



# JCCP NEWS

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Topics

## H.E. Dr. Maitha Al-Shamsi, UAE Minister of State, Visits Japan



*Dr. Al-Shamsi at JCCP, with Mr. Masataka Sase, Executive Director of JCCP*

As part of the FY2008 JCCP VIP Invitation Program, JCCP has invited H.E. Dr. Maitha Al-Shamsi, UAE Minister of State, to Japan, from November 15 to 21, 2008.

Before being appointed to Minister of State and Research Advisor at UAE University in February 2008, Dr. Al-Shamsi has held prominent positions at the university. She assumed the positions of Deputy Vice Chancellor in 1990, Vice Chancellor in 2000, and Assistant Provost for Research in 2004. In these capacities, she actively promoted the development of higher education in UAE and has made a significant number of achievements in that area. In addition to her current position as Minister of State, Dr. Al-Shamsi holds various other important posts,

including Managing Director of the Dubai Women's Establishment and President of the Marriage Fund, and plays a central role in the development of science, technology and education, and women's issues, in particular, in UAE.

UAE and Japan enjoy a close relationship based on crude oil and natural gas, as well as engage in active cooperation issues. The two countries began implementing technical cooperation projects in FY2001, and UAE University, in particular, has been, and continues to be, an active participant in these joint research projects. To discuss the progress of ongoing activities, JCCP and UAE University hold a scientific council meeting biannually, with Dr. Al-Shamsi heading the UAE University side.

In addition to attending the 7th Scientific Council Meeting in Japan, Dr. Al-Shamsi also used the opportunity of her visit to Japan to call on oil-related research institutes and governmental institutions in Japan.

### 1. At JCCP Headquarters (November 17)

Upon receiving Dr. Al-Shamsi at JCCP Headquarters, Mr. Masataka Sase, Executive Director of JCCP, congratulated Dr. Al-Shamsi on her appointment as Minister of State. He and Mr. Katsuo Yokoyama, Managing Director of JCCP, then exchanged views with Dr. Al-Shamsi on oil-related issues and JCCP activities in general.

### 2. Scientific Council Meeting (November 17)

Members from UAE University, the JCCP Technical Cooperation Department, Nippon Oil Research Institute, a corporate participant in the joint research projects with UAE University, and Dr. Masaaki Teramoto of Kyoto Institute of Technology gathered at JCCP Headquarters to take part in the 7th Scientific Council Meeting. The members held active discussions on the progress of activities in the study on wastewater treatment in UAE refineries and the study on acid gas treatment in UAE's natural

gas industry, that are being implemented as part of the FY2008 program.



*Scientific Council Meeting in session*

### 3. Visit to Nippon Oil Corporation (November 18)

At the Central Technical Research Laboratory, Dr. Al-Shamsi was warmly welcomed by Mr. Hajime Okazaki, General Manager, senior researchers of the laboratory, and Mr. Takahiko Yamaji, President of Nippon Oil Research Institute. After receiving warm words of welcome from Mr. Okazaki and a general overview of the laboratory, Dr. Al-Shamsi toured the facilities where research is being conducted on RECOSUL, a type of modified-sulfur concrete developed to make effective use of sulfur, which is currently being applied to a demonstration study in UAE. She toured other parts



*Dr. Al-Shamsi touring the research facilities*

of the laboratory as well, while listening avidly to technical explanations of various studies, including those relating to catalyst assessment bench plants and new developments in fuel cells, and at one point, appeared particularly impressed with the knowledge and eloquent explanations given by young female researchers. Dr. Al-Shamsi was also invited to test ride a fuel-cell vehicle, and showed strong interest in its development.

A lively discussion session with all members concerned concluded Dr. Al-Shamsi's visit to the laboratory.



*Dr. Al-Shamsi receiving an explanation from female researchers of the laboratory*

#### **4. Courtesy Call on the Vice Minister of Economy, Trade and Industry (November 19)**

Vice Minister Takaichi warmly welcomed Dr. Al-Shamsi on her first visit to Japan after being appointed Minister of State, expressing her appreciation of Dr. Al-Shamsi's role in promoting friendly relations between UAE and Japan over many years, as well as her pleasure in meeting Dr. Al-Shamsi in person.

Ms. Takaichi emphasized the two country's relationship of mutual trust and cooperation, mentioning that UAE and Japan have formed strong bonds of cooperation through development projects in the oil upstream sector, as well as in a wide range of other sectors, including personal exchanges and



*Meeting with Ms. Sanae Takaichi, Vice Minister of Economy, Trade and Industry*

development not only in relation to crude oil trade, but also through educational and inter-university exchange programs.

Dr. Al-Shamsi noted that JCCP and UAE have been implementing technical cooperation projects for 7 years now, and a number of university-based cooperation programs have emerged from them. As many of these programs have largely benefited from knowledge obtained from Japan, Dr. Al-Shamsi expressed her strong wish that the two countries continue to cooperate in performing joint technical projects in the future.

The two women also shared their views on the importance of family and home, and agreed that this meeting presented a good opportunity to further strengthen the friendly relationship between UAE and Japan.

#### **5. Visit to the Japan Institute of Workers' Evolution (November 19)**

The Japan Institute of Workers' Evolution aims to improve the welfare of female workers by initiating activities for promoting child-rearing education among female workers and improving employment management practices. As it is one of the areas in which Dr. Al-Shamsi has particularly strong interest, she had been looking forward to this meeting with

Ms. Nobuko Matsubara.

The meeting began with Ms. Matsubara expressing her immense pleasure in meeting Dr. Al-Shamsi. As key figures in women's issues in UAE and Japan, Dr. Al-Shamsi and Ms. Matsubara exchanged in-depth views on women's education and marriage issues in both countries.



*Meeting with Ms. Nobuko Matsubara,  
Chairperson of Japan Institute of Workers' Evolution*

## **6. Visit to the Embassy of UAE in Japan (November 19)**

On the final day of Dr. Al-Shamsi's stay in Japan, H.E. Ambassador Saeed Alnouais kindly hosted a banquet for Dr. Al-Shamsi at the Embassy of UAE in Japan, inviting Ms. Yuriko Koike, member of the House of Representatives, executives from the Japanese Ministry of Economy, Trade and Industry,



*With the ambassadors of Middle East countries in Japan*

the presidents of JCCP member companies, ambassadors of eight Middle East countries, and JCCP board members.

We believe that this invitation program has offered Dr. Al-Shamsi a good opportunity to gain first-hand experience in Japan's latest technologies while deepening her understanding of oil and energy trends in Japan. Furthermore, we feel there was significant meaning in having such an important person as Dr. Al-Shamsi, who plays a central role in promoting science and technology in UAE, gain a better understanding and appreciation of Japan by establishing close ties with Japanese leaders in various fields.

JCCP extends its profound appreciation to everyone at the Embassy of UAE in Japan, the Ministry of Economy, Trade and Industry, the Ministry of Foreign Affairs, the Japan Institute of Workers' Evolution, Nippon Oil Corporation, and Nippon Oil Research Institute, for their generous support and cooperation in the invitation program.

*<by Kenji Ikushima, Technical Cooperation Dept.>*

# Visits to Southeast Asia and the Middle East by Mr. Sase, Executive Director of JCCP

Marking the occasion of his appointment in July 2008 as the new Executive Director of JCCP, Mr. Masataka Sase made visits to oil-producing countries in Southeast Asia in September 2008 following the summer holidays, and to oil-producing countries in the Middle East in October 2008, after the end of Ramadan. In addition to paying calls on counterpart organizations to introduce himself and to thank them for their participation in JCCP training activities and technical cooperation programs, Mr. Sase held frank exchanges of views with the leaders

of those organizations on a wide range of topics, including today's rapidly changing situation in the global oil market, future business prospects in oil-producing countries, and areas for improvement in JCCP activities. As Mr. Sase was not able to visit all JCCP counterpart countries in the two regions during his first trip, he wishes to make additional visits to those countries he has not yet visited at his earliest opportunity and strengthen relationships across the board.

## I. Southeast Asia Oil-Producing Countries

### 1. Indonesia

#### (1) PERTAMINA

Mr. Sase visited PERTAMINA Headquarters on September 22 (Mon.), and met with Mr. Ari G. Soemarno, President Director & CEO.

In response to increasing demands for oil products accompanying economic growth, PERTAMINA has launched large-scale investment projects for expanding its refineries, creating a pipeline network for oil products, and increasing the capacities of oil depots, with its greatest priority in bringing these projects to a successful completion. Another priority issue is the development of new employees who have been recruited in large numbers to replace the older generation that will soon reach retirement age. To achieve its future goals, Mr. Soemarno stressed that further cooperation from JCCP is essential to PERTAMINA. Mr. Sase promised continued cooperation to the company, stating that Indonesia is an important counterpart country to JCCP, and particularly to JCCP regular courses, which have received more than 1,400 participants from Indonesia over the 27 years since JCCP's founding.



*Mr. Ari Soemarno, President Director & CEO (center), Mr. Waluyo, Corporate Senior Vice President (right), Ms. Nina Nurlina Pramono, (then) Vice President of PERTAMINA Learning Center (second from right)*

#### (2) PERTAMINA Learning Center

At the PERTAMINA Learning Center, Mr. Sase received a warm welcome from Ms. Nina Nurlina Pramono, (then) Vice President, and members of the staff.

PERTAMINA is initiating internal reforms, as it strives to achieve "global-level corporate management," as set forth in its corporate principles. In 2006, it formulated a new management plan,

based on the awareness that human resource development is key to realizing these corporate principles. In the meeting held at the Learning Center, Ms. Pramono explained in detail the significance of PERTAMINA's policies, systems, and programs. She also explained that JCCP regular courses rank high among numerous training programs adopted by PERTAMINA, and requested JCCP's continued cooperation in receiving participants from PERTAMINA to its regular courses, as human resource development is poised to become an even more important issue in the future, toward the realization of PERTAMINA's corporate policies. JCCP will strive to meet PERTAMINA's expectations to the greatest extent possible.

### **(3) Directorate of Oil and Gas (MIGAS), Ministry of Energy and Mineral Resources**

In the afternoon of September 22 (Mon.), Mr. Sase visited MIGAS, and met with Dr.-Ing. Evita H. Legowo, Director General, Mr. A. Edy Hermantoro, Director, and Mr. I. Gusti Suarnaya Sidemen, Deputy Director for Program Development.

MIGAS considers the development of alternative automotive fuels to petroleum as a priority management strategy, and is directing its efforts to developing technologies for promoting biofuels and DME and GTL fuels. Acknowledging Japan's abundant experience in alternative fuel technologies, the members on the MIGAS side expressed their hopes of receiving continued cooperation from

Japan in that area. JCCP will examine potential means of cooperation in relation to these new technologies, including cooperation schemes in partnership with other relevant institutions.

## **2. Thailand**

### **(1) The Bangchak Petroleum Public Company Ltd. (BCP)**

On September 24 (Wed.), Mr. Sase visited BCP's Bangchak Refinery, where he was welcomed by Mr. Kiatchai Maitriwong, Senior Vice President, Planning and Logistics, and a large group of senior executives.

As in Indonesia, the development of alternative automotive fuels is also a major issue in Thailand. BCP began researching biodiesel fuel production technologies more than 15 years ago, keeping pace with trends in Japanese technical developments, and has already begun selling ethanol-blended gasoline and biodiesel fuel. It maintains a strong interest in new technologies, and wishes to expand its network of contacts with refineries in other countries and share information through JCCP. JCCP courses are significant and ideal in this respect, as they allow participants from different countries to get to know each other and make new connections with people in the same field. JCCP is proud of the role it plays in bringing people together, and will continue to dedicate its efforts to promoting personal exchanges among participants from different countries.



