

No. 458

Outline of The Group Training Courses in Japan

平成2年度 集団コース コース概要

1990 Japanese Fiscal (April, 1990 to March, 1991)

**Japan International Cooperation Agency (JICA)
Tokyo, Japan**

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**Japan International Cooperation Agency (JICA)
Tokyo, Japan**

国際協力事業団

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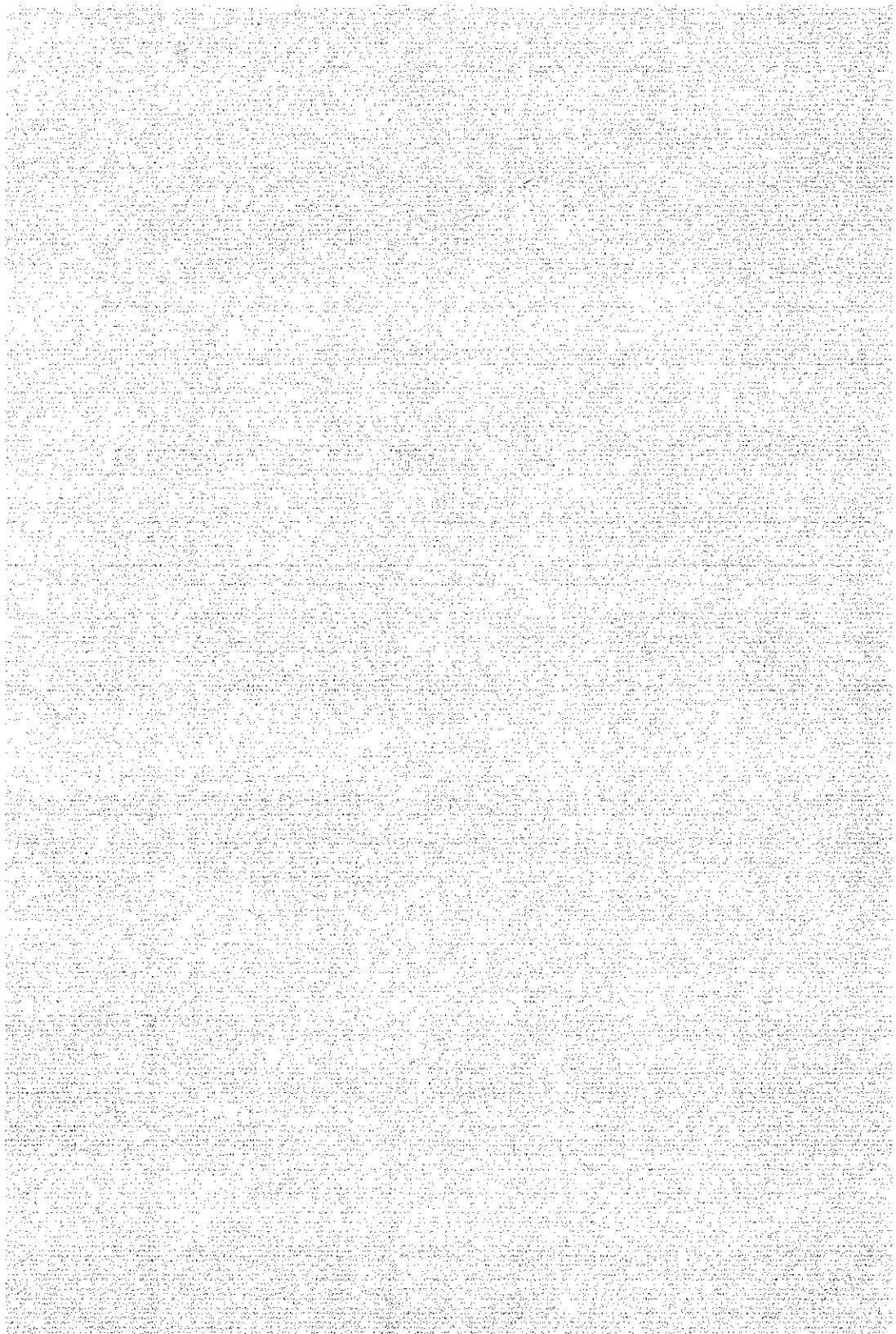
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DEVELOPMENT PLAN



No. 1

DEVELOPMENT ECONOMICS (GENERAL)

開発エコノミスト(一般)

1. PERIOD

October 1, 1990 to March 29, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent in economics
- 2) Well qualified in their respective fields
- 3) Under 35 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - a) Development Economics
 - Introduction to Project Planning
 - Theories and Methods of Project Planning
 - Project Formulation and Identification
 - Project Appraisal and Workshops
 - b) Macro Development Planning
 - General Thesis of Development Planning
 - Regional Development Planning
 - National Development Planning
 - c) Japanese Economic Development
 - d) Statistical Analysis and National Accounts
 - e) Seminar and Special Lectures
- 2) Observation tours
- 3) Report making

5. FACILITIES AND INSTITUTIONS

The International Development Centre of Japan (IDCJ)

6. REMARKS

No. 2

DEVELOPMENT ECONOMICS (INDUSTRIAL PROJECT)

開発エコノミスト(工業)

