



Asia-Pacific
Economic Cooperation

APEC Training Course on
Korean Nuclear Power Technology

August 21 - September 16, 2006

INFORMATION GUIDE

<http://www.mocie.go.kr>



Asia-Pacific
Economic Cooperation



Ministry of Commerce, Industry and Energy

Ministry of Commerce, Industry and Energy (MOCIE)
Republic of Korea

C·O·N·T·E·N·T·S

I . GENERAL INFORMATION

II . BACKGROUND

III . FRAMEWORK OF THE COURSE

IV . MEMBER ECONOMY REPORT

V . ORIENTATION &

EXTRA-CURRICULAR ACTIVITIES

VI . INFORMATION

Annex 1 : TENTATIVE SCHEDULE

Annex 2: APPLICATION FORM

. General Information

- **Project** : APEC Training Course on Korean Nuclear Power Technology
- **Duration** : August 21 ~ September 16, 2006 (27 days)
- **Venue** : KNPEI (Busan, Korea)
- **Number of Participants** : 20 persons from 10 countries
- **Training Institute** : Korea Hydro & Nuclear Power Co. (KHNP)
- **Qualifications for Applicants** :
 - Mid and upper-level managers involved in planning, developing and implementing nuclear power projects in the governmental agencies, research institutes and utility companies
 - Mid and upper-level managers in the departments of nuclear power companies with backgrounds of university education in science/engineering
 - At least 5-year relevant experience in the nuclear field
 - Preferably between 30 to 50 years of age
 - Have sufficient command of spoken and written English
 - Have a good standing in mental and physical health
 - Expect to work in the related field after participating in this program
 - Have never participated in a training program sponsored by the Korean government

▪ **Submission :**

- Applicants should submit the application form to the KNPEI coordinator by mail or e-mail as follows

- Address : KHNP Nuclear Power Education Institute, 991
Shinam-Ri, Seosaeng-Myeon, Ulju-Gun, Ulsan, Korea,
689-882
- Tel : 82-51-726-6331
- Fax : 82-51-726-6353
- Person in charge
Mr. Park, Jeong Min (rocket@khnp.co.kr)
Mr. Kim, Ho Joon (jooni99@khnp.co.kr)

▪ **Background**

As the importance of international cooperation in the global society grows, the Korean government has put great emphasis on the promotion of our nuclear energy to the APEC members in recent years. For this purpose, the Korean government (MOCIE) has initiated cooperative programs to promote mutual understanding between Korea and APEC countries.

Under the framework set forth by MOCIE, Korea Hydro & Nuclear Power Company (KHNP) has organized the training program "Korean Nuclear Power Technology." This program aims at providing participants

with KHNP's accumulated knowledge and experience of nuclear energy and contributing to the development of the nuclear power industry in the participants' countries.

Korea had experienced a development stage during the 70's and 80's and a few APEC members are now experiencing a similar situation. In this regard, this program will be benefit to countries which want to start nuclear business or are at the beginning stage of that industry.

This program was first held from Apr 5 to May 1 in 2004. This will be the third training course.

. Framework of the Course

A. Objectives

The purpose of this training course is to share the experiences of the localization and development programs of Korea nuclear power technology with the participants and enhance understanding of the nuclear power industry of Korea and contribute to the development of the nuclear power industry in the participants' countries.

Major objectives of this course can be summarized as follows:

1. To provide participants with opportunities to experience a new horizon which will extend their views in the field of nuclear power
2. To share common interests and information in the field of nuclear power
3. To strengthen international friendship between the participants' countries and Korea by building a communication channel

B. Course Contents

To meet the above objectives, the following topics will be introduced during the course :

1. Developing stages of the Korean nuclear industry
 - Experiences in nuclear power projects in Korea
 - Developing experience of Optimized Power Reactor 1000
 - Localization experience of nuclear power technology
 - Status of Korean nuclear power industries
2. Technology of Korean nuclear power
 - Optimized Power Reactor (OPR1000)
 - Advanced Power Reactor (APR1400)
3. Prospects of the Korean & global nuclear power industry
 - Movement and prospects of Korea and global nuclear power
 - Promising atmosphere about nuclear energy in USA and Europe
4. General Information about Nuclear Industry
 - Nuclear Safety, law and regulation system
 - Pending Items such as license renewal and power uprate

C. Study Visits

Study visits will offer participants the chances to enhance their understanding of nuclear power programs in Korea. The participants are scheduled to visit the following institutions, organizations and sites. (Subject to change to suit participant needs and interest)

1. HANARO

The HANARO (High-flux Advanced Neutron Application Reactor), a research reactor designed for 30MW thermal output, was constructed by KAERI in April 1995. The HANARO supports the active nuclear power development program as well as supplying an intensive neutron source for research and development of nuclear applications.



Research and development are conducted using the HANARO in the field of nuclear fuel and material testing, the production of key radioisotopes, neutron activation analysis, neutron radiography, and others.

