No.34/68/2008-EO(F)
Government of India
Ministry of Personnel, P.G. and Pensions
Department of Personnel & Training

North Block, New Delhi-1
Dated the 11th September 2008

TRAINING CIRCULAR

Subject : An Area Focused Training Course in **Energy Conservation Technology and Machine Condition Diagnosis Techniques for Asian Countries** to be held in Japan from 12th January 2009 to 11th April 2009.

The undersigned is directed to state that the Japan International Cooperation Agency (JICA), under the Technical Cooperation Programme of the Government of Japan has invited applications for an Area Focused Training Course in Energy Conservation Technology and Machine Condition Diagnosis Techniques for Asian Countries to be held in Japan from 12th January 2009 to 11th April 2009. The details of the programme and the application form may be drawn from Ministry of Personnel, Public Grievances and Pensions website (**persmin.nic.in**).

2. The course is mainly designed for energy-intensive plant, private or public company and its objective is to enable engineers to execute energy conservation activities in energy-intensive plants by enhancing their ability in energy conservation technology and machine condition diagnosis techniques. The Course is divided into two sub-courses as under:

Sub Course A : Energy Conservation Technology for Energy Managers or Energy Auditors

Sub Course B : Energy Conservation Technology & Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers

The applicant for the "Course A" should be an engineer who works in operation and management section in public company, or technical administrator or technical official who works in governmental or related administrative organization related to energy conservation and who is in charge of audit diagnosis, management or education for energy conservation.

The applicant for the "Course B" should be a Plant engineer or maintenance engineer who works in a public company or in a governmental or related administrative organization and in charge of management or audit for energy conservation or who hopes to extend his or her field to energy conservation or who hopes to introduce machine condition diagnosis techniques in energy conservation or energy saving activity.

3. In respect of both the above courses, the candidates should be a university graduate, majoring in engineering (preferably mechanical or chemical) or equivalent; be under forty-five years of age; be proficient at written and spoken English; be in good health, both physically and mentally to undergo the training and not be serving in any form of military service.

4. The JICA covers the cost of a round-trip ticket between an international airport designated by JICA and Japan; travel insurance from arrival to departure in Japan; and includes allowances for accommodation, living expenses, outfit and shipping; expenses for study tours; free medical care for participants who become ill after arriving in Japan (costs related to pre-existing illness, pregnancy, or dental treatment are not included). The participants are not allowed to take any family member during the training course.

Contd/.....

5. It is requested that the nomination of the suitable candidates may please be forwarded to this Department in accordance with the eligibility criteria and the terms and conditions of the JICA Circular dated 9th September 2008. The Ministries/ State Governments may sponsor the names of only Government/ Public Sector Undertaking functionary.

6. The nomination details should be submitted in the JICA's prescribed proformas (A2A3 Forms), duly authenticated by the Department concerned alongwith the country report.

7 The applications should reach this Department through proper channel **not later than 3rd November 2008.** Nominations received after the prescribed date will not be considered. The circular inviting applications for training courses is available on this Department's website persmin.nic.in

(Trishaljit Sethi)
Director

1. Ministry of Power, Shram Shakti Bhavan, New Delhi.

2. Ministry of Science & Technology, Technology Bhavan, New Mehrauli Road, New Delhi.

3. Ministry of New & Renewable Energy, Block No. 14, CGO Complex, Lodhi Road, New Delhi.

4. All State Governments/ Union Territories.
[With the request to circulate it amongst the related organizations]

5 Director (Technical), NIC with the request to post the circular along with the JICA's circular and the enclosed application Proformas on the Department's website

For a better tomorrow for all.
Japan International Cooperation Agency
(Government of Japan)

No. 67/AF-CP/2008

09th September, 2008

Dear Mr. R.K. Kharb,

An Area Focussed Training Course in Energy Conservation Technology and Machine Condition Diagnosis Techniques for Asian Countries will be held in Japan from 12th January, 2009 to 11th April, 2009, under the Technical Cooperation Programme of the Government of Japan.

We are forwarding herewith six copies of the General Information Booklet on the above offer. It is requested that the following documents of the selected candidate may please be submitted to this office by **12th November 2008**:-

(1)The Application form,
(2)Job Report
(3)The Issue Analysis sheet

Further details are available in the General Information Booklet. It may be noted that the desired Job Report and Issue Analysis Sheet are essential for screening of applications.

It is further informed that 14 slots are available globally for the said course and it would be much appreciated if you could take further necessary action and submit the nomination(s) of suitable candidate(s) to this office by the designated date.

With regards,

Yours sincerely,

(Yumiko Asakuma)
Deputy Resident Representative

Encl: As stated above.
Mr. R.K. Kharb
Section Officer,
Department of Personnel and Training,
Ministry of Personnel,
Public Grievances and Pensions,
North Block , New Delhi.

Copy to:-
Ms. Arun Prabha, Under Secretary (PMU and Trg.), Department of Economic Affairs Ministry of Finance, North Block, New Delhi

JICA India Office
3A, (3rd Floor), Lotus Towers,
Community Centre, New Friends Colony,
New Delhi-110025. INDIA

TEL: +91-11-41672580~5
FAX: +91-11-41672586
URL: http://www.jica.go.jp/

TRAINING AND DIALOGUE PROGRAMS

GENERAL INFORMATION ON

AREA FORCUSED TRAINING COURSE IN Energy Conservation Technology and Machine Condition Diagnosis Techniques for Asian Countries

地域別研修「アジア地域　省エネルギー技術と設備診断」

JFY 2008

<Type: Leaders Training / 類型：中核人材育成促進型**>**

NO. J08-04140

From January 12, 2009 to April 11, 2009

This information pertains to one of the Training and Dialogue Programs of the Japan International Cooperation Agency (JICA), which shall be implemented as part of the Official Development Assistance of the Government of Japan based on bilateral agreement between both Governments.

I. Concept

Background

Economic development has led to a rapidly-increasing demand for energy in Asia, and at the same time the recent surge in oil prices is one of the major factors inhibiting the economic growth of the various countries. Promoting measures to conserve energy is now an urgent matter for Asian countries.

In contrast, Japan has a high level of expertise in this field due to the promotion of energy-saving measures after the oil crises. "Energy saving," which basically means promotion of the reasonable and efficient energy usage, aims to not only reduce the use of energy and improve consumption rates but also stimulate the global economy through the enhancement of energy efficiency in the economy as a whole.

We hope that the promotion of energy saving measures in Asia through the transfer of the Japanese technology introduced through this training course will help solve the common issues of improvement of the global environment such as global warming and environmental pollution and curbing of the rapid increase in energy demand that the international community must promote.

For what?

This program aims to enhance participants' ability in energy conservation technology and machine condition diagnosis techniques in order to execute energy conservation activities.

Special Remarks

This course has the following two sub-courses.
Sub-course A:
"Energy Conservation Technology for Energy Managers or Energy Auditors"
Sub-course B
"Energy Conservation Technology & Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers"
※Applicants are required to select one of the course above mentioned in the A2A3 form.

How?

This training course fosters participants' ability to develop measures for the promotion of energy saving and improves their energy-saving technology through lectures, practical training, and industrial visits that focus on Japan's national energy saving policies, energy saving technologies in each industrial sector, and energy management and diagnostics techniques.

II. Description

1. Title (J-No.):

Energy Conservation Technology and Machine Condition Diagnosis Techniques for Asian Countries (J08-04140)

【Sub-course A】

"Energy Conservation Technology for Energy Managers or Energy Auditors"

【Sub-course B】

"Energy Conservation Technology & Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers"

2. Period of program

January12, 2009 to April 11, 2009

3. Target Regions or Countries

China, India, Philippines, Sri Lanka, Thailand, Viet Nam,

4. Eligible/Target Organization

This program is mainly designed for energy-intensive plant, private or public company.

5. Total Number of Participants

14 participants

6. Language to Be Used in This Program

English

7. Program Objective

To enable engineers to execute energy conservation activities in energy-intensive plants by enhancing their ability in energy conservation technology and machine condition diagnosis techniques.

8. Overall Goal

To enable participants' organizations to execute energy conservation activities by enhancing their ability in energy conservation technology and machine condition diagnosis techniques.

9. Expected Module Output and Contents

【Sub-course A】

"Energy Conservation Technology for Energy Managers or Energy Auditors"

(1) Preliminary Phase in a participant's home country

Applying organizations are required to submit the Job Report and the Issue Analysis Sheet together with the application form for selection in Japan.

Expected Module Output	Activities
Job Report & IAS is formulated	Formulation and submission of the job report and the Issue Analysis Sheet(IAS) with the application form

(2) Core Phase in Japan 【Sub-course A】

(January 12, 2009 to April 11, 2009)

Participants dispatched by the organizations to attend the Program implemented in Japan.

Expected Module Output	Subjects/Agendas	Methodology
I. To master basic of energy conservation technology.	(1) Energy Law System in Japan (2) Introduction to Energy Conservation Technology (3) Global Environmental Issues and Cleaner Production (4) Introduction to Energy Management (5) Energy Conservation by Machine Condition Diagnosis Techniques (MCDT) (6) Environmental administrative outline of Kita- Kyushu City (7) Case Study : Energy Management in a Plant (8) Daily Activities at Production Site for Energy Saving (9)How to Write Energy Regular Report (10) How to Write Energy Audit / Diagnosis Report (11)Procedure for Preparing Energy Management Standard (12) Measures for Preventing Global Warming	Lecture
II. To master energy conservation technology in Thermal Utilities and propose a solution for the issue.	(1) Combustion Calculation Method (2) Basic of Boiler Engineering (3)Current Process in Energy Saving Technology for Reheating Furnace (4) Calculation of Boiler and Turbine Efficiency (5) Outline of Heat Transfer Engineering	Lecture Practice Field Study

	(6) Calculation Exercise of Heating Furnace (7) About the City Gas Business	
III. To master energy conservation technology in Rotating Equipments.	(1)Essentials of Fluid Mechanics (2) Energy Conservation Using Inverter (3) Energy Conservation Technology for Pumps	Lecture Practice Field Study
Ⅳ.To master energy conservation technology in other equipments.	(1)Energy Conservation in Air Conditioning System (2)CDT using Thermo-graphy (3)Energy Saving at Power Transmission and Distribution (4)Energy Saving Technology in Lighting (5) Basic of Steam System and Steam Trapping	Lecture Practice Field Study
Ⅴ. To make a practical Action Plan to apply energy conservation technology.	(1) NSC factory tour (2)Yaskawa Electric Co .Robot factory tour (3)Energy saving activities - overseas business department at Kyusyu Electric Power Co. (4) Energy saving activities at TOTO (5) Energy conservation activity with a little investment (6) Energy saving activities Kyusyu Electric Power Co. (7) TOTO No.1,2 factory tour (8) Energy saving activities at NISSAN Kyusyu Plant (9) Yaskawa Electric Co .Inverter factory tour (10) Genkai Nuclear Power Plant (11) Tenzan Hydrostatic Power Generation (12) Nagasaki Shipbuilding Yard (13) Hacchoubaru Geothermal Power Plant (14) Visit in environmental museum (Kita-Kyushu City) (15) Shimadzu Corporation visit (Measurement equipment) (16) Introduction of ESCO business in	Lecture Field Study

	Japan (17) Energy conservation case at Yamatake-Fujisawa techno center (18) Kyushu Electric Power Kannda- Power Plant (19) Aso -Cement factory tour (20) Visit in incinerator (Kita- Kyushu City) (21) Biomass power generation and photovoltaic generation equipment visit (22) Visit in eco-town(Car dismantlement, reproduction oil manufacturing, and PCB processing) (23) Job Report, Action Plan presentation	

【Sub-course B】

"Energy Conservation Technology & Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers"

(1)Preliminary Phase in a participant's home country

Applying organizations are required to submit the Job Report and the Issue Analysis Sheet together with the application form for selection in Japan.

