

Course Information

2018

Practical Training for PQMS (Petroleum Quality Management System)

May 10 (Thurs.)–31 (Thurs.), 2018
Seongnam, Republic of Korea



Korea International Cooperation Agency



Korea Petroleum Quality & Distribution Authority

CONTENTS

PART I. Course Overview	03
PART II. Course Module	06
PART III. Preparation for Country Report	08
PART IV. Preparation for Action Plan	10
PART V. Useful Information	12
Appendix 1. Introduction to KOICA	15
Appendix 2. KOICA Fellowship Program (CIAT)	16
Appendix 3. KOICA Fellowship Community	17
Appendix 4. Map and Venue Information	18
Appendix 5. Information on Direction to KOICA ICC	19

1. TITLE: Practical Training for PQMS (Petroleum Quality Management System)

2. Duration: May 10 (Thurs.)–31 (Thurs.), 2018

3. GOAL

To understand an advanced system of fuel quality management and learn Korea's efficient and systematic policies in order to support sustainable development and mitigate climate change

4. OBJECTIVES

- a) To understand an advanced petroleum quality management system in order to facilitate sustainable development;
- b) To learn Korea's efficient and systematic policies on fuel quality management;
- c) To share current issues and technologies in the petroleum energy sector;
- d) To strengthen the global network through the mutual technical cooperation in the field of petroleum and energy

5. NUMBER OF PARTICIPANTS: 18 participants from 9 countries;

Colombia (2), Costa Rica (2), Ghana (2), Mongolia (2), Peru (2), Tanzania (2), Timor-Leste (2), Uzbekistan (2), and Vietnam (2)

6. LANGUAGE OF INSTRUCTION: English

7. VENUE: Seongnam, Republic of Korea

8. TRAINING INSTITUTE: Korea Petroleum Quality & Distribution Authority
(K-Petro) (<http://www.kpetro.or.kr>)

9. ACCOMMODATIONS: KOICA ICC (International Cooperation Center)

10. QUALIFICATIONS OF APPLICANTS:

Mandatory	<ul style="list-style-type: none"> a) Be nominated by his/her government; b) Be a manager-level government employee in petroleum or energy divisions with at least 3 years of work experience, or be a manager-level employee in petroleum or energy-related public organizations with at least 3 years of work experience; c) Have a sufficient command of both spoken and written English; d) Be in good health both physically and mentally enough to take the course
Preferable	<ul style="list-style-type: none"> a) Have work experience in the fields of petroleum quality inspection or test & analysis; b) Working knowledge of computers and PowerPoint software

Country	Participating Organizations (Number of Participants)
Colombia	Ministry of Mines and Energy (MINMINAS) (1), Petroleum quality control unit in Refinery (Ecopetrol) (1)
Costa Rica	Autoridad Reguladora de Los Servicios Publicos (ARESEP) (1), Quality assurance team in RECOPE (1)
Ghana	Ministry of Petroleum (1), National Petroleum Authority (1)
Mongolia	Fuel policy department in Ministry of Mining & Heavy Industry (1), Department of Petroleum products or Central Laboratory in Mineral Resources & Petroleum Authority of Mongolia (1)
Peru	Ministry of Energy & Mines (1), OSINERGMIN (1)
Tanzania	Energy and Petroleum Affairs in Ministry of Energy and Minerals (1), Tanzania Petroleum Development Corporation (TPDC) (1)
Timor-Leste	Ministry of Petroleum & Mineral Resources (1), Petroleum products or downstream unit in Autoridade Nacional Petroleum (ANP) (1)

Country	Participating Organizations (Number of Participants)
Uzbekistan	Fuel policies or petroleum products department in Ministry of Energy, Petroleum or Mineral resources (1), Quality assurance in State-owned refineries (1)
Vietnam	Fuel policies or petroleum products department in Ministry of Science and Technology (MoST) or Industry and Trade (MoIT) (1) Inspection or test & analysis team in Directorate for standard, Metrology and Quality (STAMEQ) (1)

