



JCCP NEWS

Newsletter of Japan Cooperation Center, Petroleum

Topics

No. 104
June 2009

In this issue:

Topics

The 27th JCCP International Symposium	1
The 17th Joint GCC-Japan Environment Symposium	7
Visit to Kuwait by Mr. Sase	11
First Technical Cooperation Project in Libya	14
Vice President of PERTAMINA Visits Japan	16

Personnel Exchange Programs

"Safety Management for Refinery" (Saudi Aramco)	19
"Refinery Maintenance Management and TPM" (Saudi Aramco)	23
"Human Resource Management & Development" (KNPC)	27
TC Program in Vietnam, Indonesia and Malaysia	31
Participant's Voice	33
JCCP Regular Courses Completed January – March 2009	35

Technical Cooperation

FY2008 Comprehensive Survey of Technical Cooperation Projects	36
The Tenth Kuwait-Japan Joint Symposium	39
Long-term Researcher Dispatch Program: Progress Report	41

Announcement

Personnel Changes	44
-------------------	----

The 27th JCCP International Symposium

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



Participants of the symposium

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

1. Theme and Goal

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



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



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

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

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

2. Overview

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

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

Mr. Kimura stressed the need to appreciate more seriously than ever the true value of oil today, and spoke about the important responsibility of the

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

Mr. Kitagawa of METI stated that creating new values in the oil industry is a common issue to oil-producing and oil-consuming countries, and expressed his expectations that fruitful exchanges of views will take place in the symposium.

Mr. Al Mahasher, in his keynote speech, spoke about increasing the value of oil, summarized as follows: Saudi Aramco has the responsibility to provide stable supplies of oil to the world. We have



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

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

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

Keynote Speech

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

Guest Speeches

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

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

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

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

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



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

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

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

(i) Session 1 (morning session)

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



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

Kuwait National Petroleum Company; and Mr. Hiroji Adachi, Executive Officer and General Manager, Technical Service Department, Nippon Oil Corporation.

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

serves an important role: to more strongly than ever promote training, technical cooperation, and human resource development.

(ii) Session 2 (afternoon session)

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

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

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

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

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

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

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



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

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

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

3. Summary

In closing the symposium, Mr. Sase summarized the two days of discussions as follows: In the Middle East and Asia, there are many plans for the construction of new refineries. Through advanced integration, these refineries are designed under the principle of pursuing added value to the extreme. This situation has made me realize anew that adding value is a common issue for both oil-producing

and oil-consuming countries. From the corporate perspective, pursuing added value translates into higher productivity, and from the social perspective, it means achieving efficient use of petroleum, reducing environmental burden, and conserving precious oil resources. Therefore, enhancing the value of oil is an important challenge for both oil-producing and oil-consuming countries, one which must be addressed through mutual cooperation.

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

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

<by Hisayoshi Tanda, Administration Dept.>



Symposium audience

The 17th Joint GCC-Japan Environment Symposium

(The 4th Joint KISR-JCCP Environment Symposium)



Participants of the symposium

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

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

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

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



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



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



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



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

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

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

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

forward to the presentations.

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

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



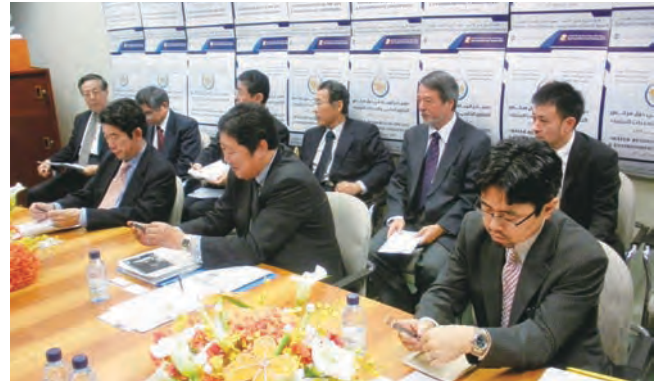
Symposium venue



Symposium session



Press conference at KISR



Japanese delegation at the press conference

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

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

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

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

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



Local newspaper article on the environment symposium (Arab Times)



Local newspaper article on the press conference (Al Watan)

toward the environment.

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

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

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

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

<by Makoto Nakamura, Technical Cooperation Dept.>

List of speakers

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

Mr. Sase, Executive Director of JCCP, Visits Kuwait

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

1. KISR

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

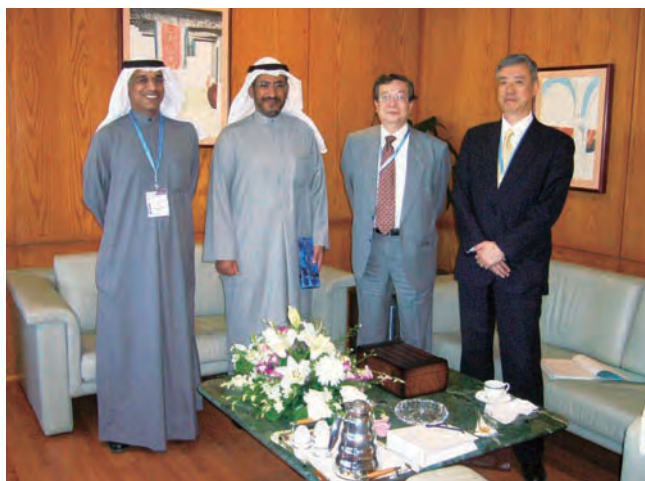
Mr. Sase firstly thanked Dr. Al-Mutairi for KISR’s cooperation in the past sixteen Joint GCC-Japan Environment Symposiums, noting that this year marks the seventeenth holding of the symposium which was begun in 1992, and the fourth time it has been held at KISR. The symposium has been duly acknowledged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

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

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

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

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



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



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

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

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

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

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

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

2. KNPC

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



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

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

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

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



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

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

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

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

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

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

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

<by Hisayoshi Tanda, Administration Dept.>

First Technical Cooperation Project in Libya

Overview of the “Study on Reduction of Flaring of Associated Gas”

On December 1, 2008, the National Oil Corporation of Libya (NOC Libya) and JCCP signed a Memorandum of Agreement (MOA) on the “Study on Reduction of Flaring of Associated Gas,” following the signing of a Memorandum of Understanding (MOU) one year ago on December 4, 2007. Mr. Eng. Mahmoud A. Camour, Manager, and Mr. Minoru Horike, General Manager at JCCP, signed the MOA document at NOC Libya, in the presence of Mr. Faraji M. Said, Vice President, and Mr. Ahmed M. Gaddah, Legal Manager.

Prior to signing the MOA, Messrs. Said and Camour expressed their appreciation of JCCP’s cooperation. Particularly as Libya is strongly promoting environmental measures today and regards flare gas reduction as one of its priority issues, the two gentlemen emphasized their gratitude to JCCP and Nippon Oil Corporation for their support in bringing the project to reality. They also thanked JCCP for receiving Libyan participants to its training courses, and observed how the cooperative relationship between Libya and Japan has improved through JCCP activities. Mr. Horike, in turn, thanked NOC Libya for the precious opportunity to implement a technical

cooperation project in Libya for the first time, and wished for its successful completion. He also said he hopes that the project would set a trend for future environmental improvement in Libya.