2. Korea Nuclear Fuel Company (KNFC)

KNFC, a unique company which designs and manufactures nuclear fuel in Korea, was established in 1982 to localize nuclear fuel cycle technology. With an effort to localize nuclear fuel design and manufacturing technologies, KNFC has been producing nuclear fuel successfully since 1989. KNFC now supplies nuclear fuel to all the nuclear power plants in Korea.

3. ULCHIN Nuclear Power Site

Ulchin Nuclear Power Site, located on the eastern coast of the Korean Peninsula, has 5 nuclear power plants in operation



and 1 unit is under construction.

Unit 1&2(950MWe, 3-Loop PWR) have been operating successfully since 1988 and 1989 respectively. Unit 1&2 were presented “the International Power Plant Award” by Power International Edition in Oct. 1991. Units 3&4(1000MWe, 2-Loop PWR), the first Optimized Power Reactor 1000 (OPR1000), also have been operating successfully since 1998 and 1999. The successful development and outstanding status of the operation of 4 units are the indications of Korea's strong technical capabilities in design, construction, operation and maintenance of nuclear power plants. Unit 5&6 started commercial operation in 2004 and 2005 respectively.

4. WOLSONG Nuclear Power Site

Wolsong Nuclear Power site, the only Pressurized Heavy Water Reactor(PHWR) site of KHNP, is located about 40km southeast of Gyeong-ju city, the ancient capital of the Shilla Kingdom.

Unit 1 has been operating successfully as the first CANDU-type reactor since commercial operation in April 1983 and has achieved the No.1 record three times in the world in terms of capacity factor. Unit 2, 3&4 started commercial operation in 1997, 1998 & 1999 respectively. Unit 1 was built as a Turnkey Project but Unit 2, 3&4 were built as a Component Approach under KHNP's overall project management responsibility.

Preparations for the construction of Shin-Wolsong Units 1&2 are in progress and we expect they will be on-line in 2011 and 2012.

5. KORI Nuclear Power Site

Since the two oil crises in the 1970s, Korea has endeavored to develop an alternative energy sources to diminish its energy dependence on petroleum. Based on the diversification policy of energy resources Korea introduced the nuclear power plants at the Kori site for the first time. Kori site is the cradle of the nuclear industry in Korea and located at the Village of Kori, Gi-Jang Gun(county) of Busan city, on the south-eastern coast of the Korean Peninsula.

Currently four units are in operation with total installed capacity of 3,137MWe, which occupies 6.1% of the electricity consumption in Korea. Since the first commercial operation of Kori unit 1 in April 1978, Kori nuclear power site has contributed greatly to the development of Korea economy and nuclear technology. Preparation for new construction is underway at Shin-Kori site where two OPR1000(Optimized Power Reactor 1000) and two APR1400(Advanced Power Reactor 1400) will be constructed.

6. Korea Power Engineering Company(KOPEC)

KOPEC is the engineering company which was involved in nuclear power projects starting with Kori Unit 3&4. KOPEC worked with Bechtel on this project and performed the onshore engineering design, procurement, construction supervision, field design and quality surveillance work.

Subsequent to Kori 3&4, KOPEC's participation in nuclear power projects continued through the start of Yonggwang (YGN) 1&2 and Ulchin (UCN) 1&2. Through these projects KOPEC gained and accumulated valuable experiences and significantly improved the engineering capability which eventually allowed KOPEC to carry out

independent engineering and design work of nuclear projects and finally become the prime architect engineering (A/E) contractor for YGN 3&4 in 1987. The technical capabilities, experiences and self-confidence were gained from successful performance of the YGN 3&4 work as a primary A/E contractor. It also laid down the technical foundation for independent completion of the Optimized Power Reactor 1000 (OPR1000) design of UCN 3&4 in 1991. For the advancement of the nuclear power plant design technology in Korea, KOPEC has been working on a design of a 1400MWe pressurized light water reactor power plant(APR1400) which has a greater capacity, higher stability and improved safety.

D. Discussion and Presentation

1. Nuclear Power Issues Discussion
2. Presentation of Member Economy Report by each participant
3. Group discussion and evaluations

. Member Economy Report

This training course requires all the participants to prepare a "**Nuclear Power Member Economy Report**" which will be presented at the Member Economy Report session. Each participant is recommended to make a 50 minute long presentation on their Nuclear Power Program.

We have well advanced lecture room equipped with a multi beam projector. The format of the Member Economy Report should be MS-Word or PowerPoint, written in English and should be submitted to the KNPEI by **July 30, 2006**. Trainees from the same Member Economy are recommended to work together in making and presenting the

Member Economy Report. The report should be typewritten on A4 sized paper and the report files should be delivered through e-mail or FTP server.