11. CLOSING DATE FOR APPLICATION: [April 2 \(Mon.\), 2018](#)

1. COURSE MODULE

Module	Main Lectures & Discussions	Study Visit
<p>Module 1. Fundamentals of Petroleum Products and Alternative Fuels</p>	<ul style="list-style-type: none"> ▷ Understanding of oil & gas upstream and current issues ▷ Status and outlook of the refining and petro-chemical industry ▷ Refining, processing and quality control of petroleum production ▷ Crude oil supply and storage system in Korea ▷ Natural gas supply and applications in Korea ▷ Pipeline system in Korea 	<ul style="list-style-type: none"> - Refineries - Bio-fuel producing Units - LNG Bunker and Industrial Complex - Crude oil storage bunker - Petroleum products pipeline company
<p>Module 2. Practical Training for Fuel Quality Management</p>	<p>[Lectures]</p> <ul style="list-style-type: none"> ▷ Petroleum quality/ distribution management system ▷ Reporting system of petroleum supply & demand and data applications ▷ Inspection and test & analysis system of petroleum products quality ▷ Advanced inspection equipment and mobile laboratory ▷ Research projects of the K-Petro R&D center ▷ Assessment of transportation fuel and regulation issues <p>[On-site exercises]</p> <ul style="list-style-type: none"> ▷ Petroleum inspection 1 (Quality/Quantity) ▷ Petroleum inspection 2 (LPG) ▷ Petroleum test & analysis ▷ Advanced inspection equipment and mobile labs ▷ Facilities in the K-Petro R&D center ▷ Assessment and analysis of transportation fuel 	<ul style="list-style-type: none"> - K-Petro H.Q. - Labs in branches - R&D center - Gas stations - LPG stations

Module	Main Lectures & Discussions	Study Visit
Module 3. Sustainable Management of Fuel and Energy	<ul style="list-style-type: none"> ▷ Global energy supply and outlook ▷ Supply and technology of LPG transportation fuel ▷ Development and supplies of renewable energies ▷ Alternative fuels supply status and technologies ▷ International regime for climate changes 	
Module 4. Petroleum Quality Management System Development	<p>[Workshop]</p> <ul style="list-style-type: none"> ▷ Country report presentation and discussions on the current issues ▷ Group-activities with Korean experts for solutions ▷ Short/mid-term action plan for the PQMS development for each country 	
Extracurricular Activities	<ul style="list-style-type: none"> ▷ Seoul City Tour (www.visitseoul.net) ▷ Korean Folk Village (www.koreafolk.co.kr) ▷ Samsung Innovation Museum (www.samsunginnovationmuseum.com) ▷ KIA Motor Company Gwangju plant (http://pr.kia.com/en/main.do) ▷ Yeosu Gwangyang Port Authority (www.ygpa.or.kr) 	

* Please note that the contents by module are subject to change due to the availability.

1. GUIDELINES FOR THE PREPARATION OF THE COUNTRY REPORT

A Country Report is an in-depth report that contains an analysis of the current development issues facing participants' countries in their fields of expertise. The KOICA's Fellowship Program includes a Country Report Presentation session where participants have an opportunity to share these issues with other participants and Korean experts. Throughout the course, participants will engage in debates and discussions to resolve them.

The Country Report is directly aligned with an Action Plan. Based on what participants have presented and discussed throughout the course, participants are requested to present an Action Plan towards the end of the program with an aim of developing practical measures to apply the knowledge, technology and experience learned to their workplace.

Program participants are requested to prepare and submit their country report individually or as a group to Korea Petroleum Quality & Distribution Authority (K-Petro) Program Manager via e-mail at future@kpetro.or.kr no later than [April 23 \(Mon.\) 2018.](#)

The Country Report should be typed in English and double-spaced in MS PowerPoint or Word format. The length of the report should not exceed twenty A4-sized pages.

All participants are supposed to give a 15-minute presentation on their country report individually or as a group. For more effective presentations, a projector or multimedia TV will be available for use (PowerPoint presentations are preferred).

2. TOPICS TO BE COVERED IN THE COUNTRY REPORT

On the second day of the program, all participants will make an individual or group presentation titled "Country Report" following the guidelines below;

Based on what you have presented and discussed throughout the courses, you are requested to present an action plan on the last day of the workshop.

A. Petroleum products and alternative fuels in your home country

- ▶ Quality specification of petroleum products and alternative fuels, and environment standard
- ▶ Distribution status of petroleum and alternative fuels in the market
(Flow of fuel from refining or import to consumers and number of each type of oil dealers in home country)
- ▶ Industrial facilities of petroleum products and alternative fuels
(Such as production/distribution infrastructures)
- ▶ Amount of production/ import/ consumption of petroleum products and alternative fuels (Supply-Demand Balance)

B. Quality management system of petroleum products and alternative fuels

- ▶ An authorized organization to manage or monitor petroleum and alternative fuels quality and its legal system including the law
- ▶ Quality inspection system of petro-fuel and alternative fuels, and violation penalties
- ▶ Cooperation cases among relevant organizations to manage or control petroleum and alternative fuel quality
- ▶ Tax structure imposed on commercial petroleum products
- ▶ Unusual cases (illegalities, violations) and issues in the fuel market

C. Current issues to solve in the fuel market

**** The country report should include a specific national energy master plan.***

1. GUIDELINES FOR BUILDING AN ACTION PLAN

An Action Plan is a specific plan created by participants on how they can apply their learning to their work performance. Action Planning is a process which will help them identify their objectives and explore what steps they need to take to achieve their goals. Establishing and implementing the Action Plan will contribute not only to their development professionally and individually but also to desirable organizational change.