Since this project is the first technical cooperation project to be implemented in Libya, we fully intend to set it in motion through close coordination with the relevant companies, so that we may continue to implement such projects in Libya in the future.

The background to project implementation and an overview of the project are provided below.

1. Background to the Project

Libya is one of the largest oil-producing countries in the world (ninth among the OPEC countries). Major oil companies throughout the world, including Japanese oil companies, have begun to participate in the bidding for exploration rights in Libya.

Libya ratified the Kyoto Protocol in December 2006, and has since established policies for global warming prevention that aim at improving automotive fuel quality and reducing CO₂ emissions. In order to pursue these countermeasures, NOC



With the executive officers of the National Oil Corporation of Libya (NOC Libya)



*Top executives of NOC Libya:
Mr. Faraji M. Said, Vice President (center),
Mr. Eng. Mahmoud A. Camour, Manager (left),
Mr. Ahmed M. Gaddah, Legal Manager (right)*

Libya places top priority on improving refinery operations by upgrading refinery facilities, as well as on human resource development through improvement of engineers' technical capabilities, and actively welcomes technical support from foreign firms.

Amid a gradual strengthening of friendly ties between Libya and Japan since FY2005 when a Japanese company acquired petroleum exploration rights in Libya, we proposed and launched this project on reducing associated gas flaring as a means of supporting NOC Libya's environmental improvement initiatives.

2. Project Overview

An overview of the project is provided below.

(1) Participating companies

Nippon Oil Corporation, Nippon Oil Exploration Ltd.

(2) Implementation Period

November 1, 2007 – March 31, 2009

(3) Outline of Activities

(i) FY2007

We studied specific methods of processing and utilizing the associated gas that continues to burn near the oilfields. As our contribution to improving technical capabilities among NOC Libya engineers and supporting human resource development, we also provided training on the vast influences of greenhouse gases on climate change and the initiatives implemented by

the governments of various countries toward achieving country-specific greenhouse gas emission reduction targets under the Kyoto Protocol and the United Nations Framework Convention on Climate Change (UNFCCC).

(ii) FY2008

Continuing from FY2007, we provided engineer training mainly on environmental technologies and flare gas reduction technologies. After selecting three oilfields for the study on flare gas reduction, we created a process model of gas recovery facilities

for those oilfields, calculated a rough estimate of capital investment needed, and used the data to assess the economic efficiency of the project.

(4) Project results

(i) The major components of associated gas at the three selected oilfields were light hydrocarbons such as methane, ethane, and propane. We therefore determined that capital investment would be needed for the installation of a gas-liquid separator, compressor, dehydrator, and pipeline for transporting gas to the gas terminal.

(ii) As a result of the assessment of economic efficiency based on the above estimate of capital investment and the prices of the recovered gases, we found that sufficient economic efficiency can be achieved if CO₂ emissions produced by the flaring are recovered and converted to emission rights or credits.

(iii) The two training sessions on environmental conservation increased awareness of global warming countermeasures among NOC Libya engineers and provided a sufficient basis for enhancement of environmental technologies. Thus the project was concluded successfully.

We hope that the transfer of Japan's environmental technologies to Libya will deepen the friendly ties between the two countries, as well as contribute to the development and improvement of environmental technologies in Libya.

<by Takeyoshi Haishima, Technical Cooperation Dept.>

Mr. Waluyo, Corporate Senior Vice President of PERTAMINA, Visits Japan

JCCP courses have received many participants from Indonesia since JCCP's establishment. By FY2007, a total of 1,434 Indonesian participants have attended. The country produces 840,000 BD of crude oil (2007) and exports about 120,000 BD of that amount to Japan, which corresponds to roughly 3% of Japan's total oil imports. Indonesia is thus without a doubt the largest crude oil supplier in Southeast Asia, though it simultaneously imports crude oil today. To effectively process crude oil imported from the Middle East, PERTAMINA has plans to expand and revamp its refineries. Once these plans are accomplished, Indonesia may appropriate domestically produced quality crude oil to exports. At the same time, the country is seeing a dramatic growth in demand for oil products. The modernization of refineries in Indonesia to respond to this growing demand will increase crude oil consumption efficiency and thereby increase the stability of oil supplies to Japan.

Based on this awareness, JCCP places high priority on strengthening its relationship of trust with Indonesia through cooperation in Indonesia's oil downstream sector. As a part of this policy, it has invited Mr. Waluyo, Corporate Senior Vice President, General Affair & Human Resources Director, PERTAMINA, to Japan, from February 28 to March 5, 2009. Mr. Waluyo is the highest officer in charge of the counterpart department for JCCP programs at PERTAMINA. Therefore, with the aim of providing greater understanding of Japan's oil industry and eliciting PERTAMINA's continued cooperation in JCCP activities, we designed and carried out the following program.



At JCCP:
 Mr. Waluyo, Corporate Senior Vice President, PERTAMINA
 (front row, left)
 Mr. Masataka Sase, Executive Director of JCCP (front row, right)

1. JCCP Headquarters (March 2)

At JCCP Headquarters, Mr. Waluyo was warmly received by Mr. Masataka Sase, Executive Director, and Mr. Katsuo Yokoyama, Managing Director, of JCCP. Mr. Waluyo and Mr. Sase met for the second time since Mr. Sase's visit to the PERTAMINA Head Office last September. They were therefore able to exchange views in a relaxed and friendly atmosphere. In the meeting, Mr. Waluyo thanked JCCP for all the cooperation it has extended to PERTAMINA to date, and expressed his expectations of further cooperation, especially as the company is presently undergoing a period of major reform. In response, Mr. Sase promised to step up efforts to strengthen cooperative ties between PERTAMINA and JCCP.



*At METI:
Mr. Waluyo (third from left)
Mr. Norio Kadono, Director, Petroleum Refining and
Reserve Division, METI (second from left)*



Exchange of views at JCCP

2. Ministry of Economy, Trade and Industry (March 2)

Mr. Waluyo paid a courtesy visit to Mr. Norio Kadono, Director, Petroleum Refining and Reserve Division, METI, to extend to METI his appreciation of JCCP's many years of cooperation with PERTAMINA, and to communicate his future expectations of JCCP. Mr. Kadono welcomed Mr. Waluyo to Japan, and said he was happy that PERTAMINA and JCCP have maintained a close relationship over many years. The two leaders then exchanged views on PERTAMINA's requests to JCCP in human resource development and other relevant areas.

3. Information Exchange at JCCP (March 2)

Returning to JCCP Headquarters, Mr. Waluyo and JCCP members held an exchange of views on future JCCP activities in Indonesia. The JCCP side opened the meeting with an overview of future JCCP policies and the status of its training and technical cooperation programs.