The participants are encouraged to include the following issues in their Member Economy Reports :

A. Self Introduction

1. Brief introduction of your organization
2. Position and duties in your organization
3. Expected outcome of this training course

B. Economic Overviews

1. Population, GDP, GDP per capita, growth rate, inflation rate, interest rate, exchange rate, etc.
2. Foreign Investment Environment
3. Any other information which may be useful to help understand the economy of your Member Economy

C. Power Industry Overview for the last five years

1. Installed capacity by fuel
2. Power supply and demand
3. Gross power generation
4. Load and capacity factors

D. Energy & Nuclear Power Policy

1. Energy Policy of your Member Economy
2. Long-term Power Development Plan
3. Nuclear Power Policy
4. Construction Plan of Nuclear Power Plant
5. Current Policy Issues for Nuclear Power
6. Related government bodies and their functions

E. Information on Nuclear Power Utilities

1. Power utility companies participating in the nuclear power industry
2. Key managerial persons of power utility
3. Status of ownership
4. Related government bodies and their functions

F. Additional Presentation

If needed, additional presentations reflecting participants' field of study will be accepted

G. Other Information

1. The Member Economy Report should be typed in English
2. Following information should be included on the front cover of the report
 - Subject (Member Economy Reports : Member Economy name)
 - Participant's Name, Nationality, Position, Organization name
3. Additional material or information that may help the participants' application, such as annual reports or brochures of the participant's organization will also be welcomed

. Orientation and Extra-Curricular Activities

With the advent of globalization, the needs for a better relationship and strong partnership among countries and regions are increasing. There are also needs to understand each culture among nations to flourish friendship. For this purpose, the following activities will be provided to the participants for the better understanding of each participant's Member Economy and Korean culture.

A. Orientation Program

1. MOCIE Orientation

A general orientation which enhances understanding of Korean culture will be provided for participants.

2. KHNP Orientation

KHNP will conduct a course orientation at KNPEI. It includes :

- a. Opening Ceremony (president of KNPEI)
- b. General Introduction of KHNP

B. Social & Cultural Program

1. Kiln fired Pottery

During the course, each participant will have a chance to make pottery for themselves. It will be processed using traditional Korean methods.

2. City Tour of Busan

During the third week participants will be invited to a city tour of Busan, which is the second largest city in Korea with a population of about four million. It is also the Republic of Korea's principal port city and thus a



center of commerce and industry of Korea. During this one day trip, participants will visit Busan's major attractions such as ancient palaces and famous market places.

3. Field Trip and Cultural Expedition

Participants will be given opportunities to look around a well-known industrial site in Korea as well as an historic area as follows : DOOSAN Heavy Industries Company and Gyeongju Historic Areas

a. DOOSAN Heavy Industries Company

Established in 1962, DOOSAN Heavy Industries & Construction Co., Ltd. (formerly known as Hanjung or Korea Heavy Industries & Construction Co., Ltd.) has played the role as the mainspring for the national economy's growth by supplying industrial facilities for both domestic and international plant markets. Its field of business ranges from base material casting & forging to nuclear power plants and hydro

& thermal power plants, as well as other industrial facilities like desalination plants, environmental equipment, material handling equipment, chemical & petrochemical plants and others.

As the company that specializes in power plants employees are trying to achieve the highest level of technology especially in the area of nuclear power generation. With its turnkey production lines and management systems for materials, design, construction, testing, maintenance and repair, Doosan is strengthening its position as a leading provider of nuclear power systems in both the Korean and international markets.

b. Gyeongju Historic Site

Gyeongju City and its surroundings are heir to traces of the glory that flowered then withered in the ancient Shilla Kingdom from 57 BC to 935 AD. The downtown area and the suburbs contain many royal burial mounds and Buddhist remains which preserve the aesthetic zenith of Shilla art and culture. The historic areas of Gyeongju where Mt. Namsan and many cultural properties are located contain a remarkable concentration of outstanding examples of Korean Buddhist art, in the form of sculptures, reliefs, pagodas and the remains of temples and palaces from the 7th and 10th centuries. Bulguksa Temple and Seokgulam are perhaps the most well known of Gyeongju's



Bulguksa Temple and Seokgulam are perhaps the most well known of Gyeongju's

treasure. They were built in 751 AD by Kim Dae-Seong in memory of his parents. Bulguksa Temple and Seokgulam Grotto were completed over a span of thirty years. Bulguksa was restored to its original condition in 1973. Seokgulam Grotto has received several renovations over the years as well. Both were designated as World Cultural Heritage sites by UNESCO on December 6, 1995

. Information

A. Training Institute

【MOCIE】

The Ministry of Commerce, Industry and Energy (MOCIE) is the ministry responsible for the real economy, more specifically, for policies concerning industry, trade, energy and resources. Its role and function has changed for the past years as the Korean economy developed and grew in size.

This ministry was initially launched as the Ministry of Commerce in 1948 when the first Korean government was inaugurated. At that time, it took charge of primary industries such as fisheries and mining as well as secondary and tertiary industries including manufacturing and commercial activities.

The energy section was separated from the ministry as an independent ministry named Ministry of Power and Resources in the 1970s to better cope with the oil crisis. However, later on, the energy and resources section was re-integrated into the ministry to efficiently implement industrial policies.