*Dr.-Ing. Evita H. Legowo,  
Director General of MIGAS (left)*



*Mr. Kiatchai Maitriwong, Senior Vice President,  
Planning and Logistics, BCP (left)*

## (2) PTT Public Company Limited (PTT)

In the afternoon of September 24 (Wed.), Mr. Sase visited PTT, to meet with Mr. Songwut Chinnawat, Senior Executive Vice President, Corporate Support, Mr. Pitipan Tepartimargorn, Executive Vice President, Corporate Human Resources, and executives of the personnel department.



*Mr. Songwut Chinnawat,  
Senior Executive Vice President, PTT (right)*

PTT plays a central role in responding to increasing energy demands in Thailand, expanding the country's natural gas operations, and promoting the production of biofuels. Based on the awareness that developing outstanding human resources is critical to addressing these priority issues, it is now directing greater efforts to human resources development, as it strives to become a world-leading company. JCCP has received more than 1,300 participants from PTT since its founding, and is considered a vital institution in the development

of PTT personnel. Mr. Sase promised JCCP's continued cooperation in the future.

## 3. Vietnam

On September 26 (Fri.), Mr. Sase visited Petrovietnam (PV), and met with Mr. Tran Van Hoa, MSc, General Manager, Training & HRD Division.

Petrovietnam is preparing to commence operations at its Zung Quat Refinery in February 2009, and is currently implementing the final stage of its construction. As there is mounting pressure to bring the country's first large-scale refinery to a proper start, Mr. Sase promised JCCP's utmost cooperation in support of the successful commencement of operations. Mr. Hoa thanked Mr. Sase, recounting that, as of the end of FY2007, JCCP had received a total of 930 Vietnamese participants to its regular courses since 1995, and has been of tremendous support in the development of Vietnam's oil industry.



*Mr. Tran Van Hoa, MSc, General Manager,  
Training & HRD Division, PV (far left)*

## II. Middle East Oil-Producing Countries

### 1. UAE

#### (1) Abu Dhabi National Oil Company (ADNOC)

On October 16 (Thu.), Mr. Sase visited ADNOC, and met with Mr. Mubarak S. Al Ketit, Manager, Crude and Condensate Division.

UAE is Japan's second-largest supplier of crude

oil, following Saudi Arabia, supplying one-fourth of the total amount of oil consumed in Japan, and to UAE, Japan is an important importer of crude oil. The two countries have maintained a cooperative relationship since the formal establishment of UAE in 1971.

Mr. Sase was not able to meet directly with H.E. Mr. Yousef Omair Bin Yousef, CEO, for an urgent

meeting during this visit to ADNOC, but received a message from the CEO through Mr. Al Ketit, stating that Japan is important to ADNOC, as a country playing a central role in the global oil business, and expressing his wish to continue strengthening ADNOC's friendly ties with JCCP and promoting personal exchanges.

## (2) Abu Dhabi Oil Refining Company (TAKREER)

In the afternoon of October 16 (Thu.), Mr. Sase visited TAKREER Headquarters, and met with Mr. Ahmed O. Abdulla, Assistant General Manager, Operations, and Mr. Ismail Al Mulla, Human Resources and Administration Manager.

TAKREER was established in 1999, to take over the responsibility of refining operations previously undertaken by ADNOC. Including the period during which it was a refining division under the management of ADNOC, its relationship with JCCP goes back 27 years.

Mr. Sase received warm words of appreciation from Mr. Abdulla, for his role in providing numerous young officer candidates with a meaningful forum for learning about Japanese corporate management through JCCP courses, and for the invaluable opportunity to meet people from many different oil-producing countries not only in the Middle East, but from Asia, Africa, and South America as well, and



*Mr. Ahmed O. Abdulla, Assistant General Manager, Operations (third from left), and Mr. Ismail Al Mulla, Human Resources and Administration Manager (second from right)*

to establish an extensive network of professionals in the oil industry.

## 2. Oman

### (1) H.E. Dr. Mohammed Hamed Saif Al-Rumhy

On October 18 (Sat.), Mr. Sase paid a courtesy call on H.E. Dr. Mohammed Hamed Saif Al-Rumhy, Minister of Oil and Gas.

This year, state-run Oman Refinery Company (ORC) is celebrating its 23rd anniversary since the commencement of operations in 1985. JCCP has been supporting ORC since the beginning, particularly in the development of staff members. Hereafter, the company must prepare for an inevitable shift of power to the next generation, as seasoned employees reach retirement age, as well as upgrade its refineries by introducing large-scale cracking units and integrating refinery and petrochemical operations. Developing outstanding engineers capable of addressing such major business challenges is a management issue that begs close attention in the near future, and one that Minister Al-Rumhy believes will greatly benefit from further cooperation with JCCP.



*H.E. Dr. Mohammed Hamed Saif Al-Rumhy, Minister of Oil and Gas (right)*

### (2) Oman Refineries and Petrochemicals Company (ORPC)

After paying a call on H.E. Dr. Al-Rumhy, Mr. Sase visited ORPC, and met with Mr. Adel Al

Kindy, CEO, and Mr. Masoud Al Msalmy, GM, Corporate Support.

Oman is currently planning the construction of a new refinery at Duqm, which would be the country's third refinery following the Mina al-Fahal and Sohar Refineries. It is to be a state-of-the-art refinery equipped with a residue cracking unit and an integrated petrochemical complex, in order to increase the value of Oman's oil.

Increasing the value of oil is a priority issue in both oil-producing and oil-consuming countries. "The creation of new oil industries is for the common benefit of oil-producing and oil-consuming countries," stated Mr. Al Kindy, who also expressed his hopes that JCCP will continue to act as a catalyst in promoting mutual exchanges of information while contributing to the development of the oil downstream sector.

### 3. Iran

#### (1) National Iranian Oil Refining and Distribution Company (NIORDC), Refinery Affairs Division

On October 20 (Sat.), Mr. Sase visited NIORDC to meet with Mr. A. Eskandari, Director, Refinery Affairs, and Mr. S. Mahjoubi, Technical Studies Manager.

In Iran today, demand for oil products, and particularly gasoline, is increasing at a rapid rate, and



*Mr. A. Eskandari, Director, Refinery Affairs, NIORDC (center)*

oil companies are hard-pressed to expand refinery capacities and increase gasoline production. Given this situation, NIORDC is considering expanding the capacities of its nine existing refineries and building seven new refineries, thereby doubling its current refining capacity. It is also working to increase the value of its refineries by introducing a residue cracking unit and other facilities.

Mr. Eskandari noted that the development of outstanding personnel is key to bringing these large projects to successful fruition, and expressed his expectations of receiving continued cooperation from JCCP through regular courses and technical cooperation projects.

#### (2) NIORDC Human Resources Division

In the afternoon of October 20 (Sat.), Mr. Sase visited NIORDC's Human Resource Division, and met with Mr. H. Ghorbani, Director of Human Resources.

NIORDC is planning to sequentially separate its refineries and cede them to the private sector. In preparation for this move, the Human Resource Division is busy promoting the development of human resources and improving employee productivity. Having himself participated in a tailor-made program on human resource development held in Japan last February, Mr. Ghorbani is keen to have many more staff members study Japanese-style human resource development through JCCP, and requested JCCP to continue providing such pertinent training programs for Iran in the future.

#### (3) Iranian Ministry of Oil

After visiting NIORDC's Human Resource Division, Mr. Sase visited the Iranian Ministry of Oil to pay a call on Mr. Y. Javadinia, GM, Petroleum Ministry Office.

Mr. Javadinia has participated in a JCCP regular course twice in the past. Based on what he has learned, he has created a textbook on Japanese-style human resource development, and personally gives lectures on the topic to young executive candidates. He emphasized that it is important that Japan and Iran share learning experiences through JCCP

courses, and expressed his gratitude to JCCP for its cooperation.

## 4. Qatar

### (1) Qatar Petroleum (QP), Refining Directorate

In the morning of October 22 (Wed.), Mr. Sase visited QP, and met with Mr. Hussain M. Al-Ishaq, Director Refining, Refining Directorate, who assumes leadership on the Qatar side in the JCCP technical cooperation project on “Efficiency Improvement in the Mesaieed Refinery in Qatar.”

Thirty years ago in 1978, Japan and Qatar established a joint venture company called Qatar Steel Corporation (QACSO) through which, Mr. Al-Ishaq noted, Qatar has learned many things from Japan. Even today, large-scale projects are underway in Qatar, for the construction of oil, LNG, and petrochemical plants that utilize the country’s abundant reserves of oil and natural gas. Because Qatar has a small population, the success of these large-scale projects hinges on enhancing



Mr. Hussain M. Al-Ishaq, Director Refining, QP (right)

the capacity of each and every individual involved. Based on this awareness, Mr. Al-Ishaq expressed his strong wish that JCCP continue to extend its cooperation to Qatar, as a central player in the transfer of Japan’s refinery management expertise and refinery technologies to Qatar.

### (2) QP Qatarization Steering Committee

In the morning of October 23 (Thu.), Mr. Sase visited with Mr. Essa Rashed Al Kaabi, Chairman of QP’s Qatarization Steering Committee.

Qatar is moving forward with the development of its oil and natural gas resources on a large scale, and is launching a number of major projects, including the export of LNG overseas via pipeline from its refineries. The Qatarization Committee has a large responsibility in this grand design, to foster Qatari personnel.

Mr. Al Kaabi, acknowledging that JCCP regular courses are unique programs that offer the opportunity to learn about various aspects of the oil industry directly from Japanese oil companies, asked JCCP to continue providing regular courses through which Qatari citizens may acquire hands-on experience in Japanese-style corporate management.

Mr. Sase’s recent visits to oil-producing countries in Southeast Asia and the Middle East have allowed him to personally meet key figures in those countries, reconfirm friendly relations between JCCP and its counterpart organizations, and obtain invaluable views on future JCCP activities. Based on the relationships of trust JCCP has cultivated with oil-producing countries around the world over the 27 years since its founding, we shall make continuous efforts to further enhance our training and technical cooperation programs.

<Southeast Asia: Katsuo Kirita, Training Dept.>

<Middle East: Hisayoshi Tanda, Administration Dept.>

## Signing Ceremony at the Mesaieed Refinery in Qatar “Operational and Safety Aspects”

On November 5, 2008, JCCP and Qatar Petroleum (QP) held a signing ceremony in the Al Dana Tower at the QP Head Office, for the “Study on Operational and Safety Aspects for Some Heaters in Refinery.” The study is slated to be implemented by the two organizations from FY2008 to 2009, as part of the JCCP technical cooperation program. Mr. Hussain M. Al-Ishaq, Director Refining of QP, and Mr. Katsuo Yokoyama, Managing Director of JCCP, signed the Letter of Intent (LOI) amid a gathering that included H.E. Mr. Yukio Kitazume, Ambassador Extraordinary and Plenipotentiary, and Mr. Noboru Homma, First Secretary, from the Japanese Embassy in Qatar, Mr. Abdulaziz M. Al-Khoori, Mesaieed Refinery Operations Manager, managers from QP departments involved in the project, and Mr. Takahiro Kanbe, Director of Cosmo Engineering Co., Ltd. (CEC), the project implementation company.