Expected Module Output	Activities
Job Report & IAS is formulated	Formulation and submission of the job report and the Issue Analysis Sheet(IAS) with the application form

(2) Core Phase in Japan 【Sub-course B】

(January 12, 2009 to April 11, 2009)

Participants dispatched by the organizations to attend the Program implemented in Japan.

Expected Module Output	Subjects/Agendas	Methodology
I. To master basic of energy conservation technology.	(1) Outline of energy management (2) The Energy Law System in Japan (3) Example of Energy Management in plant (4) Daily activities on plant site for energy saving (5) Plant maintenance management (6) Outline of Energy Conservation Technology (7) New Technology for energy saving (8) The way of writing energy diagnosis report (9) Standard for Energy Management (10) Serious plant accident and the way to recovery (11) Global Environmental Issue and Cleaner Production	Lecture
II. To master outline of energy saving technology and propose a solution for the issue.	(1) Combustion Calculation (2) Basic of Heating Furnace, (3) Basic of Boiler & Turbine (4) Energy Saving Technology by Inverter (5) Energy Saving Technology for Pump (6) Basic of Energy Saving of Lighting in plant (7) Energy Saving of Air Conditioning System (8) Power Transmission & Distribution Practice(Calculation Exercises)	Lecture Practice Field Study

	(9) Boiler & Turbine (10) Heating Furnace (11) Inverter (12) Air Conditioning System (13) Power transmission & distribution Field Study (14) Practice on Boiler & Turbine site (15) Practice on Heating Furnace site (16) Practice on Fun & Blower (17) Measuring of Efficiency of Pump	
III. To master outline of Machine Condition Diagnosis Techniques (MCDT).	(1) Introduction to Machine Condition Diagnosis Techniques (MCDT) for Energy Conservation (2) Vibration Theory & Measurement (3) MCDT for Rotating Machine (4) MCDT for Shaft Bearing (5) Diagnosis Method of Gear apparatus (6) CDT of Electric Machinery (7) Tribology based Diagnosis Technology (8) CDT using Thermography (9) Basic of Steam & Steam Traping Field Study (10) Practice of MCDT for Rotating Machine (11) Practice of MCDT for Shaft Bearing (12) Practice of MCDT for Gear Apparatus (13) Steam Trap	Lecture
Ⅳ.To make a practical Action Plan to apply energy conservation technology and machine condition diagnosis techniques.	(1) Energy Conservation Activities in plant (2) Plant Visit (3) Study Trip (4)Evaluation Meeting (5)Action Plan	Lecture Practice Field Study

III. Conditions and Procedures for Application

1. Expectations for the Participating Organizations:

(1) This project is designed primarily for organizations that intend to address specific issues or problems identified in their operations. Applying organizations are expected to use the Program for those specific purposes.

(2) In this connection, applying organizations are expected to nominate the most qualified candidates to address the said issues or problems, carefully referring to the qualifications described in section III-2 below.

(3) Applying organizations are also expected to be prepared to make use of knowledge acquired by the nominees for the said purpose.

2. Nominee Qualifications:

Applying Organizations are expected to select nominees who meet the following qualifications.

(1) Essential Qualifications for

【Sub-course A】
"Energy Conservation Technology for Energy Managers or Energy Auditors"

1) Current Duties：

Engineer who works in operation and management section in private or public company's, or technical administrator or technical official who works in governmental or related administrative organization related to energy conservation, and who is (or will be in the near future) in charge of audit, diagnosis, management or education for energy conservation.

2) Educational Background: be university graduate, majored in engineering (preferably mechanical or chemical), or equivalent.

3) Language: be competent in spoken and written English which is equal to TOEFL PBT 500 (CBT 173) or above, or the Cambridge First Certificate (This program includes active participation in discussions and action plan development, thus requires high competence of English ability. Please attach an official certificate for English ability such as TOEFL, TOEIC etc, if possible)

4) Health: must be in good health, both physically and mentally, to participate in the Program in Japan. As the training includes much filed work (trips), that may give risks to pregnant body, pregnancy is regarded as a disqualifying condition for participation in this training program.

5) Age: be under 45 years of age.
6) Others: must not be serving any form of military service.

(2) Essential Qualifications for

【Sub-course B】
"Energy Conservation Technology & Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers"

1) Current Duties：
Plant engineer or maintenance engineer who works in private or public company , or in governmental or related administrative organization and in charge of （or will be in charge of ）management or audit for energy conservation, or who hopes to extent his or her field to energy conservation, or who hopes to introduce machine condition diagnosis techniques in energy conservation or energy saving activity.

2) Educational Background: be university graduate, majored in engineering (preferably mechanical or chemical), or equivalent.

3) Language: be competent in spoken and written English which is equal to TOEFL PBT 500 (CBT 173) or above, or the Cambridge First Certificate（This program includes active participation in discussions and action plan development, thus requires high competence of English ability. Please attach an official certificate for English ability such as TOEFL, TOEIC etc, if possible)

4) Health: must be in good health, both physically and mentally, to participate in the Program in Japan. As the training includes much filed work (trips), that may give risks to pregnant body, pregnancy is regarded as a disqualifying condition for participation in this training program.

5) Age: be under 45 years of age.
6) Others: must not be serving any form of military service.
Notice
The curriculum of sub-course B focuses on exercises and practices to acquire practical techniques. For further information, please refer to the curriculum attached.

3. Required Documents for Application

(1) Application Form: The application form is available at the respective country's JICA office or Embassy of Japan.

(2) Job Report: to be submitted with the application form. Job Report is used for screening of participants. It is a report to understand an outline of an organization that a nominee belongs to as well as his/her work experience in relevant fields.

(3) Issue Analysis Sheet (IAS): to be submitted with the application form. IAS is used for screening of participants. IAS is a tool to logically organize relationships between issues or problems which a nominee's organization facing with and the subjects to be covered in the training program in Japan. The sheet should be completed in accordance with descriptions of Annex**Ⅳ**. The nominee should submit his/her IAS with approval of his/her superior. The IAS without approval of a nominee's superior is not accepted.

(4) Nominee's English Score Sheet: to be submitted with the application form, if you have any official documentation of English ability (e.g. TOEFL, TOEIC, IELTS), please attach a copy to the application form.

4. Procedure for Application and Selection:

(1) Submitting the Application Documents:

Closing date for application to the JICA Center in JAPAN: November 12, 2008

Note: Please confirm the closing date set by the respective country's JICA office or Embassy of Japan of your country to meet the final date in Japan.

(2) Selection:

After receiving the documents through due administrative procedures in the respective government, the respective country's JICA office (or Japanese Embassy) shall conduct screenings, and send the documents to the JICA Center in charge in Japan, which organizes this project. Selection shall be made by the JICA Center in consultation with the organizations concerned in Japan based on submitted documents according to qualifications. The organization with intention to utilize the opportunity of this program will be highly valued in the selection.

(3) Notice of Acceptance

Notification of results shall be made by the respective country's JICA office (or Embassy of Japan) to the respective Government by **not later than December 12, 2008.**

5. Important Notice

This course is divided into two sub-courses.

Sub-course A:

"Energy Conservation Technology for Energy Managers or Energy Auditors"

Sub-course B:

”Energy Conservation Technology & Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers”

Applicants are required to select Sub-course A or B in the A2A3form.

6. Conditions for Attendance:

To observe the schedule of the program,

(1) not to change the program subjects or extend the period of stay in Japan,

(2) not to bring any members of their family,

(3) to return to their home countries at the end of the program in Japan according to the travel schedule designated by JICA,

(4) to refrain from engaging in political activities, or any form of employment for profit or gain,

(5) to observe the rules and regulations of their place of accommodation and not to change the accommodation designated by JICA, and

(6) to participate the whole program including a preparatory phase prior to the program in Japan.

IV. Administrative Arrangements

1. Organizer:

(1) Name: JICA Kyushu

(2) Contact: **Ms. Madoka SHINO**
Program Officer of Training Program Division
e-mail: kictp2-05@jica.go.jp

2. Implementing Partner:

(1) Name: Kitakyushu International Techno-cooperative Association (KITA)

(2) Course Leader:

【Sub-course A】Mr.Shoji YAZU

【Sub-course B】Mr.Takatsugu UEYAMA

(3) URL: http://www.kita.or.jp/english/e_index.html

(4) Remark: KITA has carried out JICA training programs since 1980, and over the period from FY1980 to 2007 has accepted a total of 3,815 JICA participants. The training programs cover environmental policies, promotion of a recycling-oriented society, production techniques and facility maintenance as well as programs related to the improvement of work training management ability, and it offers a total of 64 programs in FY2007.

3. Travel to Japan:

(1) Air Ticket: The cost of a round-trip ticket between an international airport designated by JICA and Japan will be borne by JICA.

(2) Travel Insurance: Term of Insurance: From arrival to departure in Japan. The traveling time outside Japan shall not be covered.

4. Accommodation in Japan:

JICA will arrange the following accommodations for the participants in Japan:

JICA Kyushu International Center (JICA KYUSHU)
Address: 2-1, Hirano 2-chome, Yahata Higashi-ku, Kitakyushu City,
Fukuoka Prefecture 805-8505, Japan
TEL: 81-93-671-6311 FAX: 81-93-663-1350
(where “81” is the country code for Japan, and “93” is the local area code)

If there is no vacancy at JICA KYUSHU, JICA will arrange alternative accommodations for the participants. Please refer to facility guide of KIC at its URL, http://www.jica.go.jp/english/contact/domestic.html

5. Expenses:

The following expenses will be provided for the participants by JICA:

(1) Allowances for accommodation, living expenses, outfit, and shipping

(2) Expenses for study tours (basically in the form of train tickets.