【Korea Hydro & Nuclear Power Co., Ltd (KHNP)】

Korea Hydro & Nuclear Power Co. Ltd (KHNP), the world's 5th largest nuclear power company, was separated from Korea Electric Power Corporation (KEPCO) according to the electrical power industry-restructuring policy. KEPCO officially split up its power generation sector into six separate companies on April 2, 2001. KHNP, with 29% of the nation's power generation facilities, is the largest among these six. KHNP operates 20 nuclear power units and 27 hydro power units in Korea.

Since 2001, KHNP has produced electricity at the lowest costs, boosting its competitiveness in the national market. For the first nine months of operation, KHNP supplied 81.4 billion kilowatt hours of electricity, or 42 percent of all national electric power consumption. This output was sold for more than 3.24 trillion won, or 34 percent of the Republic of Korea's total electricity sales during the period.

As Hydroelectric power is considered one of the environmentally - friendly energy resources, and KHNP maintains and operates hydroelectric power facilities in Gangneung as well as on the Han River, where 14% of the nation's total hydroelectric output is generated. Hydroelectric power dams provide not only electricity but also water for people in the Seoul metropolitan area, as well as for agricultural and industrial use. In addition, they play an important role in flood control.

KHNP is now building two 1000MW Optimized Power Reactor 1000 (OPR1000) unit at Shin-Kori which will be in commercial operation in 2010 and 2011 respectively. Additional units will be constructed at Shin-Wolsong (2 units). Through the above construction project, KHNP

will maintain its position as the nation's leading power generation company ensuring a stable supply of power in Korea.

In 2002, KHNP imported an Enterprise Resource Planning (ERP) system from Germany which is one of the most advanced system available at present. The ERP system is designed to maximize operational transparency and efficiency and will lead us to higher competitiveness.

【KHNP Nuclear Power Education Institute (KNPEI)】

KHNP Nuclear Power Education Institute began its history as a training organization for KORI Nuclear Power Plant in Oct. 1976. At that time Korea took the first step toward nuclear power generation for the purpose of cultivating nuclear manpower to ensure the safety and reliability of operation in nuclear power plants. As there had been needs to meet the training demand for the employees in the nuclear power plants and to stabilize specialty and independency of the training, in June 1991 KNPEI moved to a new building in Ulsan on the southeast coast of the Korean peninsula and was received recognition from IAEA as an international training center in 1999.

KNPEI has concentrated on the systematic establishment of training infrastructure and the development of advanced training programs. This has contributed to the excellent performances in the domestic nuclear power plants and has led to IAEA's awarding KNPEI a letter of recognition as an excellent training center.

KNPEI offers 160 courses and educates about 6,000 employees from domestic and overseas nuclear power industry every year. By the 21st

century, KNPEI aims to be the world best in the field of nuclear power training not only by further improving and enriching training programs, but also by strengthening cooperative relations with international organizations and developing countries.

B. Others

1. Regulations

Participants are required to ;

- a. carry out instructions and abide by conditions stipulated by the Korean government in respect to the training program
- b. follow the training program to the best of their ability and abide by the rules of the training institution
- c. refrain from engaging in political activities, or any form of employment for profit or gain
- d. return to their home Member Economy upon completion of the training program
- e. do not extend the length of the training program or their stay for personal convenience
- f. not bring any family members (dependents) to Korea
- g. accept that the Korean government is not liable for any damage or losses of their personal property
- h. accept that the Korean government will not assume any responsibility for illness, injury or death arising from extracurricular activities, willful misconduct or undisclosed pre-existing medical condition

2. Expenses

The Korean government (MOCIE) will bear all the expenses related to the implementation of the course, incurred during the training in accordance with relevant laws and regulations.

The expenses include :

- a. A normal economy class round-trip air ticket between Seoul and the international airport where participants depart from
 - b. Accommodation & meals during the course
 - c. Daily allowance for incidental expenses
 - d. Medical insurance for participants to cover medical treatment during their stay in Korea (Costs related to pre-existing illness, pregnancy and dental treatment are not included)
- Note : Each participant is advised to maintain some pocket money of their own for incidental expenses that might be incurred during the trip to Korea

3. Place of Accommodation

The Marriott Busan Hotel is ideally located in the beautiful beach of Haeundae. The rooms which will accommodate attendees are fully equipped with the best communication facilities and services.



4. Language

The training course will be conducted entirely in English without any interpreters.