1. PERIOD

June 14, 1990 to August 26, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Minimum 3 year's work experience in the field
- 2) Between 30 and 40 years of age
- 3) University degree and academic background in economics, finance or engineering
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Economic Development, Industrialization and Japanese Experiences
- 2) Financial Analysis
- 3) Economic Analysis and Social Economic Analysis
- 4) Field Trip/Study Visit
- 5) Report making and Presentation

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The International Development Centre of Japan (IDCJ)

6. REMARKS

No. 3

SEMINOR ON ECONOMIC DEVELOPMENT POLICIES 経済政策セミナー

1. PERIOD

October 23, 1990 to December 16, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) be central government planners engaged in economic development planning and have at least five years' occupational experience in this field
- 2) be those who have an academic background in economics or those having a proper experience and knowledge on economic policy and planning
- 3) be between thirty and forty years of age
- 4) have sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

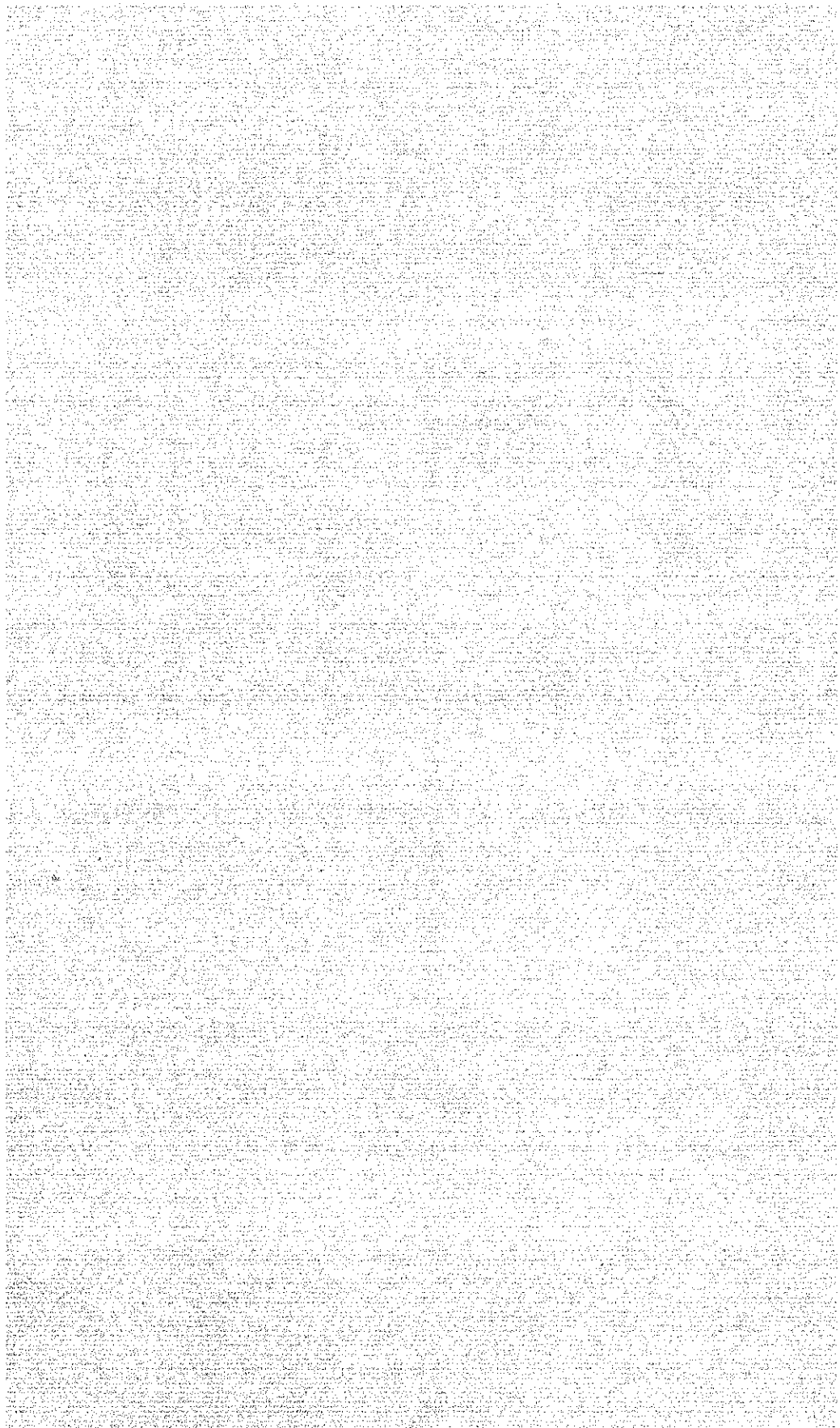
- 1) Presentation of and Discussion on Country Report
- 2) Lectures on Japan's Economic Development and Economic Cooperation Policy
 - Japan's Economic Development
 - Economic Planning in Postwar Japan
 - Trade and Development
 - Linkage between Agricultural and Industrial Development
 - Infrastructure and Economic Development
 - Role of Government for Economic Development
 - Industrial Policy of Japan
 - Technology Development of Japan
 - Human Resource Development in Japan
 - Financial Development
 - Social Aspect of Economic Development
 - Industrial Development in Japan (light industry, heavy industry, machine industry)
 - Japan's Economic Cooperation Policy
- 3) Field trip
- 4) Report Writing, Presentation, and Revision