A good Action Plan contains detailed information like what can be done, who will do it, and how and when. Please keep in mind that meeting the financing requirement including budget and timeline is crucial to make their action plan feasible and applicable to their workplaces.

All participants are requested to make a presentation on their Action Plan individually or as a group at the end of the course. They are encouraged to make the most of their weekends and free time to further their knowledge acquired from the course and better build their Action Plan.

Participants can receive feedback from Korean experts who will share their insight and help upgrade the Action Plan. Even after participants return to their home countries, KOICA will continue to follow up with participants on the progress being made through the implementation of their Action Plan. KOICA looks forward to all participants achieving their desired outcomes.

2. TOPICS TO BE COVERED IN THE ACTION PLAN

- A. Identify strengths and weaknesses each country has in the area of petroleum and alternative fuels, comparing with Korea's one, and find the current problems and needs
- B. Consider how it will affect the current problems and what advantages it will bring in the future
- C. Devise a strategy to solve problems
- D. Plan for the short/mid/long term to implement the strategy

- ▶ Consensus Building Stage (~2 months)
- ▶ Preparation Stage (for the first year)
- ▶ Improvement Stage (for 2~3 years)
- ▶ Settlement Stage (for 4~5 years)

3. STEPS FOR THE ACTION PLAN

[Step 1] Present a Country Report

- On the 1st day of the course, participants are to share their current situation and issues of their interests through Country Report presentation
- K-Petro will provide an orientation for an Action Plan

[Step 2] Lecture on Action Plan and Team-Building

- Lecture on Action Plan building process
- Team-Building according to the selection of Action Plan topic

[Step 3] Group Discussions/ workshops

- Brainstorming and group discussions for developing an Action Plan
- Consult with experts and receive feedbacks

[Step 4] Complete the Action Plan

- Finalize an Action Plan for the development of new policies/programs or upgrade their existing policies, systems and practices
- Presentation on the final Action Plan and getting feedback

1. TRAINING INSTITUTE

Korea Petroleum Quality & Distribution Authority (K-Petro)

(<http://www.kpetro.or.kr/>)

Mission

K-Petro is a governmental agency which belongs to the Ministry of International Trade and Industry. K-Petro carries out comprehensive monitoring of petroleum product quality and distribution in the domestic market as well as R&D of petroleum and alternative fuels, so that we ensure the reliable petroleum market and contribute to develop the petroleum industry and public welfare.

History

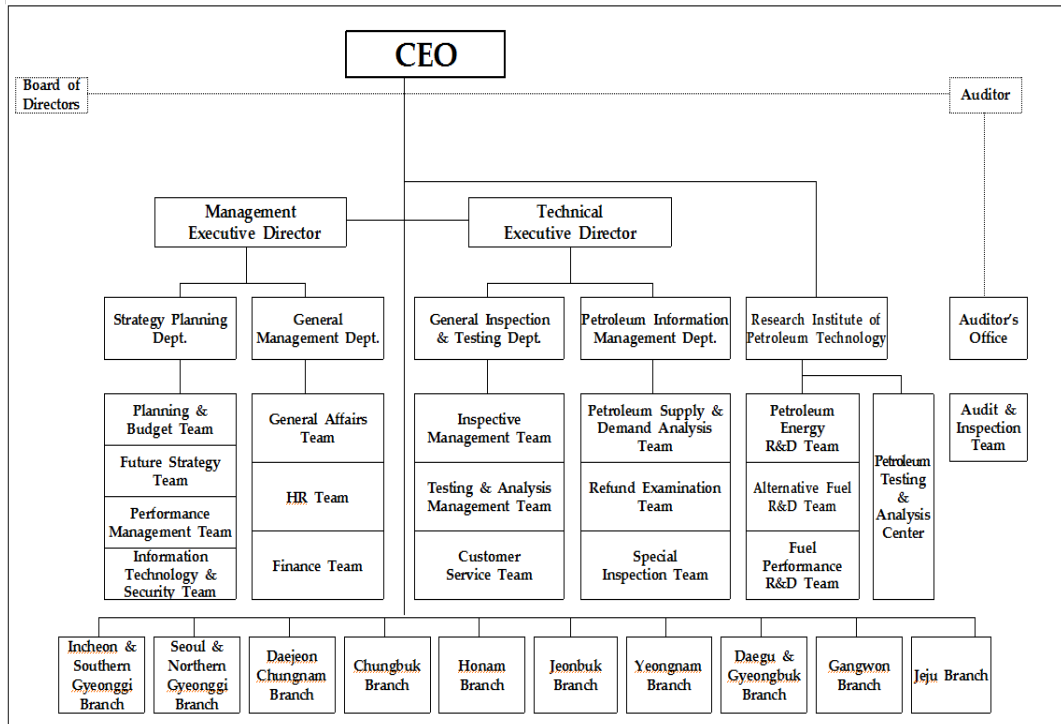
- 1983 Established Korea Institute of Petroleum Quality
- 1995 Acquired KOLAS International Accreditation as an authorized test agency
- 2002. Implementing LPG quality inspection
- 2005. Acquired KOLAS International Accreditation as an authorized inspection agency
- 2006. Established Petroleum R&D center, implementing alternative fuel assessment and automotive additives inspection
- 2008 Designated as a national standard development cooperative agency in petroleum and lubricants sector
- 2009. Authorized petroleum distribution inspection by Law and rename to K-Petro
- 2010. Designated as a tribology training
- 2014. Implementing the weekly report management of petroleum products S&D
- 2015. Designated as a management agency of Renewable Fuel Standard