Prior to signing the LOI, Messrs. Al-Ishaq and Al-Khoori expressed their honor to receive Ambassador Kitazume and to be able to sign the LOI in his presence. They also thanked CEC for its cooperation in implementing JCCP projects during the past several years, and for its efforts in ensuring that the expected results are achieved. They also expressed their hopes of realizing significant

technical and environmental improvements through the project. Ambassador Kitazume congratulated H.E. Mr. Abdullah bin Hamad Al-Attiyah, Deputy Prime Minister, Minister Energy, and Chairman and Managing Director of QP, on his conferment of the “Grand Cordon of the Order of the Rising Sun” for his contribution in supplying energy to Japan and strengthening relations between Japan and Qatar. Ambassador Kitazume added that the holding of this signing ceremony in Qatar on the same day as the conferment of the award on Mr. Al-Attiyah is a significant prospect of the increasingly strong bonds of cooperation between the two countries. Mr. Yokoyama thanked everyone concerned for their support in the planning of the new project following the previous study on LPG recovery, and extended his gratitude to CEC for its continued cooperation and to Ambassador Kitazume for attending the ceremony. He also promised JCCP’s steady support in contributing to safe and stable operations at the QP Mesaieed Refinery, improving efficiency in the refinery, and enhancing the technical skills of refinery engineers through the project. Lastly, Mr. Kanbe explained that Cosmo Oil Co., Ltd. has established a subsidiary relationship with QP by investing in the QP Laffan Refinery, and expressed



*Exchange of commemorative gifts:  
H.E. Mr. Yukio Kitazume, Ambassador to Qatar (left),  
Mr. Hussain M. Al-Ishaq, Director Refining, QP (right)*



*Exchange of the LOI:  
Mr. Al-Ishaq (right),  
Mr. Katsuo Yokoyama, JCCP (left)*

his company's commitment to further deepening relations with QP through the project and making steady achievements.

The new project comes after the "FEED Study on LPG Recovery at the Mesaieed Refinery," a two-year project that was begun in FY2006, and will be based on the results of the "Study on Environmental Improvement at Qatar Petroleum," which was implemented in FY2007 under JCCP's project-finding (PF) scheme. The project has been made possible by the joint efforts of JCCP and CEC in building strong cooperative ties with QP since the launch of the first joint technical cooperation project with QP.

The following is an overview of the project.

- (1) Participating company: Cosmo Engineering Co., Ltd.
- (2) Project period: One year, from April 1, 2008 to March 31, 2009; with plans to extend the contract by an additional year, in FY2009
- (3) Overview of the study
  1. FY2008

The first year of the project will focus on examining and analyzing the causes of problems that have occurred during the previous fiscal year, as well as current issues and problems relating to the refinery's six furnaces: (1) Measures for improving energy efficiency of the furnaces; (2) Survey for improving combustion by changing fuel composition; and (3) General plan of necessary facilities for ensuring safety and operational stability of the furnaces. If operational improvement

is deemed to be effective in improving combustion performance, the results of the study will be applied to the actual operation of the furnaces, as appropriate.

## 2. FY2009 (plan)

If remodeling of facilities is judged necessary based on FY2008 survey results, FEED (Front End Engineering Design) work will be implemented.

On the day following the signing ceremony, Mr. Yokoyama, Mr. Kanbe, and other Japanese members who attended the ceremony visited the Mesaieed Refinery, to see the furnaces tagged for the new project and tour the area where the facilities of the LPG recovery study implemented the previous fiscal year will be installed. Mr. Salim M.A., the manager in charge of implementing the project, emphasized QP's company-wide efforts in addressing global environmental issues. He then briefly described the operating principles of the refinery, including its (1) HSE (Health, Safety, Environment) and 4R (Refuse, Reduce, Reuse, Recycle) initiatives; (2) research on the application of Green Products (GTL) to internal combustion engines; and (3) achievement of Qatar environmental standards.

We hope that the successful implementation of this joint project will further strengthen friendly relations between Qatar and Japan, and that the transfer of Japan's oil refining facility evaluation technologies will contribute to the development and improvement of oil refining technologies in Qatar.

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



*Mr. Hussain M. Al-Ishaq,  
Director Refining, QP  
(center);  
H.E. Mr. Yukio Kitazume,  
Ambassador to Qatar (to the  
left of Mr. Al-Ishaq);  
Mr. Takahiro Kanbe,  
Director of CEC (to the left  
of Mr. Kitazume)*

# Customized Program in Japan on “Maintenance & Safety Management” for Saudi Aramco



At JCCP:  
Mr. Fareed Kamfar (second from right in front row)

## 1. Background

In recent years, Saudi Arabia has become the largest supplier of crude oil to Japan, supplying as much as 30% of Japan's total crude oil imports, and making Saudi Arabian Oil Company (Saudi Aramco) an extremely strong presence in the world crude oil market.

Last March, an Expert Service program on “Refinery Plant Maintenance” was implemented in Saudi Arabia (Feb. 28 – Mar. 7, 2008), and Mr. Mikio Kojima, then-Executive Director of JCCP,

who had been visiting Saudi Arabia at the time, delivered a speech at the seminar venue. Taking the opportunity of Mr. Kojima's attendance, Mr. Fareed Z. Kamfar, RT Refinery Maintenance Manager, strongly requested an opportunity to observe maintenance & safety management and total productive maintenance (TPM) activities in Japanese refineries. In response to the request, JCCP designed and implemented a program titled “Maintenance & Safety Management by TPM in Japanese Refineries” (CPIJ-20-08), from October 16 to 30, 2008.

## 2. Overview of the Program

Saudi Aramco is presently seeking to upgrade its facility maintenance technologies, and has launched improvement/reform activities, with an emphasis on safety management and preventive maintenance. Mr. Kamfar therefore wished to observe TPM and other improvement activities, as well as the latest maintenance management technologies in Japanese refineries, to gain a perspective on measures for improving and reforming refinery maintenance management technologies in Saudi Arabia.

The program was designed to mainly cover “safety program,” “total productive maintenance (TPM),” and “maintenance services organizations,” through close examination of relevant initiatives implemented by JCCP member companies participating in the program, in addition to discussions. Unlike conventional courses, it placed emphasis on holding frank discussions with management-level personnel at each company, rather than on classroom lectures. To insure that focused discussions were held, each company prepared for discussions based on a list of questions that had been prepared in advance.

The participants were Mr. Kamfar, acting group leader, Mr. Abdulsalam Ashi, Yanbu Refinery, Maintenance Division Superintendent, and Mr. Nezar Lamfon, Jeddah Refinery, Maintenance Division Superintendent.

## 3. Program Details

The program featured onsite training at a chemical company and a maintenance company under contract with a Japanese refinery at Mr. Kamfar’s request, in addition to oil companies, engineering companies, and machine & equipment manufacturers. At JCCP Headquarters, a lecture entitled “Maintenance & Safety Management in Japanese Refinery” examined causes and countermeasures to accidents in Japan as an approach to understanding the history of safety & maintenance management, and introduced representative TPM activities that oil refining-related companies in Japan have implemented to date. The lecture also served to put into perspective the significance of the facilities visited.



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

### (1) Refineries

At Nippon Petroleum Refining Co., Ltd.’s Muroran Refinery, detailed discussions were held on the safety education mechanism of the refinery’s maintenance department and its safety management framework with a contractor employed to undertake daily maintenance activities. At Japan Energy Corporation’s Mizushima Refinery, Mr. Kazuo Yamada, Deputy General Manager, personally described maintenance and TPM activities implemented by the refinery in an easy-to-understand manner, while introducing case examples. With respect to safety management activities, an executive officer gave a detailed account of the status of various initiatives, and explained efforts to achieve “visualization” at the refinery, in reference to concrete examples. The information provided helped establish a general understanding of the status of equipment maintenance management at the Mizushima Refinery. At Idemitsu Kosan Co.,



*At Idemitsu Kosan Co., Ltd., Chiba Refinery*

Ltd.'s Chiba Refinery, the study group watched the early-morning change of shift, observed safety activities and TBM (Tool Box Meeting) activities, and received an overview of TPM activities in a discussion session attended by Mr. Akira Kitayama, General Manager. The group also visited a company that undertakes daily maintenance management at the Chiba Refinery, and obtained information on the maintenance management system and safety management framework binding the contractor to Idemitsu Kosan's standards.

## (2) Chemical company

The group visited the Mizushima Plant of Mitsubishi Chemical Corporation, one of the largest chemical companies in Japan. They gained a general understanding of the company's education system, through hands-on experience in safety management at the safety training center, which was independently established by a cooperation council, and a tour of the T-TEC Center, where new employees regularly receive training.

## (3) Equipment manufacturers

At the Murooran Plant of Japan Steel Works, a world-renown manufacturer of pressure vessel materials and equipment, the group received pointers on the maintenance management of pressure vessels, toured the high-pressure vessel production site, and renewed their understanding of the company's scale, high technical expertise, and quality. What most captured the group's attention, however, were the words of greeting the employees

exchange with each other: "Go-anzen ni," meaning "Please be safe." This came as a strong reminder that words of greeting are extremely important in staying consciously aware of safety. At the Haneda Plant of Ebara Corporation, a leading Japanese pump manufacturer, the group received a description of the company's large-pump maintenance service framework in the Middle East, as well as on its engineer training system. Detailed discussions were also held on the order receiving/placement system for spare parts and other components, and on the delivery lead times for new large-pump orders, in addition to other specific topics.

## (4) Engineering companies

Visits were made to three leading engineering companies in Japan. Chiyoda Corporation, a contractor for Saudi Aramco's principle refineries, gave a presentation that primarily focused on plant life cycle engineering and work safety. JGC Corporation gave an overview of its overseas O&M (operation & maintenance) status and a detailed description of its maintenance and inspection activities in Japan. Toyo Engineering Corporation delivered a presentation titled "O&M, a View from Safety," which covered its policies for safety management as a contractor and its training system for subcontractors, and illustrated Japanese engineering companies' attitude toward safety. Listening to these presentations, the members of the study group articulated their concern regarding the technical level of contractors in Saudi Arabia and their wish for them to consider receiving training.



At Japan Steel Works, Murooran Plant



At Sompō Japan Risk Management, Inc., Head Office

## (5) Insurance company

Based on its extensive knowledge of risk management trends in Japan, Sompo Japan Risk Management, Inc. provided training in basic policies for risk assessment as seen from the perspective of an insurance company and the diverse aspects involved in assessing hazards and other risks, including those in relation to the flow of activities, organization, progress management, cost management, risk management, and change control.

## (6) Maintenance companies

At Sankyu Inc., a medium-sized company specializing in maintenance activities, detailed discussions were held on the training system for employees who perform maintenance activities and on specific human resource development programs for employees involved in maintenance. At Shinko Plantech, discussions centered on specific issues in the maintenance and inspection of refinery facilities, and focused particularly on daily maintenance and “Turnaround Maintenance” systems. These discussions were helpful in gaining an accurate understanding of the high level of maintenance technologies in Japan.



*At Shinko Plantech, Head Office*

## 4. Evaluation and Impressions

Mr. Kamfar and the other two members of the study group stated that the opportunities to

personally visit representative companies in Japan and discuss various issues with experts in those companies have been extremely beneficial, and that they have fully satisfied their intended objectives. They also voiced their intention of applying their experience in Japan to management practices at Saudi Aramco, and with a renewed awareness, in particular, of the importance of having managers take initiative, they mentioned that they would like manager-level employees of Saudi Aramco to attend similar training, to improve management capabilities in their organization.

This program has been designed considerably differently from conventional customized programs. Toward resolving various issues confronting Saudi Aramco’s maintenance department, it featured detailed discussions with the management of oil-related companies in Japan, as a means of providing a point of reference on how Japanese companies are addressing such issues. We feel that this approach has, in a way, established a foundation for practical training programs in general.

From the designing stage of this program, we paid meticulous attention to details to offer a program that would satisfy the study group from Saudi Aramco, and have selected companies for onsite training that would satisfy the members’ intended objectives, following a series of negotiations. In terms of the specific topics of the program, what was initially a vague idea, gradually began to take shape, again thanks to the generous cooperation from related companies and their help in establishing topics to be discussed at each company. Owing to these efforts and to the study group preparing questions in advance, all of the companies were able to adequately prepare and insure that discussions would not end up being superficial, but would have a definite focus and provide pertinent information, even within a short period of time.

On a final note, JCCP would like to extend its deepest gratitude to everyone who has generously offered their cooperation in the planning and implementation of the program. Thank you very much.