5. FACILITIES AND INSTITUTIONS

The International Development Center of Japan (IDCJ)

6. REMARKS

ADMINISTRATION



No. 4

CONTROL OF NARCOTIC OFFENCES (SEMINAR) II 麻薬犯罪取締セミナーⅡ

1. PERIOD

September 10, 1990 to September 28, 1990 (19 days)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eighteen (18)

3. QUALIFICATIONS

- 1) Officers in the rank of the Director of Division in charge of Drug Law Enforcement at the central government.
- 2) Have experience of more than three years in drug law enforcement
- 3) Have a identification technics
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - The current trends and situation in drug offences and their counter measures in Japan
- 2) Comparative study
 - Major drug problems facing each society
 - Current situation of drug abuse in each country
 - Laws and regulations (confiscation of proceeds etc.)
 - Investigative methods/techniques
 - Deportation procedure
- 3) Discussion and problem solving
 - Major drug problems in each region
 - Ways to improve international investigative cooperation
- 4) Observation tours

5. FACILITIES AND INSTITUTIONS

National Police Agency

6. REMARKS

No. 5

CRIME PREVENTION (TREATMENT OF OFFENDERS) II 犯罪防止（矯正保護）II

1. PERIOD

April 2, 1990 to July 2, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) Persons who hold relatively senior positions in a central bureau, department or field agency concerned with the correctional treatment of offenders, and, who have at least eight-year practical experience in their field or five-year practical experience, plus a university degree or its equivalent
- 2) Have a sufficient command of spoken and written English
- 3) Under fifty (50) years of age
- 4) In good health, both physically and mentally, to undergo the course. Pregnancy is regarded as a disqualifying condition for participation in the course

4. DESCRIPTION OF TRAINING

- 1) Comparative Study on the Treatment of Offenders
- 2) Workshops on Topics Selected by the Participants
- 3) Lectures and Discussion
 - alternative to pre-trial detention such as release on bail or on recognizance and pre-trial diversion such as suspension of prosecution,
 - non-custodial sanctions in sentencing, such as suspended sentence, probation, community service order, compensation or restitution order etc., and
 - alternatives to imprisonment at post-sentencing stage such as parole, remission, work release, furlough, etc.
- 4) Visit to Relevant Institutions and Agencies

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) United Nations Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders (UNAFEI)

6. REMARKS

No. 6

CRIME PREVENTION (SENIOR SEMINOR) II 犯罪防止（上級）Ⅱ

1. PERIOD

January 28, 1991 to March 11, 1991 (1.5-month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

Applicants are to:

- 1) Be high-ranking criminal justice administrators at the policy-making level whose duties are closely related to the main theme of the seminar, and should be ranked at director level or above in the division of the Ministry of Justice, Ministry of Interior or the Supreme Court
- 2) Have a good command of spoken and written English
- 3) Be between thirty-five and fifty-five years of age and likely to continue to work in this field for a minimum period of two years
- 4) Be in good health, both physically and mentally, to undergo the course. Pregnancy is regarded as a disqualifying condition for participation in the seminar

4. DESCRIPTION OF TRAINING

- 1) Orientation for the seminar
- 2) Visiting Experts' Lectures
- 3) Faculty's Lectures
- 4) Ad Hoc Lectures
- 5) Individual Presentation on the main theme of the seminar
- 6) General Discussion and Report Back Sessions
- 7) Observation Visits
- 8) Kansai Trip (Visit to some institutions)
- 9) Reference Reading
- 10) Evaluation Session
- 11) Individual Interview

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Center, JICA
- 2) United Nations Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders (UNAFEI)

6. REMARKS

No. 7

CRIME PREVENTION (THE ADMINISTRATION OF CRIMINAL JUSTICE) II

犯罪防止（刑事司法）Ⅱ

1. PERIOD

September 10, 1990 to December 10, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) be persons who hold relatively senior positions in a central bureau department or field agency concerned with investigation, prosecution, trial or prevention of transnational crimes or correctional treatment of offenders of such crimes, and who have at least eight years of practical experience in their field or five years of practical experience plus a university degree or its equivalent
- 2) Have a sufficient command of spoken and written English
- 3) Be under fifty (50) years of age
- 4) Be in good health, both physically and mentally, to undergo the course. Pregnancy is regarded as a disqualifying condition for participation in the course

4. DESCRIPTION OF TRAINING

- 1) Comparative Study on the Criminal Justice Administration
- 2) Group Workshops on the Topics Selected by the Participants
- 3) Lectures and discussion
 - Present situation regarding drug abuse and drug-related offences;
 - Factors causing and affecting drug abuse and drug-related offences;
 - Efficacy and appropriateness of existing practices of criminal justice systems in dealing with the drug problem and drug-related criminality;
 - The development of new schemes and measures to facilitate the investigation and prosecution of drug-related criminality, including promotion of international co-operation;
 - Appropriate sentencing policies with regard to drug abuse and drug trafficking;
 - Review and examination of strategies and programmes for the treatment of drug abusers, and for the prevention of drug abuse;
 - Possible ways and procedures to develop more effective and appropriate measures to deal with the drug problem.
- 4) Visit to Relevant Institutions and Agencies

