltd., Keihin Refinery*

To acquire practical energy saving technologies, the participants learned about specific procedures for implementing energy saving activities, as well as details of the refinery's past achievements and specific examples related to energy savings, and exchanged views with refinery members. A lot of their questions dealt with the performance and characteristics of the heavy oil thermal cracking process unit, Flexi Coker, which is the core unit of the refinery.

### 3. Evaluation and Impressions of the Program

Though the program spanned a short 10-day period, visits to two refineries and two equipment manufacturers provided not only an overview of energy saving technologies, but also many opportunities for discussions and exchanges of views with Japanese engineers. In this respect, many participants gave high ratings to the program coordination and arrangement. More than half the participants mentioned that they would have liked the program to cover a longer period, of perhaps about two weeks, and that they wished they had more time at the refineries, to hold discussions particularly with young engineers. Yet, they indicated that the time spent at each site visited was largely satisfactory.

In regard to the content of the lectures, the introduction of trouble cases and their countermeasures was especially well-received. A participant

gave a representative opinion to the effect that, as maintaining the performance of various facilities and equipment is extremely important to promoting energy savings, it would be ideal if JCCP would incorporate these contents in future courses to a larger extent.

Additionally, a number of participants

commonly stated that they have not only gained technical knowledge through the program, but have also gained a strong impression of the social norms and standards that support Japan's industries and society.

KNPC, as well as all other refineries in Middle East oil-producing countries,

will be making further efforts to promote energy saving activities, along with measures to improve capacities and increase their corporate value, in the future. To respond to their needs, JCCP will carefully heed the requests and opinions received in this ST program, to improve future programs.

*<by Yoshiaki Ueno, Training Dept.>*

# Seminar on “Advanced Process Control” Held in Kuwait

## 1. Background

From October 28 to 31, 2007, JCCP held a joint seminar on advanced process control (APC) with Kuwait National Petroleum Company (KNPC), at a bijou resort hotel near the Head Office of KNPC and its 3 refineries. As with the KNPC seminar on “Energy Saving at the Refinery” that is introduced on pages 8-10 of this newsletter, this “Advanced Process Control Seminar” has also been implemented in response to proposals made by a JCCP promotion mission visiting the Middle East last April.

With the cooperation of Messrs. K. Nishioka from Nippon Oil Corporation and Y. Noguchi from JGC Corporation, Mr. Yuji Nito and I, Keiichi Saegusa, from JCCP organized and implemented the seminar in Kuwait.

## 2. Focus of the Seminar

We were aware that KNPC had already introduced advanced process control to its refineries, because there have been KNPC participants to JCCP-



*With seminar participants*

initiative courses on advanced process control. We therefore designed the seminar as a forum for sharing the control experiences and practices of Kuwait and Japan. Specifically, as shown below, the seminar featured case studies of refineries in the two countries, a Q&A session on development, introduction, maintenance, and training issues, a detailed explanation of model predictive control (MPC), which is the mainstream control method today, and key points for the implementation of control projects.

### *Day 1 (Oct. 28)*

- Opening ceremony
- Introduction of JCCP
- Outline of Advanced Process Control

### *Day 2 (Oct. 29)*

- Outline of Model Predictive Control
- Outline of Real Time Optimizers

### *Day 3 (Oct. 30)*

- Example of Advanced Control Applications from Japan

### *Day 4 (Oct. 31)*

- Example of Advanced Control Applications from Kuwait
- Discussion about APC-related Items

## 3. Overview of the Seminar

The seminar was attended by a total of 13 engineers in charge of APC, instrumentation, operations, and technical services in KNPC’s three refineries (the Mina Al-Ahmadi, Mina Abdulla, and Shuaiba Refineries). Unfortunately, not all participants were able to attend the seminar in full, due to their busy schedules, but there were consistently about five to seven participants to each session.

The seminar underscored the fact that both Kuwait and Japan have a



*At the Mina Al-Ahmadi Refinery  
Center: Mr. Asa’ad Al-Saad (Deputy Managing Director)  
Far left: Mr. Mohammad Al-Mutairi (Manager, Operations)*



At the Mina Al-Ahmadi Refinery  
Meeting with refinery staff members



Seminar scene

proven record in the introduction of APC, and that the application of APC to various types of equipment has produced significant results. KNPC has participated in the Solomon Survey, and has even been ranked among the top groups in the area of APC performance. One of Japan's concerns is that maintenance tends to be neglected during personnel transfers among development staff members, but Kuwait does not seem to be affected by this issue. The seminar also revealed some differences in management styles between the two countries. In Japan, a head office department that governs all refineries exercises control over production plans, facility expansion/remodeling plans, and all other company-wide plans. At KNPC, the head office does not have an organization for governing the technology sector, but instead, each refinery is held responsible for its own operations.

With questions ranging from basic questions concerning control to advanced technical questions on property estimation, the seminar covered a wide range of issues. Also through presentations of implementation case examples, KNPC members and we were able to share common experiences and engage in a constructive exchange of technical information.

#### 4. Visits to Relevant Facilities

On the day following the completion of the seminar, we visited the Mina Al-Ahmadi Refinery, where Mr.

Mohammad Al-Mutairi (Manager, Operations) hosted a presentation session on the history of the refinery and an introduction to its refinery operation training system (unified management of operation manuals, emergency response training for all types of emergency situations, etc.), which illustrated the refinery's committed stance on ensuring safety. We then received a tour of the facility. Despite the wide array of equipment that filled the site, the vast refinery was well-organized and clean, and showed no trace of oil or steam leaks. Additionally, all the equipment and piping were free of rust, and appeared to be properly maintained. There are plans to expand the refinery, which is hardly an issue, considering the wide open land still remaining around the present refinery grounds. Mr. Asa'ad Al-Saad (Deputy Managing Director) generously spared some time from his busy schedule, which included an inauguration ceremony for the new KNPC chairman, to greet us and join

us for lunch.

In the afternoon, we visited the Petroleum Training Center (PTC) of Kuwait Petroleum Corporation (KPC), and was introduced to the training center's programs by Mr. Fouzi Al-Qassar (Team Leader, General Training). The PTC boasts a huge building, and offers 360 different types of programs in response to the needs of each KPC subsidiary company.

We wish to acknowledge the support and assistance of Mr. Ali Abdullah (Team Leader, Career Development) and his staff, in making careful arrangements for the seminar and above visits. We would also like to extend our special appreciation to Ms. Haifa Al-Youha (Specialist, Career Development), for attending to us throughout our stay in Kuwait. JCCP extends its deepest gratitude to them; the successful completion of the program could not have been possible without their support.

<by Keiichi Saegusa, Training Dept.>



At the Petroleum Training Center  
Second from left: Mr. Fouzi Al-Qassar (Team Leader, Training)

# Seminar on “Energy Saving at the Refinery” Held in Kuwait

## 1. Background

From October 22 to 29, 2007, a JCCP team visited Kuwait to hold a seminar on “Energy Saving at the Refinery” (ES-20-07) under the Expert Service (ES) scheme. The team was comprised of Mr. Shigenobu Takahashi and I, Shinichi Satake, lecturers from JCCP’s Training Department, and Mr. Hisato Aoyama from JGC Corporation and Mr. Tsuyoshi Inoue from the Cosmo Group, as experts in the field.

One of JCCP’s recent priority issues has been the promotion of country-specific programs that are specially tailored to meet the respective needs of oil-producing countries in the Middle East, in addition to regular courses that are open to participation by various countries. Based on this policy of promoting tailor-made programs, a JCCP promotion mission visited several countries in the Middle East, including Kuwait, in April 2007. In response to themes and implementation drafts proposed by the JCCP mission,

Kuwait National Petroleum Company (KNPC; a subsidiary of Kuwait Petroleum Company (KPC) in charge of oil refining) readily consented, and formally requested a number of ES and ST programs. The recent seminar on “Energy Saving at the Refinery” was the first such seminar to be implemented following the JCCP mission’s promotion campaign.

As though to mark the fresh start of JCCP’s enhanced ES/ST programs, prior communications and preparations for the seminar proceeded more smoothly than ever before. To finalize details of the seminar, we lecturers met three times for discussions, prior to making the trip to Kuwait. We designed the program to include lectures on “global warming countermeasures” and “advanced process control for energy saving,” which are not offered in regular courses, enriched the content of other lectures, and unified the English translations of technical terms. KNPC’s Human Resources Department also worked with outstanding efficiency,

and notified us about pre-printing, the list of participants, and the detailed agenda of the seminar, well in advance, via e-mail communication. After our arrival in Kuwait, they attended to us with kind consideration and efficient professionalism, and greatly contributed to the successful implementation of the seminar.

## 2. Overview of the Seminar

On the day we arrived in Kuwait, we paid a visit to KNPC’s Human Resources Department in the Head Office. We met with Mr. Waleed Al-Hamad (Deputy Director), Mr. Ali Abdullah (Team Leader, Career Development), and Ms. Haifa Al-Youha (Specialist, Career Development), and discussed the details of the seminar schedule, as well as reconfirmed our commitment to promoting the friendly relations between the two organizations.

The seminar was held from the following day, over a period of four



*At the KNPC Head Office*

days, with the participation of 13 members from KNPC's three refineries (7 from the Shuaiba Refinery, 3 from the Mina Abdullah Refinery, and 3 from the Mina Al-Ahmadi Refinery). The attentive attitude of the participants as a whole, greatly contributed to making the seminar a substantive event. Following Arabic custom, the seminar was held each day from 8 o'clock in the morning to 2 o'clock in the afternoon, without lunch break. This style was effective in maintaining concentration in the seminar throughout the day's presentations.

### 3. Seminar Program

On the first day of the seminar, Mr. Takahashi and I showed a video presentation on "Introduction to JCCP," and lectured on "Overview of Japan's Oil Industry," "Oil Alternative Energies," and "Energy Saving Activities in Japanese Refineries."

On the second day, Mr. Inoue from the Cosmo Group gave a presentation on "Refinery Energy Saving 1," and introduced actual examples of energy saving activities through operational improvement and small capital investments. Following Mr. Inoue's lecture, Mr. Aoyama from JGC Corporation gave a brief introduction of "Pinch Technology," an energy saving measure for heat exchange systems, and Mr. Takahashi lectured on "Global Warming Countermeasures," which was specially included in this program. As the final speaker on this day, Mr. Jasem Al-Muhanna from KNPC spoke on "Energy Saving Activities in KNPC." This included a description of a company-wide energy-saving campaign that a 14-member project team carried out over a period of six months from April 2007 (raising air-conditioning temperature settings from 19 to 23°C, turning off unnecessary lights, etc.). Apparently, however, full-scale energy conservation activities (efforts to improve energy consumption rates) are yet to be initiated by the

refineries. Moreover, power generation by refineries is still beyond their territory at present, because the power generation sector is controlled by the government (Ministries of Electricity and Water).

The third day's lectures were essentially the highlights of the seminar. In "Refinery Energy Saving 2" (Mr. Inoue), "New Energy Policies in Japan" (Mr. Takahashi), and "New Technologies for Energy Saving" (Mr. Aoyama), the three lecturers discussed the rearrangement of heat exchangers, direct charging systems, APH installation, and many other examples of large-scale capital investments, as well as introduced a variety of new energy saving technologies, such as internal separation-type distillation columns, regenerative furnace burners, new heat exchangers that provide higher heat-transfer efficiency, and their implementation examples. The information-filled lectures and active discussions made for an exciting and fulfilling day.

On the fourth and last day of the seminar, the four of us respectively gave lectures on "IPP at a Refinery," "Utility Optimization," "Estimation of Energy-Saving and Promotion," and "Advanced Process Control for Energy Saving." In the lecture on advanced process control, which was specially included in this seminar, the participants showed strong interest in learning that model-based predictive control

(MPC), real time optimizer (RTO), and other such new process control technologies play a significant role in energy conservation.

After the final lecture, a closing ceremony was held with the attendance of Mr. Waleed Al-Hamad, Mr. Ali Abdullah, and other members from the HR Department. We presented completion certificates that had been prepared in advance in Japan to each participant, and took a commemorative picture with the entire group.

Evaluation forms filled out by the participants indicated that the seminar was satisfactory and well-received by all. Furthermore, the attendance of Mr. Hideyuki Urata, First Secretary at the Japanese Embassy in Kuwait, at the third day's program and the fourth day's closing ceremony, despite the short duration of the seminar, was appreciated by the KNPC side. It also inspired strong motivation on the part of us lecturers. During free periods before, during, and after the seminar, we took the opportunities to visit the KPC Training Center, the Mina Abdullah Refinery, the Kuwait Office (Japan Desk) of the Japan Cooperation Center for the Middle East (JCCME), and the Kuwait International Fair, which was being held at Kuwait's largest exhibition center. Through these visits, we were able to acquire precious information that could contribute to further enhancing JCCP activities in the future.



*At the Hilton Kuwait Resort Hotel, the seminar venue*





*Presenting JCCP completion certificates*



*Closing ceremony  
(third from left: Mr. Hideyuki Urata, First Secretary at the Japanese Embassy in Kuwait)*

#### **4. Summary**

To the relief of all parties concerned, the first seminar in the Middle East that was conducted under JCCP's new policy of promoting tailor-made courses in response to specific needs in oil-producing countries was completed in success. Unlike regular courses that are offered in Japan, such tailor-made programs are attended by members from a certain counterpart organization only, and lectures can focus on issues specific to the relevant country, in line with requests from the counterpart.

Therefore, the transfer of technical information and discussions between the lecturers and participants are held efficiently, and are highly meaningful to both sides. As things stand, the selection of participants is placed entirely in the hands of the counterpart organization, but in the future, an even more careful selection of suitable participants with sufficient knowledge and experience is expected to enhance the quality and significance of these programs. JCCP also intends to routinely upgrade its lectures and win the trust of its counterparts, to continuously improve its tailor-made programs.

An ST program on energy saving for KNPC engineers is scheduled to be implemented next February, based primarily on practical training in Japan. JCCP is extremely pleased to have such opportunities of technical exchange with Kuwait, a country with one of the richest oil resources in the Middle East, and is strongly committed to strengthening and developing this important bond.

*<by Shinichi Satake, Training Dept.>*

## Report on the Cooperation with Training Center Program —Kuwait and Saudi Arabia—

A JCCP delegation visited Kuwait and Saudi Arabia from October 11 to 21, 2009, under the Cooperation with Training Center Program to exchange views with the counterparts of JCCP regular courses regarding their evaluation of the courses and future needs. The delegation especially emphasized that JCCP will launch long-term CPJ programs and new regular courses in fiscal 2010, to provide even more practical training than before.

### Kuwait

In Kuwait, the delegation's main destinations included the head office of Kuwait National Petroleum Co. (KNPC), KNPC's Mina Abdullah Refinery, and the Leadership Development Center (LDC) and Petroleum Training Center (PTC) of Kuwait Petroleum Corporation (KPC).

Under the leadership of KPC, the oil industry in Kuwait is promoting corporate reforms in an effort to develop companies that are capable of pursuing results and gaining a global competitive edge. Human resource development, in particular, is regarded as an important part of corporate reform, and initiatives are being implemented toward the development of human resources—from leaders to

field operators—with an emphasis on real ability.

At KNPC's HR Department, which sends the largest number of participants to JCCP every year from Kuwait, Mr. Waleed Al-Hamad, Assistant Manager, introduced to the delegation its human resource development programs and a check sheet of strict standards that KNPC uses to evaluate the effectiveness and results of refinery engineers.

At KPC's Leadership Development Center (LDC), Ms. Salma Al Hajjaj, Director, described LDC as an institution established specifically for the purpose of developing top management personnel, and explained that potential top management candidates are registered in a database from early on to provide education and training from a company-wide perspective.

At the Mina Abdulla Refinery, managers who participated in a JCCP course in the past shared their expectations and requests with regard to JCCP training. Mr. Mohammed G. Al Mutairi, Deputy Managing Director, in particular, expressed deep understanding of JCCP activities, as one who has participated in JCCP training programs twice. He spoke about his impression of the Japanese people's work ethic and Japanese-style management practices, and about how the knowledge he gained



*At KNPC's Mina Abdulla Refinery  
Mr. Mohammed G. Al Mutairi, Deputy Managing  
Director (fourth from right), and other officers*



*At KPC  
Ms. Salma Al Hajjaj, Director, Leadership Development  
Center, KPC (fourth from left)*



*At the Saudi Aramco Head Office  
Ms. Huda M. Al-Ghpson, General Manager,  
Training & Career Development (second from left)*



*At the Ras Tanura Refinery  
Mr. Al-Sultan, Maintenance Manager, RT Refinery  
(second from left), and JCCP graduates*

through JCCP personally benefited him in his career thereafter, and expressed his strong desire to continue sending as many refinery personnel to JCCP courses as possible in the future.

## **Saudi Arabia**

In Saudi Arabia, the delegation mainly visited the following five destinations: the Saudi Aramco Head Office, the Ras Tanura Refinery, the Ras Tanura Training Center, the Eastern Province Branch of the Ministry of Petroleum and Mineral Resources, and a Saudi Arabian government office in charge of human resource development.

At the Ras Tanura Refinery, the JCCP delegation held a meeting with JCCP graduates in the company of Mr. Al-Sultan, Maintenance Manager, and obtained their views on how JCCP training is helping them in their current workplaces, as well as their expectations and requests for improvement in regard to JCCP. There were those who said they developed an interest in Japanese corporate management as a result of their exposure to Japanese companies through JCCP training, and those who said they wish to learn how to apply Japanese-style management to Saudi Arabia. Others requested a training program that not only offers classroom lectures but places more emphasis on providing practical knowledge.

At the Ras Tanura Training Center, the JCCP delegation toured the center's training plant that

operates very much like a real plant and large training facility that is comparable to a vocational school in scale, while receiving detailed descriptions from Mr. Al-Hamdan, Supervisor, NA Industrial Training Dept., and managers of other departments.

At the Saudi Aramco Head Office, the JCCP delegation exchanged views with Ms. Huda M. Al-Ghpson, General Manager, Training and Career Development, who explained that Saudi Aramco is currently concentrating its efforts on developing leadership. According to Ms. Al-Ghpson, Saudi Aramco seeks two specific abilities in potential leaders: the ability "to forecast the future of the oil industry from a global perspective, establish concrete targets, and see those targets through to the end," and the ability "to efficiently organize and develop younger workers who adhere to new values."

At the Ministry of Petroleum and Mineral Resources, H.E. Mr. Yahya J. Shinawi, Director General, spoke about the ministry's initiatives for capacity development of its staff members, with a view to creating environmental and safety criteria for the oil industry in Saudi Arabia.

The visits to Kuwait and Saudi Arabia yielded the understanding that both countries place strong emphasis on human resource development as a priority issue, that they have a high regard for the basic qualities of the Japanese people, culture and customs, and also for Japanese-style management. Furthermore, the JCCP delegation noted that oil-

producing countries have strong interest in training programs that include lectures on kaizen, TPM and TQC activities. In light of such new needs in Saudi

Arabia and Kuwait, JCCP acknowledges that it must further enhance and improve its training courses in the future.

*<by Masumi Kitahara, Administration Dept.>*



*With H.E. Mr. Yahya J. Shinawi, Director General of the Eastern Province Branch of the Ministry of Petroleum and Mineral Resources (second from left)*

# Report on the Cooperation with Training Center Program (Iran, Kuwait, Saudi Arabia, Bahrain)

From November 8–18, 2008, a five-member JCCP delegation visited four countries in the Middle East, to hold working-level conferences with JCCP counterpart training departments in those countries. The delegation specifically sought to introduce the FY2009 JCCP regular course program, promote and propose the implementation of customized programs (CPO/CPJ) that are designed in response to specific needs in each country, and to exchange views with JCCP counterpart personnel. The members of the delegation were Mr. Akio Yamanaka, General Manager, Operations Department, Mr. Yasuo Tabei, Master Lecturer, Training Department, Mr. Shoichiro Yagi, General Manager, Middle East Office, Mr. Toshimi Kinoshita, General Manager, Riyadh Office, and Miekko Onai, Manager, Operations Department.

Each of the four countries sends participants to JCCP courses on a continuing basis, and plays an important role in sustaining JCCP cooperation. For this reason, personally meeting with people in charge of or involved in sending participants to JCCP courses and directly obtaining their views and requests have proved to be extremely meaningful in further strengthening cooperative relationships. The visits also presented an ideal opportunity to explain in person course details that could not be fully communicated by writing only, and to promote JCCP activities planned for the coming fiscal year.

## 1. Iran

On November 10, the delegation visited the Head Office of National Iranian Oil Refining and Distribution Company (NIORDC) located in Tehran, and held a meeting with Mr. Saeid



*At the NIORDC Head Office,  
with Mr. Saeid Mahjoubi, Deputy Director,  
Production Coordinator & Supervision (second from left)*

Mahjoubi, Deputy Director, Production Coordinator & Supervision. NIORDC sends many participants to JCCP each year, but in order to secure its continued participation, the delegation provided an overview of FY2009 regular courses, as well as proposed the implementation of customized programs. After due consideration, Mr. Mahjoubi stated that he wishes to place priority on receiving a customized program



*At the NIORDC Esfahan Refinery,  
with Mr. M. Aghanejad, Managing Director  
(fifth from left)*

on safety management, saying that he would like NIORDC employees to learn about the Japanese mentality of preventing accidents from occurring in the first place.