JCCP is making active efforts to restructure its activities, so that it may more accurately assess the needs of its counterpart countries and implement practical training and technical cooperation programs that provide solutions to relevant issues.

During FY2008, it conducted a survey on oil downstream trends in Indonesia and other Asian oil-producing countries, and gained an understanding of the oil situation and needs in those countries. The JCCP side presented the results of the survey to Mr. Waluyo during the information exchange meeting, and pointed out three issues that ought to be addressed with top priority—that is, strengthening the management base, upgrading refineries, and developing human resources.

Next, Mr. Waluyo presented a corporate overview of PERTAMINA, its recent business activities, and an outline of its human resource development and management reinforcement program. Since its privatization in 2003, PERTAMINA has been working to reinforce its management power, in order to survive against international competition. Mr. Waluyo's presentation illustrated PERTAMINA's dedicated efforts in implementing an extremely systematic management reinforcement program across its business segments, and strongly impressed the JCCP side. Mr. Waluyo also stated that human resource development is a top-priority issue in improving management, and that PERTAMINA is seeking training programs such as JCCP courses that not only focus on providing knowledge, but that also provide practical experience. The JCCP side assured Mr. Waluyo that JCCP will continue to provide training and technical cooperation based on the experience acquired by Japanese companies in



*At the Cosmo Oil Head Office:
With Mr. Yaichi Kimura, President (left)*

the oil downstream sector in improving management activities in their respective fields.

4. Cosmo Oil Co., Ltd., Head Office (March 3)

Mr. Waluyo paid a courtesy call on Mr. Yaichi Kimura, President, Cosmo Oil Co., Ltd., who is also president of JCCP. A staff member gave a presentation that covered Japan's oil situation, the globalization of Japan's oil businesses, the status of overseas technical cooperation, and personnel management and human resource development in an oil company. After the presentation, the two leaders exchanged views on various oil-related topics. Mr. Waluyo took special note of how the present state of Japan's oil industry and JCCP activities are supported by the cooperation of member companies in the oil industry. As the leader of PERTAMINA's human resource development department, he also expressed strong interest and asked many questions about human resource development practices in Japan's oil companies.

5. Cosmo Oil Co., Ltd., Sakaide Refinery (March 4)

Mr. Katsuyuki Ihara, General Manager, and other senior officers warmly welcomed Mr. Waluyo to



At Cosmo Oil Co., Ltd., Sakaide Refinery

the refinery. A staff member gave a presentation on human resource management/development practices and safety operations at the refinery, and took Mr. Waluyo on a tour of the refinery site. Based on his prior experience as an engineer in charge of HSE (health, safety, and environmental management) at a refinery, Mr. Waluyo engaged the refinery members in active discussions on his first visit to a Japanese refinery.

This invitation program may have been a short few days, but we feel we have achieved our original objective of providing greater understanding of Japan's oil industry and JCCP activities to Mr. Waluyo, and of securing PERTAMINA's continued cooperation in future JCCP activities.

Lastly, we extend our deepest appreciation for the kind cooperation of everyone who spared their valuable time and effort for this program.

<by Takashi Hori, Operations Dept.>

"Safety Management for Refinery" Held at Saudi Aramco's Ras Tanura Refinery



Seminar participants

1. Background to the Seminar

Saudi Arabia is the largest crude oil producer in the world. As a country that supplies roughly 26% of Japan's total crude oil imports, it is one of the most important countries holding the key to stabilizing crude oil supplies to Japan.

In response to a survey conducted by JCCP on training needs in major oil-producing countries in the Middle East, we received a request from Saudi Aramco for the implementation of a Customized Program-Overseas (CPO) on safety management in the refinery. We visited the Ras Tanura Refinery last May to discuss the details, concept, and schedule of the program, and implemented the seminar in December, as presented below.

2. Overview of the Seminar

(1) Name of the seminar

JCCP-Saudi Aramco Seminar on Safety Management for Refinery (CPO-23-08)

(2) Seminar schedule

December 13 – 17, 2008 (5 days)

(3) Venue

Ras Tanura Refinery, Saudi Aramco

(4) Lecturers

JCCP Training Department: Yoshiaki Ueno,
Fumihiro Tone

JGC Corporation: Mr. Eigai Hamada

Sompo Japan Risk Management Inc.:
Mr. Susumu Adachi

3. Details of the Seminar

The seminar was held at the Saudi Aramco Training Center at Ras Tanura Refinery, under the following schedule.

Dec. 13th:

Opening ceremony, introduction of the seminar program, introduction of JCCP activities, overview of Japan's oil industry

Dec. 14th:

Safety Management for the Refinery, its Theory and Practice

Refinery Activities for Safety Management

Dec. 15th:

Safe Plant Design Technology and Risk Management

Safe Plant Design Technology and Process Safety Management



Opening address: Mr. Mohammed A. Al-Omaid, then-General Manager, Ras Tanura Refinery

Dec. 16th:

- HSE Risk Assessment and Methods
- Risk Management from the Perspective of a Nonlife Insurance Company
- Risk Analysis and Evaluation Methods in Refineries and Petrochemical Plants

Dec. 17th:

- Comprehensive Q&A, course review, closing ceremony

We designed the seminar with two major objectives in mind. The first was to introduce activities and methods that have been adopted by Japanese companies to establish a safety culture and safe working environment. The other objective was to provide detailed information on risk management methods from the perspective of process safety design.

Saudi Aramco, attaching substantial importance to the seminar, notified and nominated participants not only from the Ras Tanura Refinery but all its

refineries, and ultimately selected 26 participants.

At the opening of the seminar, Mr. Mohammed A. Al-Omaid, then-General Manager, Ras Tanura Refinery, urged the participants to “take full advantage of the opportunity of this JCCP seminar to learn about Japanese-style safety management and methods for establishing a safety culture,” and expressed the significance and his expectations of the seminar.

4. Overview of Lectures

(1) Safety Management for the Refinery, Its Theory and Practice

This lecture provided knowledge of the concept of safety management, the importance of establishing a safety culture, and key points of safety activities. It also introduced safety activities and methods and voluntary small group activities that have emerged from corporate and social awareness of safety in Japan, while showing a video of danger prediction



Lecture scenes



Presentation of the completion certificate



Closing address

activities and physical finger-pointing confirmation activities. The lecture was well-received and appreciated by the participants.

(2) Refinery Activities for Safety Management

This lecture introduced examples of refinery accidents, their causes, and countermeasures. It also explained management methods and specific practices for accident prevention. Everyone showed strong interest, particularly in the description of Total Productive Management (TPM) activities, which are proving extremely effective in Japan's refineries, and had many detailed questions concerning them.