(3) Free medical care for participants who become ill after arriving in Japan (costs related to pre-existing illness, pregnancy, or dental treatment are not included)

(4) Expenses for program implementation, including materials
For more details, please see p. 9-16 of the brochure for participants titled "KENSHU-IN GUIDE BOOK," which will be given to the selected participants before (or at the time of) the pre-departure orientation.

6. Pre-departure Orientation:

A pre-departure orientation will be held at the respective country's JICA office (or Japanese Embassy), to provide participants with details on travel to Japan, conditions of the program, and other matters.

V. Other Information

1. Japanese Language Course

Intensive Japanese language course will be conducted prior to the technical training program

2. Reports Presentation

(1) Job Report & Issue Analysis Sheet (IAS)
As written in the previous page, each nominee is required to submit his/her own Job Report and IAS following the instruction in page 13. Accepted participant will have a presentation of his/her Job Report & IAS up to 10 minutes at the earlier stage of the training program in order to share knowledge and background with other participants as well as the course leader and lectures. Visual materials such as Power Point and pictures may be helpful for your presentation if you bring them with you. When you use Power Point, it is preferable to use letters more than 24 points and not to use pictures on the background.

(2) Action Plan
Accepted participants are required to formulate an action plan at the end of the training program in Japan to show your ideas and plans, which you carry out after return home, reflecting the knowledge and method acquired from the training. Each participant will have 10 minutes for presentation.

3. International Exchange Program with local communities

JICA encourages international exchange between JICA participants and local communities. Participants will have a chance to visit elementary schools or junior high schools. Therefore, participants are recommended to bring their national costumes or crafts and materials such as CDs and photographs that will make the exchange program more fruitful.

4. Remarks

JICA training is implemented for the purpose of development of human resources who will promote the advancement of the countries, but not for the enrichment of individuals or private companies. Matters of a trade secret and patent techniques will remain confidential and inaccessible during the training.

For Your Reference

JICA and Capacity Development

The key concept underpinning JICA operations since its establishment in 1974 has been the conviction that "capacity development" is central to the socioeconomic development of any country, regardless of the specific operational scheme one may be undertaking, i.e. expert assignments, development projects, development study projects, training programs, JOCV programs, etc.

Within this wide range of programs, Training Programs have long occupied an important place in JICA operations. Conducted in Japan, they provide partner countries with opportunities to acquire practical knowledge accumulated in Japanese society. Participants dispatched by partner countries might find useful knowledge and re-create their own knowledge for enhancement of their own capacity or that of the organization and society to which they belong.

About 460 pre-organized programs cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs and are being customized to address the specific needs of different target organizations, such as policy-making organizations, service provision organizations, as well as research and academic institutions. Some programs are organized to target a certain group of countries with similar developmental challenges.

Japanese Development Experience

Japan was the first non-Western country to successfully modernize its society and industrialize its economy. At the core of this process, which started more than 140 years ago, was the *"adopt and adapt"* concept by which a wide range of appropriate skills and knowledge have been imported from developed countries; these skills and knowledge have been adapted and/or improved using local skills, knowledge and initiatives. They finally became internalized in Japanese society to suit its local needs and conditions.

From engineering technology to production management methods, most of the know-how that has enabled Japan to become what it is today has emanated from this "*adoption and adaptation*" process, which, of course, has been accompanied by countless failures and errors behind the success stories. We presume that such experiences, both successful and unsuccessful, will be useful to our partners who are trying to address the challenges currently faced by developing countries.

However, it is rather challenging to share with our partners this whole body of Japan's developmental experience. This difficulty has to do, in part, with the challenge of explaining a body of "tacit knowledge," a type of knowledge that cannot fully be expressed in words or numbers. Adding to this difficulty are the social and cultural systems of Japan that vastly differ from those of other Western industrialized countries, and hence still remain unfamiliar to many partner countries. Simply stated, coming to Japan might be one way of overcoming such a cultural gap.

JICA, therefore, would like to invite as many leaders of partner countries as possible to come and visit us, to mingle with the Japanese people, and witness the advantages as well as the disadvantages of Japanese systems, so that integration of their findings might help them reach their developmental objectives.

Annex-Ⅰ【Sub course A】 "Energy Conservation Technology for Energy Managers or Energy Auditors "

Target Group

Engineer who works at a operation and management section in a plant in a private or public company , or technical administrator or technical official who works in a governmental or related administrative organization for energy conservation, and who is (or will be in the near future) in charge of audit, diagnosis, management or education for energy conservation.

Course Objectives

Participants will acquire the following knowledge and techniques regarding energy conservation technology to solve existing problems of their countries.

(1) Basic knowledge of energy conservation technology
(2) Energy conservation techniques in thermal utilities
(3) Energy conservation techniques in rotating equipments
(4) Energy conservation techniques in other equipments
(5) Making, proposal, and execution of **Action Plan** that uses energy conservation

Contents of Training Subject:

	348Hr
Lectures	192.6Hr
Practices and Exercises	58.8Hr
Field Study	96.6Hr

Introduction: **15Hr**

Course Orientation
Introduction and training by KITA
Evaluation Meeting, Others

Action Plan: **42Hr**

Job Report presentation
Action Plan making guidance and Presentation

Target 1. Basic of Energy Conservation Technology 54Hr	L	P	F
(1) Energy Law System in Japan	6.0		
(2) Introduction to Energy Conservation Technology	6.0		
(3) Global Environmental Issues and Cleaner Production	6.0		
(4) Introduction to Energy Management	6.0		
(5) Energy Conservation by Machine Condition Diagnosis Techniques (MCDT)	6.0		
(6) Environmental administrative outline of Kita- Kyushu City	3.0		
(7) Case Study: Energy Management in a Plant	3.0		
(8) Daily Activities at Production Site for Energy Saving	6.0		
(9)How to Write Energy Regular Report	3.0		
(10) How to Write Energy Audit / Diagnosis Report	3.0		
(11)Procedure for Preparing Energy Management Standard	6.0		
(12) Measures for Preventing Global Warming	3.0		

Target 2. Energy Conservation Techniques in Thermal Utilities 63Hr	L	P	F
(1) Combustion Calculation Method	3.0	3.0	
(2) Basic of Boiler Engineering	3.0		
(3)Current Process in Energy Saving Technologies for Reheating Furnace	3.0		
(4) Calculation of Boiler and Turbine Efficiency	6.0	6.0	3.0
(5) Outline of Heat Transfer Engineering	6.0		
(6) Calculation Exercise of Heating Furnace	3.0	6.0	3.0
(7) About the City Gas Business	6.0	3.0	3.0

Target 3. Energy Conservation Techniques in Rotating Equipments 36Hr	L	P	F
(1)Essentials of Fluid Mechanics	6.0		
(2) Energy Conservation Using Inverter	12.0	12.0	
(3) Energy Conservation Techniques for Pumps	3.0	1.8	3.0

Target 4. Energy Conservation Techniques in Other Equipments 42Hr	L	P	F
(1)Energy Conservation in Air Conditioning System	9.0		
(2)CDT using Thermo-graphy	3.0		
(3)Energy Saving at Power Transmission and Distribution	6.0		
(4)Energy Saving Technology in Lighting	6.0	6.0	
(5) Basic of Steam System and Steam Trapping	6.0	3.0	3.0

Target 5. Making, proposal, and execution of Action Plan that uses energy conservation technique 138Hr	L	P	F
(1) NSC factory tour			3.0
(2)Yaskawa Electric Co .Robot factory tour			3.0
(3)Energy saving activities - overseas business department at Kyusyu Electric Power Co.	3.0		
(4) Energy saving activities at TOTO	3.0		
(5) Energy conservation activity with a little investment	3.0		
(6) Energy saving activities Kyusyu Electric Power Co.	1.8		1.2
(7) TOTO No.1,2 factory tour	2.4		3.6
(8) Energy saving activities at NISSAN Kyusyu Plant	1.2		1.8
(9) Yaskawa Electric Co .Inverter factory tour			3.0
(10) Genkai Nuclear Power Plant			6.0
(11) Tenzan Hydrostatic Power Generation			6.0
(12) Nagasaki Shipbuilding Yard			6.0
(13) Hacchoubaru Geothermal Power Plant			6.0
(14) Visit in environmental museum (Kita- Kyushu City)			3.0
(15) Shimadzu Corporation visit (Measurement equipment)			6.0
(16) Introduction of ESCO business in Japan	3.0		
(17) Energy conservation case at Yamatake-Fujisawa techno center	1.2		1.8
(18) Kyushu Electric Power Kannda- Power Plant			3.0
(19) Aso -Cement factory tour			3.0
(20) Visit in incinerator (Kita- Kyushu City)			3.0
(21) Biomass power generation and photovoltaic generation equipment visit	3.0		6.0
(22) Visit in eco-town (Car dismantlement, reproduction oil manufacturing, and PCB processing)			6.0
(23) Job Report, Action Plan presentation	27.0	15.0	

Target Group

Plant engineer or maintenance engineer who works in private or public company , or in governmental or related administrative organization and in charge of（or will be in charge of）management or audit for energy conservation, or who hopes to extent his or her field to energy conservation, or who hopes to introduce machine condition diagnosis techniques in energy conservation or energy saving activity.

Introduction **9** Hr

Course Orientation
Job Report
Introductory education
etc.