*<by Fumihiro Tone, Training Dept.>*



## *My Impressions of the Customized Program in Japan*

**Mr. Fareed Zainaldeen Kamfar, RT Refinery Maintenance Manager**

It has been a tremendously rewarding experience for me and my team to have participated in this program. We were quite moved by the warm and hearty welcome with which JCCP received us. On behalf of Saudi Aramco and the team accompanying me, I would like to thank Mr. Masataka Sase, Executive Director of JCCP, and his staff, for developing and organizing the program.

The visits to various industries and institutions provided us an excellent opportunity to learn about procedures related to TPM and safety practices in Japan's industries. It was indeed a great experience to observe first-hand the intricate details of these activities and how meticulously they are being implemented, as well as the methods employed to achieve excellent quality levels.

We were also impressed with how plant personnel and contractors work in tandem in accepting ownership, responsibility, and accountability for plant maintenance and operation. It is a living example of the application of the TPM concept.

Our visits to Idemitsu Kosan, Nippon Petroleum Refining, Japan Energy's refineries and Mitsubishi Chemical gave us an insight into TPM and safety concepts that are being implemented and practiced in Japan. The discussions we held with various people in Japan Steel Works, Ebara Corporation, JGC Corporation, Chiyoda Corporation, Sompo Japan Risk

Management, Sankyu Corporation, Shinko Plantech, and Toyo Engineering were extremely fruitful, and provided us with valuable information related to this program's objectives, with a focus on HR development and employee well-being.

Over the past 27 years, JCCP has always been at the forefront of building bridges of friendship between Japan and oil-producing nations, and has contributed tremendously to enhancing mutual cooperation between companies in major oil-producing nations and Japan. In these days of energy reliance, JCCP's initiatives have gone a long way in reaching out to oil producers.

On a personal note, about 24 years ago I had the opportunity to attend one of JCCP's programs, and since then I have greatly valued Japanese culture and work practices. I am impressed by the fact that every Japanese worker, irrespective of his level of responsibility in his organization, places "trust before business" and ultimate importance on "maintaining highest quality standards." This speaks loudly of Japan's remarkable development following World War II into one of the most developed and industrialized nations in the world.

In closing, once again I would like to extend our thanks and appreciation for your warm hospitality, graciousness and courtesy during our trip, and look forward to maintaining cooperation between Saudi Aramco and JCCP in the future.



# Total Number of Training Participants Surpass 18,000!

With the opening of the TR-17-08 Training Management Course on November 25, 2008, the total number of participants JCCP has received to its training programs in Japan since its establishment 27 years ago (1981), has surpassed an astounding 18,000.

Ms. Maryam Mahana Saad Al-Romaihi from Qatar Petroleum became the commemorative 18,000th participant. During the opening ceremony of the course, a big round of applause erupted from the JCCP staff and other participants of the course, as Mr. Masataka Sase, Executive Director of JCCP, congratulated Ms. Al-Romaihi. In response, Ms. Al-Romaihi expressed her honor to be blessed with such good fortune on her first visit to Japan.

For 27 years, JCCP has offered countless training courses to participants from oil-producing

countries, to promote technical exchanges in oil issues between oil-producing countries and Japan, and has designed those courses to include visits to refineries and marketing/logistics sites in Japan, to provide opportunities for hands-on experience. It is a source of great pride to the JCCP staff that the steady accumulation of such activities has led to the recent milestone of receiving their 18,000th participant.

We are convinced that, in the future, the 18,000 participants will hold important positions in oil-producing countries and serve as a bridge of friendship between their respective countries and Japan.

JCCP will continue to make steady, step-by-step efforts to offering unparalleled training, and looks forward to welcoming the 19,000th participant, the 20,000th participant, and on.

## *Message from the 18,000th Participant*

### **Ms. Maryam Mahana Saad Al-Romaihi (Qatar Petroleum / Qatar)**

When the Executive Director of JCCP announced during the opening ceremony on the first day of the course that I represented JCCP's 18,000th participant since its establishment in 1981, I was surprised, excited, and filled with happiness.

Being selected to attend the "Training Management Course" in Japan has realized my dream of visiting this inspired country, as I have always been attracted by the generosity, hospitality, manner, culture, tradition, and nature of the Japanese people.

Attending different presentations and seminars and visiting well-known refineries in Japan was an invaluable experience that exposed me to new knowledge and information. I believe that what I have learned from the diverse, beneficial issues covered in the course will prove useful in making improvements

in the department to which I belong.

JCCP plays an important role in maintaining and expanding relationships and friendships between Japan and oil-producing countries. The "Training Management Course" has brought together 18 participants from 12 different countries, and has given me the chance to meet professionals and experts from the oil industry in Japan and various other countries.

I would like to thank the staff at JCCP, Nippon Oil Corporation, Idemitsu Kosan Co., Ltd., JGC Corporation, and Meisei University for generously sharing their knowledge and experience with us, and for their warm hospitality. Thanks to you all, I shall leave Japan with wonderful memories. I hope we will meet again, perhaps next in my country.

Thank you.

# Customized Program on “Refinery Computerization” for Kazakhstan (CDB OGI)



*CPJ participants from Kazakhstan, at Yokogawa Electric Corporation, Head Office*

## 1. Background

JCCP has begun taking initiatives to strengthen relations with regions that are poised to become suppliers of new energies in the future, as part of its efforts to contribute to stabilizing oil supply to Japan. The Republic of Kazakhstan is one of these regions. It began full-scale development of oil resources in the 1990s, and has recently emerged as an oil-producing country expected to become a major oil supplier in the future. Japan is contributing to the development of oil resources in the country, and JCCP is also playing its part by inviting participants from Kazakhstan to JCCP courses since 2001. As of the end of FY2007, JCCP has received a total of 135 participants from Kazakhstan.

In Kazakhstan, rapid economic growth has brought a drastic increase in demand for oil products, making the issue of improving refinery efficiency a priority in the country. In response to

a request from the Central Dispatching Board of Oil and Gas Industry (CDB OGI) in Kazakhstan, JCCP has implemented a customized program (CPJ) that has been designed with a particular focus on computerization in the refinery. The program aimed to contribute to improving oil refining technologies in Kazakhstan, by providing training in computerized information and control systems in Japanese refineries, and the latest technologies. Ten participants from CDB OGI participated in the 11-day course, from September 2 to 12, 2008.

## 2. Overview of the Course

The course started off with a presentation by Kazakhstan members, and consisted of a full schedule of activities which included training at JCCP Headquarters, offsite training at two refineries and two instrument and control equipment manufacturers, and a final lecture session back at JCCP.

## 1. Presentation by Kazakhstan

In recent years, Kazakhstan has begun showing heightened interest in JCCP courses, and the numbers of participants from the country have increased dramatically. On the other hand, JCCP has had few opportunities to acquire sufficient knowledge of the current situation in Kazakhstan, particularly in regard to its refineries and the status of CDB OGI. Therefore, to obtain new information, we asked the Kazakhstan side to give a presentation, on occasion of their participation in this program.

The presentation covered (1) an overview of the oil industry in Kazakhstan, and (2) an outline of the organization and operations of CDB OGI, as well as provided valuable information on Kazakhstan's relationship with CIS (Commonwealth of Independent States), the status of its three refineries, and the modernization project that is currently underway at the Atyrau Refinery. Mention of the project was also made during the final lecture session (by JGC Corporation), taking full advantage of the customized nature of the course.



*Presentation by the Kazakhstan side*

## 2. Training at JCCP

Lectures were given on Japan's oil industry, refinery computer systems, and control theories during the first half of the course, to clarify the course's objective at an early stage, and to lay the foundation for ensuring constructive results from the onsite training sessions which compose the main part of the program.

- (1) Overview of oil industries in Japan
- (2) Overview of refinery computer systems
- (3) Practical training in PID controller tuning
- (4) Modernization of instrumentation (by JGC Corporation)

The program ended with a final lecture-and-discussion on control systems, mainly in reference to new refinery installation (the latest in hardware and software related to distribution control systems (DCS), engineering design tools, new safety standards, etc.). In regard to the Atyrau Refinery modernization project, the lecturer, who has at one time participated in the project, was showered with questions from the participants in an extremely lively discussion session.

## 3. Onsite Training

Visits were made to two refineries of two different oil companies. At each refinery, an introduction of information and control systems employed by each company and a close examination of refinery operations provided the participants with a detailed understanding of the role of information and control systems in refineries.

At the two instrument & control equipment manufacturers, a brief presentation on the latest technologies and an observation of actual production processes and demonstration tests provided a general understanding of Japan's spirit of creation and Japanese companies' efforts toward practical realization of their technologies.

### (1) *Nippon Petroleum Refining Co., Ltd., Osaka Refinery*

The refinery staff organized extremely high-level training, both in terms of materials and lecturers, despite having their hands full with preparations for reorganization. In addition to detailed overviews of computer systems, DCS advanced control



*At Nippon Petroleum Refining Co., Ltd., Osaka Refinery,  
with Osaka Bay in the background*

systems, and quality control systems in the refinery, introductions of the refinery's economic activities and case examples showing the benefits of computerization, which we asked the refinery side to provide on short notice, particularly attracted the participants' strong attention.

#### **(2) Idemitsu Kosan Co., Ltd., Chiba Refinery**

Training at the Chiba Refinery clarified the status of computerization and provided the participants with an opportunity to gain a direct feel for the rhythms of an actual refinery in Japan. A lecture was given on computer systems in operation at the refinery (real-time operational control system, operational support system, simulator training, etc.), and a sufficient amount of time each was allotted to practical training in the Power Division, Administration Division (offsite), and Quality Control Division.



*At Idemitsu Kosan, Co., Ltd., Chiba Refinery,  
in the gasoline blender/analyzer room*

#### **(3) Yamatake Corporation, Shonan Factory**

The Shonan Factory was selected as the training venue, as a plant that represents Japanese-style



*At Yamatake Corporation, Shonan Factory*

production processes. The staff's enthusiastic explanations of various processes in the plant and quiz-based lectures on the latest advanced control technologies (control valve maintenance aid system, improvement of human-machine interfaces, etc.) had a way of engaging the participants' strong interest.

#### **(4) Yokogawa Electric Corporation, Mitaka Head Office**

Using an interpreter to facilitate understanding, lectures on control technologies (latest DCS and safety instrumentation systems, etc.) were implemented with an emphasis on the latest DCS. The lecture on the aid system for operational efficiency improvement, which was held in a demo room, rated particularly high among the participants, as it provided easy-to-understand, equipment-based information and knowledge.

### **3. Summary**

The program was originally designed for a 14-member group from Kazakhstan, but ended up with the participation of 10 members from CDB OGI's Management Department, with the cancellation of four field engineers due to a domestic situation in Kazakhstan prior to commencement of the program. In the final analysis, the program was implemented with satisfactory results, owing to the participants' strong enthusiasm and the sincere efforts of the staff of offsite facilities and the external lecturer. The participants not only gained information and knowledge on refinery computerization and its necessity, but were able to bridge the emotional distance between themselves and Japan that they felt prior to coming to Japan.

Areas for improvement would be in the allotment of time and in the facilitation of communication with participants, particularly because using an interpreter requires double the time it takes for a regular course to communicate information.

We hope that the implementation of this program will contribute to establishing deeper relations between Kazakhstan and Japan.

*<by Teruhiko Sasaki, Training Dept.>*

## Customized Program on “Energy Saving” for Russia (LUKOIL)



*At the main entrance to Nippon Petroleum Refining Co., Ltd., Negishi Refinery*

Following the implementation of an instrumentation seminar for LUKOIL last fiscal year in Moscow, JCCP has again held a seminar on “Energy Saving in Refineries” this fiscal year for LUKOIL, under the Customized Program-Overseas

(CPO). After conducting the 4-day seminar at LUKOIL’s Nizhny Novgorod Refinery in mid-September 2008, JCCP also provided training in Japan on the same topic under the Customized Program-Japan (CPJ), about two weeks later, in early October. Since we understood that the same members would basically be participating in both the programs in Russia and Japan, we paid careful attention to designing the two programs so that the subjects do not overlap. To our relief, the two programs were completed successfully.