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Center, JICA
- 2) United Nations Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders (UNAFEI)

6. REMARKS

1. PERIOD

May 16, 1989 to July 17, 1989 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) be university or college graduates (or equivalent) with occupational experience of more than seven years in the civil service relating to local public administration,
- 2) be civil service personnel holding responsible government positions (managerial or supervisory) and be promising candidates for the post of top management in the local government or that of senior management in the central government in the future,
- 3) have a sufficient command of spoken and written English,
- 4) be between thirty and forty years old, and

4. DESCRIPTION OF TRAINING

- 1) Lectures
Purpose: To understand the local government system and its function in Japan.
 - Local Public Administration
 - Local Public Finance
 - Regional Development
- 2) Seminars
 - Local government system in the participating countries
 - Local public personal system in the participating countries
 - Role of local government in regional development
- 3) Discussion with Japanese trainees at Local Autonomy College
- 4) Field Study in Local Governments
Purpose: To study intensively the actual activities and the functions of local governments through the field training in typical local government.
- 5) Observation trips

5. FACILITIES AND INSTITUTIONS

Local Autonomy College, Ministry of Home Affairs

6. REMARKS

No. 9

NATIONAL GOVERNMENT ADMINISTRATION II 国家行政 II

1. PERIOD

June 4, 1990 to July 20, 1990 (6 weeks)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent;
- 2) Qualified in their fields;
- 3) Have professional working experience of more than 5 years (at least two years) in public administration.
- 4) Not less than 30 not more than 40 years of age and
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
 - Modernization Process
 - Modernization of Public Administration in the participating countries
 - Japanese Experience in Public Administration
- 2) On-the-spot study
 - Attachment to relevant ministry offices
- 3) Study tours

5. FACILITIES AND INSTITUTIONS

Institute of Public Administration, National Personnel Authority

6. REMARKS

No. 10

NATIONAL GOVERNMENT ADMINISTRATION SEMINAR

(SENIOR CLASS OFFICIALS) 上級国家行政セミナー

1. PERIOD

October 11, 1990 to November 17, 1990 (4 weeks)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent;
- 2) Qualified in their respective fields;
- 3) Occupational experience of more than 10 years (at least five years of experience in public administration in the government)
- 4) Not less than 35 and not more than 45 years of age and
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
 - Industrialization Process in Japan
 - Industrialization Process in Developing countries
 - Public Administration in Developing countries for Industrialization
 - Japanese Experience
- 2) On-the-spot study
 - Attachment to relevant ministry offices
- 3) Observation tours

5. FACILITIES AND INSTITUTIONS

Institute of Public Administration, National Personnel Authority

6. REMARKS

No. 11

TRAFFIC POLICE ADMINISTRATION SEMINAR 交通警察行政セミナー

1. PERIOD

May 22, 1990 to July 1, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

Applicants should:

- 1) be a director or a chief police superintendent who supervises or is dealing with traffic police affairs in the central police organization
- 2) be university graduates or their equivalent
- 3) have a sufficient command of spoken and written English
- 4) be in good health, both physically and mentally

4. DESCRIPTION OF TRAINING

- 1) General Subjects (Lecture) (3 sessions)
 - Japanese Police System
 - Role of Traffic Police
 - Application of computers by the Police
- 2) Specialized Subjects (Lecture) (14 sessions)
 - Traffic Planning Division related Subjects
 - Traffic Law Enforcement related Subjects
 - Traffic Control Division related Subjects
 - Expressway Administration Division related Subjects
 - Driver's Licence Division related Subjects
 - Other related Subjects
- 3) Technical Visit (11 sessions)
 - Activities of traffic police officers on streets
 - Traffic control & surveillance center and command room
 - Driver's licence examination center and safe driving school and others
- 4) Observation Tour

5. FACILITIES AND INSTITUTIONS

Traffic Planning Division, Traffic Bureau, National Police Agency (NPA)

6. REMARKS

The course will be conducted in 1990.
(The course is conducted every other year.)

No. 12

CRIMINAL INVESTIGATION (SEMINAR) 国際捜査セミナー

1. PERIOD

June 13, 1990 to July 8, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be a commanding police officer (superintendent, major, or higher) in charge of criminal investigation in the central police organization
- 2) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Police system in Japan
 - Organization of criminal police in Japan
 - Status of international criminal investigation
 - Criminal identification system
 - Safety police activities
 - Status of offence committed by members of organized crime groups and measures taken against such offenders
 - Automated fingerprint identification system
 - Current status of crimes related to drugs & drug control system in Japan
 - Crime Prevention Activities
- 2) Technical Visit
 - visit to C.I.B. of Metropolitan Police Department (MPD)
 - visit to Communications Command Center (MPD)
 - visit to Criminal Identification Division (MPD)
 - visit to Metropolitan Police Academy (MPD)
 - visit to Police Station, Police Box of Nagasaki Prefectural Police Hqs.
 - visit to Fukuoka Prefectural Police Headquarters
 - visit to Mobile Investigation Unit of Fukuoka Prefectural Police Hqs.
 - visit to a computer showroom of NEC (Computer company)
- 3) Discussion
- 4) Study Trip
 - Kyushu district (Nagasaki and Fukuoka).