Contents of Training Subject **348** Hr

Lectures	194 Hr
Practices	57 Hr
Field Study	97 Hr

Contents of (1),(2),(3)

(1) Energy Conservation Activities
Nippon Steel, TOTO, Nissan Kyushu, , MCDT System, Kyushu Power (oversea's business department, Kokura Power Station), Yamatake Fujisawa Techno-center

(2) Plant Visit, (3) Study Trip
Kitakyushu Liquefied Natural Gas, Eco-Town, Higashida Co-generation, Nippon Steel, District Heater & Cooling, Yaskawa Electric (Robot & Inverter), Envionment Museum, TOTO, Nissan Kyushu, Tokai Steel, Genkai Nuclear Power Plant, Yamatake, Aso Cement,

‖

194 48 97

Target 4 Action Plan 99 Hr

	L	P	F
(1) Energy Conservation Activities in plant	20		1
(2) Plant Visit			51
(3) Study Trip			
(4)Evaluation Meeting	3		
(5)Action Plan	3	21	

Course Objectives

Participants will acquire the following knowledge and techniques regarding Machine Diagnosis Techniques for Energy Conservation to solve existing problems of their countries.
(1) Basic knowledge of energy conservation technology and plant maintenance.
(2) Energy conservation techniques in various equipments
(3) Machine condition diagnosis techniques

Target 1. Basic of energy conservation technique 69 Hr

	L	P	F
(1) Outline of energy management	6		
(2) The Energy Law System in Japan	6		
(3) Exanple of Energy Management in plant	3		
(4) Daily activities on plant site for energy saving	6		
(5) Plant maintenance management	15		
(6) Outline of Energy Conservaiton Technique	6		
(7) Developing System of New Techniques for energy saving	6		
(8) The way of writing energy diagnosis report	6		
(9) Standard for Energy Management	6		
(10) Serious plant accident and the way to recovery	3		
(11) Global Environmental Issue and Cleaner Production	6		

Target 2. Outline of Energy Saving Technique 96 Hr

	L	P	F
Lectures			
(1) Combusion Calculation	6		
(2) Basic of Heating Furnace,	6		
(3)Basic of Boiler & Turbine	6		
(4) Energy Saving Technique by Inverter	9		
(5) Energy Saving Technique for Punps	6		
(6) Basic of Energy Saving of Lighting in plant	6		
(7) Energy Saving of Air Conditioning System	6		
(8) Power Transmission & Distribution	3		
Practice(Calculation Exacises)			
(9) Boiler & Turbine		3	
(10) Heating Furnace		9	
(11) Inverter		6	
(12) Air Conditioning System		3	
(13) Power transmission & distribution		3	
(14) Essentials of Fluid Mechanics		3	
Field Study			
(15) Practice on Boiler & Turbine site			3
(16) Practice on Heating Furnace site			6
(17) Practice on Fun & Blower			9
(18) Measuring of Efficiency of Punps			3

Target 3. Outline of Machine Condition Diognosis Technique (MCDT) 69 Hr

	L	P	F
Lectures			
(1) Energy Conservation by Machine Condition Diagnosis Techniques (MCDT)	6		
(2) Vibration Theory & Measurement	6		
(3) MCDT for Rotating Machine	6		
(4) MCDT for Shaft Bearing	6		
(5) Diagnosis Method of Gear apparatus	6		
(6) CDT of Electric Machinery	6		
(7) Tribology based Diagnosis Technology	6		
(8) CDT using Thermography	3		
(9) Basic of Steam & Steam Traping	6		
Field Study			
(10) Practice of MCDT for Rotating Machine			12
(11) Practice of MCDT for Shaft Bearing			6
(12) Practice of MCDT for Gear Apparatus			3
(13) Steam Trap			3

Annex-Ⅱ Schedule 【Sub course A】 “Energy Conservation Technology for Energy Managers or Energy Auditors “

2009		AM	PM
1/12	Mon.	Arrival at JICA Kyushu	
13-16	—	JICA Orientation Others	
1/17	Sat.		
1/18	Sun.		
1/19	Mon.	◆KITA Course Orientation	Job Report content confirmation (5)
1/20	Tue.	Job Report Presentation (5)	Briefing of course guide
1/21	Wed.	Energy Law System in Japan (1)	
1/22	Thu.	◆Introduction to Energy Conservation Technology (1)	
1/23	Fri.	◆Energy Conservation by Machine Condition Diagnosis Techniques (MCDT) (1)	
1/24	Sat.		
1/25	Sun.		
1/26	Mon.	◆Combustion Calculation Method (2)	
1/27	Tue.	◆Introduction to Energy Management (1)	
1/28	Wed.	Action Plan making briefing (5)	◆Basic of Boiler Engineering (2)
1/29	Thu.	◆Energy Conservation in Air Conditioning System (4)	
1/30	Fri.	◆Energy Conservation in Air Conditioning System (4)	◆Current Process in Energy Saving Technologies for Reheating Furnace (2)
1/31	Sat.		
2/1	Sun.		
2/2	Mon.	◆Global Environmental Issues and Cleaner Production (1)	
2/3	Tue.	Calculation of Boiler and Turbine Efficiency (2)	NSC factory tour (5)
2/4	Wed.	Calculation of Boiler and Turbine Efficiency (2)	Yaskawa Electric Co . Robot factory tour (5)
2/5	Thu.	Calculation of Boiler and Turbine	Environmental administrative outline of Kita- Kyushu City (1)
2/6	Fri.	Boiler and turbine factory practice (2)	Calculation of Boiler and Turbine Efficiency (2)
2/7	Sat.		
2/8	Sun.		
2/9	Mon.	Action Plan theme guidance (5)	◆Overseas energy conservation activity
2/10	Tue.	Action Plan theme guidance (5)	◆Case Study : Energy Management in a Plant (1)
2/11	Wed.	National Foundation Day	
2/12	Thu.	Energy saving activities at TOTO Co.(5)	Energy conservation activity with a little investment (5)
2/13	Fri.	Outline of Heat Transfer Engineering (2)	
2/14	Sat.		
2/15	Sun.		

2009		AM	PM
2/16	Mon.	Calculation Exercise of Heating Furnace (2)	CDT using Thermo-graphy (4)
2/17	Tue.	Calculation Exercise of Heating Furnace (2)	Energy saving activities Kyusyu Electric Power Co. (5)
2/18	Wed.	Heating Furnace factory tour (2)	Calculation Exercise of Heating Furnace (2)
2/19	Thu.	◆Energy Saving at Power Transmission and Distribution (4)	
2/20	Fri.	TOTO factory tour (5) (first factory)	TOTO factory tour (5) (second factory)
2/21	Sat.		
2/22	Sun.		
2/23	Mon.	Essentials of Fluid Mechanics (3)	
2/24	Tue.	Action Plan making discussion (5)	
2/25	Wed.	◆Daily Activities at Production Site for Energy Saving (1)	
2/26	Thu.	Energy Conservation Using Inverter (3)	
2/27	Fri.	Energy Conservation Using Inverter (3)	
2/28	Sat.		
3/1	Sun.		
3/2	Mon.	Energy Conservation Using Inverter (3)	
3/3	Tue.	Energy Conservation Using Inverter (3)	
3/4	Wed.	Energy saving activities at NISSAN Kyusyu Plant (5)	Yaskawa Electric Co Inverter factory tour (5)
3/5	Thu.	How to Write Energy Regular Report (1)	How to Write Energy Audit / Diagnosis Report (1)
3/6	Fri.	Procedure for Preparing Energy Management Standard (1)	
3/7	Sat.		
3/8	Sun.		
3/9	Mon.	(Kita-Kyushu→Saga)	Nuclear Power Plant (5)
3/10	Tue.	Hydrostatic Power Generation (5)	(Saga→Nagasaki)
3/11	Wed.	Nagasaki Shipbuilding Yard (5)	(Nagasaki→Kumamoto)
3/12	Thu.	(Kumamoto→Oita)	Geothermal Power Plant (5)
3/13	Fri.	Environmental museum (Kita- Kyushu City)	Action Plan making discussion (5)
3/14	Sat.		
3/15	Sun.		

2009		AM	PM
3/16	Mon.	About the City Gas Business (2)	
3/17	Tue.	About the City Gas Business (2)	
3/18	Wed.	About the City Gas Business (2)	
3/19	Thu.	Measures for Preventing Global Warming (1)	Action Plan making discussion (5)
3/20	Fri.	Vernal Equinox Day	
3/21	Sat.		
3/22	Sun.		
3/23	Mon.	(Kita-Kyushu→Kyoto)	Kyoto afternoon tour
3/24	Tue.	Energy Saving Technology in Lighting (4)	
3/25	Wed.	Energy Saving Technology in Lighting (4)	
3/26	Thu.	Shimadzu Corporation (5) (Measurement equipment)	(Kyoto→Tokyo)
3/27	Fri.	Introduction of ESCO business in Japan (5)	Energy conservation case at Yamatake-Fujisawa techno center(5)
3/28	Sat.		
3/29	Sun.	(Tokyo→Kakogawa)	
3/30	Mon.	Basic of Steam System and Steam Trapping (4)	
3/31	Tue.	Basic of Steam System and Steam Trapping (4)	
4/1	Wed.	Energy Conservation Techniques for Pumps (3) (Kakogawa→Kita-Kyushu)	
4/2	Thu.	Thermal power plant (5)	Aso -Cement factory tour (5)
4/3	Fri.	Visit in incinerator (5) (Kita- Kyushu City)	Photovoltaic generation equipment visit (5)
4/4	Sat.		
4/5	Sun.		
4/6	Mon.	Biomass power generation and photovoltaic generation equipment visit (5)	
4/7	Tue.	Reproduction oil manufacturing and PCB processing	Visit in eco-town (Car dismantlement)
4/8	Wed.	Action Plan making discussion (5)	Action Plan making discussion (5) (Check on Power Point)
4/9	Thu.	Evaluation Meeting	Action Plan presentation Preparation (5)
4/10	Fri.	◆Action Plan Presentation (5)	◆Action Plan Presentation (5) (Audit)
4/11	Sat.	Departure from Japan	
4/12	Sun.		

◆：A ,B course joint training
(1),(2),(3),(4),(5)：Each unit target
MCDT：Machine Condition Diagnosis Techniques CDT：Condition Diagnosis Techniques NSC：Nippon Steel Corporation,

Annex-Ⅱ Schedule 【Sub course B】“Energy Conservation Technology and Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers“

2009		AM	PM
1/12	Mon.	Arrival at JICA Kyushu	
13-16	—	JICA Orientation Others	
1/17	Sat.		
1/18	Sun.		
1/19	Mon.	◆KIT Course Orientation	Job Report content confirmation
1/20	Tue.	Energy Law System in Japan (1)	
1/21	Wed.	Job Report Presentation	Visit Environment Museum(4)
1/22	Thu.	◆Introduction to Energy Conservation Technology (1)	
1/23	Fri.	◆Global Environmental Issues and Cleaner Production (1)	
1/24	Sat.		
1/25	Sun.		
1/26	Mon.	◆Combustion Calculation Method (2)	
1/27	Tue.	◆Introduction to Energy Management (1)	
1/28	Wed.	Action Plan making briefing (4)	◆Basic of Boiler Engineering (2)
1/29	Thu.	◆Energy Conservation in Air Conditioning System (2)	
1/30	Fri.	◆Energy Conservation in Air Conditioning System (2)	◆Current Process in Energy Saving Technologies for Reheating Furnace (2)
1/31	Sat.		
2/1	Sun.		
2/2	Mon.	◆Energy Conservation by Machine Condition Diagnosis Techniques (MCDT) (3)	
2/3	Tue.	Vibration theory & Measurement(3)	
2/4	Wed.	MCDT for Rotating Machine(3)	
2/5	Thu.	Practice of MCDT for Rotating Machine(3)	
2/6	Fri.	Practice of MCDT for Rotating Machine(3)	
2/7	Sat.		
2/8	Sun.		
2/9	Mon.	Tobata Co-operative Thermal Power factory tour(4)	◆Overseas energy conservation Activity by Kyushu Power Co. (4)
2/10	Tue.	Human health care & plant maintenance management(1)	◆Case Study : Energy Management in a Plant (1)
2/11	Wed.	National Foundation Day	
2/12	Thu.	MCDT of Shaft Bearing(3)	
2/13	Fri.	Diagnosis Method of Gear Apparatus(3)	
2/14	Sat.		
2/15	Sun.		