### 1. Seminar in Russia

Nizhny Novgorod is Russia’s fourth-largest city, located approximately 500 km east of Moscow, as well as the capital of the province of the same name and the center of a prosperous automotive industry. The Volga River flows through the city and adds to its picturesque beauty, along with the



*At the seminar venue:  
Mr. Alexander Kobalenko, Chief Engineer at  
the Nizhny Novgorod Refinery (center)*

famous Kremlin fortress. The city was known as Gorky during the Soviet era, and was a closed city to protect the status of a military plant that was situated there. Today, it is home to a large LUKOIL refinery boasting a capacity of 340,000 b/d, which was chosen as the venue of the seminar.

The seminar was conducted by Messrs. K. Kamijyo and S. Satake, lecturers from JCCP's Training Department, with the participation of Mr. Hisato Aoyama from JGC Corporation and Mr. Naohiro Sugie from Idemitsu Kosan Co., Ltd.'s Chiba Refinery, in the capacity of experts. Seminars for a Russian audience always require Russian interpretation, and the amount of time that can be allotted to lectures is half of the available time. With this awareness, the members of the Japanese team held preliminary meetings twice in Japan prior to making their trip to Russia, to carefully select contents for the seminar based on mutual understanding of each other's lecture ideas, and thereby ensure efficiency and productivity of the seminar. On the Russian side, the cooperation of International Business Relations (IBR), a company that has acted as an intermediary between LUKOIL and JCCP, and LUKOIL's active support, were instrumental in moving forward the necessary



*Seminar scene*

preparations, from creating a detailed schedule of the seminar, to pre-sending and printing text materials. Furthermore, the Japanese members were met at the airport and escorted to their hotel immediately upon arriving in Russia, and were assured that all the necessary arrangements have already been made, in regard to setting up the seminar venue and securing a reliable interpreter.

Mr. Alexander Kobalenko, Chief Engineer at the Nizhny Novgorod Refinery, delivered a greeting during the opening ceremony, and the seminar proceeded according to the schedule shown in the table below.

### Seminar schedule in Russia

Sept. 15 (Mon)	AM	Opening ceremony Introduction of lecturers Overview of JCCP activities
	PM	Alternative energies to oil, energy conservation in refineries
Sept. 16 (Tue)	AM	Energy saving in refineries 1 (operational improvement, small investments) Overview of pinch technology
	PM	Issues in global warming Energy saving activities at LUKOIL
Sept. 17 (Wed)	AM	Energy saving refineries 2 (large investments) Japan's energy policies
	PM	New technologies for energy saving in refineries
Sept. 18 (Thu)	AM	Optimization of refinery utilities, refinery IPP Energy saving using computers
	PM	Energy saving evaluation and promotion framework Q&A session Closing ceremony



*At the Nizhny Novgorod Refinery:  
Japanese members in refinery uniform*

The participants were extremely attentive and focused all through the seminar, and fully attended each day's lectures, precisely from 10 a.m. to 4 p.m. A friendly atmosphere began to evolve in the auditorium as the seminar progressed, and the participants began to ask more and more questions and engage in lively discussions. The focus of their interest seemed to be on the lectures on specific implementation examples of energy conservation, latest energy saving technologies, and promoting energy conservation. A closing ceremony was held on the fourth and last day of the seminar, and JCCP completion certificates were presented to all 25 participants.

On the day after completion of the seminar, LUKOIL staff kindly arranged for the Japanese team to visit the Nizhny Novgorod Refinery and tour its various plant facilities, including the newly installed visbreaking unit. The following week, the Japanese team visited the LUKOIL Head Office in Moscow, where they reported on the successful implementation of the seminar to executive members of the Personnel Affairs and Education Departments, and exchanged frank views on future cooperation.

## 2. Training in Japan

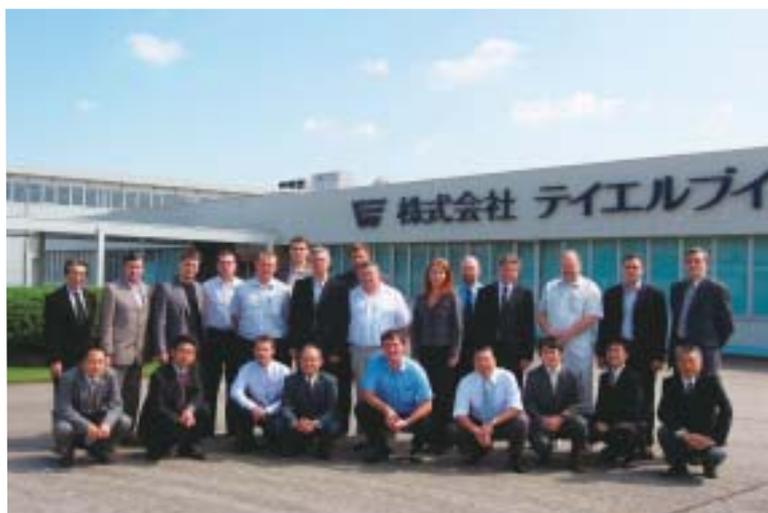
Two weeks after the Japanese seminar team's visit to the LUKOIL Head Office in Moscow, a



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

### Training schedule in Japan

Oct. 7 (Tue)	Opening ceremony, Orientation, Japan's oil industry, LUKOIL presentation
Oct. 8 (Wed)	Discussion on pinch technology
Oct. 9 (Thu)	Onsite training: Toa Oil Co., Ltd., Keihin Refinery, Mizue Factory
Oct. 10 (Fri)	Onsite training: Nippon Petroleum Refining Co., Ltd., Negishi Refinery
Oct. 11 (Sat)	Day off
Oct. 12 (Sun)	Energy saving using computers <Travel to Kyoto>
Oct. 13 (Mon; Holiday)	Field trip in Kyoto
Oct. 14 (Tue)	Onsite training: TLV Co., Ltd., Kakogawa Head Office and Plant
Oct. 15 (Wed)	Onsite training: Continuation of above <Travel to Tokyo>
Oct. 16 (Thu)	Recent energy saving technologies
Oct. 17 (Fri)	Summary, Closing ceremony



*At TLV Co., Ltd., Kakogawa Plant*

15-member study group from LUKOIL arrived in Japan. All members, excluding the leader of the group, Mr. Fedor Zimin, Deputy Director of Nizhny Novgorod Refinery, were members of the seminar just held in Russia, and attended the program in Japan amid a relaxed and friendly atmosphere.

The program proceeded according to the schedule shown on the opposite page, and spanned a period of 11 days. Different topics from those covered in the seminar in Russia were selected for classroom lectures, and more visits to offsite facilities were included in the program compared to other study tours in Japan. In addition to two refineries, the participants also visited a steam-trap manufacturer and received in-depth training over 1 1/2 days, in consideration of the use of an interpreter, where conventional programs only allot one day. The practical training was offered over an ample amount of time, and rated highly among all participants.

### **3. Future Issues**

As a basic principle, JCCP provides CPO and CPJ programs in combination under the same training theme, to JCCP counterparts in oil-producing countries. However, the recent implementation of

a CPO and CPJ series only two weeks apart, was quite rare. Generally speaking, providing training in Japan soon after participants receive sufficient advance knowledge in a seminar held in their country is expected to facilitate implementing efficiency and learning effectiveness. In the case of the recent programs, moreover, the members of the seminar held in Russia and the members who attended training in Japan were mostly the same, so from the standpoint of one who has organized and implemented both programs, the effort seemed easier than other combination programs.

As was the case with the group from LUKOIL, most members from Russia and nations such as Kazakhstan that have formed from the former Soviet Union tend to find communicating in English slightly difficult. Therefore, it would probably be a good idea for these countries to participate more in CPO and CPJ programs with the assistance of an interpreter, than in JCCP regular courses. In this respect, we believe that the recent programs have provided a good step in the right direction.

Lastly, we would like to thank everyone who has supported the successful implementation of the two programs, for their generous time and cooperation.

*<by Shinichi Satake, Training Dept.>*

# Customized Program in Colombia and a Cooperation with Training Center Program in Brazil

Between September 20 and October 4, 2008, JCCP held a seminar on “Upgrading Process of Heavy Oil” (CPO-30-08) in Colombia and a Cooperation with Training Center Program (TC-30-08) in Brazil, as outlined below.

## I. Seminar on “Upgrading Process of Heavy Oil” in Colombia



*Seminar participants (at ECOPETROL)*

### 1. Background

This seminar was organized in response to a request from Colombia’s state-run oil company ECOPETROL (Empresa Colombiana de Petróleos S.A.), following a proposal made by JCCP for the implementation of a Customized Program–Overseas (CPO). It was held under the theme, “Upgrading Process of Heavy Oil,” by two lecturers from JCCP’s Training Department (Messrs. T. Kubota and S. Takahashi), and two members from JCCP member companies, Mr. Yasufumi Kosakai, Group

Leader, JGC Corporation, and Mr. Hideki Minami, Senior Consultant, Chiyoda Corporation.

### 2. Overview of the Seminar

The program was designed with the objective of imparting technologies for upgrading heavy oil in refineries, in consideration of the current situation in Colombia, where heavy oil processing is a major issue, and there are plans for the introduction of a delayed coker.

Twenty-seven young middle-level personnel



*Seminar scene*

from ECOPETROL attended the seminar, which was held at ICP (Instituto Colombiano del Petróleo), ECOPETROL's research and training institution.

### 3. Details of the Seminar

In the opening ceremony, Mr. Federico Maya Molina, Vice President of ECOPETROL, delivered a televised greeting from the Head Office.

Throughout the course of the seminar, English and Spanish were used, with simultaneous interpretation between the two languages.

A photographer representing ECOPETROL was a constant presence at the seminar, diligently recording all proceedings.

The seminar proceeded as follows, over a 4-day period:

- Day 1: Opening ceremony  
Introduction of JCCP  
Overview of the Oil Industry in Japan
- Day 2: Outline of the Upgrading Process of Heavy Oil  
Selection of Upgrading Processes of Heavy Oil
- Day 3: Thermal Cracking Process, Integrated Gasification Combined Cycle (IGCC) and Hydro-cracker  
Hydrotreatment and Hydro-desulfurization Process Technology
- Day 4: FCC (Fluid Catalytic Cracking) and RFCC (Residue FCC) Process Technology  
Closing ceremony

The participants shared their opinions and views of the seminar in a summary discussion session held on the last day. Some of these are shown below. (Similar opinions have been compiled under one item.)

- The seminar was a timely event, corresponding to current situations at ECOPETROL. I acquired a deeper understanding, in particular, of delayed cokers, which we are planning to introduce in the near future.
- Participation in the seminar has stirred my interest in other JCCP seminars.
- I didn't know much about Japan's oil industry up to now, so I found the lecture on it to be very informative.
- The seminar was extremely well managed. For instance, answers to questions that couldn't be answered on the spot were provided at a later opportunity, without fail.
- The seminar helped clarify the status of our refinery. I appreciated the many examples that were provided.
- Through the seminar, I realized that economic efficiency is extremely important. I also became aware of the importance of new technologies, clean technologies, and the environment.

As shown above, the participants all expressed their opinions to the effect that the seminar was extremely meaningful, and immensely pleased the members of the Japanese team.



*Presentation of the completion certificate*

## 4. Impressions

The seminar ran on a tight schedule, from 7:30 a.m. thru to 4 p.m. each day, with only brief breaks for lunch and coffee. Nevertheless, everyone basically appeared on time and gave the seminar their undivided attention. The program included not only unilateral lectures, but also interactive discussions, and as intended, turned out to be a productive seminar that elicited active participation from all participants and promoted their understanding of

the topics that were addressed.