(3) Safe Plant Design Technology and Risk Management

From the perspective of an engineering company, this lecture systematically introduced technical issues relating to equipment design and risk management, and discussed methods and principles that are considered effective in managing plant operations. It specifically covered such topics as plant disaster and countermeasures, safe plant design, safety and risk management, safety management in the United States, and safety and risk evaluation methods (HAZOP, LOPA, and OHR). The lectures on safety and risk management and evaluation methods also provided practical training using actual case examples, and elicited active responses from the participants and encouraged their active

participation in discussions.

(4) Risk Management from the Perspective of a Nonlife Insurance Company

This lecture introduced refinery risk evaluation and assessment in detail, from the perspective of a nonlife insurance company. For example, it discussed what factors a nonlife insurance company focuses on when surveying, analyzing and assessing accident trends and risks in Japanese refineries and petrochemical plants. It also covered risk evaluation methods, the underwriter's point of view, and rate calculation methods, and captured the participants' strong interest, particularly in regard to risk evaluation methods.

5. Evaluation and Impressions of the Seminar

This seminar was a touchstone for JCCP in many respects. To fully satisfy Saudi Aramco's needs, we designed the program with considerable care, particularly in regard to introducing Japan's small group activities, which are commonly believed to be extremely effective in establishing and developing a safety culture. To facilitate understanding of these activities, we included detailed discussions of their theories, theoretical backgrounds, and actual results. The lectures we delivered to fulfill the second objective of the program of providing detailed information on risk management methods

from the perspective of process safety design were also highly evaluated by the participants.

Each day's lecture began at 7:30 a.m. and lasted until 3:30 p.m. with an hour's lunch break in between, but the participants remained so intensely focused on the lectures that we lecturers had also fully concentrated on the seminar, almost oblivious to the time.

On the final day of the seminar, Mr. Fareed Z. Kamfar, then-Maintenance Manager, Ras Tanura Refinery, personally held a meeting with the participants, and later relayed their impressions of the seminar to the JCCP team. Mr. Kamfar happily reported that the participants considered the seminar

one of the most meaningful seminars they have attended, and that they feel they have benefited greatly from it. It was extremely rewarding to us lecturers to receive such high praise. We hope to maintain strong channels of cooperation with Saudi Aramco, so that we may carry over the recent success to further achievements.

Saudi Aramco ran an article on the seminar on its website and in its weekly journal, *The Arabian Sun*, as shown below.

In closing, we would like to extend our deepest appreciation to everyone for their time and cooperation in planning and implementing this seminar.

<by Yoshiaki Ueno, Training Dept.>



Article of the seminar in The Arabian Sun

Seminar on "Refinery Maintenance Management and TPM" Held at Saudi Aramco's Ras Tanura Refinery



Seminar participants

1. Background to the Seminar

Saudi Aramco is striving to improve facility inspection technologies, and has begun to implement improvement and reform activities with a focus on safety management and preventive inspection. To step up its activities, it has been seeking to learn about the state of improvement activities such as Total Productive Management (TPM) and the latest in maintenance management in Japanese refineries, as a reference for improving and reforming refinery maintenance management technologies in Saudi Arabia. Mr. Fareed Z. Kamfar, then-Maintenance Manager, Ras Tanura Refinery, in particular has had a strong interest in human resource development through improvement activities represented by TPM, and had been wishing to invite Japanese experts to implement a seminar at the refinery. In response to these wishes, JCCP conducted a seminar at Saudi Aramco's Ras Tanura Refinery from January 24 to 28, 2009.

JCCP sent a team of four lecturers, consisting of a lecturer from JCCP's Training Department (Fumihito Tone) and three external experts (Mr. Akio Higashi

from Showa Shell Sekiyu K.K.; and Messrs. Hideru Muto and Yoshisumi Tamao from Idemitsu Kosan Co., Ltd.), to conduct the seminar. Each lecturer gave a presentation on a pre-assigned topic.

2. Overview of the Seminar

JCCP planned and implemented the TPM seminar in response to Saudi Aramco's strong request. As a Customized Program-Overseas (CPO), it posed many new challenges to JCCP. In organizing the course content, we paid special care to create a practical course that is not limited to providing textbook knowledge, but that would provide immediately useful information in the workplace. We avoided providing information that could be obtained from the numerous books on TPM that have been translated into English and published around the world. Instead, we aimed to provide an understanding of why TPM is necessary, and focused on introducing the actual trials, tribulations, and achievements of Japanese refineries.

The topics of the four-day program were as follows:



Opening address: Mr. Fareed Z. Kamfar, then-Maintenance Manager, Ras Tanura Refinery

- Day 1:
Maintenance Management in Japanese Refineries
- Day 2:
Overview of Safety Management and TPM Activities in the Refinery
- Day 3:
Case Examples of TPM/Improvement Activities for Refinery Management
- Day 4:
Group Discussion on “Problem Solving”

Since the majority of the participants were maintenance engineers, the first two days of lectures provided an outline of the history and present state of maintenance management in Japanese refineries. They presented the objectives and aims of TPM and why TPM was necessary, by discussing how Japanese refineries have confronted and resolved various maintenance management issues.

The third day’s lecture, based on Japanese refineries’ bitter experience in introducing TPM,

provided deeper knowledge of TPM activities by introducing case examples of improvement activities that were borne from the concept that it is possible to “wring water from even a dry towel.”

On the fourth day of the seminar, group discussions were held for the first time in a CPO, so that participants could learn the meaning of small group activities not only from lectures, but also from hands-on experience.

3. Details of the Seminar

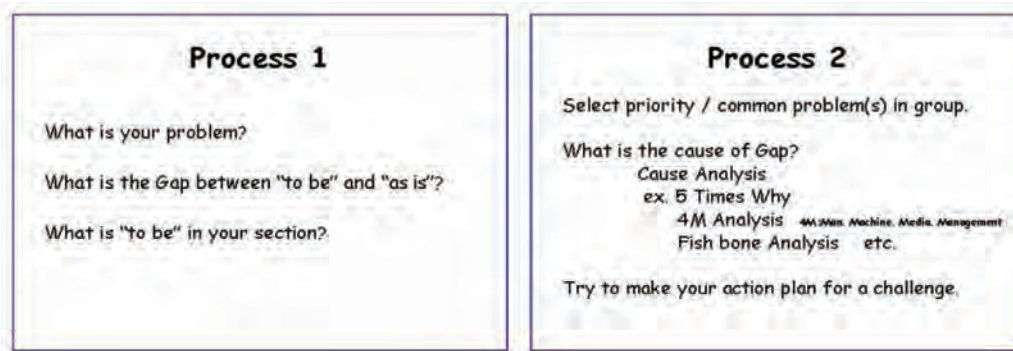
At the opening of the seminar, Mr. Kamfar urged the participants to acquire a good understanding of the TPM concept. He noted that, after completion of a training program, participants often complain that the program had given them no new knowledge or that it did not provide high-level information; but he told them not to make superficial judgments, and to grasp what lies within. Thus began the seminar.