Main Business

- ▶ Quality inspection and test/analysis of petroleum and alternative fuels, LPG as well
- ▶ Monitoring and instruction for the fair distribution of petroleum and alternative fuels
- ▶ Performance and assessment and R&D of petroleum and alternative fuels
- ▶ Analyzing and providing technical information in petroleum energy sector, and international networking
- ▶ Research and development of petroleum quality standard in Korea
- ▶ Other business deemed necessary by the Minister of MITI regarding the quality and distribution monitoring of petroleum and alternative fuels

Organization

K-Petro has the CEO and 2 executive directors in charge of management and technical relatively, and 350 regular employees working in 4 departments and an internal audit team in H.Q. at Seongnam, R&D center at O-chang and 10 branches over the country, and made \$48 million in revenue in 2017.



2. CONTACT INFORMATION

- **Korea International Cooperation Agency (KOICA)**

- CIAT Program HOT Line : +82-1899-4519
- Websites: <http://www.koica.go.kr>
<http://training.koica.go.kr>
<http://www.facebook.com/koica.icc>

- Program Manager: Ms. Jinmin LEE

- Phone: +82-31-740-0586

- Fax: +82-31-740-0595

- E-mail: jinmin.lee@koica.go.kr

- Program Coordinator: Ms. Chaeun JUNG

- Phone: +82-31-8017-2686

- Fax: +82-31-8017-2680

- E-mail: chaeun@global-inepa.org

- **Korea Petroleum Quality & Distribution Authority (K-Petro)**

- Program Manager: Ms. Heejoo KANG

- Phone: +82-31-789-0253

- Fax: +82-31-789-0359

- E-mail: future@kpetro.or.kr

- Websites: <http://www.kpetro.or.kr>

INTRODUCTION to KOICA



is a development cooperation agency of the Republic of Korea established in 1991. KOICA's mission is to reduce poverty, promote living standards and help realize sustainable, equitable and inclusive development in developing countries. To accomplish its mission, KOICA has been actively involved in enhancing developing countries' socio-economic infrastructure and institutions, providing people in the developing world with opportunities for better lives and improving their well-being.

KOICA Fellowship Program

Human Resource Development (HRD) has been one of the most important factors in Korea's escape from the vicious cycle of poverty and underdevelopment which had lasted for many decades. With scarce natural resources, HRD has played a vital role in the process of the economic development of Korea, enabling the nation to emerge as an exemplary case of rapid economic growth powered by HRD. From its own experience, Korea fully recognizes the significance of HRD. With its extensive experience and know-how in HRD, Korea has greatly contributed to the international community by sharing its unique development experience with many other countries around the world.

The KOICA Fellowship Program is one of KOICA's main projects to help partner countries secure human resources for their development. Its primary objective is to share important technical skills and knowledge with partner countries as well as to help them build capacity for sustainable socio-economic development. The program deals with a wide range of topics, from public administration, economic development and science and technology to agriculture, health, and more. In order to meet the changing needs of partner countries, KOICA always strives to renovate and improve its Fellowship Programs.