After the meeting, the delegation met with Mr. Aminollah Eskandari, Director Refining Affairs, who expressed his growing expectations in JCCP's cooperative framework.

On the following day, the delegation visited the Esfahan Refinery. After receiving a warm welcome and engaging in a follow-up discussion with Mr. M. Aghanejad, Managing Director, and other JCCP graduates, the delegation members toured the site and gained an overall understanding of the refinery's operations.

During this trip, the delegation also had the opportunity to visit the Tehran Head Office and Esfahan Branch Office of National Iranian Oil Products Distribution Company (NIOPDC), a subsidiary of NIORDC specializing in logistics,



*At the NIOPDC Head Office*



*At the NIOPDC Esfahan Branch Office*

from which the numbers of participants to JCCP regular courses have been increasing during the past few years. The meeting at the Head Office was attended by Mr. Rahman Ghasemi, Director of Human Resource & Training, and many other members who participated in a customized program (Human Resource Management & Development) held in Japan last February for a study group from Iran. As they were familiar with JCCP regular courses, they offered diverse opinions and requests for future regular courses. At the Esfahan Branch Office, the delegation met with Mr. Farazmand Mohammad, Manager, Esfahan Region, and Mr. Soleiman Malakan, Deputy of Commercial Department, both of whom participated in a JCCP regular course in the past, in addition to a number of other personnel, and gained an understanding of the current state of an oil logistics facility in Iran.

## **2. Kuwait**

On November 13, the delegation visited Kuwait National Petroleum Company (KNPC) and held a meeting with a number of key personnel, including JCCP counterpart Mr. Ali Abdulla, Team Leader, and Ms. Saud Abdullatif A. Al-Awadhi, Senior Specialist, both from the Career Development Division, HRD, Ms. Haifa Al-Youhah, Specialist, Mr. Mohammad J. Burahmah, On-the-Job Training (OJT) Personnel, and Mr. Deven Kotecha, Safety, Health & Environment (SH&E) Training Personnel.

In addition to receiving participants from KNPC to regular courses, since 2004 JCCP has implemented four customized programs in Kuwait and one in Japan. In the meeting, the KNPC side requested the implementation of a new course on the environment, with a focus on safety, health & environment (HSE), an area that KNPC is particularly seeking to reinforce within its HRD structure. The KNPC side also maintained that JCCP training is an indispensable part of their HRD system.

As KNPC is also striving to promote the OJT system, the KNPC members provided an overview



*Meeting at the KNPC Head Office*

of in-house OJT training and SH&E training. The delegation members felt that the training system chart and evaluation table that the company actually uses could be useful references for JCCP training as well.

KNPC invests a substantial amount of expenses in training its 5,000 employees. Its HRD system aims to assign the right people to the right places, and fosters human resources with care, so that each person can exercise his or her full potential. In regard to engineers, its policy appears to be to provide thorough education on safety management issues and attitude from the early stages of employment. Based on this understanding of KNPC's commitment to training its employees, JCCP should perhaps reexamine how it can continue contributing to KNPC through its training programs.

### **3. Saudi Arabia**

On November 15, the delegation visited Saudi Aramco's Ras Tanura Refinery. Regardless of it being the beginning of the week in Saudi Arabia, 13 people turned out for the meeting, including Mr. Lloydie A. Jonson, Assistant to Vice President, Refining, who is also JCCP's counterpart at Saudi Aramco, and training coordinators for gas operations from Saudi Aramco's other refineries and oil fields. The meeting provided an ideal stage for presenting an overview of regular courses and

customized programs to many training managers all at once. There have been increasing numbers of Saudi Aramco participants to regular courses during the past few years, and there are plans to hold a customized program at the Ras Tanura Refinery again this fiscal year in December and January, following those implemented during the previous year. Therefore, the Saudi Aramco side showed strong interest in regular courses and customized programs for FY2009, and in the end requested a course on gas operations.

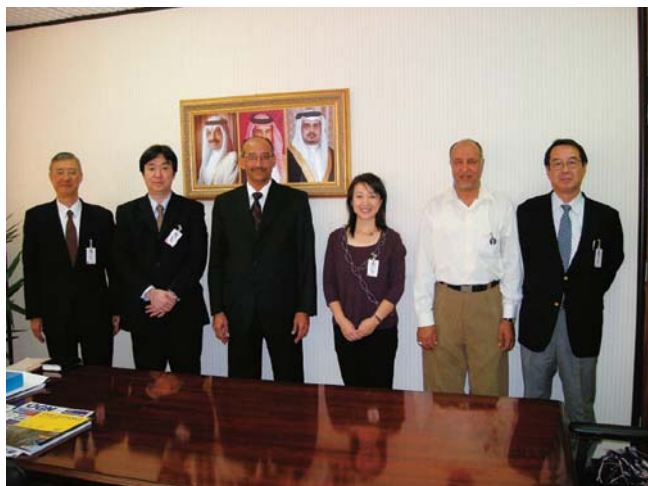
Among themselves, the training coordinators discussed measures for streamlining the feedback of participants' requests of JCCP courses, as well as the series of procedures from announcing course offerings within Saudi Aramco to sending in applications. Hopefully, their discussion will facilitate smoother coordination between Saudi Aramco and JCCP in the future. The meeting also produced specific requests relating to course improvements. JCCP will consider these requests seriously, and reflect them in the management and operation of future courses.



*At Saudi Aramco's Ras Tanura Refinery, with participants of the meeting*

### **4. Bahrain**

On November 16, the delegation held a meeting at a refinery operated by the Bahrain Petroleum Company (BAPCO), with Mr. Mohamed Abdulla



*At BAPCO, with Mr. Mohamed Abdulla Al Jamea, General Manager, Human Resources & Administration (third from left)*

Al Jamea, General Manager, Human Resources & Administration, and JCCP counterpart Mr. Ali Salman Ali, Superintendent Technical Training. Due to its small population, Bahrain has so far sent only a small number of participants to JCCP courses compared to other Middle East countries, but there has been steady participation from Bahrain every year since 1990.

BAPCO also enjoys a strong cooperative relationship with Japanese companies. As Mr. Al Jamea has stated, BAPCO is extremely grateful for JCCP's technical assistance, and holds particularly strong expectations of training in the operational maintenance sector. In addition to JCCP regular courses, however, BAPCO would also like to participate in courses initiated by JCCP member companies.

## 5. Summary

During its recent visit to the Middle East, the JCCP delegation not only visited oil companies in oil-producing countries, but also paid courtesy calls on the Japanese Embassies in Iran and Bahrain and gained a deep understanding of current situations in the countries visited. At the Japanese Embassy in Bahrain, the delegation members had the opportunity to meet with H.E. Mr. Takeshi Kondo, Ambassador

Extraordinary and Plenipotentiary, who emphasized the significance of Bahrain to Japan. He stated that "Bahrain may not produce as much oil as other countries, but it plays an important role in securing the navigation safety of tankers." At the Japanese Embassy in Iran, the delegation obtained invaluable information on current situations in Iran from Mr. Toshiyuki Shirai, Head of the Economic Section. Mr. Shirai showed support of JCCP activities by expressing his conviction that continuous, hardworking activities over a long period of time, like JCCP activities, are what is most necessary to Iran today. The delegation also visited Yokogawa Electric Corporation's offices in Saudi Arabia and Bahrain, and obtained significant insight into the countries through the eyes of a Japanese company that has succeeded in making inroads into the Middle East region.

In each country, the percentage of young employees is beginning to increase along with the increase in population, and many companies are hoping to have them learn from Japan, not only in regard to technical capabilities, but also such spiritual aspects of the Japanese as their diligence and sense of responsibility toward their work. To many organizations, this is an extremely important aspect of JCCP activities, and one for which they have great expectations. At the same time, however, some countries have articulated their honest opinions of JCCP courses without reserve. These opinions will be reviewed and reflected in the planning and implementation of future courses.

Over the years, JCCP has established close bonds of friendship with Iran, Kuwait, Saudi Arabia, and Bahrain. However, the recent visits have provided the delegation with the opportunity to reaffirm the importance of continuously doing the utmost to support counterpart countries and making steady cooperation efforts through JCCP activities.

I would like to take the opportunity of this report to send my warmest and sincerest appreciation to everyone who has supported us throughout our recent trip through the four countries in the Middle East.

*<by Mieko Onai, Operations Dept.>*





### Gas Processing for LNG

(TR-15-08: November 4 – November 21, 2008)

**Mr. Khaled Mane Fahad Al-Ajmi (KNPC / Kuwait)**

On behalf of the TR-15-08 "Gas Processing for LNG" participants, I would like to express my appreciation to JCCP management, staff and the wonderful country of Japan.

I used to think of Japan simply as a modern country with high-rise buildings and large beautiful bridges, but I have discovered that it is also a verdant country with virgin forests. During my stay in Japan, I realized that Japan has become a leader in the world because the Japanese people are united together, honest, creative and cooperative, and take pride in their history, culture and traditions.

I think the "Gas Processing for LNG" course was extremely beneficial. JCCP staff efficiently provided a wide range of information, as they delivered lectures on LNG development and production and the applications of LNG, and took us to LNG-fired power plants and companies that manufacture heavy equipment that use LNG.

During the course, we visited various cities in Japan, including Tokyo, Himeji, Kyoto, Yokohama and Ichihara. In Tokyo, we attended many lectures: Japanese Economy, Outline of Petroleum Industry, Global LNG Market, Steel Pipe Technologies, Development and Production of LNG, Outline of LNG Plant, and Natural Gas to New Energy Development. After the excellent background on LNG, JCCP showed us the diverse industrial applications of LNG. In Himeji, we visited a terminal where LNG is received in Japan. Then we visited LNG power stations 1 & 2, which utilize LNG-fired gas turbines to produce electrical power. The gas turbines are manufactured by Mitsubishi Heavy Industries (MHI), so we visited MHI and attended a lecture titled "Maintenance for Gas Turbine," as well as visited its workshop. We also visited Kobe Steel Company, which

manufactures many types of heavy industrial products. In Yokohama, we visited IHI Corporation and attended a lecture on IHI's corporate activities, products and LNG storage tanks. Finally, we visited Mitsui Engineering & Shipbuilding Company (MES) in Ichihara, where we attended lectures on LNG carriers, toured the shipyard and observed the process of shipbuilding.

Field trips took us to many beautiful, attractive, historic and educational places in Japan. In Himeji we visited Himeji Castle, and in Yokohama we saw Sankei-en, Yamashita Park, the new business and shopping area, Chinatown, and the red brick warehouse. We also visited many temples.

I would like to thank the JCCP management and staff, especially Mr. Shigeyoshi Takahashi and Mr. Yoshiaki Ueno, for their support and guidance throughout our stay in Japan. I think this course will remain in my memory as one of the best courses in which I have ever participated, with the best group of people whom I can proudly call friends.



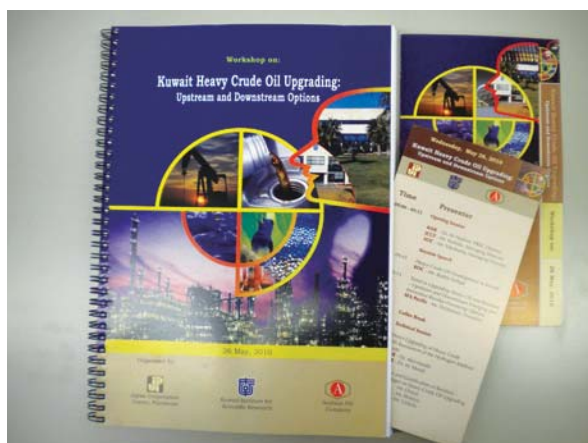
# Workshop on Kuwait Heavy Crude Oil Upgrading

On May 26, 2010, a workshop was held at the Petroleum Research & Study Center (PRSC) of Kuwait Institute for Scientific Research (KISR) in Kuwait, to report on the results of the joint JCCP-KISR technical cooperation project on “Heavy Crude Oil Upgrading in Kuwait Using Thermal Cracking Process.” More than 50 participants from various companies and organizations attended the workshop and participated in active Q&A sessions following each presentation. The participants were from various oil companies in Kuwait, including Kuwait Petroleum Corporation (KPC), Kuwait Oil Company (KOC), and Kuwait National Petroleum Company (KNPC), and from institutions such as the Organization of Arab Petroleum Exporting Countries (OAPEC) and Kuwait University.

## 1. Overview of the Workshop

The project aims to create a business model for making practical use of Kuwait’s large quantities of high-sulfur heavy crude oil by converting it to more useful light, low-sulfur crude oil using Japanese upgrading technology (Eureka process), and to ultimately examine its potential for commercialization.

Candidate sites for construction of the upgrading facility include at the foot of an oil well or near a refinery. The scale of the facility would be relatively small in the case of the former and large in the case of the latter. The project’s potential for commercialization



*Preliminary proceedings and pamphlets of the workshop*

will be evaluated based on a comprehensive assessment of factors such as the relationship between the properties of Kuwait heavy crude oil and thermal cracking reaction, and market studies of reformed crude oil. Due consideration will also be given to the intentions of KOC, the authority for Kuwait heavy crude development.

## 2. Workshop

The workshop opened with an opening address by Dr. Meena Marafi, Manager, PRSC KISR, followed by brief messages from Dr. Abdulhameed Al-Hashem, Director, PRSC KISR, Mr. Morihiro Yoshida, Managing Director of JCCP, and Mr. Yoshio Yokoyama, Director of Arabian Oil Company, Ltd.



*Dr. Meena Marafi, Manager, PRSC KISR, delivering the opening address*

As keynote speakers, Dr. Alenezi from KOC gave a speech on the development of Lower Fars heavy crude oil in Kuwait, and Mr. Ronald L. Dickenson, President of SFA Pacific Inc., spoke about various technologies for developing of heavy crude oil. Mr. Dickenson mentioned the Ivanhoe HTL process, a coker process that requires short retention time, has begun to draw attention as a field upgrader, although operational results have only been obtained from a prototype so far. He also mentioned that the slurry residual oil hydrocracking process which uses nano catalysts is a promising new process, and that a 23,000B/D plant is under construction at a refinery operated by Eni S.p.A. The Eureka process, Mr. Dickenson noted, is an extremely innovative thermal cracking process.

In the technical session which followed the keynote speeches, Dr. Mamun Absi-Halabi, Principal Research Scientist, PRSC, spoke on the direct reforming of heavy crude oil, and Mr. Omori from Arabian Oil Company and Messrs. Shimizu and Uchida from Chiyoda Corporation introduced the Eureka thermal cracking unit and explained its technical advantages. The Eureka process is similar to the coker process, but differs greatly in that its thermal cracking residue is liquid pitch, where it is solid coke in the coker process. The Japanese researchers explained that the liquid state of the residue from the Eureka process makes the process ideal when combined with a gasification process, and also emphasized the potential of Eureka as a field upgrader.

After a brief lunch break, Dr. Faisal Alhumaidan, Associate Research Scientist, PRSC KISR, reported on the results of a vacuum residue thermal cracking test conducted on three different types of heavy crude oil (Ratawi, Lower Fars, and Eocene) using a pilot vacuum residue thermal cracking unit installed in PRSC last fiscal year. The results indicated that vacuum residue from Eocene is relatively easier to crack compared to the other types of crude oil. He also presented interim results of an analysis of thermal cracking speed. Next, Dr. M. Ramadhan gave a presentation on the results of



*Dr. M. Ramadhan giving a presentation*



*Mr. Morihiro Yoshida, Managing Director of JCCP, delivering an opening speech*

a market survey of heavy crude oil and synthetic crude oil, and lastly, Mr. Hayashida from Arabian Oil Company discussed the economic advantages of operating a Eureka unit. Mr. Hayashida noted that if a Eureka unit is installed at the foot of an oil well as a field upgrader, the Eureka pitch could be used to produce steam and the steam used in the production process of heavy crude oil. The economic efficiency of the process, he explained, would be extremely high, delivering an IRR of 30 – 40%, both when Eureka is used in a large process combined with gasification and when it is used as a small field upgrader.

The workshop came to a close with a proposal to install a pilot Eureka plant in the Mina Al Shuaiba Refinery, which is one of three refineries in Kuwait.

We feel that the true meaning of technical transfer lies in the commercialization of the technology after completion of the JCCP technical cooperation project, and that this may be achieved by going beyond the scope of a debriefing session with the counterpart organization and widely disclosing information of the project to the entire oil sector in Kuwait, recognizing it as the future owner of the project. It can be said that one of the reasons why this workshop was successful was because KISR shared this awareness with strong conviction.

*<by Hiroshi Iida, Technical Cooperation Dept.>*

# Signing Ceremony for the Project on “Heavy Crude Oil Upgrading” in Kuwait

On October 28, 2009, JCCP and Kuwait Institute for Scientific Research (KISR) held a ceremony for signing a Memorandum of Agreement (MOA) on the joint technical cooperation, “Heavy Crude Oil Upgrading in Kuwait Using Thermal Cracking Process.”

## 1. Project Background

Kuwait has an abundance of heavy crude oil with high sulfur content and API gravity ranging from 10 to 20 degrees. It is available in such large quantities that the 15-year plan for increased crude oil production, which was approved by the national assembly in 2004, announced that roughly 20% of the 2020 target production of 4 million B/D (700,000 – 900,000 B/D) will be acquired from newly developed heavy oilfields. However, in addition to the fact that heavy crude oil with high sulfur content is difficult to sell alone, even if it is blended with other light crude oils, its API gravity must be lowered to offset the increased ratio of heavy crude in order to export it. This means that

upgrading facilities are needed to “upgrade” heavy crude oil to light, low-sulfur crude oil, and toward this end Kuwait is well aware of the need to explore various measures.

Heavy oil upgrading projects have been applied to unconventional oil resources such as oil sands and Orinoco tar, but have never been applied to conventional heavy crude oil. Therefore, the process of upgrading of heavy crude oil must be examined from various angles, including experimental testing and market studies.

## 2. Project Overview

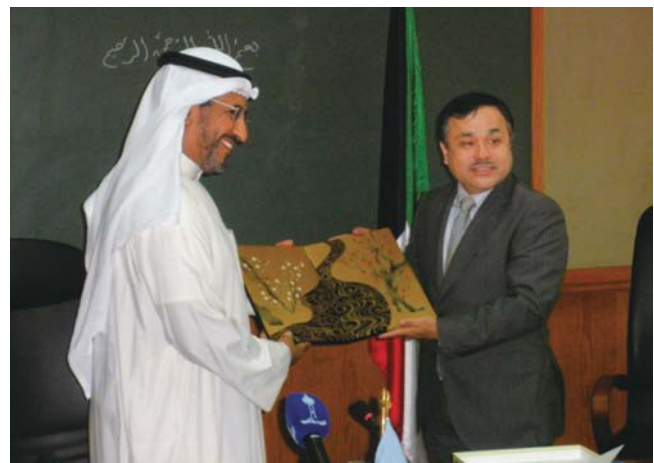
The said JCCP technical cooperation project aims to create a business model for converting Kuwait’s large quantities of high-sulfur heavy crude oil to more useful light, low-sulfur crude oil, and to seek its potential for commercialization.

Candidate sites for the construction of the upgrading facility include at the foot of an oil well or near a refinery. The scale of the facility would be relatively small in the case of the former and large



*Signing the MOA*

*Dr. Naji M. Al-Mutairi, Director General, KISR (left), and Mr. Morihiro Yoshida, Managing Director of JCCP (right)*



*Exchange of commemorative gifts*

*Dr. Naji M. Al-Mutairi, Director General, KISR (left), and Mr. Morihiro Yoshida, Managing Director of JCCP (right)*

in the case of the latter. The project's potential for commercialization will also be evaluated based on a comprehensive assessment of various other factors, such as the properties of heavy crude oil, heavy crude thermal cracking tests, methods for the utilization of cracking residues, and the results of market studies on reformed crude oil.

### 3. MOA Signing Ceremony

The signing ceremony was held with the presence of Dr. Najj M. Al-Mutairi, Director General, KISR, and members from Kuwait Petroleum Corporation (KPC), Kuwait National Petroleum Company (KNPC), and Kuwait Oil Company (KOC) on the Kuwaiti side, and with Mr. Yukihiro Nikaido, Minister, Embassy of Japan in Kuwait (representing H.E. Mr. Masatoshi Muto, Ambassador); Mr. Yoshio Yokoyama from Arabia Oil Co., Ltd.; Mr. Hiromi Koshizuka from Chiyoda Corporation; and Mr. Morihiro Yoshida, Managing Director of JCCP, on the Japanese side. A large number of journalists were also present to cover the important ceremony.