On the first day, the lecture on “Maintenance Management in Japanese Refineries” presented the background and factors involved in the global cost competition facing Japanese refineries, and an insight into the Japanese mentality, with a focus on the problem-solving technique that demands the full participation of all members concerned. The lecture also provided a general view of Japanese culture and customs.

On the second day, the lecture on “Overview of Safety Management and TPM Activities in the Refinery” introduced a case example of a serious accident that occurred at a Japanese oil complex, and described the background behind the rise in improvement activities and introduction of TPM activities in Japan’s equipment industries in the



Lecture scenes



Discussion process

effort to reduce human error and management system insufficiencies. It also discussed management principles in Japan’s oil refining companies and the important role of the manager in increasing worker motivation in the workplace, as well as introduced an overview of how Japanese refineries have improved and advanced TPM activities and representative small group activities.

The third day’s lecture on “Case Examples of TPM/Improvement Activities for Refinery Management” introduced and discussed TPM activities implemented at Idemitsu Kosan’s Chiba Refinery. The lecture emphasized the significance

and achievements of these activities by presenting key points in firmly establishing such activities, specific examples of various improvement measures, and examples of trouble cases. The specific examples and discussions seemed to facilitate understanding of TPM and other improvement activities.

On the fourth day, group discussions were held for the first time in a CPO. Each group discussed “ideal images (‘to be’) of the workplace and the gap with reality (‘as is’),” according to the process shown on the following page, and mutually presented the results of their discussions with the other groups.

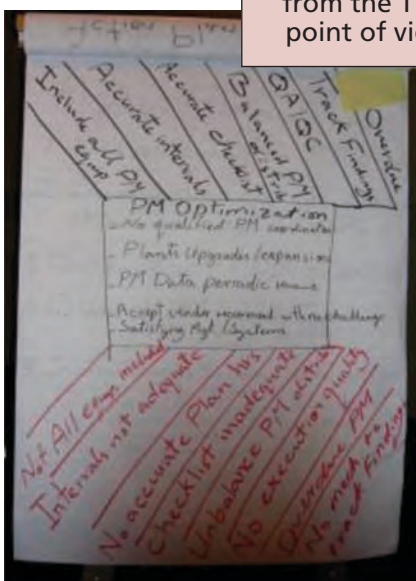
The participants were grouped so that their



Group discussions from the TPM point of view



Presentations of discussion results



Group discussions and presentations



Presentation of the completion certificate

engineering levels and positions were evenly balanced out among the groups. After deciding on a group leader and presenter amongst themselves, members shared ongoing problems with each other and selected a problem that they decided has high priority. They analyzed the gap between “to be” and “as is,” and created their action plan for solving the problem.

Each group raised many current problems. At first, they tended to attribute the causes of those problems to organizational and system flaws, but they began to discuss causes relating to their own actions soon after the lecturer noted that they need to “make the problems their own” in order to solve them. The participants extensively discussed the causes, countermeasures, and action plans for their problems, gave substantial presentations, and reached a high level of awareness that they must take positive action to solve problems.

After the group presentations, we asked all participants, “Do you want to change?” and the response was, “Yes, we want to change.” When we asked, “Can you do that?” they responded, “Yes, we can!”

At the closing of the seminar, Mr. Kamfar said he felt that the TPM seminar produced results beyond his expectations and expressed high hopes of seeing more positive effects of the seminar in the future. He mentioned that most of the participants gave good remarks about the seminar and expressed a commitment to act on their own.

4. Reflections

With all participants giving us their full concentration, we were able to hold highly interactive lectures over four days. The participants at times surprised us lecturers with their rapid chain of questions and observations, and made for an intensive and fruitful seminar.

The group discussions were our first attempt of its kind, and we initially worried whether it would proceed as we had planned. However, it turned out that we had nothing to worry about: the discussions had a strong impact on the participants, and were extremely well received. We even received a request to include workshops relating to each day’s lecture in future seminars.

By introducing not only the best practices of Japanese refineries but also numerous examples of their failures, we think the seminar presented a realistic view of situations that the participants are certain to confront in the future. In this respect as well, we hope to continue implementing the TPM seminar.

We were able to bring the seminar to a successful completion thanks to the support and cooperation of everyone concerned. Thank you all very much.

<by Fumihito Tone, Training Dept.>



The Arabian Sun (March 18, 2009)

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

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

1. Background

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

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

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

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

2. Course Overview

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



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

(Lectures at JCCP)

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

(Onsite training and study topics)

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

3. Course Details

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

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

Part 1:

Japanese history and Japanese mentality

Part 2:

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

Part 3:

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

Part 4:

Issues and future direction of HRM in Japanese companies

Part 5:

Present state and future issues regarding HRD in Japan

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

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

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

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

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



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

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

Mr. Eiki Furuta, Executive Officer, warmly



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



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

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

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

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

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

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

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

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

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



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

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

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

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



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



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

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

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

4. Summary

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

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

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

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

<by Akio Hoshino, Training Dept.>

Report on the Cooperation with Training Center Program

—Vietnam, Indonesia and Malaysia—

From December 1 to 7, 2008, a JCCP delegation visited Vietnam, Indonesia and Malaysia under the Cooperation with Training Center Program. The group consisted of Mr. T. Kubota, General Manager, Training Dept., Ms. M. Kitahara, Manager, Operations Dept., and T. Hori, Manager, Operations Dept. At the companies they visited, they introduced JCCP regular courses that will be offered during the next fiscal year, as well as explained the details of JCCP's customized programs (CPO/CPJ). Each of those companies places major importance on securing, training, and fostering capable human resources, and expressed their wish to continue sending outstanding personnel to participate in JCCP courses.

By personally listening to each company's situations and needs, the JCCP delegation was able to establish a close relationship with the counterpart department in those companies. Views exchanged and issues discussed at the working level will be reflected in future JCCP activities, to mutually facilitate the continued implementation of efficient training courses.

1. Vietnam

On December 2, the delegation visited the PETROVIETNAM Head Office and met with Mr. Nguyen Le Binh, Deputy Manager, Training & HRD Division. Mr. Binh stated that JCCP's long years of support has been a large benefit to PETROVIETNAM as well as to Vietnam, and asked for JCCP's continued cooperation. The delegation responded by expressing its appreciation of Vietnam's participation in JCCP regular courses to date.

The JCCP delegation also held a meeting with members of the counterpart department to JCCP training courses in PETROVIETNAM, to listen to their specific training needs. The counterpart



*At the PETROVIETNAM Head Office:
Mr. Nguyen Le Binh, Deputy Manager,
Training & HRD Division (left)*

members showed interest in regular courses on Maintenance, the Environment, Safety, DCS, and Human Resource Development, and requested implementation of a CPO or CPJ on Maintenance, Process Control (APC), and the Environment. They also said they plan to send around the same number of participants to JCCP courses this year as last year. The face-to-face discussion between members of the two organizations not only strengthened mutual understanding of their relevant responsibilities, but also helped deepen their mutual relationship of trust.