5. FACILITIES AND INSTITUTIONS

National Police Agency

6. REMARKS

No. 13

ADVANCED COURSE FOR SENIOR POLICE ADMINISTRATOR

上級警察幹部研修

1. PERIOD

May 17, 1990 to October 31, 1990 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fourteen (14)

3. QUALIFICATIONS

Applicants should:

- 1) be Assistant Director of Division in the central police organization, or in a position which corresponds to this, who is expected to be one of top leaders in the central police organization in the future (approximately from Superintendent to Police Inspector at present);
- 2) be aged between twenty seven and forty year;
- 3) have sufficient command of spoken and written English;
- 4) be in good health, both physically and mentally to undergo the course of training. Pregnancy is regarded as a disqualifying condition for participation in the course; and
- 5) be any participants who have never trained in Japan under the JICA Technical Cooperation Scheme.

4. DESCRIPTION OF TRAINING

- 1) Organization, Authority of Police of Japan and Presentation of Theme of Research by participants
- 2) Police Administration, Police Education and Training
- 3) Criminal Investigation
- 4) Control of Drug Offense, Firearms, etc.
- 5) Establishment of Safety and Peaceful Communities
- 6) Safety and Smoothness of Road Traffic
- 7) Countermeasures against International Terrorism, etc.
- 8) Police Communications and Information Management
- 9) Observation of Patrol Activities in a Police Box
- 10) Field Observation of Prefectural Police
- 11) Report Making and Presentation
- 12) Observation Tours (Hokkaido, Kansai and Other Areas)
- 13) Events

5. FACILITIES AND INSTITUTIONS

International Research and Training Institute for Criminal Investigation, National Police Agency

6. REMARKS

RESCUE AND FIRST AID TECHNIQUE

救急救助技術

1. PERIOD

August 27, 1990 to November 28, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Leader in the field of rescue service
- 3) Under 30 years
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Basic theory
 - Fire service system in Japan
 - Present situation of disaster and fire service activities
 - Policy to prevent hazardous materials disaster
 - Policy to prevent earthquake disaster
 - Standard on the fire service strength and educational training
 - Rescue service
- 2) Outline of rescue service
 - Rescue service activity
 - Theory of rescue instruction
 - Safety administration
 - Ambulance service
 - Rescue operation and rescue tools
- 3) Rescue practice
 - Basic activity
 - Entry skill
 - Rescue skill
 - Rescue command skill
 - Searching skill
 - Usage of rescue tools
 - First aid skill
 - Fire prevention skill
- 4) Quartering study
- 5) Observation visit
- 6) Study trip

5. FACILITIES AND INSTITUTIONS

- 1) Fire Defense College and Fire Defense Laboratory
- 2) Tokyo Metropolitan Fire Department
- 3) Fire Defense Agency, Ministry of Home Affairs

6. REMARKS

No. 15

FIRE FIGHTING TECHNIQUE 消火技術

1. PERIOD

August 20, 1990 to November 25, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) be university graduates or equivalent with occupational experience
- 2) be presently engaged in fire service and expected to play key roles in this field
- 3) be expected to become a leader in the field of fire service
- 4) have a good command of English both spoken and written
- 5) be in good health, both physically and mentally to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course
- 6) not be serving as a military personnel presently

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Basic theory
 - Fire service system in Japan, and the present situation
 - Fire pumps
 - Hydraulic science
 - Introduction to safety control (at the time of training and fire fighting)
 - Introduction to fire fighting
 - Building fire fighting techniques
 - Vehicles fire fighting techniques
 - Ships fire fighting techniques
 - Airplanes fire fighting techniques
 - Fireground commanding technique
- 2) Fire-fighting Practice
- 3) Quartering Study
- 4) Comprehensive Practice
- 5) Observation Visit
- 6) Study Trip
- 7) Others

5. FACILITIES AND INSTITUTIONS

Kitakyushu Fire Department, Fire Defense Agency

6. REMARKS

No. 16

FIRE SERVICE FOR ADMINISTRATIVE OFFICER 消防行政管理者

1. PERIOD

May 21, 1990 to July 13, 1990 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduate or equivalent with occupational experience
- 2) Under 40 years
- 3) Good working knowledge of English
- 4) Administrative officer or candidate for administrative officer, who are presently engaged in planning/drafting of Fire Service System

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Fire service administration, organization and fire personnel
 - Fire prevention
 - Defense system and activity
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Fire Defense College and Fire Defense Laboratory
- 2) Tokyo Fire Department
- 3) Fire Defense Agency, Ministry of Home Affairs

6. REMARKS

1. PERIOD

January 17, 1991 to March 16, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) be university graduates or equivalent with occupational experience,
- 2) be administrative officer or candidate for it, who are presently engaged in planning/drafting of Disaster Preventional System, or in administrative section for Disaster Preventional implementation,
- 3) have a sufficient command of spoken and written English,
- 4) be not more than 40 years age in principle,
- 5) be in good health, both physically and mentally to undergo the course of training. Pregnancy is regarded as a disqualifying condition for the participation in the course,
- 6) be able to extend their techniques systematically after returning to their countries.