Dr. Al-Mutairi personally presided over the entire ceremony, which included opening speeches by the representatives of each participating company, the signing of the MOA, and a technical presentation on the project. Active discussions were held with members of Kuwait's oil industry in regard to the technical presentation, and the exchange of views with KOC, the largest crude oil producer in Kuwait,



Mr. Yukihiro Nikaido, Minister of the Japanese Embassy in Kuwait, delivering a speech



Local newspaper article on the ceremony (From left to right) Mr. Yukihiro Nikaido, Dr. Najj M. Al-Mutairi, Mr. Morihiro Yoshida

was so stimulating that it continued even after completion of the ceremony. All in all, members from Kuwait's oil industry and KISR, the counterpart to the project, demonstrated an extremely high level of interest and enthusiasm for the project.

Not only did local newspapers feature a large article on the signing ceremony the next day, but video coverage was also broadcast on TV, and contributed to increasing public recognition of Japan's technical cooperation in Kuwait.

JCCP extends its deepest appreciation to everyone at KISR, the Japanese Embassy in Kuwait, Arabian Oil Company, and all other institutions concerned, who generously provided their cooperation in holding the signing ceremony.

<by Hiroshi Iida, Technical Cooperation Dept.>

# Activity Report

## from Researchers Participating in the Long-Term Researcher Dispatch Program

### Introduction

Over the years, JCCP has developed cooperative relationships with major counterpart institutions such as King Fahd University of Petroleum and Minerals (KFUPM) and Kuwait Institute for Scientific Research (KISR) through international joint research programs and technical cooperation projects. To further strengthen and improve these relationships, JCCP sends veteran Japanese researchers to counterpart institutions long term to provide research support and engage in direct exchanges with researchers at those institutions under the Long-term Researcher Dispatch Program.

JCCP has dispatched three honorary university professors and a corporate researcher during the three years from FY2007 to FY2009. They mainly help their host institution develop research personnel and provide detailed research assistance in response to its needs.

Three researchers have been dispatched in FY2010. These researchers were asked to share some of the local information they have obtained by staying long term in the country of their host institution and interacting with local researchers, and to also introduce their research support activities.



Briefing session at JCCP, July 14, 2010

### FY2010 Researchers

#### ■ Dr. Hideshi Hattori, Professor Emeritus, Hokkaido University

- (1) Host institution: Center of Refining and Petrochemicals (CRP), Research Institute (RI), King Fahd University of Petroleum and Minerals (KFUPM)
- (2) Term of dispatch: Approximately three months each year since FY2007 (this year's schedule is being planned)
- (3) Research field: Application of solid acid catalyst and solid base catalyst to oil refining and petrochemistry

#### ■ Dr. Katsuomi Takehira, Professor Emeritus, Hiroshima University

- (1) Host institution: Center of Refining and Petrochemicals (CRP), Research Institute (RI), King Fahd University of Petroleum and Minerals (KFUPM)
- (2) Term of dispatch: Approximately three months each year since FY2009 (this year's schedule is being planned)
- (3) Research field: Research of catalysts for petrochemical feedstock production by ethylbenzene dehydrogenation

#### ■ Dr. Hidehiro Higashi

- (1) Host institution: Petroleum Refining Department, Petroleum Research and Studies Center (PRSC), Kuwait Institute for Scientific Research (KISR)
- (2) Term of dispatch: Approximately three months each year since FY2007 (this year's schedule is being planned)
- (3) Research field: R&D on enhancement of practical evaluation performance of pilot plant tests and improvement of refinery operations

### 3. Research Assistance at KISR in Kuwait

#### Dr. Hidehiro Higashi

Kuwait Institute for Scientific Research (KISR) was my host institution under the JCCP Long-term Researcher Dispatch Program. It was established approximately 40 years ago, and is the only public research institution in Kuwait. KISR's precursor was a research center founded by Arabian Oil Company Limited, which had a concession agreement to develop the Khafji Oil Field. The company later donated the research center to the Kuwaiti government, where it was placed under the control of the Ministry of Higher Education and given a greater scope of research and personnel. Today, it is headed by Dr. Najj Mohamed Al-Mutairi, Director General, and is headquartered in Al-Shuwaik, Kuwait City. Studies in areas other than petroleum, which are primarily related to environmental issues, are based in the headquarters, and studies related to petroleum are conducted at the Petroleum Research & Studies Center (PRSC) in Ahmadi, under the directorship of Dr. Abdulhameed A. Al-Hashem. With approximately 800 researchers under its wing at present, 65 to 70% of whom have an academic degree, KISR is one of the most respected scientific institutes in the Middle East. The Kuwaiti government places large expectations on KISR, and is presently considering making further expansions. From 2009 to the present, I have made three brief stays at PRSC, each about one month long, to provide research guidance on hydrotreating catalysts mainly to Dr. Hamza Albazzaz, Senior Researcher, under the general supervision of Dr. Meena Marafi, Manager. I have also

provided research guidance on the characterization of asphaltene contained in residual oil (generally defined as an n-heptane insoluble matter; the main material used to make road-pavement asphalt), which has never been the focus of studies in this area before, and on its impact on catalytic reactions.

Kuwait owns and operates a national oil company called Kuwait Petroleum Corporation (KPC) under the direct management of the Ministry of Energy. KPC has ten affiliated companies (wholly owned subsidiaries) under its umbrella, to attend to all aspects of the oil business, including the exploration, development, production, refining, shipment, marketing, and overseas investment of crude oil and natural gas. Kuwait National Petroleum Company (KNPC) is one of KPC's subsidiaries specializing in oil refining. KNPC currently operates three refineries with a combined refining capacity of 900,000 b/d: the Mina Al-Ahmad Refinery (MAA), Mina Abdullah Refinery (MAB) and Shuaiba Refinery. It also has a plan to construct a fourth refinery with a capacity of 600,000 b/d, although the plan has been suspended for the time being due to various circumstances. Because KNPC does not have a research center, studies and assessments requested by its refineries are outsourced to PRSC at cost. To PRSC, therefore, KNPC is a customer who provides research funds. Kuwait produces mainly heavy crude oil, and reduced crude, which is used as fuel, contains as much as 4% sulfur. If this reduced crude is burned as it is and used to generate electricity, large amounts of



*Inspection of research facilities at KISR (Sept. 2007)*



*With hydroplant engineers and operator*

SOx would be released into the atmosphere as a source of air pollution. For this reason, KNPC has a number of direct desulfurization units to remove the sulfur content of reduced crude using catalysts. They include two UOP units with two trains, a Chevron unit with two trains, and a UOP unit with one train, which provide a total processing capacity of 300,000 b/d. KNPC is the only refinery in the world heavily equipped with so many direct desulfurization units. It is worth noting that the fixed-bed direct desulfurization unit was demonstrated for the first time in the world approximately 40 years ago in Japan. The many types of direct desulfurization units that have been constructed and exist throughout the world today have followed on the heels of this successful demonstration. Over many years, Japan has also continued to research and improve hydrodesulfurization catalysts for use in desulfurization units, and has provided technical support for development of the catalyst and operational technologies of the unit to overseas oil-producing countries with JCCP's cooperation.

Precisely because KNPC operates so many direct desulfurization units, it is strongly seeking to optimize its catalyst selection technology for those units and to further increase operational efficiency. KNPC seeks the expertise of KISR-PRSC in many issues.

It is understood that KISR has consistently and accurately addressed KNPC's needs for technical support and research and development through the years. In the future, it will probably be expected to improve the evaluation precision of practical catalyst performance and to cultivate even more advanced catalyst selection technology as well as other development technologies. Under this Long-term Researcher Dispatch Program, I hope to apply my many years of experience in the catalyst R&D field to providing cooperation and assistance to KISR in response to such new needs.

Within the cooperative research in the refining field, Dr. Hamza Albazzaz and I proposed to implement a research project under a joint framework of KNPC, KISR-PRSC, and the licensor who designed the units. Spanning a period of three years, the project would aim to analyze and improve the operation of refinery units by creating a cold flow reactor model that is large enough to observe the flow of catalysts, gas, and oil inside the reactor, and also to examine the impacts of asphaltene on catalyst activity by constructing a pilot unit for high-pressure testing which could also be used for catalyst evaluation. The cost of implementing the



*With Dr. Hamza Albazzaz, Senior Researcher*

project was proposed to be borne by KNPC and KPC as the project beneficiaries. As a result, KPC/KNPC gave their approval, and agreed to launch the project in FY2010. I believe that this three-party project would improve relationships between KNPC and KISR-PRSC and would create a golden opportunity for KISR-PRSC researchers to familiarize themselves with actual units. PRSC's Dr. Meena Marafi appointed Dr. Hamza Albazzaz as project leader, but I will also be providing my full support, as it is an important and large-scale project.

Recently, there has been another new development. That is, it has been decided that KPC/KNPC will launch its own research center this coming spring. The new research center is likely to advance along the path of oil-related studies and applied research. If it does, it may become the same as PRSC, which also engages in oil-related studies, but I understand that KISR has plans to shift its focus to basic research to avoid the overlap. In the case where KISR does choose to pursue basic research, I am thinking to provide assistance to make certain that everyone fully understands the importance of collecting basic data steadily over time. In consideration of all the above, JCCP can probably expect to receive requests for cooperation from both the new KPC/KNPC research center and from KISR, and may need to further extend its technical cooperation program to adequately respond to their needs.



# Progress Report on “The Long-term Researcher Dispatch Program”

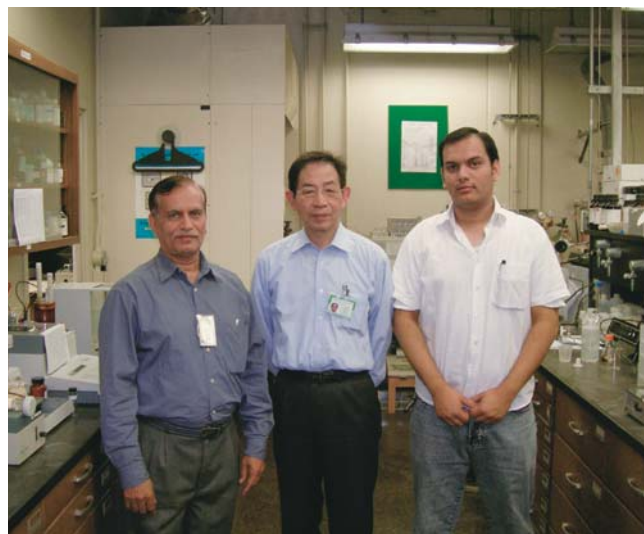
## 1. Program Objective

JCCP launched “The Long-term Researcher Dispatch Program” in FY2007 as a new initiative under the International Joint Research Scheme. Through the program, JCCP sends honorary university professors and senior corporate researchers to universities and research institutions in major oil-producing countries long term, to provide guidance to local researchers and to promote the advancement and invigoration of research activities in counterpart organizations by helping them improve research methods and address new research themes. The program also aims to enhance personal exchanges in the research field and thereby build and strengthen relationships of trust between oil-producing countries and Japan.

## 2. Implementation Status

In FY2007, the year of commencement of the program, the months between May and October were busily spent making the necessary preparations, and researchers were actually dispatched overseas in November. Two researchers were respectively dispatched to King Fahd University of Petroleum and Minerals (KFUPM) in Saudi Arabia and Kuwait Institute for Scientific Research (KISR) in Kuwait for a period of three months, from November to February. The two organizations were selected as counterpart organizations of the program, as they have built a solid relationship with JCCP in the technical cooperation field going back more than 15 years, through the joint implementation of international research programs, technical cooperation projects, and periodical symposiums.

In FY2008, three researchers were dispatched to KFUPM and KISR as before. An overview of the



*Dr. Hideshi Hattori, Professor Emeritus, Hokkaido University (center), at KFUPM*

first two years of the program is presented below.

### <Dispatch to KFUPM>

- *Researcher*  
Dr. Hideshi Hattori, Professor Emeritus, Hokkaido University
- *Term*  
Three-month dispatch to KFUPM, between November 2007 and February 2008  
Three-month dispatch to KFUPM, between June 2008 and February 2009
- *Field of research assistance*  
Introduction and guidance in new themes in catalyst research
  - (1) Production of clean gasoline composed primarily of multi-branch alkane through the use of zirconium solid acid catalysts and elucidation of the catalyst action mechanism
  - (2) Production of high added-value aromatics through the use of solid base catalysts and elucidation of the catalyst action mechanism



Dr. Hidehiro Higashi, JGC Catalysts and Chemicals Ltd. (front), at KISR

### <Dispatch to KISR>

- *Researcher*  
Dr. Hidehiro Higashi, JGC Catalysts and Chemicals Ltd.
- *Term*  
3-month dispatch to KISR, between November 2007 and February 2008  
3-month dispatch to KISR, between May 2008 and November 2008
- *Field of research assistance*  
Studies on improving catalyst research methods and refinery operations
  - (1) Studies and guidance for increasing assessment performance of pilot tests on desulfurization catalysts and others
  - (2) Implementation and analysis of a cold-flow model experiment for improving the



Dr. Takeshige Takahashi, Professor Emeritus, Kagoshima University, at KISR

operations of the desulfurization unit at KNPC

- *Researcher*  
Dr. Takeshige Takahashi, Professor Emeritus, Kagoshima University
- *Term*  
2.5-month dispatch to KISR, between October 2008 and February 2009
- *Field of research assistance*  
Implementation of lecture presentations on catalyst research and guidance of individual researchers
  - (1) Implementation of lecture presentations on the deactivation mechanism of atmospheric residue hydrodesulfurization catalysts and prevention of catalyst deactivation
  - (2) Individual counseling and guidance: Individual research issues, development of young researchers, research policies, etc.

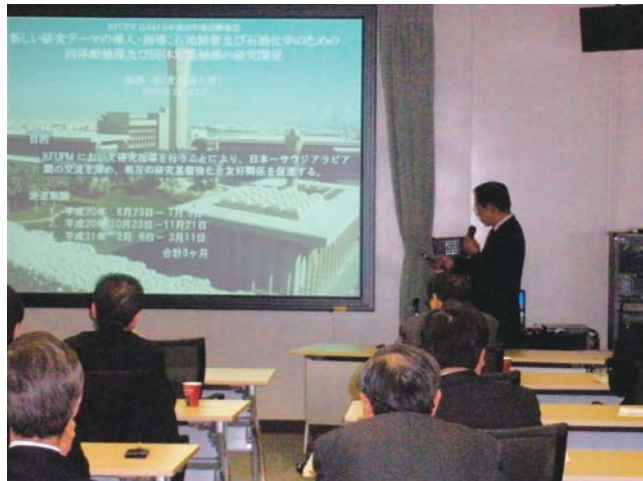
### 3. Summary

During the first two years of the program, three researchers have been dispatched to KFUPM in Saudi Arabia and KISR in Kuwait long term, to provide research assistance and guidance to local researchers. Careful consideration was given so that researchers were not dispatched in the midst of the extremely hot summer season and the Islamic fasting month, but even so, the intensive weather and differences in customs and the living environment must have required some getting used to. Nevertheless, the researchers quickly adapted to their new environment and cultivated personal exchanges with researchers, and began carrying out assistance activities as appropriate to the research situation at the counterpart organization. By residing in the host country over a relatively long term, the researchers were able to apply themselves to diverse areas of research, including the launch of new research themes, improvement of research methods, and implementation of lecture presentations and individual guidance, and thereby contributed to developing the capacities of local researchers and enhancing research in their counterpart

organizations. The counterpart organizations have expressed strong appreciation of the program as a prime example of interpersonal cooperation.

On March 18, 2009, the researchers reported on their local activities in a debriefing session held with the participation of members from the Ministry of Economy, Trade and Industry, JCCP member companies, and Japan Petroleum Institute. Based on the experiences gained through the program during the past two years as presented in the debriefing session, JCCP hopes to continue responding to the specific needs of the counterpart organizations by dispatching highly experienced researchers willing to blend in and offer research assistance to local researchers.

<by Kazuhisa Okumura, Technical Cooperation Dept.>



Debriefing session (March 18), at JCCP Headquarters



# Progress Report on the “Long-term Researcher Dispatch Program”

## 1. Background

JCCP launched the Long-term Researcher Dispatch Program in FY2007, as part of its research assistance activities under the International Joint Research Scheme. Through the program, JCCP sends honorary university professors and senior researchers from private companies in Japan, who have made remarkable achievements in their specialized field, to universities and research institutions in major oil-producing countries. The researchers reside in their respective host country long term, and routinely assist in the R&D activities of local researchers, in response to the needs of the counterpart organization. In addition to providing guidance, Japanese researchers who are dispatched to oil-producing countries apply their expertise to improving research methods, identifying new and promising research themes, and otherwise promoting the advancement and vitalization of research activities within their counterpart organizations. By providing research assistance in response to the requests of the



*Dr. Hattori in a meeting with the Vice Chancellor of KFUPM, Sept. 2007*

counterpart organization, the program is not only expected to strengthen personal exchanges in the R&D field, but also to build and increase the counterpart organizations' trust in Japan.

King Fahd University of Petroleum and Minerals (KFUPM) in Saudi Arabia and Kuwait Institute for Scientific Research (KISR) in Kuwait have been selected as counterpart organizations of the program. Over many years, the two organizations and JCCP have built a solid relationship through the implementation of joint research projects under the

international joint research scheme and technical cooperation programs, and by holding joint symposiums on a regular basis.

## 2. FY2007 Program

### (1) Overview

Following meticulous planning and preparation among the Japanese researchers and their affiliated and counterpart organizations, two researchers have been dispatched to KFUPM and KISR this fiscal year. They have already commenced their research guidance activities at their counterpart organization, and are scheduled to reside in Saudi Arabia and Kuwait, respectively, for a period of three months, from November to February.

Dr. Hideshi Hattori, Professor Emeritus at Hokkaido University, has been asked to work under appointment with KFUPM. Dr. Hattori is a prominent researcher in the field of catalytic research, specializing in the action mechanisms of solid-base catalysts. At KFUPM, he is engaged in joint research on solid-base catalysts with local researchers.



*Dr. Hattori inspecting KFUPM's research facilities, Sept. 2007*



*Dr. Higashi inspecting KISR's research facilities, Sept. 2007*

KFUPM's vast campus consists of educational and research facilities, residential facilities, a medical center, and various other faculty and student facilities. Dr. Hattori commutes to his research laboratory from a guest house in the faculty residence area, which is only about a 15-minute walk from the laboratory. Taking advantage of the holiday break in the latter half of December, Dr. Hattori temporarily returned to Japan to celebrate the New Year holiday in Japan, and has left once again to Saudi Arabia to continue his research until the end of February.

Dr. Hidehiro Higashi from Catalysts and Chemicals Ind. Co., Ltd. has been asked to work under appointment with KISR. Dr. Higashi is a leading researcher in the development of oil refining catalysts. In response to a strong request by KISR, he has commenced research guidance activities for improving the assessment performance of a pilot plant. As KISR has no corporate guest house, Dr. Higashi has a long-term accommodation arrangement at a hotel located about 20 minutes by car from the institute, and is daily driven to the institute.

The two researchers began their long-term stay in the Middle East in early November, when the lingering summer heat was still intense. By the middle of December, however, they

had acclimated themselves to their new environment, and had begun providing steady research assistance and guidance to researchers at their counterpart organizations.

At the moment, JCCP's primary goal is the successful completion of the three-month-long program for this fiscal year. Hopefully, this particular experience will be applied to enhancing next fiscal year's program, upon hearing the views of the researchers, and gaining an accurate understanding of the researcher acceptance situation at the counterpart organizations.

## **(2) Send-off gathering**

Prior to the two researchers'

departure in November, JCCP organized a small send-off gathering for them on October 22. The gathering took place in a fraternity house at Tokai University, and was attended by members from Petroleum Refining and Reserve Division at the Ministry of Economy, Trade and Industry, namely Mr. Shuzo Takada, Director, Mr. Takanobu Yasunaga, Deputy Director, and Mr. Tsuyoshi Kamijo, in addition to Messrs. Mikio Kojima, Executive Director, and Katsuo Yokoyama, Managing Director, from JCCP.

The small party began with a brief speech by Mr. Kojima. He stated that this new scheme of cooperation to oil-producing countries has been "made possible by the generous cooperation of the two distinguished researchers," and that he has "strong expectations for its successful completion." To that end, he also promised JCCP's full support in all aspects of their long-term stay in the Middle East. Dr. Hattori expressed his commitment to the effect that he intends to "fully apply himself to research activities" at KFUPM, and has prepared to "respond flexibly to the situation and requests of the counterpart organization." Dr. Higashi also articulated his resolve to direct his best efforts toward the effective application of Japan's world-class hydrogen refining catalyst technology to the counterpart organization. Finally, Mr. Takada



*Mr. Kojima (right), Executive Director of JCCP, speaking at a send-off gathering for Drs. Hattori and Higashi*



Brief speech by Dr. Higashi (center)



Mr. Takada (left), Director of the Petroleum Refining and Reserve Division, METI, giving his best wishes to the two researchers

delivered words of encouragement to the two researchers. Based on his strong conviction that cultural exchanges are just as important as technical guidance and transfers, he expressed his high expectations of the two researchers' steady activities at their counterpart organizations, and wished them a healthy and fulfilling sojourn. After exchanging words of encouragement and resolve, over lunch the members engaged in animated conversation, mainly on topics about cooperation to oil-producing countries.