Meeting at PETROVIETNAM



At PETRONAS's Melaka Refinery



At the PERTAMINA Learning Center

2. Indonesia

On December 4, the delegation visited the PERTAMINA Learning Center and met with Mr. Suwardi Somantri, Vice President. PERTAMINA has recently undertaken major organizational reforms, and Mr. Somantri has just taken up his present position. The JCCP delegation was therefore fortunate to have the opportunity to introduce JCCP activities to the new vice president.

The members of the Learning Center showed specific interest in JCCP regular courses on maintenance and human resource development as well as in customized programs (CPO/CPJ) on marketing and physical distribution, and said that they wish to continue sending selected outstanding personnel to participate in JCCP courses. After the meeting, the PERTAMINA members took the JCCP delegation on a tour of the classrooms and accommodation facilities of the Learning Center.

3. Malaysia

On December 5, the delegation visited PETRONAS's Melaka Refinery, where Ms. Salha Ahmad Dahlan, Manager, HRM & Administration Dept., and leaders of the operation and maintenance departments assembled to listen to the delegation's presentation of JCCP training activities.

The delegation was told that PETRONAS personnel who participated in JCCP courses have learned much about new technologies and business

management practices of Japanese companies from the courses, and are effectively applying what they have learned to their daily tasks and to improving operations. Ms. Atifah Binti Idris, who headed the study tour (now called CPJ) on lubricating oil production last year, voiced a request to include a course on lubricating oil among the regular courses, as the study tour was extremely meaningful. Other members who attended the meeting also shared their positive views of JCCP courses with the delegation, and the PETRONAS side expressed the strong wish to continue participating in JCCP regular courses.

4. Summary

The delegation's visit to the three countries and meetings with members of the counterpart department to JCCP training activities yielded many invaluable, frank opinions and views of JCCP activities. They indicated that counterpart members have a deep understanding of JCCP activities, but also expect further enhancement. Based on this awareness, JCCP should appreciate the relationships of trust it has steadily established over a period of 27 years and carefully consider what more it can do to further strengthen these cooperative relationships in the future.

Requests and expectations of JCCP change with the times. JCCP is aware that it must also accurately perceive and take a flexible approach to satisfying changing needs.

<by Takashi Hori, Operations Dept.>

Mother-Daughter Participation in JCCP Courses (Kazakhstan)



Ms. Svetlana Tuitebayeva

(Director of Technical Regulation Department, CDB OGI)

Upgrading Processes of Heavy Oil

(ST-50-06: September 6 – September 15, 2006)

Ms. Dinara Tuitebayeva

(Analyst of HSE, KazMunayGas)

Quality Management of Refinery Products

(TR-18-08: January 13 – January 30, 2009)



I, Dinara Tuitebayeva, attended the JCCP regular course on "Quality Management of Refinery Products" (TR-18-08) from January 13 to 30, 2009, and my mother participated in the Study Tour on "Upgrading Processes of Heavy Oil" (ST-50-06), which was held September 6 - 15, 2006. We thus became the first mother-daughter pair to participate in JCCP training across two generations. I should also note that my husband has also participated in a JCCP regular course on "Upgrading Processes of Heavy Oil" (TR-3-09).

As I have been asked to share my impressions of the course I attended, I would like to take the opportunity to also introduce my country, Kazakhstan.

1. Introducing Kazakhstan

Kazakhstan has the world's tenth largest reserves of hydrocarbon resources, including crude oil and natural gas. It has a reserve of approximately 60 billion barrels of petroleum on the Kazakhstan side of the Caspian Sea and the world's 15th largest proven reserve of natural gas. President N. Nazarbayev of Kazakhstan states that "oil is not only an important branch of Kazakhstan's industries, but also a symbol of national independence and a hope for the future." The availability of hydrocarbon resources supports the foundation of Kazakhstan's national strategy of "creating an efficient economy and expanding oil and gas infrastructures."

One of Kazakhstan's most important tasks is to establish a cooperative relationship with oil-related institutions around the world, based on the awareness that increasing productivity is possible only in close conjunction with scientific knowledge. In other words, Kazakhstan's key to achieving its goal lies in the

relationship of international cooperation between Japan and Kazakhstan, where Japan receives participants from oil downstream organizations in Kazakhstan, and Kazakhstan participants acquire oil and gas technologies in Japan. Capacity development of employees is the most important element in further developing the bilateral relationship between the two countries.

The Ministry of Energy and Mineral Resources of Kazakhstan, KazMunayGas, and other oil companies in Kazakhstan have begun to participate in JCCP training since 2005, and more than 100 participants from Kazakhstan have attended JCCP training courses to date.

2. My Mother's Impressions

My mother, Svetlana Tuitebayeva, is among the 100 participants from Kazakhstan who have attended a JCCP training program. As director of the Technical Regulation Department at Central Dispatching Board of Oil and Gas Industry (CDB OGI), she participated in the study tour on "Upgrading Processes of Heavy Oil" from September 6 to 15, 2006, along with twelve other participants from Kazakhstan.

In addition to a lecture on the oil industry in Japan, the course covered extremely professional subjects which proved to be highly useful to my mother's duties back in Kazakhstan, such as heavy oil thermal cracking technology, selection of upgrading processes, catalytic cracking technology and heavy oil hydroprocessing technology.

According to my mother, the most noteworthy point about the course was that it not only provided classroom lectures, but it also provided the opportunity to visit oil companies, catalyst makers, and engineering companies throughout Japan to acquire practical knowledge. She



At Idemitsu Kosan Co., Ltd., Aichi Refinery



Presenting a commemorative gift (Sept. 2006)

visited such companies as Nippon Petroleum Refining Co., Ltd., then-Catalysts & Chemicals Industries Co., Ltd., and Idemitsu Kosan Co., Ltd. Each of the companies provided detailed lectures and explanations of issues concerning heavy oil upgrading.

At the end of the course, the majority of the participants commented that the course was extremely interesting and helpful, and was held on a high level by qualified instructors.

3. My Impressions

I participated in the course on "Quality Management of Refinery Products" (TR-18-08) from January 13 to 30, 2009, as an analyst of Health, Safety and the Environment (HSE) at KazMunayGas. The course covered the following subjects: quality management and quality assurance in Japan, trends in international quality management standards, quality control methods, ISO-9000 and TQM

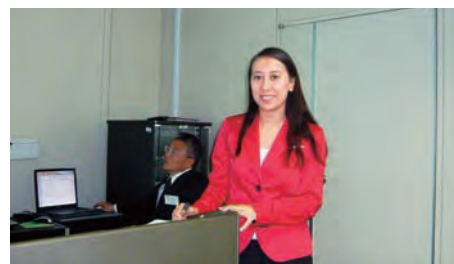
standards, environmental management, production management, the latest DCS system, online analyzer, gas chromatography, heavy oil analyzing equipment, and automated analyzer. As part of the program, we visited Idemitsu Kosan Co., Ltd., Nippon Petroleum Refining Co., Ltd., Shimadzu Corporation, Yokogawa Electric Corporation, and other companies throughout Japan.