The Japanese members of the seminar feel that the close congruence of the theme of the seminar with the current situations at ECOPETROL will benefit the company in its future plans, and are pleased that JCCP's proposal and ECOPETROL's situation have matched and have resulted in the realization of this seminar. JCCP intends to continue its efforts to promote further exchanges between Colombia and Japan.

## II. Cooperation with Training Center Program in Brazil

After holding the seminar in Colombia, the two lecturers from JCCP's Training Department (Kubota, Takahashi) traveled to Brazil, the largest oil-producing country in South America, to visit the state-run oil company PETROBRAS, under the Cooperation with Training Center scheme. More specifically, they visited PETROBRAS University, located in Rio de Janeiro, to present the schedule of JCCP's regular courses for the next fiscal year, promote the implementation of customized

programs (Customized Program–Overseas (CPO) and Customized Program–Japan (CPJ)), and ask for PETROBRAS's continued cooperation.

The PETROBRAS side took an interest in CPO programs, and said it will contact JCCP after careful consideration. As Brazil is expected to become an increasingly indispensable presence to Japan in the future, JCCP needs to perhaps take even more diverse approaches than ever before, in order to deepen relations between Brazil and Japan.

*<by Shigeyoshi Takahashi, Training Dept.>*



*At PETROBRAS University:  
Mr. Walter Brito, Manager (fourth from left)*



*At PETROBRAS University:  
Mr. Rodrigo de Lima Horta (right)*

# 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.



*Seminar venue*

### 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



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

## Abu Dhabi, UAE



*Participants of the seminar (excluding the 5 female participants)*

### 1. Background

In February 2008, JCCP members Mr. Hisayoshi Tanda, then Operations Manager, and Mr. Shigeyoshi Takahashi, Lecturer, embarked on a promotional tour of CPO and CPJ programs in the Middle East region. During their visit to TAKREER, they received a request for a 5-day HRM seminar as a FY2008 CPO program. Thereafter, members of JCCP's Training Department and the TAKREER side held working discussions on the specific content and schedule of the program, and agreed to conduct the CPO in November 2008.

### 2. Dates of Implementation

November 9–13, 2008

### 3. Lecturers

Akio Hoshino (JCCP Training Dept.)  
Shinichi Satake (JCCP Training Dept.)  
Hitoshi Miyasaki (Personnel Department,  
Nippon Oil Corporation)  
Nobutaka Nohara (Personnel Department,  
JGC Corporation)



*Seminar venue*



*Opening address by Mr. Ahmed Gattan, Director,  
Training & Career Development*



Mr. Hitoshi Miyasaki  
from Nippon Oil Corporation



Mr. Nobutaka Nohara  
from JGC Corporation



Thank-you speech by one of the  
participants

#### 4. Summary of the Seminar

- (1) The seminar was attended by 21 participants. About half were personnel in charge of human resources in the Head Office, and the other half were staff from TAKREER’s two refineries, and included a number of engineers. Five participants were women.
- (2) Mr. Ahmed Gattan, Director, Training & Career Development, kindly delivered a speech at both the opening and closing ceremonies. Other members of the department, namely, Mr. Ahmed Herzallah, Senior Officer, and Mr. Anwar Mutawa, our counterpart in TAKREER, attended to us throughout our stay in Abu

- Dhabi, and lavished warm hospitality and consideration on us on behalf of TAKREER.
- (3) It seems that the concept of the “Kaizen mind” was new to the participants. They did not leave their seats during the 3-hour lecture on the general overview of Kaizen, but listened to the lecture with strong interest.
- (4) In the closing ceremony, one of the participants gave a heartwarming thank-you speech on behalf of his fellow participants. Moreover, during our visit to the TAKREER Head Office prior to our departure, Mr. Herzallah informed us that the seminar met with high acclaim among the entire staff, which indicated to us TAKREER’s strong expectations and feelings of gratitude to JCCP.



With executive personnel of the TAKREER  
(from third from left: Mr. Anwar Mutawa,  
Mr. Ali Al-Harmoudi Sultan, Mr. Ahmed Gattan;  
second from right: Mr. Ahmed Herzallah)

#### 5. Visit to the Japanese Embassy in UAE, the TAKREER Head Office, and Other Institutions

##### Japanese Embassy in UAE

The Japanese members visited the Japanese Embassy in UAE, where they spent an hour and a half exchanging views on recent situations in Abu Dhabi, general conditions in UAE, UAE’s relationship with other GCC countries, and other such topics of interest, with H.E. Mr. Takuma Hatano, Ambassador Extraordinary and Plenipotentiary, and Messrs. Tomoyoshi Hisamori



*Ambassador Takuma Hatano (second from left) and Mr. Tomoyoshi Hisamori, Secretary*



*At the TAKREER Head Office; Ms. Nadia Al Romaithy, Training Officer (right)*

and Atsunori Sato, Secretaries. The members were especially interested to learn about the recent state of affairs in Dubai, which had seemed to enjoy a bubble economy at one time.

#### **TAKREER Head Office**

The Japanese members met with Mr. Ahmed Herzallah, Senior Career Development Officer, and Ms. Nadia Al Romaithy, Training Officer. Mr. Herzallah was a participant in the FY2007 JCCP Program Seminar (TCJ: special seminar held in Japan, inviting managerial people from oil companies in oil-producing countries), and Ms. Al Romaithy

was a participant in a seminar held the previous week, so they shared their frank views and requests regarding JCCP seminars based on their personal experiences.

The Japanese members also visited the Abu Dhabi Offices of Nippon Oil Corporation and JGC Corporation. At the former, they met with Mr. Baba, Director, and Mr. Shibata, Manager, and at the latter, with Mr. Katagi, Director, and discussed national issues and living conditions in Abu Dhabi, the state of the economy in the Middle East, as well as other general situations and current circumstances in the Middle East as a whole.

*<by Akio Hoshino, Training Dept.>*



*At the Nippon Oil Corporation Abu Dhabi Office: Mr. Baba, Director (second from right) and Mr. Shibata, Manager (right)*



*At the JGC Corporation Abu Dhabi Office: Mr. Katagi, Director (center)*

# Report on the Cooperation with Training Center Program in Russia and Azerbaijan



*At the LUKOIL Head Office*

From September 20–26, 2008, a JCCP delegation visited Russia and Azerbaijan under the Cooperation with Training Center Program scheme. The delegation consisted of Mr. Takashi Hori, Manager of the Operations Department, Messrs. Shinichi Satake and Kazuyoshi Kamijyo, lecturers from the Training Department, and Kazuko Takayama, Manager of the Training Department.

In recent years, JCCP has begun making active approaches to strengthening relations with Russia and the countries of Central Asia, which are poised to become major suppliers of oil and energy in the future. With Russia's crude oil production having reached a level comparable to that of Saudi Arabia, it is high time for Japan to further deepen its relations with Russia.

Meanwhile, in Azerbaijan, where abundant oil resources can be found in Baku and other oil fields, 2006 saw the opening of the BTC crude oil pipeline, connecting Baku, Tbilisi in Georgia, and Ceyhan in Turkey. There are increasing expectations that the pipeline would counter Russia's control over oil in the region.

The recent visits to Russia and Azerbaijan were made with hopes of building a strong foundation of friendship between Japan and the two countries, and thereby secure stable oil supplies.

## I. Russia

### 1. LUKOIL Oil Company, Head Office

In the morning of September 22 (Mon.), the JCCP delegation visited the Head Office of LUKOIL Oil Company. LUKOIL, the largest vertically integrated oil company in Russia, has a long-standing relationship with JCCP, and has sent 115 participants to JCCP regular courses, as of the end of 2007. However, this was the first time that a JCCP delegation has visited its Head Office. To strengthen relations between LUKOIL and JCCP on the occasion of this auspicious visit, the members of the delegation gave a well-prepared presentation on JCCP activities and programs planned for the next fiscal year.

Ms. Natalya N. Logina, Head of Department



*Exchange of views with LUKOIL*

for Development and Appraisal of Personnel, Main Human Resources Department, warmly welcomed the delegation, along with the director of training and members of the Refining Department. Ms. Logina expressed strong interest in JCCP programs, and had a number of specific questions regarding regular courses, to which the delegation promptly provided detailed answers. As exemplified by a member from the Refining Department who voiced his interest in participating in an energy-saving course himself, the meeting turned out to be extremely productive and fruitful to all.

## **2. ROSNEFT Oil Company, Head Office**

Following the visit to LUKOIL, the JCCP delegation spent the afternoon visiting the state-

run ROSNEFT Oil Company. As JCCP has never received participants from ROSNEFT and had never visited the company before, the JCCP delegation took the opportunity of this first visit to promote a general understanding of JCCP activities.

The meeting was attended by Ms. Tamara G. Solovykh, Head of Division, Division for Personnel Development, HR Department, in addition to the director of education, and other members of ROSNEFT. They all listened attentively to the detailed introduction of JCCP programs, and as they showed particular interest in courses related to personnel affairs, the JCCP side proposed ROSNEFT's participation in JCCP regular courses. JCCP hopes that this visit will lead to creating a positive and productive relationship with ROSNEFT.

## **II. Azerbaijan**

### **3. SOCAR, Head Office**

JCCP has received a number of participants from Azerbaijan since its founding, but none during the past several years. In order to request a recommencement of its participation and to promote further understanding of JCCP activities, the JCCP delegation paid a visit to the Ecological Department in the State Oil Company of Azerbaijan (SOCAR), and met with Mr. Azer Aliyev, Chief, and engineers of the department.



*At the ROSNEFT Head Office*



*Meeting with the Ecological Department in SOCAR*



*With Mr. Asif Bakirli, Director of the SOCAR Training Center*

To operate its two large refineries, SOCAR places primary importance on the development of engineers through training. Therefore, the SOCAR side listened with strong interest to the JCCP delegation's presentation of JCCP programs, and invited the delegation to elaborate on the details of the programs, and particularly of environment-related courses. At the end of a long and productive meeting, Mr. Aliyev personally contacted an executive officer of the Training Center, which has previously served as JCCP's counterpart, and arranged for the JCCP delegation to visit the Training Center in the afternoon of that day.

At the SOCAR Training Center, the delegation met with Mr. Asif Bakirli, Director, Training Educational and Certification Department. As the Training Center is responsible for training and overseeing the development of all human resources at SOCAR, Mr. Bakirli showed strong interest in JCCP programs, and in Customized Program-Overseas (CPO) in particular, and made specific requests regarding CPO programs for the next fiscal year and after.

Before wrapping up the meeting, Mr. Bakirli thanked the JCCP delegation for visiting, and expressed his expectations of JCCP activities,

emphasizing his wish to continue international cooperation with Japan and actively promote technical exchanges between the two countries. The delegation members feel that the opportunity to directly introduce JCCP programs to an executive personnel of JCCP's counterpart department in SOCAR has paved the way toward building mutually friendly bonds between JCCP and SOCAR, and is pleased with the outcome of their visit.

### **III. Impressions**

The visits to Russia and Azerbaijan by the JCCP delegation proved extremely fruitful, in that meaningful exchanges of views were held with executive personnel and JCCP counterpart personnel in various key departments, and that specific needs in the two countries were identified. Seventeen years have passed since the two countries gained their independence from the former Soviet Union in 1991, and they have begun to display their own characteristic policies and strategies toward a market economy. As they play an extremely important geopolitical role in the global oil market, JCCP intends to make continuing efforts to further strengthen its ties with both countries.

*<by Kazuko Takayama, Training Dept.>*

## 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 Mieko 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,

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



*At the NIOPDC Head Office*



*At the NIOPDC Esfahan Branch Office*



*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.