### (3) Letter from Dr. Hattori

After completing the first half of his appointed period, Dr. Hattori temporarily returned to Japan on December 13 to spend the New Year holiday in Japan (Sapporo, Hokkaido). He has written to JCCP on the occasion of his return, and reported on the status of his research at KFUPM so far, as well as various aspects of his stay in Saudi Arabia, as follows.

#### <Research status>

*Prior to assuming the appointment at KFUPM, I visited the organization in September and spent two days discussing various matters related to the dispatch*

*program. During that meeting, the KFUPM side asked me to propose a research theme, and I responded by proposing a theme concerning solid-acid catalysts and another theme concerning solid-base catalysts, both of which were related to zirconia catalysts. We ultimately decided on both themes, and agreed on the participation of postgraduate chemical engineering and chemistry students in our experiments.*

*By the end of the first one and a half months of my stay until the Hajji holiday, we finished preparing 19 types of catalysts and successfully launched a high-pressure reactor. In the latter one and a half months, which will begin after New Year's, reaction experiments will probably comprise the main part of our activities. By all means, I hope to reach a point where we can obtain sufficient basic data to write a paper.*

#### <Personal views on the research and local life>

*KFUPM's Center for Refining and Petrochemical Research Institute is slightly different from research laboratories in Japanese universities, perhaps partly owing*

*to its proven achievements in the development of processes for practical application. When asked which is more important, publishing an academic paper or acquiring a patent, some KFUPM researchers immediately responded in favor of the patent. This mentality, I think, differs from that in Japanese universities, where novelty and originality of invention are valued above all. I hope to somehow convince the local researchers that basic research is also important, particularly in universities.*

*Officially, our work hours are from 7:30 am to 4:00 pm. The university has offered me the use of an on-campus guest house that is larger than 100 m<sup>2</sup> in total area. I can obtain food and other daily necessities at a supermarket that is only a stone's throw away, so I basically want for nothing, unless I get the urge to go out into the city. Prices here are reasonable. Although I cannot leave the campus without a car, I am lucky to be in an environment where everyone around me kindly offers his help when needed.*

<by Kazuhisa Okumura, Technical Cooperation Dept.>

# The 11th Kuwait-Japan Joint Symposium

## —Corrosion and Material Behavior in Petroleum Refining Industry—

JCCP, Kuwait Institute of Scientific Research (KISR) and Kuwait National Petroleum Company (KNPC) jointly sponsored the 11th Kuwait-Japan Joint Symposium on “Corrosion and Material Behavior in Petroleum Refining Industry,” on January 19 and 20, 2010, at KISR’s Petroleum Research and Studies Center (PRSC).

The symposium is implemented on commission by the Japan Petroleum Institute (JPI), and was held for the first time in fiscal 1993. It has been held basically every other year after that, but from fiscal 2005, it has taken root as an annual technical symposium in Kuwait. Three themes relating to oil refining technologies have been taken up in order each year: heavy oil processing technologies, clean fuel production technologies, and corrosion and material behavior.

This year’s symposium opened with words of greeting from Dr. Mohammad J. Salman, Deputy

Director General for Research Affairs, KISR; Mr. Mohammad Ghazi Al-Mutairi, Deputy Managing Director, Mina Abdulla Refinery; and Dr. Shukuji Asakura, Professor Emeritus at Yokohama National University. Roughly 50 researchers and refinery engineers from Japan and Kuwait attended the symposium, which featured presentations and active discussions. The Japanese side gave eight presentations. On the Kuwaiti side, KISR and KNPC delivered ten presentations on issues such as trouble cases in refineries and their countermeasures.

On February 21, the day after the two-day seminar, the Japanese members visited the Mina Abdulla Refinery, where they were introduced to the activities of the refinery’s corrosion inspection division and toured the refining facilities.

Five researchers and engineers participated in the symposium as speakers, as shown in the table,



*Dr. Yasuyoshi Tomoe delivering a presentation  
(Jan. 20, 2010)*

and gave presentations on the results of studies in their respective areas, as well as cases they have experienced in the field and their countermeasures.

Mr. Shigeru Hojo from JPI and K. Okumura from JCCP provided their cooperation as members of the symposium secretariat.

<by Kazuhisa Okumura, Technical Cooperation Dept.>

Speakers	Affiliation	Presentation Title
Dr. Shukuji Asakura	Professor Emeritus, Yokohama National University Graduate School of Engineering (head of the Japanese group)	Electrochemical Monitoring of Metallic Corrosion by Square Wave Method Anti-corrosion Cement Accompanying the Function of Cathodic Protection
Dr. Tadao Ishihara	Venture Academia Co., Ltd.	CF/SCC Interaction of Low Alloy Steel and Stainless Steel in High Temperature Water
Dr. Yasuyoshi Tomoe	INPEX Corporation	Corrosion and Corrosion Control in Oil and Gas Production
Mr. Hiroyuki Anada	Sumitomo Metal Industries, Ltd.	Polythionic Acid Stress Corrosion Cracking Behavior of 347AP and its Performance in Hydrocracker and Hydrotreater The Effect of Stabilizing Period on Sensitization and Polythionic Acid Stress Corrosion Cracking
Mr. Kazunobu Onishi	Nippon Oil Corporation	Corrosion Control in the Overhead System of Atmospheric Crude Distillation Units Guidebook of Corrosion Control Technologies for Facilities in Refinery



Local newspaper article on the symposium



# The Tenth Kuwait-Japan Joint Symposium



*Symposium participants:  
Dr. Takeshige Takahashi, Professor Emeritus at Kagoshima University (center);  
Mr. Farouk Al-Zanki, Chairman, KNPC (left of center);  
Dr. Najj Mohammed Al-Mutairi, Director General, KISR (right of center)*

JCCP and Kuwait Institute for Scientific Research (KISR) jointly hosted “The Tenth Kuwait-Japan Joint Symposium,” which was held on January 20 and 21, 2009 in an auditorium at KISR. The theme of this year’s symposium was “Clean Fuel Production and Heavy Oil Processing Technologies.”

The symposium has so far been held nine times since 1993, under subcontract by Japan Petroleum Institute (JPI). Since FY2005, it has been held annually, with this year marking its tenth implementation.

The symposium opened with words of greeting from Mr. Farouk Al-Zanki, Chairman, Kuwait National Petroleum Company (KNPC), and Dr. Najj Mohammed Al-Mutairi, Director General, KISR. They expressed their appreciation to all parties present and their expectations for the success of the symposium, stating that “this year’s theme is one that is especially pertinent to the times, and is expected to be helpful in increasing research levels and technical capacities in the oil refining field in both Kuwait and Japan.” On the Japanese side, Dr. Koichi Eguchi, Professor at Kyoto University



*Symposium venue: KISR auditorium*



*Opening address: Dr. Koichi Eguchi, Professor,  
Kyoto University Graduate School*

Graduate School, gave an opening address as leader of the group of speakers from Japan. He articulated his hopes that the symposium will provide a forum for the transfer of useful information to Kuwaiti researchers and contribute to strengthening research cooperation between Kuwait and Japan.

Under the main theme of the symposium, presentations focused on the sub-themes of “hydrogen production and clean fuel oil technologies” and “heavy oil hydrocracking technology for Kuwait crude,” which are expected to take on increasing importance in the future, and a new sub-theme of “oil refining and petrochemical integration.” Close to seventy Kuwaiti participants attended the symposium, including KISR researchers and engineers from KNPC’s three refineries.

The Japanese side gave five presentations, and the Kuwaiti side four, for a total of nine presentations. Active discussions and interaction took place between the speakers and the audience after each presentation.

The five Japanese speakers included university professors and corporate researchers who have made significant achievements in studies on hydrogen production, clean fuel production, and heavy oil processing. Their names and the titles of their presentations are as shown in the table below.

The next symposium is scheduled to be held in January 2010 under the theme, “Materials and Corrosion,” as strongly requested by KISR and KNPC.

*<by Kazuhisa Okumura, Technical Cooperation Dept.>*

### Japanese Speakers and Their Presentation Titles

Name and affiliation	Presentation title
Dr. Koichi Eguchi Professor, Kyoto University Graduate School	Steam Reforming of Dimethyl Ether over Copper-based Spinel Catalysts
Dr. Mikio Miyake Professor, Japan Advanced Institute of Science and Technology	Determination of Individual Components during Hydrocracking of Heavy Oil by Ultra-high Resolution Ft-ICR Mass Spectrometry
Mr. Shigeto Hatanaka Director, Fuel Research Laboratory, Nippon Oil Corporation	Five Years' Experience in Sulfur-free Gasoline and Diesel Production
Dr. Ryuzo Tanaka Chief Researcher, Advanced Technologies Research Laboratory, Idemitsu Kosan Co., Ltd.	Asphaltene Aggregation and its Impact on Coking Reactivity
Mr. Naoto Aoyama General Manager, Global Marketing Division, JGC Corporation	Refinery and Petrochemical Integration Utilizing Heavy Oil Products

# The 9th Kuwait-Japan Joint Symposium



Symposium venue: KISR auditorium

JCCP and Kuwait Institute for Scientific Research (KISR) jointly hosted the 9th Kuwait-Japan Joint Symposium this past January 22 and 23,

2008. The symposium was held in an auditorium at KISR, under the theme of “Heavy Oil Processing Technologies.” Since FY2005, the symposium has been

held annually, under subcontract by Japan Petroleum Institute (JPI).

Given the high level of interest in the symposium by Kuwait National

Name and affiliated organization	Presentation title
Prof. Sachio Asaoka The University of Kitakyushu	Hydrotreating and hydrogenation catalysts for heavy oil
Prof. Yasuaki Okamoto Shimane University	Thermal stability of cobalt molybdenum desulfurization catalysts
Prof. Mikio Miyake Japan Advanced Institute of Science and Technology	Heavy oil composition analysis (using FT-ICR MS)
Prof. Takao Masuda Hokkaido University Graduate School	Heavy oil cracking using zirconia carrier iron oxide
Mr. Mitsuru Yoshita Junior Chief Researcher, Petroleum Technology Center, Idemitsu Kosan Co., Ltd.	Development of heavy oil hydrocracking catalysts



Mr. Asa'ad Ahmad E. Al-Saad,  
Deputy Chairman of KNPC



Prof. Sachio Asaoka



Dr. Naji Mohammed Al-Mutairi,  
Director General

Petroleum Company (KNPC), Mr. Farouk Al-Zanki, KNPC Chairman, was initially scheduled to deliver a special opening address. However, due to an urgent circumstance, Mr. Asa'ad Ahmad E. Al-Saad, Deputy Chairman & Deputy Managing Director of Mina Al-Ahmadi Refinery, gave an address on behalf of Mr. Al-Zanki, saying that this year's theme is a highly timely theme, given today's situation in Kuwait's oil industry.

From the Japanese side, Prof. Sachio Asaoka, as leader of the group of speakers from Japan, gave an opening speech on the significant role of the Kuwait closer together symposium in bringing Japan

and in the spirit of cooperation. From the KISR side, Dr. Naji Mohammed Al-Mutairi, Director General, thanked all participants for their attendance, and expressed his strong hopes to implement a successful symposium.

The theme of "Heavy Oil Processing Technologies" was selected as a highly specialized theme directly relating to measures for processing Kuwait crude, which is expected to become even heavier in the future. The theme attracted strong interest from the Kuwaiti side, and drew close to 70 participants to the seminar, including engineers from KNPC's three refineries.

The symposium featured 13

presentations: 7 presentations, including 2 keynote lectures, by Japanese speakers, and 6 presentations by Kuwaiti speakers. The speakers also invited and engaged in active discussions with the audience.

The Japanese speakers were composed of 5 members who have achieved significant research results in the field of heavy oil processing catalysts, including 4 university professors and a corporate researcher.

The next Kuwait-Japan Joint Symposium is scheduled to be held in January 2009, under the theme, "Desulfurization and New Fuels."

*<by Kazuhisa Okumura,  
Technical Cooperation Dept.>*

# Joint Symposium on Fuel Cell Technology Held in Kuwait

On January 24, JCCP held a Joint Symposium on Fuel Cell Technology with Kuwait Institute for Scientific Research (KISR).

The governments and major oil companies of oil-producing countries in the Middle East region have been focusing on higher value-added products and have begun to turn their attention to new energies as significant elements in the future of oil.

In Kuwait, there is strong interest in the fuel cell as a new type of energy, and JCCP and KISR have been discussing technical exchange and joint research on the technology between Kuwait and Japan, since a few years ago. In response to this trend, JCCP has consulted with Japan Petroleum Institute (JPI), the organization entrusted to implement the joint JCCP-Kuwait research and exchange symposium, in regard to implementing a new symposium on fuel cell technology for Kuwait in FY2007.

Dr. Naji Al-Mutairi, Director General of KISR, Dr. Nader Al-Awadhi, Deputy Director Information, and many

researchers attended the symposium from KISR.

Dr. Koichi Eguchi, Professor at Kyoto University, headed the Japanese team, which consisted of four lecturers. Mr. Hideyuki Urata, First Secretary at the Embassy of Japan in Kuwait, members of the JPI secretariat, and Minoru Horike, General Manager of the JCCP Technical Cooperation Department, also attended the symposium.

Dr. Eguchi and Horike gave opening addresses, followed by a welcome speech by Dr. Naji Al-Mutairi, before commencing the actual presentation session. The Japanese side delivered four presentations, including Dr. Eguchi's keynote lecture, and the Kuwaiti side, two presentations. The six presentations covered a broad range of topics, from an overview of the fuel cell, to recent research status of fuel cells and their practical applications, and invited diverse questions from the participants. The names of the speakers and the titles of their presentation are shown below.

In addition to KISR, the co-host

of the symposium, participants from a number of companies and institutions in Kuwait also attended the symposium, including Kuwait Petroleum Corporation (KPC), Kuwait National Petroleum Company (KNPC), Kuwait University, the Ministry of Oil, the Ministry of Electricity & Water, and other



Dr. Naji Al-Mutairi, Director General of KISR, delivering a welcome speech

Speaker	Presentation title
Dr. Koichi Eguchi Kyoto University	Catalytic production of hydrogen and application to fuel cells
Mr. Jun Shiroma National Institute of Advanced Industrial Science and Technology	R&D on PEFC in Japan
Mr. Ayman Al-Qattan KISR	Planned KISR fuel cell & hydrogen technology research program
Mr. Akihiko Fukunaga Nippon Oil Corporation	Development of petroleum fuel powered PEMFC cogeneration systems for residential use
Mr. Abdelrahman El Sherbini KISR	Fuel cell based cogeneration system for cooling and power in buildings
Mr. Takayuki Osaki Cosmo Oil Co., Ltd.	Development of the steam reforming catalyst for fuel cell system



Local newspaper article of the seminar

governmental offices. The large turnout displayed Kuwait's strong interest in fuel cells, and news of the symposium received large coverage in the next day's edition of the local newspaper.

Finally, we would like to take this opportunity to thank Dr. Abdulhameed Al-Hashem, Director, PRSC, Dr. Meena

Marafi, Manager, Petroleum Refining Department, and other members of KISR, Dr. Eguchi, all speakers, and members of the JPI secretariat, for their support and cooperation in preparing and arranging for this symposium.

*<by Minoru Horike,  
Technical Cooperation Dept.>*



*Dr. Koichi Eguchi delivering  
an opening address*



*Seminar scene*

# The 28th JCCP International Symposium

## “Innovation of Technology and Management in Oil Downstream: For Security of Oil Supply”



*Panelists and guests of honor*

The 28th JCCP International Symposium was held on January 27 and 28, 2010, under the auspices of the Ministry of Economy, Trade and Industry (METI), and with the attendance of approximately 350 visitors.

In this year’s symposium, leading authorities from oil producing and consuming countries were invited to exchange views on management and technology innovation toward advanced utilization of oil.

### 1. Theme and Goal

The theme of this year’s symposium was “Innovation of Technology and Management in Oil Downstream: For Security of Oil Supply.” Over the medium to long term, the global balance in oil supply and demand is apt to tighten, as a result of the increase in oil consumption particularly in newly emerging economies. Amid this situation, oil producing and consuming countries must share the responsibility of mitigating inordinate increases in oil consumption by promoting advanced utilization of oil without undermining economic growth.

### 2. Overview

#### (1) First Day: Opening Ceremony (January 27)

The symposium opened with an address by Mr. Yaichi Kimura, President of JCCP, and a greeting from the guest of honor, Mr. Masaaki Kimura, Director-General of the Natural Resources and Fuel Department, METI. These were followed by keynote speeches by Mr. Nobuo Tanaka, Executive Director, International Energy Agency (IEA), and Mr. Mohammed A. Al-Omair, Executive Director, Refining and NGL Fractionation, Saudi Aramco.



*Symposium venue*

Mr. Yaichi Kimura, President of JCCP, reiterated the theme of this year's symposium—Innovation of Technology and Management in Oil Downstream: For Security of Oil Supply—and presented a perspective on the issue. He said that we have spent decades developing oil utilization technologies and mechanisms to create today's affluent society, but oil is a limited resource that we must use wisely. The extent to which we can achieve the effective utilization of oil depends on the technical and management capabilities of all of us who work in the oil industry. Mr. Kimura closed his address by emphasizing the importance of technology and management innovation in handing down the precious resource to the next generation.



*Mr. Yaichi Kimura, President of JCCP, giving an opening address*

Mr. Masaaki Kimura from METI spoke as follows: Oil producing countries and Japan have established friendly relationships over many years as the foundation of oil security. However, as oil demand is expected to increase mainly in emerging countries over the medium to long term, one of the priority issues of the worldwide oil industry lies in how to address such changes in the global energy situation. Therefore, in the face of anticipated



*Mr. Masaaki Kimura, Director-General of the Natural Resources and Fuel Department, METI, giving a speech as a guest of honor*

changes in the global oil supply-demand environment, the theme of this symposium holds great significance, as it provides an opportunity to explore how technology and management innovation in the oil downstream sector could prevent the wasteful use of oil and promote its effective utilization to the greatest possible extent as an extremely valuable resource. Moreover, since issues in the oil downstream sector are common issues to oil producing and consuming countries alike, forums such as this symposium, in which various parties assemble to discuss a common theme, are certain to contribute largely to building consensus and stabilizing the global oil supply structure. In the end, Mr. Kimura expressed his expectation that the collective wisdom of oil producing and consuming countries will expand the possibilities of the precious and superior resource called “oil,” for the future of our society.

## (2) Keynote Speeches

Mr. Nobuo Tanaka from IEA gave a keynote speech as follows: Future increases in demand for oil will come mainly from non-OECD countries, or in other words, from developing countries, and oil demand will continue to grow steadily and eventually outpace the production capacity of worldwide suppliers. Inevitably, spare production capacity will become tighter than it is today. Nevertheless, the situation will not cause a sudden insecurity in oil supply as in past oil crises, but will constrict oil supplies in a gradual manner. Experts call this phenomenon “creeping oil crisis\*.” Needless to say, the best way to ensure stable supply of oil while maintaining economic growth is to realize advanced applications of oil, conserve energy, and prevent wasteful oil use.



*Mr. Nobuo Tanaka, Executive Director of IEA, giving a keynote speech*

\* *Creeping oil crisis: an oil crisis that occurs as a result of a gradual constriction of oil supplies over time*





*Mr. Mohammed A. Al-Omair, Executive Director of Saudi Aramco, giving a keynote speech*

Mr. Mohammed A. Al-Omair from Saudi Aramco also gave a keynote speech, firstly presenting an overview of Saudi Aramco's role in the global oil industry. He said that Saudi Arabia has the world's largest reserve of hydrocarbon resources. In order to assure consumers that oil will continue to be a reliable source of energy, Saudi Aramco has striven to secure stable supplies of oil as a leading oil-producing country. Ensuring oil security requires considerable investment, but Saudi Aramco has established a consistent system for the stable supply of oil, from the oilfields to consuming regions. For example, it has maintained its 12 million b/d oil production capacity through the development of oil resources, acquired the capacity to also supply oil products by strengthening its refining capabilities, and invests in Vela International Marine Limited (Saudi Aramco's wholly owned shipping subsidiary). Mr. Al-Omair also spoke about the importance of human resource development, stating that Saudi Aramco has been able to continue the difficult and challenging business of supplying oil, precisely because it is blessed with "people" who constantly pursue higher levels of technology and management. Based on the belief that "people" are the most precious asset of the company, it has spared no investment in human resource development. Saudi Aramco's success today is the result of this policy. Mr. Al-Omair said that Saudi Aramco will continue to contribute to the global stabilization of oil supplies by directing its efforts to developing human resources and achieving advanced utilization of oil based on innovating technologies and management.