The course was well organized to provide professional knowledge, as well as insight into Japanese culture and history through excursions to various regions in Japan. I was particularly impressed by the fact that even corporate culture in Japan is deeply rooted in Japan's history and culture.

My mother and I, as well as my husband, deeply appreciate the dedicated hospitality with which JCCP and other companies have received us, and intend to apply our Japanese experience to our jobs and lifestyles. Thank you very much.



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



At JCCP (Jan. 2009)



Upgrading Processes of Heavy Oil

(TR-3-09: April 7 – April 24, 2009)

**Mr. Issayev Gaziz (Ms. Dinara Tuitebayeva's husband;
Head of Technical Regulation Dept., CDB OGI)**

Through the course I attended on "Upgrading Processes of Heavy Oil," I acquired new knowledge on process technology, which has already proven effective in Japan, from detailed lectures and practical training at oil-related companies.

My stepmother and wife, who have respectively participated in a JCCP course in September 2006 and January 2009, also say that they have benefited greatly from the meaningful program and their exposure to the wonderful culture of Japan. We feel very fortunate to be able to share common memories of our precious JCCP and Japanese experiences as a family.

JCCP Regular Courses Completed in January – March 2009

TR-18-08 Quality Management of Refinery Products

Period: January 13 – January 30, 2009
No. of participants: 17
Country of participants: Cambodia, Indonesia, Iran, Kazakhstan, Kuwait, Myanmar, Nigeria, Saudi Arabia, Thailand, UAE, Vietnam, Yemen



TR-19-08 Energy Saving for Profitability Improvement

Period: February 10 – February 27, 2009
No. of participants: 13
Country of participants: Colombia, Indonesia, Iran, Kuwait, Libya, Malaysia, Mexico, Nigeria, Pakistan, Saudi Arabia, Thailand, UAE, Vietnam



TR-20-08 Advanced Inspection Techniques and Diagnostic for Static Equipment in Refineries

Period: February 10 – February 27, 2009
No. of participants: 12
Country of participants: Indonesia, Iran, Kuwait, Libya, Mexico, Saudi Arabia, Thailand, Vietnam, Yemen



TR-21-08 Advanced Process Control on DCS

Period: February 10 – February 27, 2009
No. of participants: 14
Country of participants: Indonesia, Iran, Libya, Malaysia, Mexico, Myanmar, Nigeria, Pakistan, Saudi Arabia, Thailand, Vietnam



IT-4-08 Petroleum Marketing and Physical Distribution

Period: January 20 – January 30, 2009
No. of participants: 13
Country of participants: Cambodia, Indonesia, Iran, Kazakhstan, Kuwait, Libya, Pakistan, Thailand, Vietnam, UAE



Total: 69 participants

Overview of “The FY2008 Comprehensive Survey of Technical Cooperation Projects”

1. Survey Objective and Background

JCCP initiated “The Comprehensive Survey of Technical Cooperation Projects” in FY2007, to explore the possibility of implementing new technical cooperation projects in oil-producing countries in regions other than the Middle East. The FY2007 survey targeted former republics of the Soviet Union, namely Russia, Kazakhstan, Azerbaijan, and Uzbekistan, in addition to Libya in Africa. In FY2008, studies of Kazakhstan, Azerbaijan and Libya were continued from the previous year, based on the understanding that they are potential exporters of crude oil to Japan and countries in which Japan can expect to acquire crude oil development rights, from the medium to long-term perspective. The FY2008 survey also targeted Brazil and Venezuela in South America and Sudan in Africa.

2. Survey Method

A seven-member Working Group for Comprehensive Survey of Technical Cooperation Projects was initially established, and a researcher from the International Development Center of Japan (IDCJ) was asked to provide consultation on the overall aspect of the survey.

The Working Group then held meetings to select target countries and institutions, examine details and travel schedules, and analyze the findings of the surveys. The surveys were carried out by members of the Working Group, with the participation of external experts.

3. Outline of Survey Results

(1) Kazakhstan

The oil industry in Kazakhstan is run by the national oil company KazMunayGas (KMG) and its subsidiary companies that employ roughly 40,000 personnel.

Last summer, members of the survey delegation



At the Atyrau Refinery

visited the head office and Trade House of KazMunayGas, the Central Dispatching Board of Oil and Gas Industry (CDB OGI; a subsidiary organization of the Energy and Mineral Resources Ministry), and the Atyrau Refinery.

At the Atyrau Refinery, a Japanese company has recently completed the construction of additional facilities in the attempt to modernize the refinery. The refinery is planning further expansions in order to meet new EU fuel property standards, and has strong interest in addressing environmental issues related to refinery operations, such as reducing the emission of pollutants from the refinery.

The survey delegation is considering sending experts to the Atyrau Refinery in the future to gain a detailed understanding of the refinery’s environmental issues and needs, and to arrange a forum for introducing specific examples of environmental measures implemented in Japan.

(2) Azerbaijan

Azerbaijan is a politically, socially, and economically stable country that has maintained a friendly attitude toward Japan. A Japanese company is a member of the consortium that operates the ACG oil fields, the country’s largest complex of oil fields, and has already established a direct relationship with Azerbaijan companies in the upstream sector.

The survey delegation recently visited the Baku Oil Refinery (named after Heydar Aliyev), which has been in operation for 55 years (processing

capacity: 100,000 BPD). Environmental issues have surfaced due to its location in an urban zone, and the refinery is expected to resolve those issues by improving refinery operations and conserving the environment of Baku City.

In addition to surveying environmental conservation issues at the Baku Oil Refinery, the Working Group also plans to introduce Japan's environmental countermeasures to the refinery in the future.

(3) Brazil

In Brazil, pre-salt oil fields have recently been discovered in the waters of the Campos Basin, located 200 km from shore. These pre-salt oil fields are the largest undeveloped oil fields in the world. When considering the future crude oil production capacity of the oil fields, JCCP should perhaps step up its activities in Brazil.

The survey delegation visited the head office of PETROBRAS (55% of shares owned by the state), the Caxias Refinery, and PETROBRAS University. PETROBRAS University is the counterpart institution for JCCP training programs, and provides regular employee education programs, as well as holds seminars and symposiums conducted by external experts. The survey delegation found that the PETROBRAS Center for Research and Development (CENPES), though not included among the institutions of the recent survey, performs R&D activities on exploration and production, energy and oil refining, and environmental issues.

PETROBRAS faces the challenge of reducing the sulfur content of gasoline and diesel fuel, in order to export oil products to Europe. To address this issue, the Working Group is considering the



At the PETROBRAS Head Office

feasibility of holding a catalyst technology seminar with PETROBRAS University, either with or without CENPES cooperation.