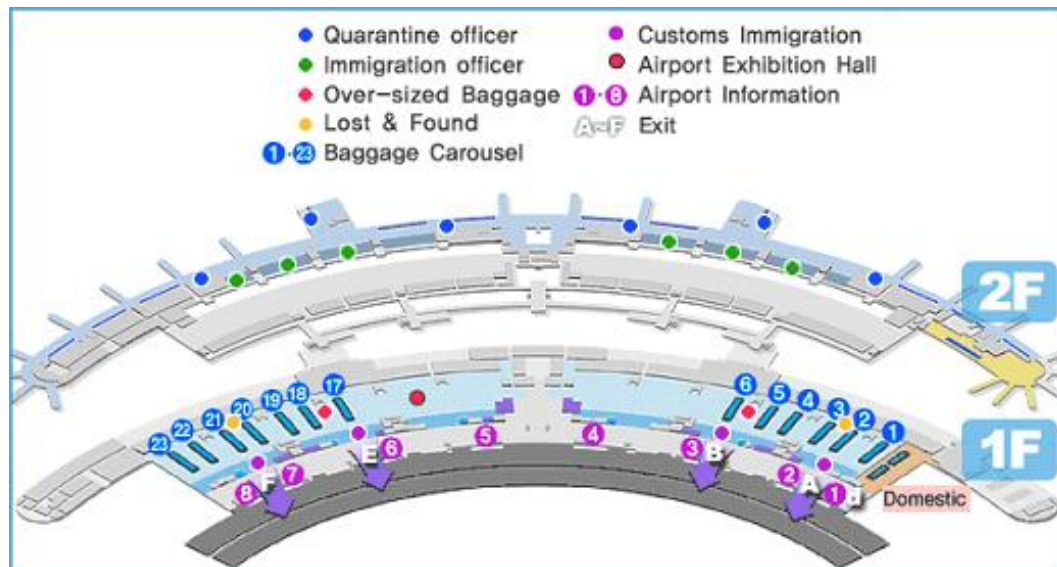
5. Certificate

Certificates of completion will be awarded to all the participants who successfully complete the course.

6. Transportation (How to get to the KNPEI)

- Route 1 : Incheon International Airport → Gimpo Domestic Airport → Gimhae International Airport → The Marriott Hotel(Busan Haeundae) → KNPEI
- Route 2 : Incheon International Airport → Gimhae International Airport → The Marriott Hotel(Busan Haeundae) → KNPEI
- Route 3 : Gimhae International Airport → The Marriott Hotel(Busan Haeundae) → KNPEI

Arrival at Incheon International Airport



Incheon International Airport

- Clear all of the procedures



- Collect baggage and pass through Customs Inspection
- Pass through Exit Gate (A) and go to the Limousine Bus Stop
You may get information on limousine buses and purchase the tickets at the Transportation Information Counter (near the exit No. 2, 4, 9, 13)
- Transfer : Incheon International Airport → Gimpo Domestic Airport
(Expected time required by bus : 35 minutes)
- Transfer : Gimpo Domestic Airport → Gimhae International Airport
(Expected time required by domestic flight : 50 minutes)

Arrival at Gimhae International Airport



Gimhae International Airport

- Clear all of the procedures (only who arrive directly from the departures)



- You can meet the guide in the Greeter Hall of the Gimhae Airport.
- If you cannot meet a guide in the Greeter Hall. You can get the KAL limousine bus(Number 2) to the Marriott Hotel in Haeundae Busan directly.

Note : If you have any questions on the above arrival procedures, please contact a KNPEI program officer (051-726-6331)

▪ **Arrival Procedures**

Arrival Immigration

All passengers who arrive in Korea are required to complete an E/D card (immigration card) and customs declaration. Passengers from certain countries are also required to complete a quarantine questionnaire. All passengers who arrive in Korea must present a passport and an E/D card to an immigration officer in order to be admitted to the Republic of Korea

Customs Immigration

If you have goods to declare : After picking up your baggage proceed to the Customs area and fill out a Customs Declaration form. Customs officers will answer any questions you may have and can assist you in filling out the form.

If you have nothing to declare : You also go through Customs and notify a Customs officer that you have nothing to declare. But it is not necessary for you to fill out a Customs Declaration form.

Quarantine Regulations

All passengers and flight crews who arrive in Korea from regions where cholera, yellow fever, and bubonic plague have been detected (which may include countries in Southeast Asia, Central Asia, Africa, and South America) may be required to complete a quarantine questionnaire.

All passengers who arrive in Korea with livestock or other animals are required to present a quarantine certificate from the exporting Member Economy to the National Veterinary Research and Quarantine Service. All passengers who arrive in Korea with plants or other vegetation are required to present a certificate from the exporting Member Economy to the National Plant Quarantine Service.

7. VISA

No VISA Entry

The following nationals among APEC member countries are permitted to enter Korea with no visa just for a short-term tour or transit.

Australia, Brunei Darussalam, Canada, Chile, Fiji, Hong Kong, Indonesia, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, Chinese Taipei, Thailand, USA, Bangladesh, Venezuela, Pakistan

Participants from the Philippines, or Vietnam should present official/diplomat's passport to enter Korea. With a regular passport you may be restrained from entering Korea.

VISA Required Countries

People's Republic of China, Papua New Guinea, Russia

Supporting documents may be requested for necessary screening:

- Certificates verifying the applicant's occupation or job title

- Other documents verifying the purpose of visit

If the applicant meets the requirements listed above, health of finance statements are normally not necessary. Korea reserves the right to request documentation or procedures that may not be listed above.

8. General Information

【 Korea 】

Korea is proud of 5,000 years of history through a unique culture and heritage which has flourished during that period. Modern Korea has rebuilt itself from the devastation of the Korean war and has achieved an economic miracle in just 50 years. Last year our economic growth rate is 4.0% and personal GDP is US\$16,460. Our major products are IT goods such as semiconductors and cellular phones. Automobile is also our major export product.