### **(3) First Day: Special Lectures (January 27)**

The latter half of the symposium agenda on the first day featured special lectures by Mr. Mubarak S. Al Ketbi, Manager, Crude & Condensate Division, Marketing & Refining Directorate, Abu Dhabi National Oil Company

(ADNOC); Mr. He Zhoyun, Vice President, Economics & Development Research Institute, SINOPEC; and Mr. Pramod Kumar Karunakaran, Managing Director/CEO, Ethylene Malaysia Sdn. Bhd., PETRONAS.

Mr. Al Ketbi of ADNOC said that UAE is not only focusing on the development of renewable energy systems, but also on the development of nuclear power, and has plans to invest 40 billion dollars in nuclear power development by 2017. With the completion of a second unit at the Ruwais Refinery, clean fuel supplies will also be available. Mr. Al Ketbi stressed that UAE will endeavor to secure stable energy supply by comprehensively developing various types of energy.

Mr. Zhoyun of SINOPEC said that oil consumption is increasing in China, and particularly the consumption of automotive fuels such as gasoline and diesel fuel. The country is therefore directing its efforts to creating social systems that promote efficient utilization of oil. For example, it is focusing on developing alternative energy and technologies such as coal liquefaction, bioethanol, biodiesel, hydrogen energy and electric vehicles, and has also implemented a policy for shifting the mainstream transportation mode from automobiles to railways by developing inter-city high-speed railways and inner-city subway networks.

Mr. Karunakaran of PETRONAS spoke about the important role of the oil industry. He explained that PETRONAS commenced operations related to oil development in 1974, and has increased its corporate value and developed into a company that contributes to society by producing petroleum and petrochemical products from hydrocarbons. Although various difficult issues lie ahead, such as rising oil prices and intensifying international competition, Mr. Karunakaran said the oil industry has a responsibility to continue providing stable supplies of oil.

### **(4) Second Day: Discussion Sessions (January 28)**

#### *(i) Session 1 (morning session) "Management Innovation"*

Under the chairmanship of Mr. Takeshi Kurosaki, Executive Corporate Officer in Charge of Petroleum Refining Dept., Japan Energy Corporation, five panelists delivered presentations on management innovation at their company. The panelists included Mr. Masoud Salim Al Msalmy, General Manager, Corporate Support Division, Oman Refineries & Petrochemicals Company (ORPC); Mr. Hashem Y. Al Refaei, Manager, Marketing Research & Administration Division, Marketing

& Refining Directorate, Abu Dhabi National Oil Company (ADNOC); Ms. Nina Nurlina Pramono, Vice President, People Management of Human Resources, PERTAMINA; Mr. A. O. Oniwon, Group Executive Director, Refineries & Petrochemicals, Nigerian National Petroleum Corporation (NNPC); and Mr. Shinji Takasu, General Manager, Refining Technology, Petroleum Refining Dept., Japan Energy Corporation.

In a summary of the panelists' presentations, Mr. Kurosaki noted as follows: In this session, five panelists spoke about management innovation in their respective companies. Each company bears a large social responsibility to ensure stable oil supply, but liberalization and globalization trends have created an environment of intense international competition. Unless the companies embrace technology and management innovation and build a competitive corporate culture, they will not be able to fulfill their responsibility. In all five presentations, "people" were the common key to creating a competitive company. New technologies and management systems may be developed, but they would have no effect if "people" do not change. Therefore, it is important, above all else, for people to interact with each other beyond national and corporate boundaries and to use that experience to mutually acquire the wisdom of "human development."



Session 1 panelists

(ii) *Session 2 (afternoon session) "Technology Innovation"*

Under the chairmanship of Mr. Sei Tange, Executive Vice President and CMO, JGC Corporation, four panelists delivered presentations on technology innovation in their respective companies. The panelists included Mr. Mark G. Lawrence, Head of GTL Product Marketing, Qatar Petroleum Marketing Services (Tasweeq); Mr. Aminallah Eskandari, Managing Director and Chairman of Board of Directors, Hormoz Oil Refining Company (NIORDC);



Session 2 panelists

Mr. Asaad Ahmad Al-Saad, Deputy Chairman & Deputy Managing Director, Mina Al-Ahmadi Refinery, Kuwait National Petroleum Company (KNPC); and Mr. Takashi Yasuda, Executive Officer, Senior General Manager, R&D Division, JGC Corporation.

Mr. Tange summarized the presentations as follows: Today, we listened to presentations on measures for improving the value of hydrocarbons in four countries. A new trend seems to be emerging in both oil producing and consuming countries, to use oil in value-added applications instead of simply burning it as fuel. However, comprehensive capacity to manage diverse technologies is required to continue the trend. Oil producing and consuming countries may have their differences, but they nonetheless share the same objective of seeking more advanced uses of oil and natural gas. We hope to develop new oil energy systems through mutual cooperation.



Q&A session

### 3. Summary

In the closing ceremony, Mr. Masataka Sase, Executive Director of JCCP, summarized the discussions that took place in this year's symposium, which focused on management and technology innovation for security

of oil supply. In regard to management innovation, he indicated that all panelists identified “human resource development” as the key to innovation and raised strong awareness that no company can survive the trend of globalization unless all ranks of personnel, from top management to site workers, unite their strengths. With respect to technology innovation, Mr. Sase said the panelists gave inspiring presentations on the challenges that are being addressed in their respective countries to produce high-value products from all types of hydrocarbon resources, from methane to heavy oil. However, as each country is working independently to attain a goal that is common to both oil producing and consuming countries, Mr. Sase emphasized the significance of all countries coming together to learn from each other in an exchange of information, and

called on all participants to further strengthen their bonds of mutual cooperation in the future.

In this year’s symposium, the keynote speech delivered by Mr. Nobuo Tanaka, Executive Director of IEA, noted that we must prepare to address a “creeping oil crisis,” which distinctively differs from the oil crises of the 1970s. JCCP has consistently focused on stable oil supply as an overriding theme of our annual international symposiums, and feel that the time has come for oil producing and consuming countries to cooperate in achieving technology and management innovation based on their longstanding relationships of trust. For our part, we will strengthen our commitment to serving as a bridge between oil producing and consuming countries and creating opportunities for mutual cooperation.

*<by Hisayoshi Tanda, Administration Dept.>*

### The 28th JCCP International Symposium Program

#### “Innovation of Technology and Management in Oil Downstream: For Security of Oil Supply”

Date	Time	Proceedings
Jan. 27 (Wed)	14:00 – 15:45	Opening ceremony
		Opening address: Mr. Yaichi Kimura, President of JCCP
		Guest of honor speech: Mr. Masaaki Kimura, Director-General, Natural Resources and Fuel Department, Agency for Natural Resources and Energy, METI
		Keynote speeches: Mr. Nobuo Tanaka, Executive Director, International Energy Agency (IEA) Mr. Mohammed A. Al-Omair, Executive Director, Refining and NGL Fractionation, Saudi Aramco
	15:45 – 17:30	Special lectures (1) Mr. Mubarak S. Al Ketbi, Manager, Crude & Condensate Division, Marketing & Refining Directorate, Abu Dhabi National Oil Company (ADNOC) (UAE) (2) Mr. He Zhoyun, Vice President, Economics & Development Research Institute, SINOPEC (China) (3) Dr. Pramod Kumar Karunakaran, Managing Director/CEO, Ethylene Malaysia Sdn. Bhd. (PETRONAS) (Malaysia)
	18:00 – 20:00	Reception
Jan. 28 (Thu)	9:30 – 12:00	Session 1 “Management Innovation”
	13:30 – 16:00	Session 2 “Technology Innovation”
	16:00 – 16:10	Closing address: Mr. Masataka Sase, Executive Director of JCCP

## Keynote Speeches

Country	Organization	Name	Title
Japan	International Energy Agency (IEA)	Mr. Nobuo Tanaka	Executive Director
Saudi Arabia	Saudi Aramco	Mr. Mohammed A. Al-Omair	Executive Director, Refining and NGL Fractionation

## Guest Speeches

Country	Organization	Name	Title
UAE	Abu Dhabi National Oil Company (ADNOC)	Mr. Mubarak S. Al Ketbi	Manager, Crude & Condensate Division, Marketing & Refining Directorate
China	SINOPEC	Mr. He Zhoyun	Vice President, Economics & Development Research Institute
Malaysia	Ethylene Malaysia Sdn. Bhd. (PETRONAS)	Mr. Pramod Kumar Karunakaran	Managing Director/CEO

### Session 1: Management Innovation

**Chairman:** Mr. Takeshi Kurosaki, Executive Corporate Officer in Charge of Petroleum Refining Department, Japan Energy Corporation

Country	Company	Name	Title
Oman	Oman Refineries & Petrochemicals Company (ORPC)	Mr. Masoud Salim Al Msalmy	General Manager, Corporate Support Division
UAE	Abu Dhabi National Oil Company (ADNOC)	Mr. Hashem Y. Al Refaei	Manager, Marketing Research & Administration Division, Marketing & Refining Directorate
Indonesia	PERTAMINA	Ms. Nina Nurlina Pramono	Vice President, People Management of Human Resources
Nigeria	Nigerian National Petroleum Corporation (NNPC)	Mr. A. O. Oniwon	Group Executive Director, Refineries & Petrochemicals
Japan	Japan Energy Corporation	Mr. Shinji Takasu	General Manager, Refining Technology, Petroleum Refining Department

### Session 2: Technology Innovation

**Chairman:** Mr. Sei Tange, Executive Vice President and CMO, JGC Corporation

Country	Company	Name	Title
Qatar	Qatar Petroleum Marketing Services (Tasweeq)	Mr. Mark G. Lawrence	Head of GTL Product Marketing
Iran	Hormoz Oil Refining Company (NIORDC)	Mr. Aminallah Eskandari	Managing Director and Chairman of Board of Directors
Kuwait	Kuwait National Petroleum Company (KNPC)	Mr. Asaad Ahmad Al-Saad	Deputy Chairman & Deputy Managing Director, Mina Al-Ahmadi Refinery
Japan	JGC Corporation	Mr. Takashi Yasuda	Executive Officer, Senior General Manager, R&D Division

# The 27th JCCP International Symposium

## “Future Vision of the Oil Industry: Creating Value from Hydrocarbons and Approaches to New Energy Systems”



*Participants of the symposium*

On January 28 and 29, 2009, JCCP held “The 27th JCCP International Symposium” under the auspices of the Ministry of Economy, Trade and Industry (METI). The two-day event drew an audience of 372 visitors.

### 1. Theme and Goal

The theme of this year’s symposium was “Future Vision of the Oil Industry: Creating Value from Hydrocarbons and Approaches to New Energy Systems.”



*Opening address:  
Mr. Yaichi Kimura, President of JCCP*



*Guest of honor speech:  
Mr. Shinsuke Kitagawa, Director-General,  
Natural Resources and Fuel Department, METI*

Oil consumption is increasing in newly emerging economies, and is adding new strains on the global oil market. Oil-producing and oil-consuming countries must therefore cooperate in addressing the common issue of mitigating the increase in oil consumption, by seeking even more advanced utilization of oil through promotion of energy conservation, introduction of renewable energies, and petrochemical integration.

In this year's symposium, leading engineers from Middle East and Asian oil-producing countries, as well as from Japanese oil companies, were invited to share the initiatives for effective oil utilization that are implemented in their respective countries. By providing a forum for mutual sharing of experience, the symposium aimed to create a common awareness that such personal exchange of information is vital to the efficient introduction of relevant technologies.

## 2. Overview

### (1) First Day: Opening Ceremony (January 28)

The symposium began with an opening address by Mr. Yaichi Kimura, President of JCCP. This was followed by a greeting from the guest of honor, Mr. Shinsuke Kitagawa, Director-General of the Natural Resources and Fuel Department, METI, and a keynote speech by Mr. Nasser D. Al Mahasher, General Manager, Saudi Petroleum, Ltd.

Mr. Kimura stressed the need to appreciate more seriously than ever the true value of oil today, and spoke about the important responsibility of the oil downstream sector in oil-producing and oil-consuming countries. Based on the understanding that the oil refining industry plays an important role in converting oil into petroleum and petrochemical products, Mr. Kimura pointed out that the extent to which we can achieve effective utilization of oil depends on how much we are able to develop advanced oil refining technologies. Therefore, in this respect, we need to renew our awareness that we bear an important responsibility to the next generation.

Mr. Kitagawa of METI stated that creating new values in the oil industry is a common issue to



*Keynote speech:  
Mr. Nasser D. Al Mahasher, General Manager,  
Saudi Petroleum, Ltd.*

oil-producing and oil-consuming countries, and expressed his expectations that fruitful exchanges of views will take place in the symposium.

Mr. Al Mahasher, in his keynote speech, spoke about increasing the value of oil, summarized as follows: Saudi Aramco has the responsibility to provide stable supplies of oil to the world. We have a continuous production capacity of 12 million b/d in the upstream sector. In the downstream sector, we are developing integrated petrochemical refineries, including the PetroRabigh joint venture with Sumitomo Chemical, to increase the value of oil. Oil still exists in relative abundance today, but the precious resource will eventually run dry. Therefore, Saudi Aramco will continue to make every effort to maximize the value of our precious oil resource. Today, we are seeing less implementation of major projects due to the recent global downturn, but Saudi Aramco is looking beyond this short-term trend. We must not lose sight of long-term oil-related needs and opportunities. Companies that are able to keep a steady eye on the future are sure to enjoy even greater success when the global economy recovers.

Mr. Al Mahasher also used the Japanese expression "*a-un no kokyu*," which roughly translates into "being in sync with each other without using gestures or words," and called on everyone to endure together and successfully emerge from the current difficulties to a bright future in the spirit of "*a-un no kokyu*."

**The 27th JCCP International Symposium Program**  
 “Future Vision of the Oil Industry:  
 Creating Value from hydrocarbons and Approaches to New Energy Systems”

Date	Time	Proceedings
Jan. 28 (Wed)	14:00 – 15:00	Opening ceremony
		Opening address: Mr. Yaichi Kimura, President of JCCP
		Guest of honor speech: Mr. Shinsuke Kitagawa, Director-General of the Natural Resources and Fuel Department, Agency for Natural Resources and Energy, METI
		Keynote: Mr. Nasser D. Al Mahasher, General Manager, Saudi Petroleum, Ltd.
	15:15 – 17:40	Guest speech
		(1) Mr. Vikram M. Sampat, Vice President, Petroleum Business, Reliance Industries Limited (India)
		(2) Mr. Seiji Takeuchi, General Manager, Planning and Coordination Office, Rabigh Project, Sumitomo Chemical Co., Ltd. (Japan)
		(3) Dr. Fereidun Fesharaki, Chairman, FACTS Global Energy (United States)
		(4) Mr. Abubakr Amer Al-Saiari, Liaison Coordinator, Human Resources, Qatar Petroleum (Qatar)
	18:00 – 20:00	Reception
Jan. 29 (Thu)	9:30 – 12:00	Session 1 “Challenge of the Petroleum Industry to Seek Maximum Value from Hydrocarbons—Towards the Best Mix of Future Energy Systems—”
	13:30 – 16:00	Session 2 “Challenge of the Petroleum Industry to Seek Maximum Value from Hydrocarbons—Towards Consumer-Producer Cooperation—”
	16:00 – 16:10	Closing address: Mr. Masataka Sase, Executive Director of JCCP

### Keynote Speech

Country	Organization	Name	Title
Saudi Arabia	Saudi Petroleum, Ltd.	Mr. Nasser D. Al Mahasher	General Manager

### Guest Speeches

Country	Organization	Name	Title
India	Reliance Industries Limited	Mr. Vikram M. Sampat	Vice President
Japan	Sumitomo Chemical Co., Ltd.	Mr. Seiji Takeuchi	General Manager, Planning and Coordination Office, Rabigh Project
USA	FACTS Global Energy	Dr. Fereidun Fesharaki	Chairman
Qatar	Qatar Petroleum	Mr. Abubakr Amer Al-Saiari	Liaison Coordinator, Human Resources

## (2) First Day: Special Lectures (January 28)

Following Mr. Al Mahasher's keynote speech, guest speakers Mr. Vikram M. Sampat, Vice President, Petroleum Business, Reliance Industries Limited; Mr. Seiji Takeuchi, General Manager, Planning and Coordination Office, Rabigh Project, Sumitomo Chemical Co., Ltd.; Dr. Fereidun Fesharaki, Chairman, FACTS Global Energy; and Mr. Abubakr Amer Al-Saiari, Liaison Coordinator, Human Resources, Qatar Petroleum, gave special lectures.

Mr. Sampat stated that maintaining competitive strength is extremely difficult to do in the turmoil of today's global economy, and emphasized the importance of enhancing technological capabilities and strengthening business management technologies. Mr. Takeuchi spoke about PetroRabigh, and defined it as a major project that offers three benefits: large-scale equipment, advanced technologies, and inexpensive feedstock, and that aims to contribute to promoting industries and creating employment in Saudi Arabia as a worldwide leader in the chemical industry. Dr. Fesharaki estimated the fair prices of crude oil, and gave note that investments need to be made extremely carefully, especially since so many countries are pushing forward with projects for the construction of refineries and cracking units, that by 2010 or so the global market may become saturated with excessive supplies of oil products. Lastly, Mr. Al-Saiari articulated the importance of human resource development, emphasizing the need to systematically develop outstanding personnel, as they are the key to the success of large-scale projects.



Session 1 panelists: Representing Japan, Kuwait, UAE, and Qatar (from the left)

## (3) Second Day: Discussion Sessions (January 29)

### (i) Session 1 (morning session)

Mr. Keizoh Takeuchi, Director and Senior Vice President, Nippon Petroleum Refining Co., Ltd., chaired Session 1. The panelists included Mr. Howard Bevan, Senior Business Planner, Corporate Planning Department, Qatar Petroleum; Dr. Jihad M. Mohaidat, Technology Department Manager, Industries Unit, MASDAR-Abu Dhabi Future Energy Company; Mr. Ahmad S. Al-Jemaz, Deputy Managing Director, Shuaiba Refinery, Kuwait National Petroleum Company; and Mr. Hiroji Adachi, Executive Officer and General Manager, Technical Service Department, Nippon Oil Corporation.

After the panelists delivered their presentations, Mr. Takeuchi summarized Session 1 discussions as follows: Oil-producing and oil-consuming countries are both actively implementing initiatives for the effective utilization of oil resources. However, in order to bring success to such large projects, a framework of worldwide cooperation based on a global perspective is essential. In this respect, JCCP serves an important role: to more strongly than ever promote training, technical cooperation, and human resource development.

### (ii) Session 2 (afternoon session)

Mr. Junjiro Kuramochi, Director and General Manager, Manufacturing Department, Idemitsu Kosan Co., Ltd., chaired Session 2. The panelists included Mr. Seyed Morteza Elahi, Director of Planning and Projects Control, Pars Oil and Gas Company;



Session 2 panelists: Representing Japan, Saudi Arabia, UAE, China, and Iran (from the left)



Mr. Chaohui Huang, Section Chief, Comprehensive Plan Department, SINOPEC Zhenhai Refining & Chemical Company; Mr. Ahmed Omar Abdulla, Assistant General Manager, Operations, Abu Dhabi Oil Refining Company (TAKREER); Mr. Hussain A. Al-Qahtani, Director, Joint Manufacturing Program, Ras Tanura Integrated Petrochemical Project, Saudi Aramco; and Mr. Katsumi Teraoka, Executive Chief Engineer, Manufacturing Department, Idemitsu Kosan Co., Ltd.

After the panelists delivered their presentations, Mr. Kuramochi summarized Session 2 discussions, and concluded as follows: When considering the finite nature of natural resources, it is imperative that oil-producing and oil-consuming countries mutually pursue the noble use of oil, by promoting oil and petrochemical integration, increasing the value of oil, and saving energy.