Appendix 2.

KOICA FELLOWSHIP PROGRAM (CIAT)

KOICA has launched a brand-new name for the KOICA Fellowship Program in order to more effectively raise awareness about the program among the public and its partner countries.



In English, CIAT stands for Capacity Improvement and Advancement for Tomorrow and in Korean it means “seed (씨앗)” with hopes to contributing in the capacity development of individual fellows as well as the organizations and countries to which they belong.

The CIAT Program provides participants with opportunities to gain first-hand knowledge of Korea’s development experience. The programs are designed to enable participants to apply what they have learned for the development of their home countries. Since 1991, KOICA has offered about 4,255 courses to more than 69,981 participants from 172 countries.

Appendix 3.

KOICA FELLOWSHIP COMMUNITY

The Fellows' Facebook is a place for fellows to ask questions and write comments on KOICA fellowship programs. So, if you have questions regarding our program, please feel free to join our Facebook community.



facebook.com/koica.icc

Appendix 4.

MAP AND VENUE INFORMATION



* Please note that the venues are subject to change due to the availability or schedule

Appendix 5.

INFORMATION ON DIRECTION TO KOICA ICC


- **Route:** Incheon International Airport Terminal → Korea City Airport, Logis & Terminal (CALT)
→ KOICA International Cooperation Center (ICC)
- **Arrival at Incheon International Airport** (<http://new.airport.kr>)

Flow

- ▶ Fill out Arrival Card (or Immigration Card), Customs Declaration Form, Quarantine Questionnaire (on board)
- ▶ Present the Quarantine Questionnaire to the quarantine counter (on the second floor)
- ▶ Present your Arrival Card, Passport and other necessary documents to an officer at the immigration desk
- ▶ Claim your baggage on the first floor
- ▶ Hand in Customs Declaration Form at Customs
- ▶ Pass through the Arrival Gate
- ▶ Go to the KOICA Counter



Incheon International Airport opens *Second Passenger Terminal 2 (T2)*

on January 18, 2018

The new terminal is serviced by Korean Air (), KLM Royal Dutch Airlines

(), Air France () and Delta Airlines ().

Accordingly, KOICA sets up an additional KOICA Counter in Terminal 2 as well. Please check its location in advance by referring to the followings information.

KOICA Counter at Incheon International Airport Terminal 1 (IIAT1)		
IIAT (T1)		<p>Location : Next to Gate 1 on the 1st floor (No.9-10)</p> <p>Contact Information Tel. : 82-32-743-5904 Contact : Ms. Jin-Young YOON</p>
KOICA Counter at Incheon International Airport Terminal 2 (IIAT2)		
IIAT (T2)		<p>Location : Tourist Information Center (Close to Arrival Gate B)</p> <p>Contact Information Tel. : 82-32-743-5904 Contact : Ms. Jin-Young YOON</p> <p><small>*Contact information at T2 is subject to change.</small></p>

- After passing through Customs, please go to the KOICA Counter. At the KOICA Counter, you can get detailed information about how to get to the KOICA International Cooperation Center (ICC) and purchase a limousine bus ticket for City Airport, Logis & Travel (CALT).
- All the KOICA staff at the Incheon Airport wear a name tag or has a sign for indication.
- Even though you cannot find any KOICA staff at the counter, you can purchase a limousine bus ticket at the bus ticket counter, and then go to the CALT Bus Stop (refer to the following information). And get on the bus #6103 and present your ticket to the bus driver. It will take about 70 to 90 minutes from IIAT 1 and about 90 to 110 minutes from IIAT 2 to CALT.

Incheon International Airport Terminal 1 (IIAT1)		Limousine Bus # 6103
IIAT 1	Bus ticket counter : 1 st floor / Bus Stop 7A	
Incheon International Airport Terminal 2 (IIAT2)		
IIAT 2	Bus ticket counter : Basement 1 / Bus Stop 22	

- **CALT (City Airport, Logis & Terminal)**

- When you arrive at CALT, you can meet another KOICA staff who will help you reach the KOICA ICC.
- If you paid for a limousine bus ticket out of your own pocket, KOICA will reimburse the bus fare when you arrive at the KOICA ICC. Also, please note that there can be illegal taxis at the airport. Even if they approach you to offer rides, do not take the illegal taxis and check to see if they are KOICA staff.

"Please remember to read the Fellows' Guidebook. It is available from the Korean Embassy or KOICA Overseas Office in your country and provides valuable information regarding KOICA programs, allowances, expenses, regulations, preparations for departure and etc."