Following PETROBRAS's acquisition of Nansei Sekiyu K.K., Brazil and Japan have gradually begun to deepen their mutual relationship. At the present stage, JCCP should perhaps consider holding short-term seminars in Brazil and receiving Brazilian researchers to Japan as realistic first steps in strengthening the two countries' relationship.

(4) Venezuela

Venezuela has a confirmed crude oil reserve of 87 billion barrels (7.0% of the world's crude oil reserves), and a reserve of ultra-heavy crude oil in the Orinoco Belt that is said to be comparable to Saudi Arabia's crude oil reserve. As the world's oil industries, including the oil industry in Japan, have a strong interest in achieving effective utilization of ultra-heavy crude oil, research on refining technologies is advancing, and some oil companies have already begun to make forays into the commercialization of ultra-heavy crude oil.

The survey delegation visited the head office of Venezuela's state-run oil company PDVSA (Petróleos de Venezuela S.A.), the Venezuelan Petroleum Institute (INTEVEP), and the Puerto La Cruz Refinery.

One of PDVSA's priority issues is to develop ultra-heavy crude oil processing technologies. The company is currently working with a Japanese company in constructing a processing facility developed by INTEVEP. However, to continue its export of gasoline and diesel fuel to the United States, it needs to also reduce the sulfur content of its products to meet US quality standards.

A realistic first step in strengthening the relationship with PDVSA would perhaps be to invite Venezuelan researchers to engage in research at a Japanese university.

(5) Libya

Crude oil production in Libya is increasing year-by-year; it averaged 1.72 million BPD in 2008, and is expected to hereafter increase to around 2 million BPD.



At the Az Zawiyah Refinery

Japanese companies have acquired exploration rights in Libya that have been opened to foreign firms, and have begun the development of gas and oil fields in the country. As Libya is poised to become one of the world's largest oil-producing countries in the future in which Japan possesses production rights, JCCP should perhaps increase its activities in Libya.

In continuation of the FY2007 survey, the survey delegation visited the head office of National Oil Corporation of Libya (NOC Libya), the Az Zawiyah Refinery, and Libya Petroleum Institute (LPI), to survey their needs.

The Az Zawiyah Refinery utilizes pneumatic instruments at present, but as it has plans to introduce DCS within the coming year, refinery members expressed their wish to participate in a JCCP course on DCS and to hold a seminar at NOC Libya provided by experienced Japanese engineers.

Due to the economic sanctions that have been imposed on Libya, the country appears to be lagging behind in conforming to EU gasoline and diesel fuel standards. To remedy this situation, the survey delegation received a request to hold a technical symposium in Libya.

At LPI, the survey delegation received requests for JCCP's technical cooperation in crude oil assay, flare gas recovery, and equipment corrosion countermeasures.

Going forward, the Working Group will examine the possibilities of responding to the specific needs of counterpart organizations in Libya.

(6) Sudan

JCCP has neither received Sudanese participants

to its regular courses, nor has ever visited Sudan. The recent visit by the survey delegation was JCCP's first interaction with Sudan, made possible with the full cooperation of the Embassy of Sudan in Japan.

Crude oil production in Sudan has dramatically increased in recent years. In 2007, Japan's crude oil imports from Sudan corresponded to roughly 3% of total imports, and have made Sudan the eighth largest exporter of crude oil to Japan.

In Sudan, the survey delegation visited Sudapet and the Khartoum Refinery.

Sudapet is a subsidiary company of the Ministry for Energy and Mining. It is owned 99% by the government and 1% by the private sector, and possesses exploration rights of all gas and oil fields in Sudan. It plans to triple its number of employees and expand its business beyond upstream activities to include oil refining in the future. The Petroleum Technical Centre was established to provide training in both upstream and downstream activities, but as the center currently lacks instructors and experts who can foster instructors, the company is seeking technical cooperation from Japan.

The Khartoum Refinery is located approximately 50 km northeast of the capital city of Khartoum. Sudan and China each possess a 50% share of the refinery. Although it is a new refinery that began operations in 2000, it seems to be experiencing trouble in the denitrogenation of its products and in treating wastewater. To resolve these issues, the refinery expressed strong expectations of technical cooperation from JCCP.

4. Plans for the FY2009 Comprehensive Survey

In FY2009, the Working Group will carry out survey activities with a conscious awareness of future developments, by amassing information on counterpart organizations that have potential for implementing technical cooperation projects and actively providing information to those organizations through local seminars.

<by Hiroaki Hara, Technical Cooperation Dept.>

The Tenth Kuwait-Japan Joint Symposium



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

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

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

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



Symposium venue: KISR auditorium



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

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

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

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

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

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

<by Kazuhisa Okumura, Technical Cooperation Dept.>

Japanese Speakers and Their Presentation Titles

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

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

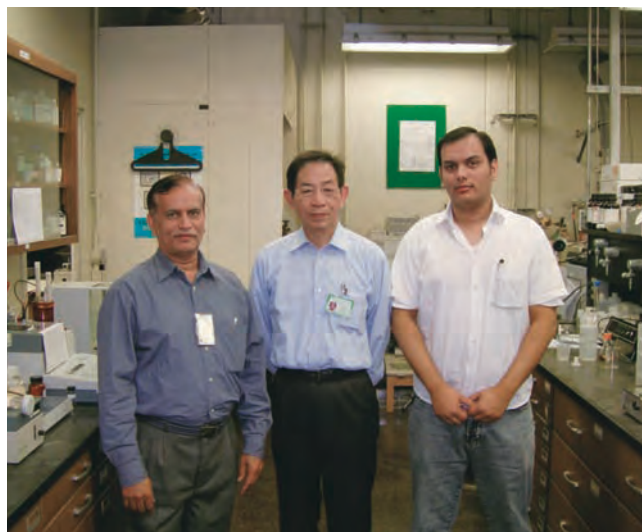
1. Program Objective

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

2. Implementation Status

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

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



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

first two years of the program is presented below.

<Dispatch to KFUPM>

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



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

<Dispatch to KISR>

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



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

operations of the desulfurization unit at KNPC

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

3. Summary

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

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

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

<by Kazuhisa Okumura, Technical Cooperation Dept.>



Debriefing session (March 18), at JCCP Headquarters



Personnel Changes

Training
Department

Incoming Personnel



Kenji SAITO



Japan Cooperation Center, Petroleum (JCCP)

Headquarters

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

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

Overseas Offices

- | | |
|---|--|
| • Middle East Office
#904, Al-Ghaith Office Tower, Hamdan St.,
P.O. Box 51828, Abu Dhabi, U.A.E.
TEL. +971-2-627-4410 FAX. +971-2-626-2166 | • Riyadh Office
Al-Dahlawi Building, King Fahad Rd., Tahlia St., Olaya,
P.O. Box 61356, Riyadh 11565, Kingdom of Saudi Arabia
TEL. +966-1-462-5121 FAX. +966-1-461-0983 |
|---|--|

URL: <http://www.jccp.or.jp> E-mail: webmaster@jccp.or.jp