**Session 1:** Challenge of the Petroleum Industry to Seek Maximum Value from Hydrocarbons  
—Towards the Best Mix of Future Energy Systems—

**Chairman:** Mr. Keizoh Takeuchi, Director, Senior Vice President, Nippon Petroleum Refining Co., Ltd.

Country	Company	Name	Title
Qatar	Qatar Petroleum	Mr. Howard Bevan	Senior Business Planner, Corporate Planning Department
UAE	MASDAR – Abu Dhabi Future Energy Company	Dr. Jihad M. Mohaidat	Manager, Technology Department, Industries Unit
Kuwait	Shuaiba Refinery, Kuwait National Petroleum Company	Mr. Ahmad S. Al-Jemaz	Deputy Managing Director
Japan	Nippon Oil Corporation	Mr. Hiroji Adachi	Executive Officer and General Manager, Technical Service Department

**Session 2:** Challenge of the Petroleum Industry to Seek Maximum Value from Hydrocarbons  
—Towards Consumer-Producer Cooperation—

**Chairman:** Mr. Junjiro Kuramochi, Director and General Manager, Manufacturing Department, Idemitsu Kosan Co., Ltd.

Country	Company	Name	Title
Iran	Pars Oil and Gas Company	Mr. Seyed Morteza Elahi	Director, Planning and Projects Control
China	SINOPEC Zhenhai Refining & Chemical Company	Mr. Chaohui Huang	Section Chief, Comprehensive Plan Department
UAE	Abu Dhabi Oil Refining Company (TAKREER)	Mr. Ahmed Omar Abdulla	Assistant General Manager
Saudi Arabia	Saudi Aramco Ras Tanura Refinery	Mr. Hussain A. Al-Qahtani	Director, Joint Manufacturing Program, Integrated Petrochemical Project
Japan	Idemitsu Kosan Co., Ltd.	Mr. Katsumi Teraoka	Executive Chief Engineer, Manufacturing Department



*Summary speech:  
Mr. Masataka Sase, Executive Director of JCCP*



*Symposium audience*

### 3. Summary

In closing the symposium, Mr. Sase summarized the two days of discussions as follows: In the Middle East and Asia, there are many plans for the construction of new refineries. Through advanced integration, these refineries are designed under the principle of pursuing added value to the extreme. This situation has made me realize anew that adding value is a common issue for both oil-producing and oil-consuming countries. From the corporate perspective, pursuing added value translates into higher productivity, and from the social perspective, it means achieving efficient use of petroleum, reducing environmental burden, and conserving precious oil resources. Therefore, enhancing the value of oil is an important challenge for both oil-producing and oil-consuming countries, one which must be addressed through mutual cooperation.

Mr. Sase then closed the symposium by articulating JCCP's commitment to promote personnel and technical exchange between oil-producing and oil-consuming countries and contribute to creating new values of oil.

This year's symposium was held amidst the worldwide financial crisis that began last September. However, country representatives agreed that "although projects may see a slight delay due to the temporary fluctuation in the economy, it is important to look ahead to achieve advanced utilization of oil in the long term," and voiced their expectations of Japan's cooperation in developing human resources and corporate culture as a means for bringing those projects to success. To respond to these expectations, JCCP will continue promoting training and technical cooperation programs in the future.

*<by Hisayoshi Tanda, Administration Dept.>*



*Participants of the symposium*

## The 26th JCCP International Symposium

### “The Role of the Oil Downstream Sector from the Perspective of Stable Energy Supply”

On February 6 and 7, 2008, “The 26th JCCP International Symposium” was held under the auspices of the Ministry of Economy, Trade and Industry. As the symposium took place just as the crude oil price had exceeded 100 dollars per barrel, it attracted greater attention than ever before, and drew an audience of close to 300 participants.

#### Symposium Theme

This year’s symposium was conducted under the theme, “The Role of the Oil Downstream Sector from the Perspective of Stable Energy Supply—The Necessity and Possibilities of International Collaboration.”

Today, the issue of securing a stable oil supply is a worldwide concern. The objective of the symposium was to therefore seek avenues for

securing a stable supply of oil, through discussions among guests and panelists from Japan and abroad, on issues and countermeasures commonly faced in the oil downstream sector. JCCP hoped to promote the awareness that “it is important for oil-producing and oil-consuming countries to step beyond their roles, to cooperate in resolving issues in the oil industry, while sharing their experience with each other,” and that “promoting cooperation and deepening the engagement between oil-producing and oil-consuming countries is the key to securing a stable energy supply.”

#### Symposium Overview

##### (1) Opening Ceremony (February 6, 2008)

On the first day, the symposium began with an opening address by Mr.

Akira Idemitsu, President of JCCP, followed by a greeting by the guest of honor, Mr. Shinsuke Kitagawa, Director-General of the Natural Resources and Fuel Department, Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry (METI), and an introduction of the chairmen and panelists of Sessions 1 and 2 by Mr. Mikio Kojima, Executive Director of JCCP. Following this, Mr. Idemitsu gave a keynote speech.

In his greeting, Mr. Kitagawa first welcomed all the guests from abroad who had come to Japan to participate in the symposium. He then spoke about the significance of the close relationships that oil-producing countries and Japan’s oil downstream sector have built over the years. Today, the crude oil market is undergoing a great change in response to increasing global demands for oil, but



*Guest of honor speech*  
 Mr. Shinsuke Kitagawa, Director-General  
 Natural Resources and Fuel Department  
 Agency for Natural Resources and Energy, METI



*Keynote speech*  
 Mr. Akira Idemitsu, President of JCCP

Japan nonetheless continues to receive a stable supply of crude oil, owing precisely to the strong relationship of trust it has cultivated with oil-producing countries. Representing METI, Mr. Kitagawa also expressed his hopes that JCCP will continue to implement activities that respond to the needs of oil-producing countries, and that the mutually beneficial relationships between JCCP and those countries will continue to grow even stronger.

Mr. Idemitsu, in his keynote speech, stressed the importance of oil and the necessity of ensuring its sustainable supply. He explained that oil is indispensable to automobile, airplanes, and other modern means of transportation, as well as an important petrochemical raw material, from which various types of plastics and chemicals are made. It is a precious resource that must not be depleted by

our generation. Mr. Idemitsu emphasized that it is our responsibility to the next generation, to reconsider the role of the oil downstream sector and ensure a stable oil supply for the future.

**(2) Special Lectures  
 (February 6, 2008)**

Following Mr. Idemitsu's keynote speech, Dr. Ken Koyama, Board Member of The Institute of Energy Economics, Japan, and Mr. Waleed H. Al-Bedaiwi, General Manager, Saudi Petroleum, Ltd., were asked to give a special lecture as guest speakers.

After briefly summarizing today's global energy situation, Dr. Koyama discussed the evolving relationship between the Middle East and Asia. He stated that the Middle East and Asia are gradually forming an inseparable relationship, in which they mutually

depend upon each other. This is because the two regions are the growth centers of the world. Asia's growth could provide an enormous oil market to the Middle East, and growth in the Middle East would allow Asia to import a large supply of oil. In the future, investments are expected to increase in both directions, from the Middle East to Asia, and vice versa, and bring the two regions closer to each other.

Mr. Al-Bedaiwi spoke about the significant relationship between oil-producing and oil-consuming countries, likening the relationship to "the two sides of a coin," which are inseparable from the other. He closed his lecture, by articulating Saudi Aramco's strong vow to join hands with its partners in the oil downstream sector, to uphold its responsibility of providing a stable supply of oil.



*Special lecture*  
 Dr. Ken Koyama, Board Member  
 The Institute of Energy Economics, Japan



*Special lecture*  
 Mr. Waleed H. Al-Bedaiwi, General Manager  
 Saudi Petroleum, Ltd.

### (3) Discussion Sessions

(February 7, 2008)

The second day of the symposium featured Session 1 discussions in the morning and Session 2 discussions in the afternoon. They arrived at the following conclusions.

#### 1) Session 1

*Theme: Management Issues in the Oil Downstream Sector for Contributing to Globally Stable Supply of Energy*

The chairman of Session 1, Mr. Isao Kusakabe, Executive Officer

& General Manager, International Ventures Department, Cosmo Oil Co., Ltd., summarized Session 1 discussions as follows: "Many countries today are experiencing rapid economic growth, a situation that will make the world ever more oil-dependent in the future. At

### 26th JCCP International Symposium Program

The Role of the Oil Downstream Sector from the Perspective of Stable Energy Supply

Date	Time	Proceedings
Feb. 6 (Wed)	2:00 – 3:00 pm	Opening ceremony <ul style="list-style-type: none"><li>• Opening address: Mr. Akira Idemitsu, President of JCCP</li><li>• Guest of honor speech: Mr. Shinsuke Kitagawa, Director-General, Natural Resources and Fuel Department, Agency for Natural Resources and Energy, METI</li><li>• Introduction of session chairmen and panelists: Mr. Mikio Kojima, Executive Director of JCCP</li><li>• Keynote speech: Mr. Akira Idemitsu, President of JCCP</li></ul>
	3:15 – 5:40 pm	Special lectures <ul style="list-style-type: none"><li>• Dr. Ken Koyama Board Member, The Institute of Energy Economics, Japan</li><li>• Mr. Waleed H. Al-Bedaiwi General Manager, Saudi Petroleum, Ltd.</li><li>• Mr. Sultan Al-Mehairi Director, Marketing &amp; Refining, Abu Dhabi National Oil Co. (ADNOC)</li></ul>
	6:00 – 8:00 pm	Reception
Feb. 7 (Thu)	9:30 am - 12:00 pm	Session I "Management Issues in the Oil Downstream Sector for Contributing to Globally Stable Supply of Energy"
	12:00 – 1:30 pm	Lunch break
	1:30 – 4:00 pm	Session II "Technological Issues in the Oil Downstream Sector for Contributing to Globally Stable Supply of Energy"
	4:00 – 4:10 pm	Closing greeting: Mr. Mikio Kojima, Executive Director of JCCP

### Special Lectures

Country	Organization	Name	Title
Japan	The Institute of Energy Economics, Japan	Dr. Ken Koyama	Board Member Director, Strategy and Industry Research Unit
Saudi Arabia	Saudi Petroleum, Ltd.	Mr. Waleed H. Al-Bedaiwi	General Manager
UAE	Abu Dhabi National Oil Co. (ADNOC)	Mr. Sultan Al-Mehairi (on behalf of Mr. Hashem Y. Al-Refaei, Marketing Research & Administration Manager)	Director, Marketing & Refining



Session 1 panelists  
(From the right: Indonesia, Oman, Qatar, UAE, Japan)

Session 2 panelists  
(From the right: Iran, Kuwait, Nigeria, Saudi Arabia, Japan)



the same time, however, we are facing a number of serious issues, such as drastic increases in crude oil prices, environmental issues that call for stringent regulations, growing demands for petroleum products, and the need to seek measures for securing a stable oil supply. Given this situation, urgent attention must be directed to expanding and upgrading refinery facilities and developing human resources. As Japan and oil-producing countries share the same oil downstream issues, we must harness our efforts to secure a globally stable supply of oil. Relationships of trust that are born from such collaboration would also provide greater ‘energy security.’”

## 2) Session 2

### ***Theme: Technological Issues in the Oil Downstream Sector for Contributing to Globally Stable Supply of Energy***

The chairman of Session 2, Mr. Keiichi Matsumoto, Director & Senior Executive Officer of Toyo Engineering Corporation, identified the following three technical issues from among various issues confronting the oil

downstream sector in each country, as common issues that have a particularly large impact on a globally stable supply of energy.

The first issue is the growing demand for gasoline and diesel oil, and measures for satisfying that demand, such as increasing heavy oil cracking capacity and adopting deep desulfurization technologies. In every country, demands for transportation fuel, such as gasoline and diesel oil, are increasing, while demands for heavy oil are decreasing. For this reason, there is an urgent need to construct and expand the capacities of facilities that crack heavy oil and convert it to gasoline and diesel oil. Desulfurization technologies are also sought, to produce petroleum products that comply with environmental standards that are becoming more and more stringent the world over.

The second issue is the decrease in heavy oil demand and the increase of value-added petroleum products. As a countermeasure to the decreasing demand for heavy oil, heavy oil should either be converted to light oil, by introducing a cracking unit, or to higher value-added products, such as by introducing a residual oil direct desulfurization unit, solvent dewaxing unit, or IGCC, to produce thermal power, steam energy, electric power, or synthetic gas.

The third issue is safety and environmental measures. Ensuring safety requires the proper maintenance management of facilities, utilization of appropriate tools, and awareness-raising of employees. Environmental measures should not only focus on preventing air and water pollution, but must also pay due consideration to other issues, such as the reduction of industrial waste.

#### (4) Summary

Lastly, Mr. Kojima summarized the two days of discussions and posed a thought for everyone to consider. He stated that the oil downstream sector

must fulfill an important role in securing a globally stable supply of energy. “Therefore,” he asked, “shouldn’t the players in the downstream sector mutually cooperate and make active

efforts to serve as a bridge between oil-producing and oil-consuming countries?” The symposium came to an end on this thought-provoking note.

*<by Hisayoshi Tanda,  
Administration Dept.>*

**Session I:** Management Issues in the Oil Downstream Sector for Contributing to Globally Stable Supply of Energy  
**Chairman:** Mr. Isao Kusakabe, Executive Officer & General Manager, International Ventures Department, Cosmo Oil Co., Ltd.

Country	Company	Name	Title
Indonesia	PT PERTAMINA	Mr. Gigih Prakoso	Manager, Corporate Business Planning and Development
Qatar	Qatar Petroleum	Dr. Ali Hamed Al-Mulla	Manager, Corporate Environment and Sustainable Development
Oman	Oman Refinery Company L.L.C.	Mr. Said Waleed Q. Al-Zadjali	Manager, Procurement, Contracts & Inventory
UAE	Abu Dhabi Oil Refining Co. (TAKREER)	Mr. Sultan Saeed Al-Muhairi	Abu Dhabi Refinery Division Manager
Japan	Cosmo Oil Co., Ltd.	Mr. Hirohiko Kato	General Manager, International Business Dept.

**Session II:** Technological Issues in the Oil Downstream Sector for Contributing to Globally Stable Supply of Energy  
**Chairman:** Mr. Keiichi Matsumoto, Director, Senior Executive Officer, General Manager, Plant Engineering Center, Toyo Engineering Corporation

Country	Company	Name	Title
Iran	National Iranian Oil Refining and Distribution Company (NIORDC)	Mr. Amin Allah Eskandari	Director, Refining Affairs
Kuwait	Kuwait National Petroleum Co.	Mr. Mohammed Ghazi Al-Mutairi	Deputy Managing Director, Mina Abdulla Refinery
Nigeria	Nigerian National Petroleum Corporation	Engr. Onochi A. Anyaoku	Group Executive Director, Refining and Petrochemicals Directorate
Saudi Arabia	Saudi Aramco	Mr. Ali Alhazmi	Superintendent, Riyadh Refinery Operation Division
Japan	Toyo Engineering Corporation	Mr. Tomomichi Tomita	General Manager, Process Systems Engineering Division



*Scene of the Symposium*



*Closing address  
Mr. Mikio Kojima, Executive Director of JCCP*

# The 18th Joint GCC-Japan Environment Symposium

## —Environment & Water Resources for Our Future—

The 18th Joint GCC-Japan Environment Symposium was jointly organized with Bahrain Centre for Studies & Research (BCSR), and was held over a three-day period from February 8 to 10 in Bahrain, under the theme, “Environment & Water Resources for Our Future.”

### Background

JCCP has held the Joint GCC-Japan Environment Symposium annually to provide a forum for information exchange among environmental experts in the GCC countries and Japan, and fiscal 2009 marked the 18th convening of the symposium.

### Overview

Some 230 participants from the GCC countries and Japan, the largest number ever, attended the opening ceremony, which was held on the 8th. They included such key figures as H.E. Dr. Mohammed J. K. Alghatam, Chairman of the Board of Trustees of BCSR; Dr. Abdulla M. Alsadiq, Secretary-General of BSCR; Dr. Eion Turnbull, Deputy Chief Executive (Refining & Marketing) of the Bahrain Petroleum Company (BAPCO), which provided special assistance in implementing the symposium by hosting a BAPCO-sponsored reception on the evening of February 8; H.E. Mr. Hideo Sato, Ambassador of Japan to Bahrain; and

Dr. Junzo Kasahara, Professor Emeritus at the University of Tokyo (and leader of the Japanese delegation). Dr. Alsadiq, Dr. Turnbull, Ambassador Sato and Mr. Morihiro Yoshida, Managing Director of JCCP, each gave an opening address.

Dr. Alsadiq thanked the guests for attending the symposium, and expressed his expectations that the symposium will provide hints for resolving water resource and climate change issues in the GCC region. He noted that, as environmental issues are a large concern to the GCC countries where water resources are limited, it is highly meaningful to have Japanese and GCC experts mutually share their knowledge and exchange views on issues of concern to the region in this symposium.

Dr. Turnbull emphasized our responsibility to seriously address environmental issues today as leaders in the field, although whether we succeed or not in doing so can only be judged by the next generation. He said he was confident that technological innovations that will be introduced in the symposium would bring us new possibilities.

Ambassador Sato noted that this environment symposium, launched in 1992 as a greening seminar and held for roughly 20 years since, provides an opportunity to address the issue of global warming, particularly in the GCC region where environmental issues have become pronounced after the Gulf War. He encouraged



*Commemorative photo at the opening ceremony*



all participants to learn and benefit from the knowledge of the Japanese and GCC experts.

Mr. Yoshida, after giving a brief introduction of JCCP and an overview of JCCP technical cooperation projects and training programs, asserted that Japan's advanced environmental technologies would be effective in addressing environmental issues that are raising widespread concern in the GCC countries, and stressed the importance of this symposium.

Three keynote lectures followed the opening speeches. On the Japanese side, Dr. Kasahara gave a lecture under the title, "An innovative method for the 4D monitor of storage in CCS (Carbon dioxide Capture and Storage) and oil and gas reservoirs and aquifers." On the Bahrain side, lectures were given by Mr. Essa G. Al-Ansari, General Manager of Major Engineering Projects at BAPCO, and Prof. Waleed Al-Zubari, Vice-President of Academic Affairs at Arabian Gulf University.

After the keynote lectures, 19 Japanese GCC experts gave presentations in four separate discussion sessions.

■ February 8

Session 1: Energy and Gas Industry and Sustainability

Session 2: Water Resources and Environmental Protection

■ February 9

Session 3: Climate Change and Global Warming

Session 4: Future Perspective for Energy, Water and Environment

Many of the presentations given by GCC experts focused on "water" and "the environment." This is understandable, since the symposium was originally designed as a greening seminar. However, it also indicated the GCC countries' consistently strong interest and concern in issues related to the environment and water resources.



*Discussion session*

A closing ceremony was held on the 9th following the final discussion session. Dr. Mohammed S. Al-Ansari, Director of the Publication & Data Warehouse at BCSR and Chairperson of the Organizing Committee of the Environment Symposium, and M. Nakamura, Manager of the Technical Cooperation Dept. at JCCP, officially closed this year's symposium after thanking all symposium participants and everyone from BCSR and BAPCO for their cooperation.

On the 10th, the Japanese delegation visited a BAPCO refinery, accompanied by many people from the Bahrain side. There they visited the Low Sulphur Diesel Production Control Center among other facilities, and recognized anew Bahrain's strong commitment to environmental conservation.

On the 7th, the day before the opening of the environment symposium, the JCCP Secretariat held a press conference at BCSR to present an overview of JCCP activities and explain details of the environment symposium. Dr. Alghatam, Dr. Alsadiq, Dr. Al-Ansari, Mr. Yukio Ishibiki, Second Secretary of the Japanese Embassy in Bahrain, and six Japanese lecturers also lent their presence to the event.

## Summary

The participants of the environment symposium engaged in active discussions in the four discussion sessions. GCC experts took particular note of the presentations on Japan's advanced environmental technologies as potential solutions to their environmental challenges.

Members on the JCCP side hope that this environment symposium has helped deepen relationships between oil-related companies and organizations in the GCC region and JCCP. Moreover, public recognition of JCCP in the GCC countries has increased, owing to local media coverage of the press conference and symposium.

*<by Makoto Nakamura, Technical Cooperation Dept.>*



*Press conference*

## The 18th Joint GCC-Japan Environment Symposium

No.	Country	Name	Organization
<b>Session 1: Energy and Gas Industry and Sustainability</b>			
Chairpersons: Prof. Hidenori Yahiro, Graduate School of Science and Engineering, Ehime University, Japan Dr. Mohammed S. Al-Ansari, Bahrain Centre for Studies & Research			
1	Saudi Arabia	Mr. Mohammad A. Hajri	Saudi Aramco
2	Japan	Mr. Shigeyuki Funada	Cosmo Oil Co., Ltd.
3	Bahrain	Mr. Ijaz Ashraf	The Bahrain Petroleum Company
4	Bahrain	Dr. Tarek Ghalwash	Bahrain Centre for Studies & Research
<b>Session 2: Water Resources and Environmental Protection</b>			
Chairpersons: Dr. Muhammad Al-Rashed, Kuwait Institute for Scientific Research Eng. Nassema Al-Marzouqi, Water Distribution Directorate, Bahrain			
1	Kuwait	Dr. Mohammad Al-Murad	Kuwait Institute for Scientific Research
2	Bahrain	Dr. Khaled Burashid	Electricity & Water Authority
3	Saudi Arabia	Dr. Alaadin A. Bukhari	King Fahd University of Petroleum & Minerals
4	Oman	Dr. Mahad Said Baawain	Sultan Qaboos University
5	Qatar	Dr. Kamel Mostafa Amer	Ministry of Environment
<b>Session 3: Climate Change and Global Warming</b>			
Chairpersons: Dr. Waheeb Al-Naser, University of Bahrain Dr. Ali Hamad Al-Mulla, Qatar Petroleum			
1	UAE	Dr. Sayed A. M. Marzouk	UAE University
2	Japan	Dr. Ken-ichi Fujimoto	Kitakyushu International Techno-cooperative Association
3	Japan	Ms. Hikari Egami	JGC Corporation
4	Bahrain	Dr. Mohammed S. Al-Ansari	Bahrain Centre for Studies & Research
5	Bahrain	Dr. Majeed Safar Jasim	University of Bahrain
<b>Session 4: Future Perspective for Energy, Water and Environment</b>			
Chairpersons: Eng. Ebrahim Al-Kaabi, Electricity and Water Authority, Bahrain Dr. Ken-ichi Fujimoto, Kitakyushu International Techno-cooperative Association, Japan			
1	Japan	Dr. Kayoko Tsuruga	JGI, Inc.
2	Bahrain	Dr. Waheeb Al-Naser	University of Bahrain
3	Bahrain	Dr. Nader Al-Masri	Bahrain Centre for Studies & Research
4	Japan	Prof. Hidenori Yahiro	Graduate School of Science and Engineering, Ehime University
5	Bahrain	Prof. Ibrahim Abdel Gelil	College of Graduate Studies, Arabian Gulf University



*Symposium venue*



*One of the Japanese lecturers: Ms. Hikari Egami,  
JGC Corporation*

# The 17th Joint GCC-Japan Environment Symposium

(The 4th Joint KISR-JCCP Environment Symposium)



*Participants of the symposium*

JCCP and Kuwait Institute for Scientific Research (KISR) jointly held the 17th Joint GCC-Japan Environment Symposium (the 4th Joint KISR-JCCP Environment Symposium) from February 2 to 4, 2009. The symposium was held in Kuwait City, under the theme, “Water Resources in the GCC and Environmental Challenges.”