4. DESCRIPTION OF TRAINING

- 1) Objectives
To transfer the disaster prevention technology and to set up optimum disaster prevention system in each country
- 2) Outline
 - Disaster prevention systems (include laws)
 - Role of fire defence in disaster prevention
 - Disaster prevention technics
 - Counterplan system in disaster prevention
 - Role of inhabitants
 - Others

5. FACILITIES AND INSTITUTIONS

Japan Fire Diffence Agency

6. REMARKS

1. PERIOD

January 22, 1991 to March 20, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) be university graduates or equivalent with occupational experience,
- 2) be administrative officer or candidate for it, who are presently engaged in planning/drafting of Disaster Preventional System, or in administrative section for Disaster Preventional implementation,
- 3) have a sufficient command of spoken and written English,
- 4) be not more than 40 years age in principle,
- 5) be in good health, both physically and mentally to undergo the course of training. Pregnancy is regarded as a disqualifying condition for the participation in the course,
- 6) be able to extend their techniques systematically after returning to their countries.

4. DESCRIPTION OF TRAINING

- 1) Objectives
To transfer the fire prevention techniques and to set up optimum fire defence system in each country
- 2) Outline
 - Fire prevention counterplan
 - Devices control
 - Hazardous material control
 - Inspection
 - Fire cause investigation activity
 - Others

5. FACILITIES AND INSTITUTIONS

Japan Fire Defence Agency

6. REMARKS

No. 19

GOVERNMENT AUDITING SEMINAR (COMPUTER AUDITING)

政府会計検査セミナー(コンピューター会計検査)

1. PERIOD

July 2, 1990 to August 8, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Senior officials of the Supreme Audit Institution with Computer Auditing Experience
- 2) Not more than 45 years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and Discussion
 - Financial and Accounting System of the Government
 - Government Auditing System and the Board of Audit
 - EDP System in Japanese Government and Public Organization
 - Computer System of the Board of Audit
 - Audit Practice by Computer
- 2) Observation Tour

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Board of Audit

6. REMARKS

No. 20

INTERNATIONAL TRADE AND INDUSTRY POLICIES 通商産業政策

1. PERIOD

January 14, 1991 to March 8, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Currently in charge of industrial policy or international trade policy
- 2) University or college graduates
- 3) Occupational experience of more than 5 years
- 4) Under 35 years of age
- 5) Good working knowledge of English
- 6) Physically and mentally fit to attend a training course

4. DESCRIPTION OF TRAINING

- 1) General lectures
Transition of Japan's Industrial Structure, Transition of Japan's International Trade Policy, System of Japan's Administration, Japan's Labor Relations, International Comparisons of Scientific and Technological Policies, etc.
- 2) Factory visits
Iron Works, Thermal Power Station, Automobile Factory, Home Electric Appliance Factory, Small and Medium-sized Enterprise
- 3) Specific program on MITI's activities
Interlinked lectures and visits covering various activities of MITI will be arranged. The lectures will be given by the staff of MITI and visits to local bureau, research institutes and other organizations interlinked with the lectures will be included during 4 weeks.

5. FACILITIES AND INSTITUTIONS

- 1) International Development Center of Japan (IDCJ)
- 2) Tokyo International Centre, JICA

6. REMARKS

Those who could be leader in the field of the industrial policy or international trade policy in the future should be selected.

No. 21

TAXATION SEMINAR (GENERAL TAX PROGRAMME) 一般租税セミナー

1. PERIOD

September 6, 1990 to December 21, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) be engaged in tax administration with more than 5 years of occupational experience
- 2) University graduates or the equivalent academic background
- 3) Not more than 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and Discussion
 - Japanese Economy, Public Finance, Tax Policy and Tax Law
 - Tax administration in Japan
- 2) Observation
 - Actual operation of tax administration
- 3) Country Report Presentation
- 4) Report Making

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) National Tax Administration

6. REMARKS

No. 22

TAXATION (SENIOR TAX PROGRAMME) (SEMINAR) 上級租税セミナー

1. PERIOD

September 27, 1990 to October 20, 1990 (3 weeks)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be ranked as senior-class officials of a competent government department who are in charge of tax administration (except customs),
- 2) be familiar with the following subject:
 - the present situation and problems of organization of audit investigation function, and
 - personnel management for the improvement of tax auditors' competence.