2009		AM	PM
2/16	Mon.	Practice of Shaft Bearing MCDT(3)	
2/17	Tue.	Practice of Gear Apparatus MCDT(3)	Energy saving activities at TOTO Co.(4)
2/18	Wed.	Tribology based Diagnosis Technology(3)	
2/19	Thu.	◆Energy Saving at Power Transmission and Distribution (4)	
2/20	Fri.	Calculation of Boiler and Turbine Efficiency (2)	
2/21	Sat.		
2/22	Sun.		
2/23	Mon.	Calculation of Boiler and Turbine Efficiency(2) Energy Conservation Activities & Plant Visit at Kyushu Power Co.(2)	
2/24	Tue.	How to Write Energy Regular Report (1)	Kitakyushu LNG factory tour(4)
2/25	Wed.	◆Daily Activities at Production Site for Energy Saving (1)	
2/26	Thu.	Procedure for Preparing Energy Management Standard (1)	TOTO factory tour (4) (first factory)
2/27	Fri.	Procedure for Preparing Energy Management Standard (1)	Action Plan theme guidance (4)
2/28	Sat.		
3/1	Sun.		
3/2	Mon.	The History of Plant Maintenance Management(1)	
3/3	Tue.	How to Write Energy Audit / Diagnosis Report (1)	Visit Eco-Town(4) (Car dismantlement)
3/4	Wed.	Trend & Future Issues in Maintenance Management(1)	
3/5	Thu.	(Kitakyushu→Saga) Visit Genkai Nuclear Power Plant(4) (Saga→Nagasaki)	
3/6	Fri.	Visit Heating and Cooling Supply Co.(4)	
3/7	Sat.	(Nagasaki→Kitakyushu)	
3/8	Sun.		
3/9	Mon.	MCDT for Electric machinery(3)	
3/10	Tue.	Yaskawa Electric Co . Robot factory tour (4)	Example of MCDT System(4)
3/11	Wed.	NSC factory tour (4)	Basic of Heating Furnace(2)
3/12	Thu.	Heating Furnace factory tour (2)	Calculation Exercise of Heating Furnace (2)
3/13	Fri.	Activities of Energy Conservation for Heating Furnace (4)	Essentials of Fluid Mechanics (2)
3/14	Sat.		
3/15	Sun.		

2009		AM	PM
3/16	Mon.	Calculation Exercise of Heating Furnace (2)	Energy saving activities at NISSAN Kyusyu Plant (4)
3/17	Tue.	Calculation Exercise of Heating Furnace (2)	MCDT using Thermo-graphy(3)
3/18	Wed.	Basic of Inverter (2)	Practice of operating Inverter (2)
3/19	Thu.	Energy Conservation by Inverter (Lecture) (2)	
3/20	Fri.		
3/21	Sat.		
3/22	Sun.		
3/23	Mon.	Grave Facility Accident Prevention and Recovery (1)	Visit incinerator (5) (Kita- Kyushu City)
3/24	Tue.	Aso -Cement factory tour (4)	Action Plan making discussion (4)
3/25	Wed.	NSC Energy Conservation Activities (4)	Action Plan making discussion (4)
3/26	Thu.	Energy Conservation by Inverter (Exercise) (2)	Energy Conservation by Inverter (Practice) (2)
3/27	Fri.	Energy Conservation by Inverter (Exercise) (2)	Energy Conservation by Inverter (Practice) (2)
3/28	Sat.		
3/29	Sun.	(Tokyo→Kyoto)	Kyoto afternoon Tour
3/30	Mon.	Energy Saving Technology in Lighting (2)	
3/31	Tue.	Exercise of Energy Saving Technology in Lighting (2)	(kyoto→Kakogawa)
4/1	Wed.	Basic of Steam System and Steam Trapping (3)	
4/2	Thu.	Basic of Steam System and Steam Trapping (3)	Energy Conservation Techniques for Pumps (2)
4/3	Fri.	Energy Conservation Techniques for Pumps (2)	
4/4	Sat.	(Kakogawa→Yokohama)	
4/5	Sun.		
4/6	Mon.	Developing System of New Techniques for energy saving (1)	
4/7	Tue.	Energy conservation case at Yamatake-Fujisawa techno center (4) (Tokyo→Kitakyushu)	
4/8	Wed.	Action Plan Presetation discussion (4)	Yaskawa Electric Co Inverter factory tour (4)
4/9	Thu.	Evaluation Meeting (4)	Action Plan Presentation Preparation (4)
4/10	Fri.	◆Action Plan Presentation (4) (Audit)	◆Action Plan Presentation (4)
4/11	Sat.	Departure from Japan	
4/12	Sun.		

◆：A ,B course joint training
(1),(2),(3),(4))：Each unit target
MCDT：Machine Condition Diagnosis Techniques NSC：Nippon Steel Corporation,

AnnexⅢ

【Sub course A】

"Energy Conservation Technology for Energy Managers or Energy Auditors "（JFY2008）

Job Report

Name:
Country:
Organization and present post:
E-mail:

Remarks 1: The Report should be typewritten in English (12-point font, A4 size paper), and total pages of the report should be limited to 3 pages (not including organization chart).

Remarks 2: Each participant is required to have presentation in 10 minutes based on this Job Report and IAS at the early stage of the training for the purpose of making the training more effective and fruitful by comprehending the situations and problems of the participants each other.

Remarks3: Please itemize your answer and make them specific.

1. Organization and main tasks (up to 1 page)

(1) Main tasks of the organization

(Please include annual turnover or product amount, name of products and number of employees.)

(2) Organization chart:

Please draw a chart of your organization including the department (section) names with the number of staffs in it and mark where you are positioned.

(The chart should be attached and not be counted in this page limit.)

Please describe a duty of each department (section) briefly.

(3) Brief description of your assignments.

(4) Problems in your job

2. Expectations for the training course (up to 1 page)

(1) Your purpose of participating in the course

(2) Subjects of the course which you are interested in the most

(3) How do you expect to apply skills and knowledge for your problem solving according to listed items in curriculum after you return to your home country?

(4) Other matters which you are expecting to obtain from the course

3. Have you ever learned the following subjects in your work? We want to know your work experience. Please check either “Yes” or “No”.
If your answer "Yes", please fill in "Years" column as to the length of your application on the respective items.

	Yes	No	Years
1)Heat Transfer			
2)Combustion Calculation			
3)Heat Engine or Heat furnace			
4)Hydromechanics			
5)Fun, blower or pump			
6)Inverter system			
7)Steam system			
8)Lighting in plant			
9)Air Conditioning system			
10)Power transmission &distribution			
11)Others*			

*Pease specify subject associated with energy saving technique, not covered by any of the items “1” to “11

AnnexⅢ

【Sub course B】 "Energy Conservation Technology and Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers"（JFY2008）

Job Report

Name:
Country:
Organization and present post:
E-mail:

Remarks 1: The Report should be typewritten in English (12-point font, A4 size paper), and total pages of the report should be limited to 3 pages (not including organization chart).

Remarks 2: Each participant is required to have presentation in 10 minutes based on this Job Report and IAS at the early stage of the training for the purpose of making the training more effective and fruitful by comprehending the situations and problems of the participants each other.

Remarks3: Please itemize your answer and make them specific.

1. Organization and main tasks (up to 1 page)

(1) Main tasks of the organization

(2) Organization chart:

Please draw a chart of your organization including the department (section) names with the number of staffs in it and mark where you are positioned.

(The chart should be attached and not be counted in this page limit.)

Please describe a duty of each department (section) briefly.

(3) Brief description of your assignments.

2. Expectations for the training course (up to 1 page)

(1) Your purpose of participating in the course

(2) Subjects of the course which you are interested in the most

(3) How do you expect to apply skills and knowledge for your problem solving according to listed items in curriculum (in section **II**, page 2) after you return to your home country?

(4) Other matters which you are expecting to obtain from the course

3. Have you ever learned the following subjects in your work? We want to know your work experience. Please check either "Yes" or "No".

If your answer "Yes", please fill in "Years" column as to the length of your application on the respective items.

	Yes	No	Years
1)Energy Management			
2)Heat engine or heat furnace			
3)Fun, blower or pump			
4)Inverter system			
5)Lighting in plant			
6)Power transmission＆distribution			
7)Air Conditioning System			
8)Machine condition diagnosis technique(MCDT)by analysis of vibration			
9)MCDT of Electric Machinery			
10)Thermograph			
11) Steam System			
12) Other			

Under "12) Other", please specify subject associated with energy saving technique, not covered by any of the items "1" to "11

1. What is IAS?

(1) IAS is a tool to logically organize relationships between issues or problems that the nominee's organization is facing and the subjects to be covered in the training program in Japan.

(2) IAS will help the nominee to clarify his/her issues or problems to be covered in each expected module output and to formulate solutions to them.

(3) The sheet is to be utilized as a logical process control sheet to draw up improvement plans for the issues by filling out the sheet in phases from prior to the nominee's arrival in Japan through to the end of the training.

(4) In addition, it is used for the course leader and lecturers to understand the issues that each participant is facing, and provide him/her with technical advice, useful references and solutions through the training program in Japan

2. How to fill out IAS?

(1) Please refer to Item 2 "Purpose of Application" of Part A in the Application Form, and describe the issues or problems that your department is facing in column "A" and "B" in each "Expected Module Output" of the IAS. You will formulate practical solutions to these issues/problems through the training program in Japan.

(2) Please leave column C and D blank. These columns are filled out during the training program in Japan.

(3) If your organization has many issues/problems to be solved, you can submit two or more sheets.

4. Remarks

(1) IAS without approval of a nominee's superior is not accepted.

(2) In the case that you change the theme of the problems (Action Plan) after coming to Japan, please get approval of the superior.

(3) IAS is a key material for the screening of the nominees. The Japan side puts emphasize on its contents and then proceeds with the screening.

(4) Accepted participants will make a presentation on the IAS and the job report at the beginning of the training program in Japan

(5) Accepted participants are requested to bring this IAS in electronic file when coming to Japan.