【 Geography 】

The Korean peninsula extends southward from the eastern end of the Asian continent and is approximately 1,000 km long and 216 km wide at its narrowest point. The standard meridian of the peninsula is 135, nine hours ahead of GMT. The Amnokkang and Tuman-gang rivers border both China and Russia to the north and Japan is just across the East Sea. The total area of the peninsula is 221,607 km², similar in size to that of the UK, New Zealand, or Romania. South Korea holds 99,237 km² or 45% of the total land mass and North Korea holds 122,370 km² the remaining 55%. About 70% of the land is mountainous, mainly to the north and east. Along the southern and western coasts, the mountains

descend gradually towards broad coastal plains. Most of the rivers have their tributaries on the north and east sides, and flow into the Yellow and South Sea. Concentrated for the most part off the southern coast are upwards of 3,000 islands of various sizes that provide scenery unparalleled in the world.

【 People and Language 】

While Koreans belong to the Mongolian race, they have inherited and maintained their own language, culture and customs for thousands of years. The official language is Korean, a member of the Ural-Altaic family which includes such languages as Mongolian, Finnish and Hungarian. Korean has ten vowels and fourteen consonants and is written in its native phonetic alphabet, Hangeul, which was created in 1443.

【 Currency 】

The unit of Korean currency is the won. Foreign bank notes and traveler's checks can be converted into Korean won at banks, the bank windows located throughout the lobby of the Airport. But you will not need to change money because we are going to distribute daily allowances to all the participants. Internationally recognized credit cards including VISA, American Express, Diner's Club, Master card, and JCB card are accepted at most hotels, department stores, and restaurants. 1 U.S. dollar is approximately equivalent to 969 Korean won (March, 2006)

【 Climate 】

Busan belongs to the temperate zone which is characterized by four distinct seasons. During August, the average temperature is around 25℃ ~ 30℃ and humidity is very high around 80%.

【 Time Difference 】

Korea is +9 hours in relation to Greenwich Mean Time

【 Tax & Tipping 】

A value-added tax (VAT) is levied on most goods and services at a standard rate of 10% and is usually included in the retail price. For meals and other services, VAT is automatically added to the bill. Tipping is not a traditional Korean custom.

9. Contact Point Information

MOCIE

- Address : Government B/D, #1 Jungang-dong, Kwacheon
Kyong-Ki, 427-723, Republic of Korea
 - Tel. : 82-2-2110-5484
 - Fax : 82-2-2110-5483
 - Home Page: www.mocie.go.kr
 - Program Officer : Mr. Joo, Won Seok
wsjoo21@mocie.go.kr

- KNPEI (KHNP Nuclear Power Education Institute)
 - Address :991 Shinam-Ri, Seosaeng-Myeon Ulju-Gun Ulsan
689-882, Republic of Korea
 - Tel. : 82-51-726-6331
 - Fax : 82-51-726-6353
 - Home Page: www.e-khnp.com
 - Person in charge :
Mr. Park, Jeongmin(Jimmy)

[\(rocket@khnp.co.kr\)](mailto:rocket@khnp.co.kr)

Mr. Kim, Ho joon(joon)

[\(jooni99@khnp.co.kr\)](mailto:jooni99@khnp.co.kr)

Annex 1 :

TENTATIVE SCHEDULE

Date	Time	Activities	Remarks
Aug.20 (Sun)		<ul style="list-style-type: none">• Arrival at Gimhae Airport• Move to Hotel• Check-in	
Aug.21 (Mon)	09:10- 12:30	<ul style="list-style-type: none">• Opening Ceremony• Brief introduction of KHNP & KNPEI• Introduction of Daily Subsistence in Korea	Orien- tation
	12:30- 13:30	Lunch	
	13:30- 15:00	<ul style="list-style-type: none">• Class- Korean Language & Culture	
	15:20	<ul style="list-style-type: none">• Class	

APEC Training Course on Korean Nuclear Power Technology

	16:50	- Korean Language & Culture	
	18:00	• Welcoming Dinner Hosted by MOCIE	
Aug.22 (Tue)	09:10-10:40	• Class - Basic Nuclear Theory and PWR System	KNPEI
	11:00-12:30	• Class - Basic Nuclear Theory and PWR System	
	12:30-13:30	Lunch	
	13:30-16:50	• Class - Visual Plant Operations(NSSS Thermo Hydro Visualization Facility)	
Aug.23 (Wed)	09:10-10:40	• Class -Overview of World Nuclear Industry	KNPEI
	11:00-12:30	• Class - National Energy Policy & Prospects	
	12:30-13:30	Lunch	
	13:30-16:50	• Class - Status and Prospects of Korean Nuclear Industry	