This symposium has been held annually in a GCC country as a forum for information exchange among

environmental experts in the GCC countries and Japan, and was held for the 17th time this year.

The opening ceremony was held on the 2nd, with the attendance of more than 200 people from the GCC countries and Japan. They included such key figures as Dr. Najj M. Al-Mutairi, Director General of KISR, Mr. Jamal Al-Nouri, Managing Director – Planning of Kuwait Petroleum Corporation (KPC) who provided special assistance in implementing



*Dr. Najj M. Al-Mutairi, Director General, KISR (left),  
Mr. Masataka Sase, Executive Director of JCCP (right)*



*Dr. Takeo Kikkawa, Professor at Hitotsubashi University  
Graduate School (leader of Japanese delegation)*



Mr. Jamal Al-Nouri, Managing Director – Planning, KPC (left), Dr. Muhammad F. Al-Rashed, Director, Water Resource Division, KISR (center)



Dr. Al-Mutairi (left), H.E. Mr. Masatoshi Muto, Ambassador of Japan to Kuwait (right)

the symposium, H.E. Mr. Masatoshi Muto, Ambassador of Japan to Kuwait, and Dr. Takeo Kikkawa, Professor at Hitotsubashi University Graduate School of Commerce and Management (leader of the Japanese delegation). Dr. Al-Mutairi, Mr. Al-Nouri, H.E. Ambassador Muto and Mr. Masataka Sase, Executive Director of JCCP, each gave an opening address.

Dr. Al-Mutairi acknowledged that environmental issues are of growing concern to the GCC countries where water resources are limited, and stressed how important and meaningful it is for experts from Japan and the GCC countries to exchange views and engage in serious discussions on environmental issues. He also expressed his wish that matters discussed in this symposium will provide clues to addressing issues concerning water resources and climate change in the GCC countries.

Mr. Al-Nouri noted that holding the symposium in Kuwait this year was well-timed, as it coincided with KPC's company-wide undertaking to address environmental issues, and said that he was looking

forward to the presentations.

H.E. Ambassador Muto explained that Japan experienced serious public pollutions in the 1960s and 1970s, but has overcome those issues through its own efforts, and is presently applying the knowledge it has acquired through that experience to the Kuwait Gulf Treatment Project that is being implemented jointly with the Kuwait Ministry of Higher Education. He also expressed his wish that the symposium will encourage more Japanese companies and organizations to address environmental issues in Kuwait and other GCC countries, and produce significant achievements.

Mr. Sase firstly gave a brief introduction of JCCP, followed by an overview of JCCP technical cooperation projects and training programs implemented in Kuwait. He then explained the effectiveness of Japan's advanced environmental technologies in addressing environmental issues that are becoming of increasing concern in the GCC countries, and emphasized the importance of this environment symposium.



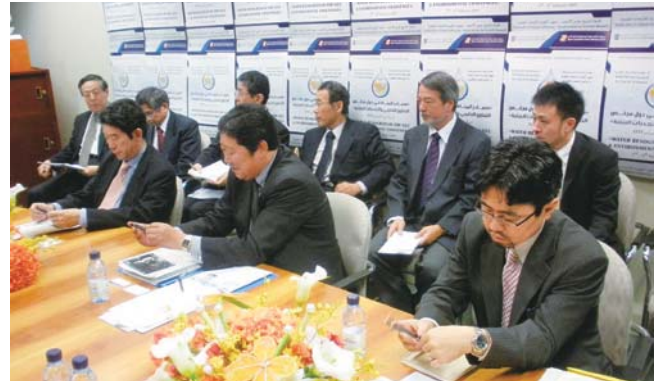
Symposium venue



Symposium session



Press conference at KISR



Japanese delegation at the press conference

The last but not the least item of the opening ceremony was Dr. Kikkawa's keynote lecture titled "Energy Conservation and Technological Innovation: Japan's Contribution to Cool Earth." The lecture focused on the "Cool Earth 50" initiative, which Japan had proposed in May 2007 as a post-Kyoto framework. Dr. Kikkawa stated that achieving an appropriate balance between global environmental conservation and economic growth is essential to realizing the "Cool Earth 50" initiative, and that this balance could be effectively achieved by promoting energy conservation and technological innovation such as Carbon Dioxide Capture and Storage (CCS) and Enhanced Oil Recovery (EOR) technologies. Dr. Kikkawa also introduced the "Top Runner Program" and "Sector by Sector Approach," which are Japan's unique methods for reducing greenhouse gases toward realization of "Cool Earth 50." He explained that the former is producing steady results in the residential, commercial and transportation sectors, and that the latter is proving effective in industrial sectors.

Discussion sessions were held on the 2nd and the 3rd. A total of 18 presentations were given under four themes: (i) Renewable Energy for Water Treatment and Desalination; (ii) Clean Development Mechanisms (CDM); (iii) Protection and Management of Water Resources; and (iv) Oil & Gas Industry and Environmental Issues, and were followed by active discussions. Presentations on Japan's advanced

environmental technologies seemed to attract the strong interest of all GCC experts.

On the 3rd, a closing ceremony was held following the completion of the second day of discussions. Dr. Khaled Hadi, Manager, Hydrology Department, representing KISR (on behalf of Dr. Muhammad F. Al-Rashed, Director, Water Resource Division), and Mr. Mitsuyoshi Saito, Councilor for JCCP, summarized the two days of discussions and proposed twelve recommendations concerning the symposium presentations. In closing, Mr. Koichi Ito, Deputy General Manager, expressed his deep appreciation to KISR, KPC and all participants, on behalf of JCCP.

On the 4th, we visited the exhibition center and oil field (artificial oil lake created on the Burgan Oil Field) of Kuwait Oil Company (KOC), which appeared to symbolize the deep commitment of Kuwait's oil-related companies and organizations



Local newspaper article on the environment symposium (Arab Times)



Local newspaper article on the press conference (Al Watan)

toward the environment.

In this environment symposium, Mr. Al-Nouri, Managing Director – Planning of KPC, not only attended the opening ceremony, but also generously hosted a KPC-sponsored reception on the evening of the 2nd. We hope that the occasion of this environment symposium has helped deepen relationships between oil-related companies and organizations in Kuwait and JCCP.

Prior to the symposium, a press conference was held at KISR on February 1, with the attendance of Dr. Al-Rashed, Director, Water Resource Division

of KISR, Mr. Takanori Yamashita, First Secretary at the Embassy of Japan in Kuwait, and eight Japanese lecturers. The JCCP Secretariat gave a statement on the environment symposium, as well as introduced an overview of JCCP and JCCP activities in Kuwait. The local newspapers ran many articles on the press conference and environment symposium, and helped increase public recognition of JCCP in Kuwait.

We would like to extend our deepest appreciation to everyone who has cooperated in the successful implementation of this symposium.

*<by Makoto Nakamura, Technical Cooperation Dept.>*

### List of speakers

No.	Country	Name	Organization
<b>Session 1: Renewable Energy for Water Treatment and Desalination</b>			
Chairperson: Dr. Muhammad F. Al-Rashed, Kuwait Institute for Scientific Research (KISR) Prof. Katsuyuki Fujinawa, Shinshu University			
1	Kuwait	Dr. Essam El-Sayed	Kuwait Institute for Scientific Research (KISR)
2	Japan	Mr. Eiji Wada	Kitakyushu International Techno-cooperative Association
3	Japan	Mr. Kei Omura	NTT Data CCS Corporation
4	Japan	Mr. Sueo Nagasawa	Water Re-use Promotion Center
<b>Session 2: Clean Development Mechanism (CDM)</b>			
Chairperson: Prof. Morihiro Kurushima, Toyo University Mr. Mohammad Al-Fodari, Kuwait Oil Company (KOC)			
5	Japan	Prof. Morihiro Kurushima	Toyo University
6	Kuwait	Dr. M. M. Oskay	Chevron Company
7	Saudi Arabia	Dr. Mansor Kashir	Saudi Aramco (ARAMCO)
8	UAE	Dr. Ali H. Al-Marzouqi	UAE University (UAEU)
<b>Session 3: Protection and Management of Water Resources</b>			
Chairperson: Dr. Alaadin Bukhari, King Fahd University of Petroleum & Minerals (KFUPM) Mr. Mohamed Al-Senafy, Kuwait Institute for Scientific Research (KISR)			
9	Kuwait	Dr. Meshan Al-Otaibi	Ministry of Electricity and Water
10	Japan	Prof. Katsuyuki Fujinawa	Shinshu University
11	Bahrain	Dr. Nader Al-Masri	Bahrain Center for Studies & Research (BCSR)
12	Saudi Arabia	Dr. Nassim Al-Abed	King Fahd University of Petroleum & Minerals (KFUPM)
13	Oman	Mr. Saleh Said Mohammed Al-Shoukri	Ministry of Environment and Climate
14	Kuwait	Dr. Amr Fadlelmawla	Kuwait Institute for Scientific Research (KISR)
<b>Session 4: Oil &amp; Gas Industry and Environmental Issues</b>			
Chairperson: Dr. Ali Hamad Al-Mulla, Qatar Petroleum (QP) Mr. Fahad Al-Dihani, Kuwait National Petroleum Company (KNPC)			
15	Kuwait	Mr. Fadhel A. Al-Ali	Kuwait Petroleum Corporation (KPC)
16	Japan	Dr. Kazuo Okamura	Shimizu Corporation
17	Qatar	Mr. Said Abdi Yusuf	Qatar Petroleum (QP)
18	Japan	Mr. Takaaki Izumi	Nippon Oil Research Institute Co., Ltd.

# The 16th Joint GCC-Japan Environment Symposium

## (The 4th Joint KFUPM-JCCP Environment Symposium)



*Participants of the symposium*

The 16th Joint GCC-Japan Environment Symposium (the 4th Joint KFUPM-JCCP Environment Symposium) was held in Dhahran, Saudi Arabia, from January 28 to 30, 2008, by the joint sponsorship of JCCP and King Fahd University of Petroleum & Minerals (KFUPM). The main theme of the symposium was "GCC Environment and Sustainable Development."

The symposium is held annually in a

GCC country under basic environmental themes, and provides a forum for discussions among experts in the environment field.

An opening ceremony officially opened the symposium on the 28th. It was attended by H.E. Dr. Khaled bin Saleh Al-Sultan, Rector of KFUPM, Dr. Sahel N. Abdul-Jauwad, Vice Rector of KFUPM, Mr. Isam A. Bayat, Vice President, Engineering Services,

Saudi Arabian Oil Company (Saudi Aramco), and H.E. Hiroshi Oka, Chargé d'Affaires, Embassy of Japan to Saudi Arabia, in addition to more than 140 participants. H.E. Dr. Al-Sultan, Mr. Bayat, H.E. Mr. Oka, and Mr. Katsuo Yokoyama, Managing Director of JCCP, each gave an opening address.

H.E. Dr. Al-Sultan strongly acknowledged that environmental considerations are essential to the



*H.E. Dr. Khaled bin Saleh Al-Sultan, Rector of KFUPM*



*Mr. Isam A. Bayat, Vice President of Saudi Aramco*



H.E. Hiroshi Oka, Chargé d'Affaires, Embassy of Japan to Saudi Arabia



Mr. Katsuo Yokoyama, Managing Director of JCCP

sustainable development of the GCC countries, and expressed high expectations that the symposium will discuss topics of particular relevance to the environment in the region, such as water resources and climate change.

Mr. Bayat commented on the timeliness of holding this environment symposium in Saudi Arabia, just at a time when Saudi Aramco is making company-wide efforts to address environmental issues, and said he was looking forward to what would be discussed.

H.E. Mr. Oka stated that Japan and the GCC countries have a long-standing relationship in the energy sector, but a relationship of cooperation is rapidly evolving in the environment sector as well. He said that he is extremely pleased to see a strengthening of relationships between JCCP and the national oil companies, research institutions, and universities in the GCC countries, in

the environment sector.

Mr. Yokoyama, after giving a brief overview of JCCP technical cooperation projects in Saudi Arabia, stated that it was a great pleasure to be able to hold this environment symposium in the GCC countries each year, and emphasized the fact that environmental issues cannot be solved by one country's efforts alone, but requires global level initiatives.

Discussion sessions held on the 28th and 29th featured 15 presentations on four topics: (i) Sustainable Environmental Development; (ii) Oil Industry and Environmental Issues; (iii) Environmental Rehabilitation; and (iv) Research and Development in Environment. Active discussions took place in each session.

On the 29th, a closing ceremony was held following the completion of the discussion session. Representing KFUPM, Dr. Walid A. Abderrahman,

Professor, Water Resource Management, summarized the two days of sessions, and representing JCCP, Koichi Io, Deputy General Manager, Technical Cooperation Department, took the opportunity to thank KFUPM, Saudi Aramco, and all participants for their participation in the symposium.

During the two days of discussion sessions, some participants from the GCC countries asked whether the Japanese lecturers could also deliver a presentation at an environmental conference to be held in their respective countries. The participants apparently found the presentations on Japan's advanced environmental technologies to be highly beneficial.

On the 30th, we visited a coastal mangrove nursery at Saudi Aramco's Ras Tanura Refinery. We saw the nursery as an indication of Saudi Aramco's strong commitment to the environment.



Opening ceremony



Symposium session



In this environment symposium, Mr. Bayat, Vice President of Saudi Aramco, not only attended the opening ceremony, but also hosted a reception for all guests (on the 28th). Taking the opportunity of his generous cooperation, we hope to further deepen JCCP's relationship with Saudi Aramco.

On January 27, the day prior to holding the symposium, we held a



Symposium venue

press conference at KFUPM. With the attendance of Dr. Abdul-Jauwad, Vice Rector of KFUPM, H.E. Mr. Oka, and five Japanese lecturers, we made an announcement on the environment symposium scheduled to be held the next day, and provided an overview of JCCP activities in Saudi Arabia. News of the press conference received coverage in the local newspaper, and contributed to increasing JCCP's profile in Saudi Arabia.

We extend our deepest appreciation to everyone who has cooperated in the successful implementation of this symposium.

<by Koichi Ito,  
Technical Cooperation Dept.>

List of Speakers

No	Country	Name	Organization
<b>Session 1: Sustainable Environmental Development</b>			
<b>Moderator: Dr. Kenichi Fujimoto, Kitakyushu International Techno-cooperative Association (KITA) &lt;Japan&gt;</b>			
1	Japan	Dr. Takehiko Matsui	Tottori University
2	Kuwait	Dr. Amr Fadlemawla	Kuwait Institute for Scientific Research (KISR)
3	Bahrain	Dr. Nader El-Masri	Bahrain Center for Studies & Research (BCSR)
<b>Session 2: Oil Industry and Environmental Issues</b>			
<b>Moderator: Prof. Abdul Malik Al AlShaikh, King Saud University (KSU) &lt;Saudi Arabia&gt;</b>			
4	Japan	Mr. Masayuki Aida	Nippon Oil Corporation
5	UAE	Dr. Muftah H. El-Naas	UAE University (UAEU)
6	Japan	Dr. Masaharu Tasaki	Shimizu Corporation
7	Qatar	Dr. John Kilani	Qatar Petroleum (QP)
<b>Session 3: Environmental Rehabilitation</b>			
<b>Moderator: Dr. Mohammed Al Ansari, Bahrain Center for Studies and Research (BCSR) &lt;Bahrain&gt;</b>			
8	Japan	Dr. Kenichi Fujimoto	Kitakyushu International Techno-cooperative Association
9	Saudi Arabia	Dr. Hussein Al-Beshrey	Royal Commission for Jubail
10	Oman	Dr. Andy Yaw Kwarteng	Sultan Qaboos University (SQU)
11	Saudi Arabia	Dr. Ahmad S. Bajahlan	Royal Commission for Yanbu
<b>Session 4: Research and Development in Environment</b>			
<b>Moderator: Prof. Abdulaziz M. Al Bassam, King Saud University (KSU) &lt;Saudi Arabia&gt;</b>			
12	Saudi Arabia	Dr. Walid Abderrahman	King Fahd University of Petroleum & Minerals (KFUPM)
13	Japan	Dr. Ryoji Ohba	Mitsubishi Heavy Industries, Ltd.
14	Saudi Arabia	Dr. Khaled Al-Damegh	King Abdulaziz City for Science & Technology (KACST)
15	Saudi Arabia	Dr. William G. Conner	Saudi Aramco



Local newspaper article on the press conference

## Mr. Sase, Executive Director of JCCP, Visits Kuwait

Taking the occasion of “The 17th Joint GCC-Japan Environment Symposium,” which was held at Kuwait Institute of Scientific Research (KISR) on February 2 and 3, 2009 (see article in this newsletter), Mr. Masataka Sase, Executive Director of JCCP, visited Kuwait and held policy dialogues with the top management of KISR and Kuwait National Petroleum Company (KNPC).

### 1. KISR

Mr. Sase visited the KISR Head Office on February 2 and met with Dr. Najji M. Al-Mutairi, Director General.

Mr. Sase firstly thanked Dr. Al-Mutairi for KISR’s cooperation in the past sixteen Joint GCC-Japan Environment Symposiums, noting that this year marks the seventeenth holding of the symposium which was begun in 1992, and the fourth time it has been held at KISR. The symposium has been duly acknowledged by the six GCC countries, and this year enjoyed the attendance of more than 210 participants from the six countries combined.

Dr. Al-Mutairi stated that the symposium has developed into a forum for the exchanging of views among leading experts on environmental issues

from the six GCC countries. As KISR regards it as one of its most important symposiums, Dr. Al-Mutairi expressed his wish to continue creating such opportunities for exchange in cooperation with JCCP.

The two leaders also talked about KISR’s 27-year-long relationship with JCCP. Dr. Al-Mutairi stated: JCCP has invited many management personnel and staff members from Kuwait to Japan. I appreciate this, as I believe that personal interaction is an extremely important aspect of technical exchanges. Thanks to JCCP, many Kuwaitis have begun to show interest in Japan. At the same time, I think that Japan has also acquired a great asset, as a result of having made the strategic future investment. Up to now, the Middle East countries have tended to look toward the United States and Europe, but from now on, we will also turn our eyes to Japan and the Asian countries, with the realization that Japan has many distinguished technologies, such as seawater desalination.

Mr. Sase responded as follows: JCCP is a small organization, but one that boasts a considerable network of personal connections in the Middle East. Based on this valuable network, we wish to continue pursuing new areas for technical cooperation and



*Dr. Najji M. Al-Mutairi, Director General, KISR (second from left)*



*At the KISR Oil Research and Studies Center: Dr. Abdulhameed Al-Hashem, Director (third from right)*

deepen our friendly relations with the Middle East countries. The global economic climate may look dim, but I am convinced that a bright future awaits us, if our countries maintain strong bonds of mutual cooperation. Bearing this mind, JCCP hopes to maintain its ties with KISR through cooperation in training and technical development activities.

On the next day, February 3, Mr. Sase visited KISR's Oil Research and Studies Center and met with Dr. Abdulhameed Al-Hashem, Director, Dr. Meena Marafi, Manager, Petroleum Refining Department, and Dr. Mamun Absi-Halabi, Principal Research Scientist.

In FY2007, JCCP launched a program for the long-term dispatch of Japanese researchers, and dispatched a catalyst expert to the Oil Research and Studies Center to provide guidance on Japan's catalyst technologies to local researchers. This fiscal year, JCCP has asked Dr. Takeshige Takahashi, Professor Emeritus at Kagoshima University, and Dr. Hirohide Higashi, JGC Catalysts & Chemicals Ltd., to offer their guidance to KISR over respective periods of one and three months.