4. DESCRIPTION OF TRAINING

- 1) Japanese Economy, Tax System and Tax Administration in Japan
- 2) Round Table Discussion
- 3) Observation

5. FACILITIES AND INSTITUTIONS

National Tax Administration

6. REMARKS

No. 23

CUSTOMS TECHNIQUES II 税関行政 II

1. PERIOD

September 3, 1990 to November 1, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Under 35 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and Discussions
 - Organizations and functions of customs administration in Japan
 - Customs and tariff policy
 - Export and import clearance
 - Customs valuation
 - Other related lectures
 - Comparative study on related items
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Customs and Tariff Bureau, Ministry of Finance
- 2) Tokyo, Yokohama, Kobe, Osaka and Nagoya Custom House

6. REMARKS

1. PERIOD

October 4, 1990 to November 2, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) Senior officers in charge of matters directly related to OECF loans
- 2) Work experience at least 2 years in this field
- 3) University graduates or equivalent
- 4) Good working knowledge of English
- 5) between 30 and 45 years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - "International Symposium on Economic Cooperation on the occasion of International Cooperation Day" (1 day)

The symposium, held under the joint auspices of JICA and OECF on the theme "Development Strategy Looking Towards The 21st Century", will include lectures and panel discussions on Development, International Trade, Accumulated Debts, Development of Human Resources, etc. (It is hoped that participants will actively join in the discussions.)
 - Seminar on the OECF loans
 - a) Roles and activities of OECF in Japan's economic cooperation
 - b) Types of OECF loans
 - c) OECF Project Cycle
 - Identification, preparation and appraisal of project
 - Exchange of Notes, Loan Agreement and Loans not Requiring Exchange of Notes
 - Procedures for Procurement; Employment of Consultant
 - Procedures for Disbursement
 - Project Supervision
 - Principal-repayment and Interest-payment procedures (including borrowing country's administrative procedures)
 - Evaluation and Supervision after completion of project
 - d) Loans to and Equity Investments in Japanese Corporations
 - e) Presentation and discussion of Country Reports prepared by participants
- 2) Observation tour

5. FACILITIES AND INSTITUTIONS

The Overseas Economic Cooperation Fund of Japan (OECF)

6. REMARKS

No. 25

THE INTRODUCTION OF INTERNATIONAL COOPERATION ACTIVITIES

国際協力事業紹介セミナー

1. PERIOD

September 12, 1990 to September 30, 1990 (18 days)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be officials in the rank of Director of Division in charge of International Cooperation Programme at the Central Government,
- 2) Have a sufficient command of spoken and written English, and
- 3) Be healthy enough to undergo the course of seminar. Pregnancy is regarded as a disqualifying condition for participation in the seminar.

4. DESCRIPTION OF TRAINING

- 1) Explanation of International Technical Cooperation (JICA)
 - Organization of JICA and mechanism of JICA's technical cooperation
 - Grant aid programme
 - Development survey programme
 - Expert dispatch programme
 - Training programme for overseas participants
 - Project-type technical cooperation programme
 - Japan Overseas Cooperation Volunteers Programme (JOCV)
- 2) Visit to the Ministry of Foreign Affairs
- 3) Observation of Major Training Facilities
- 4) Observation Trip (Typical industries etc.)
- 5) Exchange of the opinions concerning the International Technical Cooperation
- 6) Explanation of Overseas Economic Cooperation Fund (OECF)

5. FACILITIES AND INSTITUTIONS

Japan International Cooperation Agency

6. REMARKS

- 1) Refrain from the participation on the way to this course.
- 2) Be requested to take part in with questions or the International Cooperation Activities.

1. PERIOD

October 8, 1990 to November 30, 1990

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be presently engaged directly in policy-drafting in environmental administration in the governmental or related public organization with experience of at least five (5) years,
- 2) be university graduates or possess the equivalent academic background in this field,
- 3) be preferably under forty-five (45) years of age

4. DESCRIPTION OF TRAINING

1) Lectures and discussions

Introduction

- Development of environmental administration
- Outline of pollution control administration
- Outline of nature conservation administration

Japanese Environmental Policies by Types of Pollution Problems

- Air pollution
- Traffic pollution
- Noise, vibration
- Offensive odor
- Water pollution
- Waste management
- Environmental impact assessment system
- Environmental Information
- Environmental Education
- Pollution-related Health Hazards Compensation System
- Environmental research & development
- Activities of Japan Environment Public Corporation
- Environmental administration and role of NGOs

Environmental Administration at Local Level

- Air pollution
- Water pollution
- Waste management

Problem Solving Methodology

JICA's Activities in the Field of Pollution Control

2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) International Affairs Division, Environment Agency
- 2) Japan Environmental Sanitation Center (JESC)
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 27

ENVIRONMENTAL ENGINEERING (WATER POLLUTION CONTROL)

環境技術 (水質保全)

1. PERIOD

September 10, 1990 to November 2, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Technical officials presently in charge of water pollution control including domestic and industrial waste water management in central or local governments
- 2) Three years or more experience in their respective fields
- 3) University graduates or equivalent
- 4) Under 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Planning and implementation of water pollution control
 - Technologies of water management
 - Effects of water pollution on water use and its countermeasures
 - Institutional development
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Water Quality Bureau, Environment Agency
- 2) Japan Society on Water Pollution Research

6. REMARKS

No. 28

ENVIRONMENTAL TECHNOLOGY (AIR POLLUTION CONTROL) 環境技術 (大気保全)

1. PERIOD

January 24, 1991 to March 14, 1991 (2.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Technical officials directly responsible for air pollution control administration with more than 3 years of experience.
- 2) University graduates or equivalent with technical qualifications in this field
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and Practice
 - Environmental pollution issues in Japan
 - Air pollution control administration
 - Planning and countermeasures
 - Measurement and assessment
- 2) Country report presentation
- 3) Field observation