Date	Time	Activities	Remarks
Aug.24 (Thu)	09:10-12:30	• Class - NPP Localization Experience [overview & Policy]	KNPEI
	12:30-13:30	Lunch	
	13:30-16:50	• Study visit - Visit Kori Nuclear Power Site	
Aug.25 (Fri)	09:10-12:30	• Class - Public Acceptance & Participation in Decision Making	
	13:30-16:50	• Presentation on Member Economy Report & Discussion (□)	
Aug.26 (Sat)	09:10-16:50	• Korean Culture Experience - Kiln fired Pottery	
Aug.28 (Mon)	09:10-12:30	• Class - Nuclear Safety & Radiation Protection	KNPEI
	12:30-13:30	Lunch	
	13:30-16:50	• Presentation on Member Economy Report & Discussion (II)	
Aug.29 (Tue)	09:10-12:30	• Class - Nuclear Power Project Management & Experience	KNPEI
	12:30-13:30	Lunch	
	13:30-16:50	• Presentation on Member Economy Report & Discussion (Ⅲ)	
Aug.30 (Wed)	09:10-12:30	• Class - Technology Self-Reliance Experience for NPP Engineering	KNPEI
	13:30-15:00	• Class - Nuclear Fuel Cycle	
	15:20-16:50	• Class - Decommissioning of Nuclear Facilities	

Date	Time	Activities	Remarks
Aug.31 (Thu)	09:10- 16:50	<ul style="list-style-type: none"> • Field Trip - Hotel → Pohang - Visit POSCO & Cyclotron - POSCO → Gyeongju - Check in Hyudai Hotel 	Pohang/ Gyeongju
Sep. 1 (Fri)	09:10- 16:50	<ul style="list-style-type: none"> • Field Trip - Gyeongju → Wolsung - Visit Wolsung Nuclear Power Site & TC - Wolsung → Gyeongju 	Wolsung/ Gyeongju
Sep. 2 (Sat)	09:10- 16:50	Visit Clutural Heritage in Gyeongju (Bulguksa Temple, Seogulam Grotto, Cheonmachong Tomb)	Gyeongju
Sep. 4 (Mon)	09:10- 12:30	<ul style="list-style-type: none"> • Class - Introduction of OPR1000 	KNPEI
	12:30- 13:30	Lunch	
	13:30- 16:50	<ul style="list-style-type: none"> • Class - Localization Experience of NPP Maintenance Technology 	
Sep. 5 (Tue)	09:10- 12:30	<ul style="list-style-type: none"> • Class - Introduction of APR1400 	KNPEI
	12:30- 13:30	Lunch	
	13:30- 16:50	<ul style="list-style-type: none"> • Class - Financing of Nuclear Power Projects 	
	18:00-	<ul style="list-style-type: none"> • Farewell Dinner Hosted by KNPEI 	

Date	Time	Activities	Remarks
Sep. 6 (Wed)	09:10-10:40	• Farewell Ceremony	Ulchin
	10:50-17:00	- KNPEI → Ulchin	
Sep. 7 (Thu)	09:10-16:50	• Study Visit to Ulchin Nuclear Power Site & TC - Ulchin → Ulsan	Ulchin/ Ulsan
Sep. 8 (Fri)	09:10-16:50	• Field Trip to Hyundai Heavy Industry & Motors - Ulsan → Busan	Ulsan
Sep. 9 (Sat)	09:10-16:50	Tour Busan City	Busan
Sep. 11 (Mon)	09:10-16:50	Busan → Changwon	Changwon/ Daejon
		• Class - Localization Experience of Equipment Manufacturing Technology • Field Trip to Doosan Heavy Industry - Changwon → Daejon	
Sep. 12 (Tue)	09:10-12:30	• Class - Introduction of Smart • Study Visit to Nuclear Thermo Hydraulic Demo. Facility	Daejon
	13:30-16:50	• Study Visit to HANARO • Class - Nuclear Regulatory System	
Sep. 13 (Wed)	09:10-12:30	• Class - Localization Experience of Fuel Manufacturing Tech. • Study Visit to Nuclear Fuel Manufacturing Facility	Seoul
	13:30-16:50	- Daejon → Yongin • Study Visit to KOPEC - Yongin → Seoul	
Sep. 14 (Thu)	09:10-12:30	• Study Visit to KHNP HQ & KEPCO Dispatch Center • Program Evaluation	Seoul
	13:30-16:50	Watching Traditional Performance	
	18:00	Closing Ceremony & Dinner	
Sep. 15 (Fri)	09:10-17:50	Seoul City Tour	Seoul
Sep. 16 (Sat)		Departure	Incheon Airport

Annex 2 :

APPLICATION FOR KOREAN NUCLEAR POWER TECHNOLOGY TRAINING



Asia-Pacific
Economic Cooperation



&



Nuclear Power Education Institute, 991, SHINAM-RI, SEOSAENG-MYEON, ULJU-GUN, ULSAN, KOREA, 689-882

Tel: 82-51-726-6331 Fax: 82-51-726-6353 <http://www.khnp.co.kr>

APPLICATION FOR KOREAN NUCLEAR POWER TECHNOLOGY TRAINING

(photo)