(6) Please submit IAS sheet with application form, and bring IAS sheet to Japan by Electronic file.

AnnexⅣ Issue Analysis Sheet (IAS) **【Sub course A】 "Energy Conservation Technology for Energy Managers or Energy Auditors**

1. Applicants are required to fill in the required blanks on the attached IAS and submit it with a Nomination Form and Job Report by due process.
2. This IAS will be necessary for Job Report Presentation at the beginning of the training course and Action Plan Presentation at the end of the course. It will be used at Issue Analysis Workshop (IAW), a class of the course too.
3. Please get prior approval from your supervisor for what you write on the IAS. In the case that you change the theme of the problems (Action Plan) after coming to Japan, please get approval of the superior.
4. Participants accepted to the Course are requested to bring this IAS in electronic file when coming to Japan.

<Country Name > <Participant's Name> < Organization and Present Post>

Course Objective	Relevant Subjects	A：Problems you are facing in your job or in your organization	B：Suspected Causes of the problem	C：Measures taken in Japan	D：Proposal to your organization
1. To learn Basic of Energy Conservation Technology	・Energy law system in Japan ・Global Environmental Issues and Cleaner Production ・Introduction to Energy Conservation ・Measures for Preventing Global Warming	Productivity deteriorates and a large loss occurred due to the increase of energy consumption and decrease of the rate of operation.	・Lack of engineer's knowledge ・The operation management record is imperfect. ・Managerial standards are not maintained. ・The diagnosis technology is insufficient.		
2. To learn Energy Conservation Technology in Thermal Utilities.	・Combustion Calculation Method /Energy conservation Techniques of Boiler, Turbine, and heating furnace. ・Outline of heat transfer engineering ・About the City gas business		・The number of Specialist and engineer is not enough ・The knowledge of the combustion technology is low. ・The system of the management check is not maintained ・Lack of measurement equipment		

3. To learn Energy Conservation Technology in Rotating Equipments	・ Essentials of Fluid Mechanics ・ Energy Conservation Using Inverter ・ Energy Conservation Techniques for Pumps		・ There is no teaching material of the personnel training. ・ No maintenance of The record that evaluates performance.		
4. To learn .Energy technology, Energy conservation technology, and Machine condition diagnosis techniques of electricity, air and steam.	・Energy Conservation in Air Conditioning System ・Energy Saving Technology in Lighting ・Basic of Steam System and Steam Trapping ・ CDT using Thermo-graphy		・ There's no evaluation system for energy conservation technology ・ The recognition of the saving is low.		
5. To recognize the new technology and current state of equipment through factory tour etc.	・To understand the situation of equipment in various industries of Japan, the energy management, and energy conservations.		・ The recognition of importance of energy conservation is low. ・ There are no selection technology for equipment.		

＊ For these columns, please explain with simple sentences rather than by making notes.
＊ Please write multiple answers if there is more than one answer.

To be filled out through training program in Japan.

Name of Superior Officer

Designation / Position of superior officer

Signature

AnnexⅣ Issue Analysis Sheet (IAS) **【Sub course A】 "Energy Conservation Technology for Energy Managers or Energy Auditors**

1. Applicants are required to fill in the required blanks on the attached IAS and submit it with a Nomination Form and Job Report by due process.
2. This IAS will be necessary for Job Report Presentation at the beginning of the training course and Action Plan Presentation at the end of the course. It will be used at Issue Analysis Workshop (IAW), a class of the course too.
3. Please get prior approval from your supervisor for what you write on the IAS.
4. Participants accepted to the Course are requested to bring this IAS in electronic file when coming to Japan.

<Country Name > <Participant's Name> < Organization and Present Post>

Course Objective	Relevant Subjects	A : Problems you are facing in your job or in your organization	B : Suspected Causes of the problem	C : Measures taken in Japan	D : Proposal to your organization
1. To learn Basic of Energy Conservation Technology	・Energy law system in Japan ・Global Environmental Issues and Cleaner Production ・Introduction to Energy Conservation ・Measures for Preventing Global Warming				
2. To learn Energy Conservation Technology in Thermal Utilities.	・Combustion Calculation Method /Energy conservation Techniques of Boiler, Turbine, and heating furnace. ・Outline of heat transfer engineering ・About the City gas business				

3. To learn Energy Conservation Techniology in Rotating Equipments	・ Essentials of Fluid Mechanics ・ Energy Conservation Using Inverter ・ Energy Conservation Techniques for Pumps				
4. To learn .Energy technology, Energy Conservation Technology, and Machine condition diagnosis techniques of electricity, air and steam.	・Energy Conservation in Air Conditioning System ・Energy Saving Technology in Lighting ・Basic of Steam System and Steam Trapping ・ CDT using Thermo-graphy				
5. To recognize the new technology and current state of equipment through Visiting factory tetc.	・To understand the situation of equipment in various industries of Japan, the energy management, and energy conservations.				

Name of Superior Officer

Designation / Position of superior officer

Signature

AnnexⅣ Issue Analysis Sheet (IAS)

【Sub course B】 "Energy Conservation Technology and Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers"

1. Applicants are required to fill in the required blanks on the attached IAS and submit it with a Nomination Form and Job Report by due process.
2. This IAS will be necessary for Job Report Presentation at the beginning of the training course and Action Plan Presentation at the end of the course. It will be used at Issue Analysis Workshop (IAW), a class of the course too.
3. Please get prior approval from your supervisor for what you write on the IAS.
4. Participants accepted to the Course are requested to bring this IAS in electronic file when coming to Japan.

<Country Name>_____ <Participant's Name>_____< Organization and present post >_____

Issue Analysis Sheet [explanatory notes]

Course Objectives	Relevant Subjects	A: Problems you are facing in your job or in your organization	B: Suspected Causes of the problems	C: Measures taken in Japan	D: Proposal to your country or company
Basic knowledge of energy conservation technology and plant maintenance	・ **Law system of energy** ・ **Energy management** ・ **Maintenance management**	1. It is not enough for our organization to grapple with energy conservation activities. 2. It is luck of ability for me & our organization to audit energy. 3. ・・・	1-1 1-2 ・ 1-n 2-1 ・・・・・・・		
Energy conservation techniques in various equipments	・ **Convenient Technology for energy conservation** (Inverter, Steam trapping, Lighting, Electric Power Plant, ETC)				
Machine condition diagnosis techniques	・ **Condition Diagnosis Technique by measuring vibration** ・ **Condition Diagnosis by Tribolpgy & Thermography**				

＊ For these columns, please explain with simple sentences rather than by making notes.

＊ Please write multiple answers if there is more than one answer.

To be filled out through training program in Japan.

Name of Superior Officer _____

Designation/Position of superior officer_____

Signature_____

AnnexⅣ Issue Analysis Sheet (IAS)

【Sub course B】 "Energy Conservation Technology and Machine Conditiion Diagnosis Techniques for Plant Engineers or Maintenance Engineers"

1. Applicants are required to fill in the required blanks on the attached IAS and submit it with a Nomination Form and Job Report by due process.
2. This IAS will be necessary for Job Report Presentation at the beginning of the training course and Action Plan Presentation at the end of the course. It will be used at Issue Analysis Workshop (IAW), a class of the course too.
3. Please get prior approval from your supervisor for what you write on the IAS.
4. Participants accepted to the Course are requested to bring this IAS in electronic file when coming to Japan.

<Country Name>_____ <Participant's Name>_____< Organization and present post >_____

Issue Analysis Sheet

Course Objectives	Relevant Subjects	A: Problems you are facing in your job or in your organization	B: Suspected Causes of the problems	C: Measures taken in Japan	D: Proposal to your country or company
Basic knowledge of energy conservation technology and plant maintenance					
Energy conservation techniques in various equipments					
Machine condition diagnosis techniques					

Name of Superior Officer _____

Designation/Position of superior officer_____

Signature_____

2

CORRESPONDENCE

For enquiries and further information, please contact the JICA office or the Embassy of Japan. Further, address correspondence to:

JICA Kyushu International Center (JICA KYUSHU)
Address: 2-1, Hirano 2-chome, Yahata Higashi-ku, Kitakyushu City,
Fukuoka Prefecture 805-8505, Japan
TEL: +81-93-671-6311 FAX: +81-93-663-1350

AnnexⅢ

【Sub course A】

"Energy Conservation Technology for Energy Managers or Energy Auditors "（JFY2008）

Job Report

Name:
Country:
Organization and present post:
E-mail:

Remarks 1: The Report should be typewritten in English (12-point font, A4 size paper), and total pages of the report should be limited to 3 pages (not including organization chart).

Remarks 2: Each participant is required to have presentation in 10 minutes based on this Job Report and IAS at the early stage of the training for the purpose of making the training more effective and fruitful by comprehending the situations and problems of the participants each other.

Remarks3: Please itemize your answer and make them specific.

1. Organization and main tasks (up to 1 page)

(1) Main tasks of the organization

(Please include annual turnover or product amount, name of products and number of employees.)

(2) Organization chart:

Please draw a chart of your organization including the department (section) names with the number of staffs in it and mark where you are positioned.

(The chart should be attached and not be counted in this page limit.)

Please describe a duty of each department (section) briefly.

(3) Brief description of your assignments.

(4) Problems in your job

2. Expectations for the training course (up to 1 page)

(1) Your purpose of participating in the course

(2) Subjects of the course which you are interested in the most

(3) How do you expect to apply skills and knowledge for your problem solving according to listed items in curriculum after you return to your home country?

(4) Other matters which you are expecting to obtain from the course

3. Have you ever learned the following subjects in your work? We want to know your work experience. Please check either “Yes” or “No”.
If your answer "Yes", please fill in "Years" column as to the length of your application on the respective items.

	Yes	No	Years
1)Heat Transfer			
2)Combustion Calculation			
3)Heat Engine or Heat furnace			
4)Hydromechanics			
5)Fun, blower or pump			
6)Inverter system			
7)Steam system			
8)Lighting in plant			
9)Air Conditioning system			
10)Power transmission &distribution			
11)Others*			

*Pease specify subject associated with energy saving technique, not covered by any of the items “1” to “11

AnnexⅢ

【Sub course B】 "Energy Conservation Technology and Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers"（JFY2008）

Job Report

Name:
Country:
Organization and present post:
E-mail:

Remarks 1: The Report should be typewritten in English (12-point font, A4 size paper), and total pages of the report should be limited to 3 pages (not including organization chart).

Remarks 2: Each participant is required to have presentation in 10 minutes based on this Job Report and IAS at the early stage of the training for the purpose of making the training more effective and fruitful by comprehending the situations and problems of the participants each other.