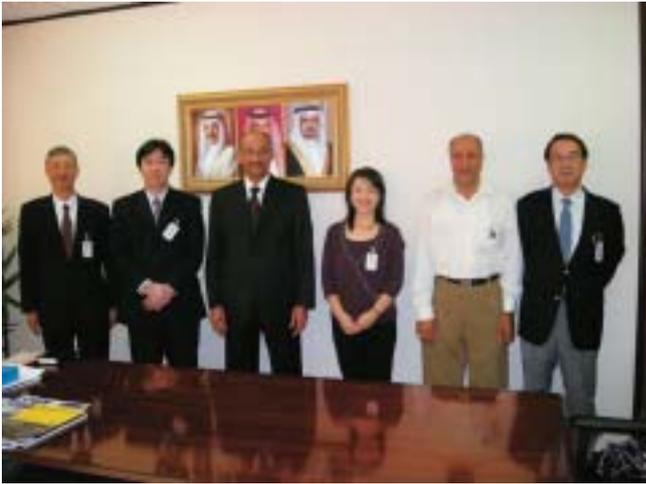
Among themselves, the training coordinators discussed measures for streamlining the feedback of participants' requests of JCCP courses, as well as the series of procedures from announcing course offerings within Saudi Aramco to sending in applications. Hopefully, their discussion will facilitate smoother 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.>*



### Petroleum Marketing and Products Delivery

(TR-14-08: October 21 – November 7, 2008)

**Mr. Mohammad A. Al-Yahya (Saudi Aramco / Saudi Arabia)**

It has been a wonderful opportunity to explore technical and cultural aspects of Japan, and to experience the Japanese lifestyle and environment, thanks to JCCP and other expert authorities in Japan. Most importantly, we have observed Japan's vast knowledge base, which provides the foundation for the development of high-quality, reliable, and long-lasting products in Japan. Through this excellent course on Petroleum Marketing & Product Delivery, which was carried out by professional JCCP training staff, all participants acquired invaluable experience and a broad perspective in Japanese technology, industry and culture.

Throughout my 16-year career, this was the first time that I have experienced a course in which the agenda featured a unique combination of industrial and cultural aspects. I believe this approach was extremely effective in promoting comprehensive understanding.

On behalf of all the participants in the course, I would like to express our sincere thanks and deep appreciation to the entire JCCP management and staff, and in particular to Mr. Masataka Sase, Executive Director of JCCP, Mr. Kazuo Kojima, Course Coordinator, and his assistant, Mr. Yasuo Tabei, for their untiring guidance, support and care during our entire stay in Japan.

When people hear the name Japan, probably the first thing that comes to their mind is "superior quality." However, people would be amazed to learn the secret behind the Japanese people's commitment to maintaining this characteristic quality. I truly believe that Japan is the leader in quality and standardization. I have traveled to many wonderful places and seen many things, but to me, Japan seems by far the most unique, especially with respect to people's discipline and their pursuit of high living standards through modern infrastructures. This commitment to quality is perhaps what makes the Japanese people appear unique in the eyes of foreigners.

The course was well structured, and included field trips to several industrial facilities and cultural sites in six major cities in Japan, in order to provide exposure to the Japanese hydrocarbon chain industry, as well as to the Japanese heritage. We first visited Japan Energy

Corporation's head office in Tokyo, where we received an overview of Japan's oil industry and JOMO's business outlook, in relation to oil terminals, distribution tankers and the logistics mechanism. The next day we visited Nippon Oil Corporation's Ichikawa Depot, and observed how customer orders for oil products are logged and processed for delivery to various regions, and how delivery trucks are loaded and controlled. Next, we visited Nippon Petroleum Refining Company's Negishi Refinery in Yokohama city, and had the opportunity to take a close look at the oil fractionation unit and the manufacturing and processing systems of refined products, including various lube oil filling facilities. At Haneda Airport, we witnessed San-ai Oil Corporation staff fueling an All Nippon Airways (ANA) airplane via a sophisticated pipe network. The third visit was to JFE Steel Corporation in Fukuyama. Here, we observed a demonstration of the iron and steel manufacturing process and the steel molding mechanism, then toured the steel factory and steel storage yard. The fourth visit was to Cosmo Oil Company's branch office in Hiroshima city, where we received an overview of the company's core business areas—refining, distribution and product retailing—and toured one of its service stations.

Last but not least, we enjoyed visiting several cultural sites in Hiroshima and Kyoto that strongly represent the history of Japanese culture and heritage cultivated through the rise and fall of many empires. It was truly amazing to track the development of the Japanese lifestyle across



the generations. We were fascinated with the visits and impressed with the way the members of the host companies shared their knowledge with us and responded to our questions with warm hospitality.

We all realize that the impressive course content was a result of the tremendous effort and dedication of the JCCP management and staff. Thanks to them, the course turned out to be much more than we expected. Moreover,

we were blessed with stable, favorable weather during the entire course period, and were fully able to taste and explore the beauty of Japan's nature.

Finally, I would like to express my personal gratitude by saying, *Watashi wa JCCP ni kansha shiteimasu*. I really do appreciate JCCP for its magnificent work and support. I hope to see you again in the near future. *Arigato Gozaimashita*.



### 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.



## JCCP Regular Courses Completed in October – December 2008

### **TR-11-08 Environmental Management for Refineries**

Period: October 14 – October 31, 2008

No. of participants: 16

Country of participants: China, Colombia, Indonesia, Iran, Kuwait, Libya, Malaysia, Mexico, Nigeria, Saudi Arabia, Thailand, Vietnam, Yemen



### **TR-12-08 Material Problems and Their Countermeasures**

Period: October 14 – October 31, 2008

No. of participants: 13

Country of participants: Indonesia, Iran, Kuwait, Malaysia, Mexico, Nigeria, Pakistan, Qatar, Saudi Arabia, Thailand, Yemen



### **TR-13-08 Advanced Field Devices and Control**

Period: October 21 – November 7, 2008

No. of participants: 13

Country of participants: Colombia, Indonesia, Iran, Libya, Malaysia, Mexico, Pakistan, Qatar, Saudi Arabia, Thailand, Vietnam



### **TR-14-08 Petroleum Marketing & Product Delivery**

Period: October 21 – November 7, 2008

No. of participants: 17

Country of participants: Bahrain, Brazil, China, Indonesia, Iran, Libya, Mexico, Nigeria, Pakistan, Saudi Arabia, Thailand, UAE, Vietnam, Yemen



Total: 135 participants

**TR-15-08 Gas Processing for LNG**

Period: November 4 – November 21, 2008  
No. of participants: 15  
Country of participants: Indonesia, Iran, Kuwait, Mexico, Myanmar, Nigeria, Qatar, Saudi Arabia, Thailand, Vietnam



**TR-16-08 Maintenance Management**

Period: November 4 – November 21, 2008  
No. of participants: 13  
Country of participants: China, Colombia, Indonesia, Iran, Kuwait, Malaysia, Mexico, Myanmar, Saudi Arabia, Thailand, UAE



**TR-17-08 Training Management**

Period: November 25 – December 12, 2008  
No. of participants: 18  
Country of participants: Indonesia, Iran, Kuwait, Libya, Malaysia, Myanmar, Nigeria, Pakistan, Qatar, Saudi Arabia, Thailand, Vietnam



**IT-2-08 Advanced Technologies for Rotary Machinery  
—Reliability Enhancement—**

Period: December 2 – December 12, 2008  
No. of participants: 17  
Country of participants: Indonesia, Iran, Kuwait, Mexico, Nigeria, Oman, Pakistan, Saudi Arabia, Thailand, Vietnam



**IT-3-08 Model Predictive Control**

Period: December 2 – December 12, 2008  
No. of participants: 13  
Country of participants: Colombia, Indonesia, Iran, Libya, Mexico, Myanmar, Nigeria, Pakistan, Vietnam



# The 18th Saudi-Japan Joint Symposium

## —Oil Refining and Petrochemical Catalyst Technologies—

On November 16 and 17, 2008, JCCP and King Fahd University of Petroleum and Minerals (KFUPM) sponsored a Saudi-Japan Joint Symposium on oil refining and petrochemical catalyst technologies at the KFUPM auditorium in Dhahran, Saudi Arabia. The symposium is held every year under organization by KFUPM and the Japan Petroleum Institute (JPI), and was held for the 18th time this year. It has taken root in Saudi Arabia as an annual event at KFUPM, and attracted the attendance of a large number of researchers not only from KFUPM, but also from Saudi Aramco's research department and others.

Following the preparatory discussion among KFUPM, JPI and JCCP, a twelve-member JPI Overseas Cooperation Committee headed by Dr. Koichi Eguchi from Kyoto University Graduate School actively discussed details of the symposium, including its theme, Japanese speakers, and their presentation topics, to deliver an academically meaningful symposium that suitably corresponds to needs in Saudi Arabia. The committee ultimately decided to feature presentations centering on the results of studies on environmentally friendly catalysts and catalysts that promote the effective production of high value-added products whose demands are expected to increase in the future.

JCCP and KFUPM have previously cooperated in conducting international joint research projects on advanced catalyst research (FY1992–2000) and HS-FCC (high-severity fluid catalytic cracking) technology (FY1996–2004). The last project was completed in FY2004, but the joint symposium, which has been held in parallel with the research projects, was continued as a forum for sharing new research results among researchers in Japan and oil-producing countries and supporting the activities of Saudi researchers.

Seven Japanese researchers participated in this year's symposium, presenting their latest R&D



*Dr. Abdul-Jauwad, Vice Rector for Applied Research, delivering an opening address*

achievements in their respective fields.

On the Saudi side, Dr. Shakeel Ahmed, a researcher at KFUPM, gave a presentation on a joint study on hydrogen production, which KFUPM is jointly implementing with Saudi Aramco. Titled "Development of Thermoneutral Reforming Catalyst for Hydrogen Production from Liquid Hydrocarbons," the presentation received high marks from all attendees, including the Japanese attendees. We hope to include increasing numbers of presentations on such conventional yet academically significant research themes in future symposiums, while also responding to trends of the times toward globalization and diversification of topics.

On the first day of the symposium, Dr. Abdul-Jauwad, Vice Rector for Applied Research, delivered an opening address on behalf of Dr. Khaled S. Al-Sultan, Rector of KFUPM, who was suddenly called away on business in Riyadh. This was followed by opening speeches by Dr. Sachio Asaoka, Professor at the University of Kitakyushu and head of the Japanese delegation, and Kazuhisa Okumura from the JCCP Technical Cooperation Department. An audience of approximately 100



Dr. Akinobu Shiga giving a presentation



Symposium venue:  
KFUPM Research Institute auditorium

people sat in on the opening proceedings, and 60 to 70 people attended the ensuing presentation sessions. Approximately 130 participants were from the KFUPM Research Institute and colleges, Saudi Aramco, King Abdulaziz City for Science and Technology (KACST), and various companies and universities in Saudi Arabia.

An average of five questions were raised after each presentation, and the speakers and participants engaged in lively discussions based on those questions. They also took the opportunity of rest breaks between presentations to continue their discussions and cultivate personal exchanges.

We would like to extend our deepest gratitude to all speakers of the symposium, Dr. Sulaiman Al-Khattaf, Director of KFUPM Center for Refining and Petrochemicals, members of JPI's Overseas Cooperation Committee, and all members of both secretariats, for their support and cooperation. With the continued cooperation of Japanese universities, companies, research institutes, and JPI, we hope to continue working closely with KFUPM to further improve and develop the symposium as a high-level forum for advanced technical needs in Saudi Arabia.