Dr. Al-Hashem, Director, stated: JCCP and KISR began implementing full-scale joint projects in 1992, and the projects implemented so far have helped improve technologies at KISR. The cooperation of Drs. Takahashi and Higashi is particularly invaluable, and we are grateful to them for sharing their thirty-some-year experience with our young researchers.

Mr. Sase expressed his wish to continue the long-term researcher dispatch program to mutually contribute to improving technologies, and asked for KISR's continued support.

## 2. KNPC

Mr. Sase visited the KNPC Head Office on February 3 and met with Mr. Asa'ad Ahmad E. Al-Saad, Deputy Chairman & Deputy Managing Director for Mina Al-Ahmadi Refinery, Mr. Ahmad S. Al-Mudaf, Manager, Human Resources, and Mr. Ali Abdullah, Team Leader, Career Development.



*Mr. Asa'ad Ahmad E. Al-Saad,  
Deputy Chairman, KNPC (left)*

Mr. Sase opened the meeting by thanking the KNPC side for the participation by Mr. Ahmad S. Al-Jemaz, Deputy Managing Director, Shuaiba Refinery, in the JCCP International Symposium which was held in Tokyo this January.

Mr. Al-Saad also conveyed the following words of appreciation to JCCP: KNPC and JCCP have established a long relationship, and have worked on many projects together over the years. We have both learned much from these projects, which I think were great successes. Over the course of our relationship, almost all major members of the KNPC management have visited Japan and received JCCP training. Our employees have also benefited from JCCP courses in terms of capacity development. Another area of cooperation which has benefited our organization is joint researches with JCCP members companies. I hope to maintain this relationship of cooperation between our two organizations.

The two leaders then discussed environmental issues. Mr. Al-Saad explained that GCC oil-producing countries have begun to pursue environmental measures in earnest, and over the past several years, KNPC has also been exploring measures for recovering and effectively utilizing waste heat. As this issue is a primary concern in KNPC refineries, Mr. Al-Saad expressed his strong wish to implement a joint project with Japan on waste heat recovery. Mr. Sase responded that JCCP would be happy to



*Mr. Ahmad S. Al-Mudaf, Manager,  
Human Resources, KNPC (left)*

cooperate with KNPC based on the experience and expertise which Japan has accumulated from early efforts to address such issues.

Regarding issues related to future oil refining, Mr. Al-Saad observed that refineries survive on refinery margins, but as those margins are becoming extremely difficult to acquire, it will be necessary to drastically reduce refining costs. Mr. Sase shared his view that the role of oil refining will likely see a change from the conventional one of simply producing oil products, to also producing petrochemical products. He asserted that Kuwait, as a country that has set its sights on petrochemical processes from early on, is regarded as a front-runner in the petrochemical industry, and reported that JCCP is also working to incorporate the subject in its programs.

In the area of training programs, Mr. Al-Saad articulated his appreciation as follows: Two years

ago, JCCP began to propose customized programs in response to our requests, and owing to this effort, I think the relationship between our two organizations has become stronger than ever. Last year, JCCP held a seminar (Customized Program-Overseas (CPO)) in Kuwait, and at this very moment, fifteen human resource personnel from KNPC are participating in a JCCP course in Japan (Customized Program-Japan (CPJ)). JCCP courses not only provide technical training, but also offer precious experience in learning about Japanese corporate culture. I think everyone wishes to know how Japanese companies have achieved one of the world's highest productivity, and I want KNPC personnel to also study and learn from the Japanese experience.

Mr. Sase stated that providing training in response to the needs of each country as closely as possible is one of JCCP's important policies. He promised JCCP's continued effort to enhance and provide customized programs (CPO/CPJ), and invited KNPC to make requests.

Mr. Sase's two-day visit to Kuwait proved to be extremely productive. It allowed him to personally meet with a number of leading figures in Kuwait's oil downstream sector and obtain their views and requests of JCCP. Technology-wise, the scope of their requests relating to oil refining has expanded to the borderline with the petrochemical industry, while on a more general scale, their requests go beyond technical training, to gaining an understanding of Japanese corporate culture. With a renewed sense of commitment, JCCP will enhance the content of its courses to better respond to such needs and requests.

*<by Hisayoshi Tanda, Administration Dept.>*

## Mr. Katsuo Yokoyama, Managing Director of JCCP, Visits the Middle East

Mr. Katsuo Yokoyama, Managing Director of JCCP in charge of technical cooperation projects, traveled to the Middle East twice, between October-end and November 2007, and visited a total of six countries in the region. This was Mr. Yokoyama's first visit to the Middle East, since his appointment as managing director in July 2007. He attended important ceremonies, paid calls on various counterparts to introduce himself and exchange views on future implementation of technical cooperation projects. Major details of his visits are presented below.

### I. Oman, Iran, UAE (October 26 – November 8, 2007)

#### 1. [Oman] Contract Signing Ceremony with ORC <October 30, 2007>

Mr. Masoud Salim Al-Msalmy, General Manager of Oman Refinery Company LLC (ORC), and Mr. Katsuo

Yokoyama signed a memorandum of agreement (MOA) for the joint implementation of the "Study for Process and Operational Improvement in Mina Al-Fahar Refinery in Oman" (FY2007 – 2009). The study aims to enhance process and operational performance levels at the Mina Al-Fahar Refinery, so that ORC may better respond to the increasing demand for

oil in Oman. Over many years, JCCP has continued to introduce Japan's oil refining technologies to ORC, as a fundamental part of its technical cooperation activities, and has built a strong cooperative relationship with ORC. Based on this proven track record, ORC and JCCP have agreed to implement the joint study project.

The signing ceremony took place



Greetings by Ambassador Keiji Omori



Greetings by Mr. Tsuyoshi Kamiyo, Deputy Director, METI



Exchange of the MOA

Left: Mr. Masoud Salim Al-Msalmy, General Manager of ORC  
Right: Mr. Katsuo Yokoyama, Managing Director of JCCP



Exchange of commemorative gifts

Center: Mr. Yasushi Hotta, President, Cosmo Research Institute Inc.  
Right: Mr. Msalmy, General Manager of ORC

in a reception room at the Grand Hyatt Hotel in Muscat, Oman. H.E. Keiji Omori, Ambassador of Japan to Oman, and Mr. Tsuyoshi Kamijo, Deputy Director of the Petroleum Refining and Reserve Division, the Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry (METI), honored the ceremony with their presence, and spoke briefly on the project's significant role in strengthening the friendly relationship between the two countries and in promoting personnel exchanges. Mr. Msalmy and Mr. Yasushi Hotta, President of Cosmo Research Institute Inc., a participant company in the project, also delivered words of gratitude and expectations for the successful completion of the project, and thanked all parties concerned for their cooperation. Mr. Yokoyama delivered a greeting and extended his appreciation to all parties. The local newspaper covered news of the ceremony, and contributed to increasing public recognition of the JCCP technical cooperation project in Oman.

## 2. [Oman] Visits to H.E.

**Dr. Mohammed Bin Hamad Bin Saif Al-Rumhy, Minister of Oil and Gas, and Sultan Qaboos University**  
**<October 31, 2007>**

On the day following the signing ceremony, Mr. Yokoyama paid a visit



*MOA signing ceremony  
 Senior ORC officials, Mr. Nitta, Secretary at the Japanese Embassy in Oman, JCCP members, and members from Cosmo Research Institute Inc., with Ambassador Omori and Deputy Director Kamijo*

to H.E. Dr. Mohammed Bin Hamad Bin Saif Al-Rumhy, Minister of Oil and Gas, to thank him for his cooperation and ask for his continued support of JCCP activities in Oman. Dr. Al-Rumhy spoke favorably about his experience in participating in a technical cooperation project implemented by the Petroleum Energy Center (predecessor of JCCP's technical cooperation department) in 1996, when he was an associate professor at Sultan Qaboos University. He welcomed the developments that JCCP projects have made in Oman since then, and expressed his wish to maintain friendly relations with JCCP.

Dr. Al-Rumhy also explained that

he has been inviting large numbers of university students from Japan to Oman every year since the 1990s, to promote a deeper understanding of Oman. He wishes to extend this activity not only to workers in oil and gas companies in Japan, but to people in many other sectors as well. More recently, Dr. Al-Rumhy has taken strong interest in Japan's technologies for reducing CO<sub>2</sub> emissions, and appears to have large expectations of Japan.

Following the visit to the Ministry of Oil and Gas, Mr. Yokoyama visited Sultan Qaboos University, where he had the opportunity to meet with H.E. Dr. Saud Nasser Ali Al-Riyami, Vice



*At the Omani Ministry of Gas and Oil  
 Right: H.E. Dr. Mohammed Bin Hamad Bin Saif Al-Rumhy,  
 Minister of Gas and Oil*



*At Sultan Qaboos University  
 Second from right, front row: H.E. Dr. Saud Nasser Ali Al-Riyami,  
 Vice Chancellor*

Chancellor, and verify the progress of a JCCP project that is currently being implemented jointly with the university.

**3. [Iran] Courtesy Call on Mr. Mohammad Reza Nematzadeh, Deputy Minister of Petroleum and President of National Iranian Oil Refining and Distribution Company (NIORDC), and Visit to National Iranian Oil Company (NIOC) <October 29, 2007>**

In Iran, Mr. Yokoyama paid a courtesy call on Mr. Mohammad Reza Nematzadeh, Deputy Minister of Petroleum and President of NIORDC, and senior officials of NIORDC. Mr. Yokoyama discussed JCCP's achievements in relation to its training courses and the huge number of participants who have so far participated in them, as well as exchanged views with the NIORDC members on future NIORDC support in implementing JCCP technical cooperation projects in Iran. Mr. Nematzadeh responded in a positive manner, expressing his intentions of prioritizing human resource development as an issue of company-wide importance, based on his previous experience working at National Petrochemical Company (NPC).

Mr. Yokoyama also visited National Iranian Oil Company (NIOC), a major



At NIOC  
Left: Mr. S.M.A. Khatibi Tabatabai,  
Vice Executive Director

producer and distributor of oil and gas in Iran, and paid a courtesy call on Mr. S.M.A. Khatibi Tabatabai, Vice Executive Director for International Affairs.

**4. [UAE] Visit to Mr. Jasem Ali Al-Sayegh, General Manager of TAKREER <November 6, 2007>**

In UAE, Mr. Yokoyama visited Abu Dhabi Oil Refining Company (TAKREER), to pay his respects to Mr. Jasem Ali Al-Sayegh, General Manager, as the new managing director of JCCP, and to thank him for TAKREER's cooperation in JCCP projects. Mr. Al-Sayegh expressed his appreciation of JCCP projects and his expectations of further cooperation from JCCP in developing engineers and conducting joint projects.



At NIORDC  
Right: Mr. Mohammad Reza Nematzadeh,  
Deputy Minister of Petroleum and  
President of NIORDC



Presenting a commemorative gift from  
JCCP to TAKREER  
Left: Mr. Jasem Ali Al-Sayegh,  
General Manager

**5. Visits with Other Senior Officials <November 3 – 7, 2007>**

In addition to the above figures, Mr. Yokoyama also met with senior officials and leaders of other companies and institutions in Oman and UAE, and exchanged views on their cooperation and implementation of future JCCP activities. Other gentlemen with whom Mr. Yokoyama greeted included Mr. Ahmed Mohammed Al-Haddabi, Acting CEO of Sohar Refinery Company in Oman; H.E. Dr. Hadeef Bin Jouan Al Dhahiri, Vice Chancellor, and H.E. Dr. Maitha Salem Al Shamsi, Assistant Provost for Research Affairs, of UAE University; and Mr. Ali Mohd. Al Jaber, Division Manager of TAKREER's Ruwais Refinery.

The Sixth Scientific Council Meeting with UAE University was held on November 4 and 5, during Mr. Yokoyama's visit to UAE. An article on the details of the meeting is provided in the Topics section of this newsletter.

*<by Wataru Maekawa,  
Technical Cooperation Dept.>*

**II. Saudi Arabia, Qatar, Kuwait (November 15 – 30, 2007)**

**1. Contract Signing Ceremony with King Abdulaziz City for Science and Technology (KACST) <November 19, 2007>**

H.H. Dr. Turki bin Saud bin Mohammed Al-Saud, Vice President of KACST, and Mr. Katsuo Yokoyama signed a memorandum of agreement (MOA) to conduct a project on "Experimental Application of InSAR Technology in Saudi Arabia to Assess the Effect of Reservoir Activity on Surface Subsidence" (FY2007 – 2008). The signing ceremony took place at the head office of KACST in the Kingdom of Saudi Arabia.

In FY2006, JCCP conducted a preliminary study on the assessment of partial ground deformation (upthrust



MOA signing ceremony with KACST  
 Right: H.H. Dr. Turki bin Saud bin Mohammed Al-Saud, Vice President  
 Center right: Dr. Mohammed ibn Ibrahim Al-Suwaiyel, President  
 Center left: H.E. Shigeru Nakamura, Japanese Ambassador to Saudi Arabia



Article featured in the local newspaper:  
 "KACST and JCCP have signed an MOA for a joint study, with the attendance of H.E. Ambassador Nakamura"

and subsidence) in Saudi Arabia, using InSAR (interferometric synthetic aperture radar) analysis technology, which numerically analyzes InSAR data (microwave data reflected from a satellite) to assess ground deformation. As KACST has taken a strong interest in the technology, JCCP has promptly initiated a study for the creation of a system for technical transfer and data processing, and designed the study with the objective of developing and transferring technology that is capable of managing risks to oil facilities and areas caused by ground deformation in Saudi Arabia.

The signing ceremony was attended by Dr. Mohammed ibn Ibrahim Al-Suwaiyel, President, H.H. Dr. Turki bin Saud bin Mohammed Al-Saud, Vice

President, and Dr. Tariq A. Alkhalifah, Director, on the KACST side; and by H.E. Shigeru Nakamura, Ambassador of Japan to Saudi Arabia, Mr. Masanori Tsuruda, First Secretary, and Mr. Tadanori So, Second Secretary, from the Japanese Embassy in Saudi Arabia, as well as Mr. Hirokazu Kanai, Executive Director of Nichiyo Engineering Corporation, and a representative from Central Computer Services Co., Ltd. (CCS), as representatives of participant companies on the Japan side.

Firstly, Dr. Al-Suwaiyel expressed his appreciation and his sincere wishes for the success of the project and for the further deepening of the cooperative relationship between JCCP and KACST. Dr. Al-Saud also expressed his gratitude for the implementation of the "extremely

significant technical project," and conveyed his expectations of its successful completion as well as his hopes that it will lead to the implementation of many other cooperation projects in the future. Ambassador Nakamura stressed the significance of Saudi-Japan technical cooperation as declared by then Prime Minister Shinzo Abe during his visit to Saudi Arabia in spring 2007, and expressed his hopes for the successful implementation of the project, as well as thanked all parties concerned for their cooperation. Mr. Yokoyama, after delivering a few words of greetings as



Exchange of commemorative gifts  
 Right: H.H. Dr. Turki bin Saud bin Mohammed Al-Saud, Vice President  
 Center: H.E. Shigeru Nakamura, Japanese Ambassador to Saudi Arabia



At the signing ceremony  
 Center: Dr. Mohammed ibn Ibrahim Al-Suwaiyel, President



the new managing director of JCCP, pronounced his commitment to the project, and thanked KACST for its continued cooperation over many years. On behalf of the participant companies, Mr. Kanai from Nichiyo Engineering Corporation expressed his firm resolve to carry out the project with success and steadily transfer the InSAR technology to KACST.

After both leaders of the project signed the agreement, presentations were given on example applications of the InSAR technology. KACST reported on an effective application of the InSAR technology in capturing ground deformations caused by an earthquake that had previously struck the northwestern part of the country. The representative from CCS used actual case examples to show how the InSAR technology could be used to capture deformations of the ground surface. The ceremony ended on a successful note, and was covered by local newspapers. Implementation of the project is expected to promote further understanding of JCCP activities in Saudi Arabia.

## 2. Visits to JCCP Counterparts in Saudi Arabia, Qatar, and Kuwait

### (1) King Fahd University of Petroleum and Minerals (KFUPM)

<November 20, 2007>

Mr. Yokoyama met with H.E. Dr.



Attendees of the meeting with KNPC

Center: Mr. Sami F. Al-Rushaid, previous Chairman of KNPC (current Chairman of KOC)

Second from left: Mr. Fahed Fahhad Al-Ajimi, Deputy Managing Director

Third from left: Mr. Asa'ad Ahmad E. Al-Saad, Deputy Chairman

Khaled S. Al-Sultan, Rector, and Dr. Sahel N. Abdul-Jauwad, Vice Rector, and thanked KFUPM for its past cooperation in JCCP activities. The Rector stated that "the university has participated in the HS-FCC project, so investigating the commercialization of the HS-FCC technology is a welcome development, from which the university expects great results."

### (2) Saudi Aramco

<November 21, 2007>

Mr. Yokoyama met with Mr. Isam A. Al-Bayat, Vice President, and Dr. Omar S. Abdul-Hamid, Manager, to thank them for their long years of cooperation in JCCP activities, and to seek further development of the cooperative relationship between Saudi Aramco and JCCP. Saudi Aramco thanked JCCP for

its generous support and cooperation, and exchanged views on future technical cooperation projects.

### (3) Kuwait National Petroleum Company (KNPC)

<November 28, 2007>

Mr. Yokoyama first paid a visit to KNPC and exchanged views on technical cooperation projects with Mr. Sami F. Al-Rushaid, previous Chairman of KNPC, Mr. Asa'ad Ahmad E. Al-Saad, Deputy Chairman, and Mr. Fahed Fahhad Al-Ajimi, Deputy Managing Director.

### (4) KNPC's Mina Abdulla Refinery (MAB)

<November 29, 2007>

Mr. Yokoyama met with Mr. Mohammad Ghazi Al-Mutairi, Deputy



Exchange of commemorative gifts  
Left: H.E. Dr. Khaled S. Al-Sultan, Rector



Exchange of commemorative gifts  
Left: Mr. Isam A. Al-Bayat, Vice President



*Attendees of the meeting at KNPC's Mina Abdulla Refinery Center: Mr. Mohammad Ghazi Al-Mutairi, Deputy Managing Director  
Second from left: Mr. Ousama H. Shammas, Manager*



*Attendees of the meeting at KISR  
Second from left: Dr. Nader Al-Awadhi, Deputy Director General  
Right of Mr. Yokoyama: Ms. Marafi, Manager  
Third from right: Dr. Abdulhameed Al-Hashem, PRSC Director*

Managing Director, and Mr. Ousama H. Shammas, Manager, and exchanged views on the progress, issues, and future strategies of the “Development Study of Residue Hydrocracking to Distillate in KNPC ARD Units (Phase II),” a three-year project that KNPC and JCCP launched in FY2005.

**(5) Kuwait Institute for Scientific Research (KISR)  
<November 28 & 29, 2007>**

Mr. Yokoyama met with Dr. Nader Al-Awadhi, Deputy Director General, and Dr. Abdulhameed Al-Hashem, Director of the Petroleum Research & Studies Center (PRSC), and thanked them for KISR’s long years of cooperation in JCCP activities. Drs. Al-Awadhi and Al-Hashem outlined future issues that KISR, including the PRSC, needs to address in the future, and exchanged views on various cooperation issues. They also expressed

their deep appreciation for the technical cooperation they have received from JCCP to date.

A contract signing ceremony with Qatar Petroleum (QP) was held on November 26, during Mr. Yokoyama’s visit to Qatar. An article of the ceremony is provided in the Technical Cooperation Section of this newsletter.

*<by Takeyoshi Haishima,  
Technical Cooperation Dept.>*



## Japan Cooperation Center, Petroleum (JCCP)

### Headquarters

Sunshine 60 Building 58F, 3-1-1 Higashi-Ikebukuro, Toshima-ku, Tokyo 170-6058, Japan

• Administration Department	TEL. +81-3-5396-6000	FAX. +81-3-5396-6006
• Operations Department	TEL. +81-3-5396-6001	FAX. +81-3-5396-6006
• Training Department	TEL. +81-3-5396-6909	FAX. +81-3-5396-6006
• Technical Cooperation Department	TEL. +81-3-5396-8021	FAX. +81-3-5396-8015

### Overseas Offices

• Middle East Office	• Riyadh Office
#904, Al-Ghaith Office Tower, Hamdan St.,	Al Oula Building, 5th Floor, Flat No.508
P.O. Box 51828, Abu Dhabi, U.A.E.	Al Mohamadiya, King Fahd Road
TEL. +971-2-627-4410 FAX. +971-2-626-2166	P.O. Box 61356, Riyadh 11565, Kingdom of Saudi Arabia
	TEL. +966-1-207-9540 FAX. +966-1-207-9539

URL: <http://www.jccp.or.jp> E-mail: [webmaster@jccp.or.jp](mailto:webmaster@jccp.or.jp)