Remarks3: Please itemize your answer and make them specific.

1. Organization and main tasks (up to 1 page)

(1) Main tasks of the organization

(2) Organization chart:

Please draw a chart of your organization including the department (section) names with the number of staffs in it and mark where you are positioned.

(The chart should be attached and not be counted in this page limit.)

Please describe a duty of each department (section) briefly.

(3) Brief description of your assignments.

2. Expectations for the training course (up to 1 page)

(1) Your purpose of participating in the course

(2) Subjects of the course which you are interested in the most

(3) How do you expect to apply skills and knowledge for your problem solving according to listed items in curriculum (in section Ⅱ, page 2) after you return to your home country?

(4) Other matters which you are expecting to obtain from the course

3. Have you ever learned the following subjects in your work? We want to know your work experience. Please check either “Yes” or “No”.

If your answer "Yes", please fill in "Years" column as to the length of your application on the respective items.

	Yes	No	Years
1)Energy Management			
2)Heat engine or heat furnace			
3)Fun, blower or pump			
4)Inverter system			
5)Lighting in plant			
6)Power transmission&distribution			
7)Air Conditioning System			
8)Machine condition diagnosis technique(MCDT)by analysis of vibration			
9)MCDT of Electric Machinery			
10)Thermograph			
11) Steam System			
12) Other			

Under “12) Other”, please specify subject associated with energy saving technique, not covered by any of the items “1” to “11

AnnexⅣ Issue Analysis Sheet (IAS) **【Sub course A】 "Energy Conservation Technology for Energy Managers or Energy Auditors**

1. Applicants are required to fill in the required blanks on the attached IAS and submit it with a Nomination Form and Job Report by due process.
2. This IAS will be necessary for Job Report Presentation at the beginning of the training course and Action Plan Presentation at the end of the course. It will be used at Issue Analysis Workshop (IAW), a class of the course too.
3. Please get prior approval from your supervisor for what you write on the IAS. In the case that you change the theme of the problems (Action Plan) after coming to Japan, please get approval of the superior.
4. Participants accepted to the Course are requested to bring this IAS in electronic file when coming to Japan.

<Country Name > <Participant's Name> < Organization and Present Post>

Course Objective	Relevant Subjects	A : Problems you are facing in your job or in your organization	B : Suspected Causes of the problem	C : Measures taken in Japan	D : Proposal to your organization
1. To learn Basic of Energy Conservation Technology	・Energy law system in Japan ・Global Environmental Issues and Cleaner Production ・Introduction to Energy Conservation ・Measures for Preventing Global Warming	Productivity deteriorates and a large loss occurred due to the increase of energy consumption and decrease of the rate of operation.	・Lack of engineer's knowledge ・The operation management record is imperfect. ・Managerial standards are not maintained. ・The diagnosis technology is insufficient.		
2. To learn Energy Conservation Technology in Thermal Utilities.	・Combustion Calculation Method /Energy conservation Techniques of Boiler, Turbine, and heating furnace. ・Outline of heat transfer engineering ・About the City gas business		・The number of Specialist and engineer is not enough ・The knowledge of the combustion technology is low. ・The system of the management check is not maintained ・Lack of measurement equipment		

3. To learn Energy Conservation Technology in Rotating Equipments	・ Essentials of Fluid Mechanics ・ Energy Conservation Using Inverter ・ Energy Conservation Techniques for Pumps		・ There is no teaching material of the personnel training. ・ No maintenance of The record that evaluates performance.		
4. To learn .Energy technology, Energy conservation technology, and Machine condition diagnosis techniques of electricity, air and steam.	・Energy Conservation in Air Conditioning System ・Energy Saving Technology in Lighting ・Basic of Steam System and Steam Trapping ・ CDT using Thermo-graphy		・ There's no evaluation system for energy conservation technology ・ The recognition of the saving is low.		
5. To recognize the new technology and current state of equipment through factory tour etc.	・To understand the situation of equipment in various industries of Japan, the energy management, and energy conservations.		・ The recognition of importance of energy conservation is low. ・ There are no selection technology for equipment.		

＊ For these columns, please explain with simple sentences rather than by making notes.
＊ Please write multiple answers if there is more than one answer.

To be filled out through training program in Japan.

Name of Superior Officer

Designation / Position of superior officer

Signature

AnnexⅣ Issue Analysis Sheet (IAS) **【Sub course A】 "Energy Conservation Technology for Energy Managers or Energy Auditors**

1. Applicants are required to fill in the required blanks on the attached IAS and submit it with a Nomination Form and Job Report by due process.
2. This IAS will be necessary for Job Report Presentation at the beginning of the training course and Action Plan Presentation at the end of the course. It will be used at Issue Analysis Workshop (IAW), a class of the course too.
3. Please get prior approval from your supervisor for what you write on the IAS.
4. Participants accepted to the Course are requested to bring this IAS in electronic file when coming to Japan.

<Country Name > <Participant's Name> < Organization and Present Post>

Course Objective	Relevant Subjects	A : Problems you are facing in your job or in your organization	B : Suspected Causes of the problem	C : Measures taken in Japan	D : Proposal to your organization
1. To learn Basic of Energy Conservation Technology	・Energy law system in Japan ・Global Environmental Issues and Cleaner Production ・Introduction to Energy Conservation ・Measures for Preventing Global Warming				
2. To learn Energy Conservation Technology in Thermal Utilities.	・Combustion Calculation Method /Energy conservation Techniques of Boiler, Turbine, and heating furnace. ・Outline of heat transfer engineering ・About the City gas business				

3. To learn Energy Conservation Techniology in Rotating Equipments	・ Essentials of Fluid Mechanics ・ Energy Conservation Using Inverter ・ Energy Conservation Techniques for Pumps				
4. To learn .Energy technology, Energy Conservation Technology, and Machine condition diagnosis techniques of electricity, air and steam.	・Energy Conservation in Air Conditioning System ・Energy Saving Technology in Lighting ・Basic of Steam System and Steam Trapping ・ CDT using Thermo-graphy				
5. To recognize the new technology and current state of equipment through Visiting factory tetc.	・To understand the situation of equipment in various industries of Japan, the energy management, and energy conservations.				

Name of Superior Officer

Designation / Position of superior officer

Signature

For a better tomorrow for all.
Japan International Cooperation Agency

Version 071011

Guidelines of Application Form for the JICA Training and Dialogue Program

The attached form is to be used to apply for the training and dialogue programs of the Japan International Cooperation Agency (JICA), which are implemented as part of the Official Development Assistance Program of the Government of Japan. Please complete the application form while referring to the following and consult with the respective country's JICA Office - or the Embassy of Japan if the former is not available - in your country for further information.

1. Parts of Application Form to be completed

1) Which part of the form should be submitted?

It depends on the type of training and dialogue program you are applying for.

>Application for Group and Region Focused Training Program

Official application and Parts A and B must be submitted.

>>Application for Country Focused Training Program including Counterpart Training Program

Part B will be submitted. Official application and Part A need not to be submitted

2) How many parts does the Application Form consist of?

The Application Form consists of three parts as follows;

Official Application

This part is to be confirmed and signed by the head of the relevant department/division of the organization which is applying.

Part A. Information on the Applying Organization

This part is to be confirmed by the head of the relevant department/division of the organization which is applying.

Part B. Information About the Nominee

This part is to be completed by the person who is nominated by the organization applying. The applicants for Group and Region Focused Training Program are required to fill in **every item**. As for the applications for Country Focused Training Program including Counterpart Training Program and some specified International Dialogue Programs, it is required to fill in the designated **"required"** items as is shown on the Form.

Please refer to the General Information to find out which type the training and dialogue program that your organization applies for belongs to.

2. How to complete the Application Form

In completing the application form, please be advised to:

(a) carefully read the General Information (GI) for which you intend to apply, and confirm if the objectives and contents are relevant to yours,

(b) be sure to write in the title name of the course/seminar/workshop/project accurately according to the GI, which you intend to apply,

(c) use a typewriter/personal computer in completing the form, of which the electronic

version is available on the web site: http://www.jica.go.jp/ , or write in **block letters**,

(d) fill in the form in **English**,

(e) use ☑ or "x" to fill in the ( ) check boxes,

(f) attach a picture of the Nominee,

(g) attach additional page(s) if there is insufficient space on the form,

(h) prepare the necessary document(s) described in the General Information (GI), and attach it (them) to the form,

(i) confirm the application procedure stipulated by your government, and

(j) submit the original application form with the necessary document(s) to the responsible organization of your government according to the application procedure.

Any information that is acquired through the activities of the Japan International Cooperation Agency (JICA), such as the nominee's name, educational record, and medical history, shall be properly handled in view of the importance of safeguarding personal information.

3. Privacy Policy

1) Scope of Use

Any information used for identifying individuals that is acquired by JICA will be stored, used, or analyzed only within the scope of JICA activities. JICA reserves the right to use such identifying information and other materials in accordance with the provisions of this privacy policy.

2) Limitations on Use and Provision

JICA shall never intentionally provide information that can be used to identify individuals to any third party, with the following three exceptions:

(a) In cases of legally mandated disclosure requests;

(b) In cases in which the provider of information grants permission for its disclosure to a third party;

(c) In cases in which JICA commissions a party to process the information collected; the information provided will be within the scope of the commissioned tasks.

3) Security Notice

JICA takes measures required to prevent leakage, loss, or destruction of acquired information, and to otherwise properly manage such information.

For a better tomorrow for all.
Japan International Cooperation Agency

Version 071011

Training Programs under Technical Cooperation with the Government of Japan

Application Form for the JICA Training and Dialogue Program

OFFICIAL APPLICATION

(to be confirmed and signed by the head of the relevant department / division of the applying organization)

1. Title: (Please write down as shown in the General Information)

2. Number: (Please write down as shown in the General Information)

J	**0**		**-**					

3. Country Name:

4. Name of Applying Organization:

5. Name of the Nominee(s):

1)	3)
2)	4)

Our organization hereby applies for the training and dialogue program of the Japan International Cooperation Agency and proposes to dispatch qualified nominees to participate in the programs.

Date:		Signature:		
Name:				
Designation / Position				Official Stamp
Department / Division				
Office Address and Contact Information	Address:			
	Telephone:	Fax:	E-mail:	

Confirmation by the organization in charge (if necessary)

I have examined the documents in this form and found them true. Accordingly I agree to nominate this person(s) on behalf of our government.

Date:		Signature:	
Name:			Official Stamp
Designation / Position			
Department / Division			

Part A: Information on the Applying Organization

(to be confirmed by the head of the department / division)

1. Profile of Organization

1) Name of Organization:

2) The mission of the Organization and the Department / Division:

2. Purpose of Application

1) Current Issues: Describe the reasons for your organization claiming the need to participate in the training and dialogue program, with reference to issues or problems to be addressed.