<by Kazuhisa Okumura, Technical Cooperation Dept.>

Japanese Speakers from JPI	Presentation Title
Dr. Sachio Asaoka Professor, University of Kitakyushu	Hydrocracking on Nanoporous Zeolite Catalysts
Dr. Atsushi Satsuma Professor, Nagoya University Graduate School	Synthesis of Bisphenol-A from Phenol and Acetone Using Organic-inorganic Modified Heteropolyacid Catalyst
Dr. Takao Masuda Professor, Hokkaido University Graduate School	Preparation of Mono-dispersed MFI-type Zeolite Nanocrystals in Water-surfactant Oil Solution and their Application to Synthesis of Olefines from Oxygen-containing Compounds
Dr. Toshio Tsutsui Associate Professor, Kagoshima University	Enhancement of Conversion and Selectivity by Unsteady-state Operation in Shape Selective Synthesis of 2,6-Dimethylnaphthalene with ZSM-5
Dr. Akinobu Shiga Lummax Research Laboratory, Japan (formerly Senior Researcher of Sumitomo Chemical Co., Ltd.)	Development of Propylene Polymerization Catalysts and Polypropylene Manufacturing Processes
Mr. Katsuya Watanabe Group Leader, Central Research Laboratory, Cosmo Oil Co., Ltd.	Development of New Isomerization Process for Petrochemical By-products
Mr. Hiroyuki Nakamura Chief Researcher, Refining Technology Center, Japan Energy Corporation	Development of Hydrodesulfurization Catalyst Using Comparative Studies of Model Feed Experiments and Quantum Chemical Studies

# Experimental Application of In-SAR Technology in Saudi Arabia

As part of JCCP’s FY2008 technical cooperation program, King Abdulaziz City for Science and Technology (KACST), a royal research institution in the Kingdom of Saudi Arabia, is jointly implementing the “Experimental Application of In-SAR Technology in Saudi Arabia to Assess the Effect of Reservoir Activity on Surface Subsidence” project with NTT Data CCS Corporation, Nippon Mining Research and Technology Co., Ltd., and Nichiyo Engineering Corporation.

Remote sensing is a method of acquiring remote information on land formations, features, and

objects, by monitoring any change of the earth’s surface by satellite and from aircraft. One of the most representative remote sensing technologies is In-SAR (Interferometry Synthetic Aperture Radar) technology, which is the main feature of the project. It uses satellite-mounted synthetic aperture radar (SAR) to obtain pairs of observation data from an extremely close range, and analyzes the phase difference between each data pair. Today, In-SAR technology is attracting attention as an effective means of acquiring elevation data and measuring changes in terrain (see Fig. 1).

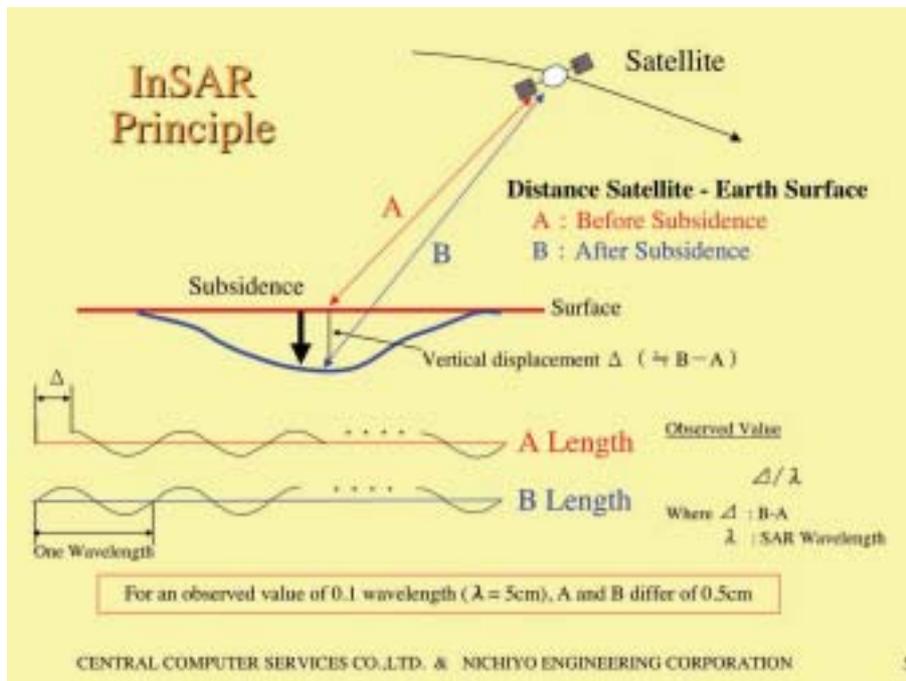


Fig. 1 Fundamental principle of In-SAR technology

The study examines the feasibility of systematizing the series of tasks from mapping changes in the earth's surface over a wide area, with high precision using the latest In-SAR technology, to assessing the impacts of ground deformations and other risk factors on oil facilities and others, based on the obtained data (see Fig. 2).

This project is expected to contribute to further

improvement of KACST's technical level in the area of In-SAR technology. In the future, the In-SAR system that is being developed through the project would allow prompt, high-precision assessments of land deformations throughout Saudi Arabia's vast 2.15 million square kilometers of land (5.7 times the area of Japan), and greatly contribute to the effective management of oil fields and other areas.

<by Shigeru Nanbara, Technical Cooperation Dept.>

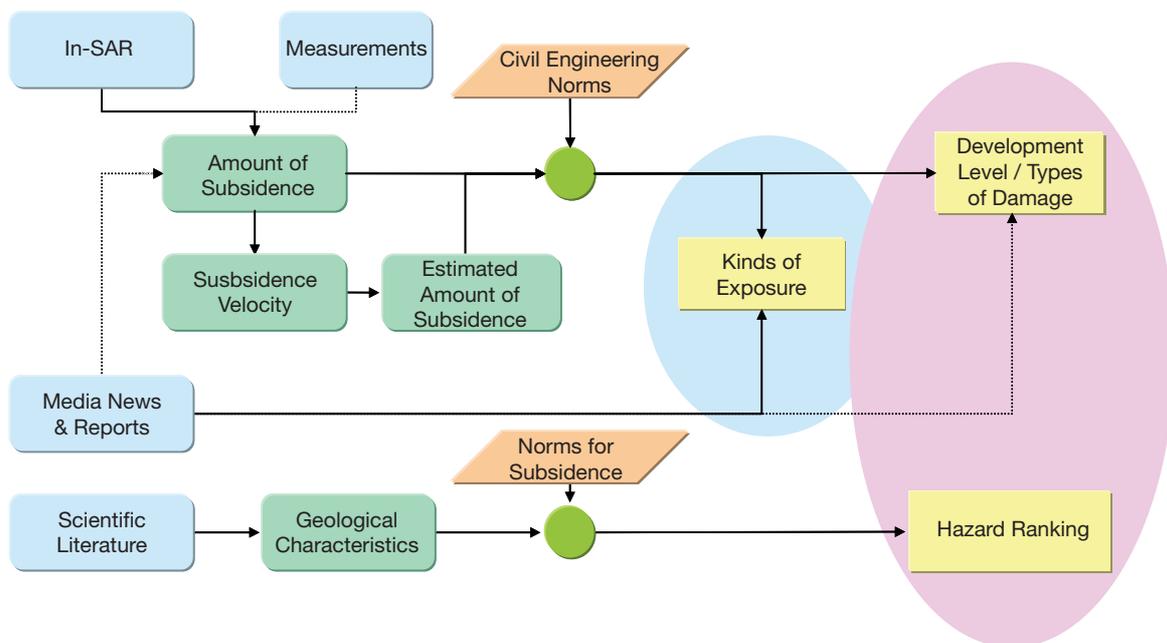


Fig. 2 Risk assessment system using In-SAR technology

# Study on Improving Reactor Efficiency at the Esfahan Refinery in Iran

The state-run Esfahan Oil Refining Company in Iran and JCCP are jointly implementing the “Study on Improving Reactor Efficiency at the Esfahan Refinery in Iran,” with Nichiyo Engineering Corporation and Nippon Mining Research and Technology Co., Ltd., as a FY2008 JCCP technical cooperation program.

Recent years have seen rapid rise in the awareness of environmental issues, has brought dramatic increase in demand for clean gasoline and diesel fuel. Heavy oil, on the other hand, is in surplus due to dwindling demand, and has oil companies scrambling to achieve effective operations of oil upgrading facilities which are capable of processing heavy oil and producing larger volumes of clean and lighter petroleum fuels.

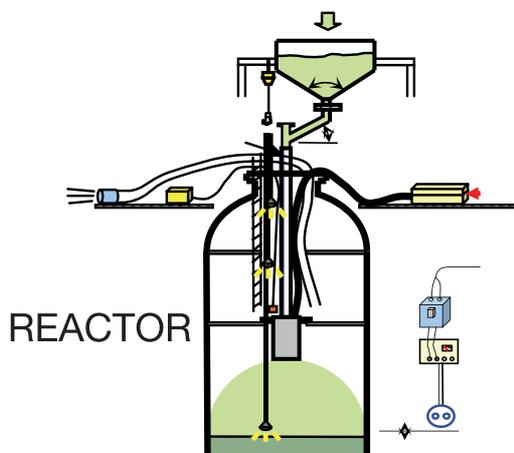
Most refineries in Iran, including the Esfahan Refinery, were built about 30 years ago and are incapable of adequately responding to increasing demands for clean and light petroleum fuels.

The objective of the said project is to practically increase the processing capacity of an existing hydrocracking unit reactor through more efficient

operations, by making small changes to the reactor and applying the latest catalyst loading technology that has been developed in Japan. More specifically, the distributor on the reactor is being remodeled to equalize the flow of feedstock to the catalyst bed, and the latest catalyst loading technology has been adopted to allow uniform and packed loading of catalysts, so that a larger volume of catalysts can be loaded, compared to the conventional loading method. These measures are also expected to improve liquid dispersion within the catalyst layer.

The technologies that are being applied to the project are those that Japan’s oil companies have steadily developed over the years in the effort to improve refinery facilities and operations. They will maximize the capacities of existing facilities and allow them to respond to increasing demands for clean oil products. These oil upgrading and other technologies such as energy saving are expected to continue providing technical support to other Middle Eastern countries in the future.

*<by Shigeru Nanbara, Technical Cooperation Dept.>*



*Overview of catalyst loading*



*Catalyst loading demonstration using the catalyst loading machine*

# SQU-Japan Joint Research Projects Are Introduced in SQU's "Horizon" Newsletter

Recently, an article on joint research projects implemented in Oman by Sultan Qaboos University (SQU) and Japan appeared in SQU's academic newsletter *Horizon* and on its website, as introduced below. The article ends as follows: "The PCED (Petroleum & Chemical Engineering Department) at SQU has well-established a long, continuous, and successful research partnership with its Japanese counterpart organizations, and looks forward to their continued support and cooperation over the coming years."

Center (JPEC), the predecessor to JCCP's joint research programs, and Shimizu Corporation, supported by Japan's Ministry of Economy, Trade and Industry (METI). These projects have been initiated by such distinguished members of SQU as H.E. Dr. Mohammed Hamed Saif Al-Rumhy, Minister of Oil and Gas, H.E. Dr. Ali Saud Al-Bemani, Vice-Chancellor of SQU, and Dr. Rashid Al-Maamari.

## Overview

Since 1996, SQU has been working on joint research projects on such topics as treatment and utilization of oilfield produced water and assessment and treatment of hydrocarbon-contaminated groundwater, with JCCP, Japan Petroleum Energy

## Names of Joint Research Projects

- 1996–2000: Treatment and Effective Utilization of Oilfield Produced Water in Oman
- 2001–2006: Groundwater Pollution and Countermeasures in Oman
- 2007–2010 (planned): Treatment and Utilization of Oilfield Produced Water in Oman

<by Nobuyuki Suyama, Technical Cooperation Dept.>



SQU website



SQU's academic newsletter Horizon

## Personnel Changes

### Outgoing Personnel

### Incoming Personnel

#### Technical Cooperation Department



Hitoshi HIROKAWA



Hiroshi IIDA

#### Training Department



Akio HIGASHI



### Japan Cooperation Center, Petroleum (JCCP)

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