I . TITLE OF COURSE : APEC Training Course on Korean Nuclear Power Technology

II . PERSONAL DATA

Full Name: _____

First Middle Last (Surname)

Date of Birth			Gender	Marital Status	Nationality	Religion
Month	Day	Year				
			<input type="checkbox"/> M <input type="checkbox"/> F			
Passport Number			Airport of Departure*			

Home Address : _____

Tel No : _____ - _____ - _____ Fax No : _____ - _____ - _____
country code area code number country code area code number

Emergency Contact: Name: _____ Tel No: _____

III . EMPLOYMENT and EDUCATION

Present Position/Title: _____

Department or Division: _____

Name of Organization: _____

Address: _____

Tel No: _____ - _____ - _____ Fax No : _____ - _____ - _____
country code area code number country code area code number

E-mail Address: _____

Type of Organization: Governmental/ Public Private International Other

Period of Employment: from _____ to present

Describe your present duties:

* Write down the airport you will depart.(We need it for reservation)

Note: Please TYPE or PRINT clearly in CAPITAL LETTERS and prepare two copies

including the original. Please Send us original one. The words "N/A(Not Applicable)" should be used if necessary. Please do not leave any blank.

Career over past 5 years

Name of Organization	From	To	Position/ Responsibilities
	month/year	month/year	
	/	/	
	/	/	
	/	/	
	/	/	

Education and Training

Name of Institution	From	To	Field of Study and Degree
	month/year	month/year	
	/	/	
	/	/	
	/	/	
	/	/	

Former Training in Korea (if any):

Yes

No

Program: _____

Period: _____ - _____

month/year month/year

IV. LANGUAGE PROFICIENCY

English:

	Excellent	Good	Fair	Poor	Remarks
Listening					
Speaking					
Writing					
Reading					

Mother Tongue : _____

Other Languages : _____

In case you speak English as a foreign language, it is required for you to certify your English proficiency. Please indicate any of your English Proficiency Tests:

TOEIC: _____ TOEFL: _____ Others: _____

score score score

V . MEDICAL REPORT (to be completed by an authorized physician)

Age:	Sex:	Height:	cm	Weight:	kg
Blood Group: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> AB <input type="checkbox"/> O Other ()					

Blood Pressure:

1. If the applicant has a history of illness or disorders during the last 5 years, please describe the treatment and present status.

2. List any abnormalities indicated in the chest X-ray.

3. Is the applicant free of infectious diseases (AIDS, tuberculosis, trachoma, skin diseases, etc.)?

4. What opinions do you have about the overall health condition of the applicant to carry out an intensive training course away from his/her home?

Name of Clinic: _____

Address of Clinic: _____

Name of Physician: _____

VI. APPLICANT'S RESPONSIBILITIES

If accepted as a participant, I agree:

- 1) *to follow the training program to the best of my ability and abide by the rules of the training institution which I undertake training;*
- 2) *to refrain from engaging in political activities, or any form of employment for profit or gain;*
- 3) *to return to my home member economy upon completion of my training program and to resume work in my member economy;*
- 4) *not to extend the length of my training or my stay for personal conveniences;*
- 5) *not to bring any family members (dependents) to Korea;*
- 6) *to accept that the Korean Government is not liable for any damage or loss of my personal property;*
- 7) *to accept that the Korean Government will not assume any responsibility for illness, injury, or death arising from extra curricula activities, willful misconduct, or undisclosed pre-existing medical conditions;*
- 8) *to carry out such instructions and abide by such conditions as may be stipulated by the Korean Government in respect of my training program.*

I fully understand that my status as a participant may be terminated if I fail to make satisfactory progress, or for any other cause as determined by the Government of the Republic of Korea.

Applicant's Name: _____ **Signature:** _____

VII. OFFICIAL NOMINATION

The Government of _____ officially nominates
(Name of Member economy)

_____ for participation in _____
(Full Name of Applicant) (Name of Training Course)

as organized by the Korean Government, and certifies that:

- 1) *all information supplied by the applicant is complete and correct;*
- 2) *the applicant has an adequate knowledge in the training field;*
- 3) *the applicant has a sufficient proficiency of spoken and written English to enable him/her to follow the training course.*

Name of Organization: _____

Position/ Title: _____

Name of Authorized Official: _____

Date: _____ **Signature:** _____

※ **Submission**

Applicants should submit the application form to the KNPEI Coordinator by mail or e-mail as follows. The application form should be arrived at KNPEI by July 10, 2006.

- **Address : KHNP Nuclear Power Education Institute,
991, Sinam-Ri, Seosaeng-Myen, Ulju-Gun,
Ulsan, Republic of Korea, 689-882**
- **Tel : 82-51-726-6331**
- **Fax : 82-51-726-6353**
- **Department : Training Management Section**
- **Person in charge :**
 - Mr. Park, Jeong min (Manager, External Cooperation)**
rocket@khnp.co.kr
 - Mr. Kim, Ho joon (Assistant Manager, External Cooperation)**
jooni99@khnp.co.kr
- **Dead line : July 10, 2006**