2) Objective: Describe what your organization intends to achieve by participating in the training and dialogue program.

3) Future Plan of Actions: Describe how your organization shall make use of the expected achievements, in addressing the said issues or problems.

4) Selection of the Nominee: Describe the reason(s) the nominee has been selected for the said purpose, referring to the following view points; 1) Course requirement, 2) Capacity /Position, 3) Plans for the candidate after the training and dialogue program, 4) Plan of organization and 5) Others.

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Japan International Cooperation Agency

Version 071011

Part B: Information about the Nominee

(to be completed by the Nominee)

NOTE>>>The applicants for Group and Region Focused Training Program are required to fill in "Every Item". As for the applications for Country Focused Training Program including Counterpart Training Program and some specified International Dialogue Programs, it is required to fill in the designated **"required"** items as is shown below.

1. Title: (Please write down as shown in the General Information) **(required)**

2. Number: (Please write down as shown in the General Information) **(required)**

J	0		-					

Attach the nominee's photograph (taken within the last three months) here
Size: 4x6
(Attach to the documents to be submitted.)

3. Information about the Nominee(nos. 1-9 are all required)

1) Name of Nominee (as in the passport)

Family Name

First Name

Middle Name

2) Nationality (as shown in the passport)			**5) Date of Birth (please write out the month in English as in "April")**			
3) Sex	( ) Male	( ) Female	**Date**	**Month**	**Year**	**Age**
4) Religion						

6) Present Position and Current Duties

Organization							
Department / Division							
Present Position							
Date of employment by the present organization	Date	Month	Year	Date of assignment to the present position	Date	Month	Year

7) Type of Organization

( ) National Governmental	( ) Local Governmental	( ) Public Enterprise
( ) Private (profit)	( ) NGO/Private (Non-profit)	( ) University
( ) Other ( )		

8) Outline of duties: Describe your current duties

9) Contact Information

Office	Address:	
	TEL:	Mobile (Cell Phone):
	FAX:	E-mail:
Home	Address:	
	TEL:	Mobile (Cell Phone):
	FAX:	E-mail:
Contact person in emergency	Name: Relationship to you:	
	Address:	
	TEL:	Mobile (Cell Phone):
	FAX:	E-mail:

10) Others (if necessary)

4. Career Record

1) Job Record (After graduation)

Organization	City/ Country	Period		Position or Title	Brief Job Description
		From Month/Year	To Month/Year		

2) Educational Record (Higher Education)(required)

Institution	City/ Country	Period		Degree obtained	Major
		From Month/Year	To Month/Year		

3) Training or Study in Foreign Countries; ***please write your past visits to Japan specifically as much as possible, if any.***

Institution	City/ Country	Period		Field of Study / Program Title
		From Month/Year	To Month/Year	

5. Language Proficiency (required)

1) Language to be used in the program (as in GI)				
Listening	( ) Excellent	( ) Good	( ) Fair	( ) Poor
Speaking	( ) Excellent	( ) Good	( ) Fair	( ) Poor
Reading	( ) Excellent	( ) Good	( ) Fair	( ) Poor
Writing	( ) Excellent	( ) Good	( ) Fair	( ) Poor
Certificate (Examples: TOEFL, TOEIC)				
2) Mother Tongue				
3)Other languages ( )	( ) Excellent	( ) Good	( ) Fair	( ) Poor

[1] Excellent: Refined fluency skills and topic-controlled discussions, debates & presentations. Formulates strategies to deal with various essay types, including narrative, comparison, cause-effect & argumentative essays.
[1] Good: Conversational accuracy & fluency in a wide range of situations: discussions, short presentations & interviews. Compound complex sentences. Extended essay formation.
[1] Fair: Broader range of language related to expressing opinions, giving advice, making suggestions. Limited compound and complex sentences & expanded paragraph formation.
[1] Poor: Simple conversation level, such as self-introduction, brief question & answer using the present and past tenses.

6. Expectation on the applied training and dialogue program

1) Personal Goal: Describe what you intend to achieve in the applied training and dialogue program in relation to the organizational purpose described in Part A-2.

2) Relevant Experience: Describe your previous vocational experiences which are highly relevant in the themes of the applied training and dialogue program. (required)

3) Area of Interest: Describe your subject of particular interest with reference to the contents of the applied training and dialogue program. (required)

*7. Declaration (to be signed by the Nominee) (required)

I certify that the statements I made in this form are true and correct to the best of my knowledge.
If accepted for the program, I agree:

(a) not to bring or invite any member of my family (except for the program whose period is one year or more),
(b) to carry out such instructions and abide by such conditions as may be stipulated by both the nominating government and the Japanese Government regarding the program,
(c) to follow the program, and abide by the rules of the institution or establishment that implements the program,
(d) to refrain from engaging in political activity or any form of employment for profit or gain,
(e) to return to my home country at the end of the activities in Japan on the designated flight schedule arranged by JICA,
(f) to discontinue the program if JICA and the applying organization agree on any reason for such discontinuation.
(g) to consent to waive exercise of my copyright holder's rights for documents or products that are produced during the course of the project, against duplication and/or translation by JICA, as long as they are used for the purposes of the program.

Date:	Signature:
	Print Name:

For a better tomorrow for all.
Japan International Cooperation Agency

Version 071011

MEDICAL HISTORY AND EXAMINATION

1. Present Status

(a) Do you currently use any drugs for the treatment of a medical condition? (Give name & dosage.)

( ) No	( ) Yes >> Name of Medication ( ), Quantity ( )

(b) Are you pregnant?

( ) No	( ) Yes (months)

(c) Are you allergic to any medication or food?

( ) No	( ) Yes >>>	( ) Medication	( ) Food	( ) Other:

(d) Please indicate any needs arising from disabilities that might necessitate additional support or facilities.

( )

Note: Disability does not lead to exclusion of persons with disability from the program. However, upon the situation, you may be directly inquired by the JICA official in charge for a more detailed account of your condition.

2. Medical History

(a) Have you had any significant or serious illness? (If hospitalized, give place & dates.)

Past:	( ) No	( ) Yes>>Name of illness ( ), Place & dates ( )
Present:	( ) No	( ) Yes>>Present Condition ( )

(b) Have you ever been a patient in a mental hospital or been treated by a psychiatrist?

Past:	( ) No	( ) Yes>>Name of illness ( ), Place & dates ( )
Present:	( ) No	( ) Yes>>Present Condition ( )

(c) High blood pressure

Past:	( ) No	( ) Yes
Present:	( ) No	( ) Yes>>Present Condition ( ) mm/Hg to ( ) mm/Hg

(d) Diabetes (sugar in the urine)

Past:	( ) No	( ) Yes		
Present:	( ) No	( ) Yes>>Present Condition ( )		
		Are you taking any medicine or insulin?	( ) No	( ) Yes

(e) Past History: What illness(es) have you had previously?

( ) Stomach and Intestinal Disorder	( ) Liver Disease	( ) Heart Disease	( ) Kidney Disease
( ) Tuberculosis	( ) Asthma	( ) Thyroid Problem	
( ) Infectious Disease >>> Specify name of illness ( )			
( ) Other >>> Specify ( )			

(e') Has this disease been cured?

( ) Yes	( ) No (Specify name of illness)
	Present Condition: ( )

3. Other: Any restrictions on food and behavior due to health or religious reasons?

I certify that I have read the above instructions and answered all questions truthfully and completely to the best of my knowledge.

I understand and accept that medical conditions resulting from an undisclosed pre-existing condition may not be financially compensated by JICA and may result in termination of the program.

Date:	Signature:
	Print Name:

AnnexⅣ Issue Analysis Sheet (IAS)

【Sub course B】 "Energy Conservation Technology and Machine Condition Diagnosis Techniques for Plant Engineers or Maintenance Engineers"

1. Applicants are required to fill in the required blanks on the attached IAS and submit it with a Nomination Form and Job Report by due process.
2. This IAS will be necessary for Job Report Presentation at the beginning of the training course and Action Plan Presentation at the end of the course. It will be used at Issue Analysis Workshop (IAW), a class of the course too.
3. Please get prior approval from your supervisor for what you write on the IAS.
4. Participants accepted to the Course are requested to bring this IAS in electronic file when coming to Japan.

<Country Name>_____ <Participant's Name>_____< Organization and present post >_____

Issue Analysis Sheet [explanatory notes]

Course Objectives	Relevant Subjects	A: Problems you are facing in your job or in your organization	B: Suspected Causes of the problems	C: Measures taken in Japan	D: Proposal to your country or company
Basic knowledge of energy conservation technology and plant maintenance	・ **Law system of energy** ・ **Energy management** ・ **Maintenance management**	1. It is not enough for our organization to grapple with energy conservation activities. 2. It is luck of ability for me & our organization to audit energy. 3. ・・・	1-1 1-2 ・ 1-n 2-1 ・・・・・・・		
Energy conservation techniques in various equipments	・ **Convenient Technology for energy conservation** (Inverter, Steam trapping, Lighting, Electric Power Plant, ETC)				
Machine condition diagnosis techniques	・ **Condition Diagnosis Technique by measuring vibration** ・ **Condition Diagnosis by Tribolpgy & Thermography**				

＊ For these columns, please explain with simple sentences rather than by making notes.

＊ Please write multiple answers if there is more than one answer.

To be filled out through training program in Japan.

Name of Superior Officer _____

Designation/Position of superior officer_____

Signature_____

AnnexⅣ Issue Analysis Sheet (IAS)

【Sub course B】 "Energy Conservation Technology and Machine Conditiion Diagnosis Techniques for Plant Engineers or Maintenance Engineers"

1. Applicants are required to fill in the required blanks on the attached IAS and submit it with a Nomination Form and Job Report by due process.
2. This IAS will be necessary for Job Report Presentation at the beginning of the training course and Action Plan Presentation at the end of the course. It will be used at Issue Analysis Workshop (IAW), a class of the course too.
3. Please get prior approval from your supervisor for what you write on the IAS.
4. Participants accepted to the Course are requested to bring this IAS in electronic file when coming to Japan.

<Country Name>_____ <Participant's Name>_____< Organization and present post >_____

Issue Analysis Sheet

Course Objectives	Relevant Subjects	A: Problems you are facing in your job or in your organization	B: Suspected Causes of the problems	C: Measures taken in Japan	D: Proposal to your country or company
Basic knowledge of energy conservation technology and plant maintenance					
Energy conservation techniques in various equipments					
Machine condition diagnosis techniques					

Name of Superior Officer _____

Designation/Position of superior officer_____

Signature_____