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Environment Agency
- 3) Japan Environmental Sanitation Centre (JESC)

6. REMARKS

No. 29

ENVIRONMENTAL MONITORING (WATER QUALITY) 環境モニタリング(水質)

1. PERIOD

September 25, 1990 to November 17, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Graduates of college or university majoring in chemistry, chemical engineering, hygienic engineering, environmental engineering, environmental science
- 2) Experienced for more than three (3) years in the field of water pollution control at the national or local government.
- 3) Under 35 years and above 25 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Contents
 - Introduction to water quality monitoring
 - Water quality monitoring planning
 - Water quality analytical measurement techniques
 - Utilization of analytical data on water quality
- 2) Methodology
 - Lecture
 - Discussion
 - Practice (demonstration and laboratory exercise)
 - Field trips

5. FACILITIES AND INSTITUTIONS

National Environmental Training Institute (NETI), Environment Agency, Japan

6. REMARKS

No. 30

**NATURE CONSERVATION AND NATURAL PARKS
MANAGEMENT**

自然保護管理

1. PERIOD

October 22, 1990 to November 25, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Technical officials presently in charge of nature conservation and/or management administration in central or local governments with five (5) or more years of experience in this field,
- 2) University graduates or possess equivalent technical qualifications in this field,
- 3) Sufficient command of spoken and written English,
- 4) Not more than 45 years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Basic concepts of nature conservation and natural parks management.
 - Framework of Japanese nature conservation.
- 2) Practice
 - Accumulation and processing of data on natural environment.
 - Preparation and presentation of a plan of contribution for nature conservation and management in their respective countries.
- 3) Field Study
 - Research work of nature to obtain scientific knowledge and to employ techniques.
 - Management of nature to learn the basic principles of the administration of natural parts and zoological gardens and to employ techniques for coral protection.

5. FACILITIES AND INSTITUTIONS

- 1) Nature Conservation Bureau, Environment Agency
- 2) Japan Wildlife Research Center

6. REMARKS

1. PERIOD

January 8, 1991 to March 30, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Technical administrators who are in charge of water quality measurement laboratory (occupational experience of at least 5 years), and who are expected to assume a post of executive administration in the field of water quality control/management in the future
- 2) University graduates having majored in analytical chemistry or microbiology, or the equivalent
- 3) Under 35 years of age
- 4) Good working knowledge of English
- 5) Good health, both physically and mentally, to undergo the course of the training

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practices
 - Fundamental concept of lake management
 - Monitoring of lake water quality
 - Practice of analysis of lake water
 - Maintenance of analytical instruments
 - How to effectively use data on water quality
 - Simulation of water quality
 - Laws concerning lakes
 - Policies and measures concerning lake water management
- 2) Observations and study tours
 - Lakes, research institutes, private companies (manufacturers of analytical instruments of water)

5. FACILITIES AND INSTITUTIONS

- 1) Shiga Prefectural Government
- 2) International Lake Environment Committee Foundation

6. REMARKS

No. 32

**SYSTEM OF ENVIRONMENT MANAGEMENT ON
ENCLOSED COASTAL SEAS** 閉鎖性海域の環境管理技術

1. PERIOD

September 24, 1990 to December 7, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be leading officers who are presently engaged in environment management on enclosed coastal seas,
- 2) be university graduates and/or those who have equivalent practical experience of not less than three (3) years in the field of environment on enclosed coastal seas,
- 3) have a sufficient command of spoken and written English,
- 4) be not less than twenty-six (26), and not more than forty (40) years of age

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - a) Administrative topics
 - Environmental administration in Japan, Legislations on environmental pollution, Environmental quality standards
 - b) General technical topics
 - Outline of environmental pollution, Outline of water pollution, Outline of waste treatment
 - c) Mechanism of pollution
 - Mechanism of occurrence, influx, diffusion, sedimentation, decomposition, resynthesis of pollutants, Abnormal proliferation of plankton, Influence of pollution to human body and ecological system
 - d) Treatment of waste water
 - Treatment planning, Treatment techniques
 - e) Measurement of water pollution
 - Standards methods for measurement, Measurement instruments, Monitoring system, Data analysis
 - f) Environmental management
 - Ideas and methods of environment management planning, practical methods environmental assesment
- 2) Laboratory exercise
Environment management, Waste water treatment, Measurement
- 3) Observation tour

5. FACILITIES AND INSTITUTIONS

- 1) Hyogo International Centre (HIC), JICA
- 2) The Environmental Science Institute of Hyogo Prefecture

6. REMARKS

No. 33

MARINE ENVIRONMENT PROTECTION 海洋保全

1. PERIOD

August 9, 1990 to October 29, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent, or have the occupational experience of more than five (5) years in the field of marine pollution prevention,
- 2) Presently engaged in the above-mentioned field,
- 3) Under forty (40) years of age,
- 4) Sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Outline and Services of Maritime Safety Agency
- 2) Laws on the Prevention of Marine Pollution
- 3) Current situation of Marine Pollution in Japan
- 4) Violation of Laws on Marine Pollution
- 5) Analysis of Noxious Substances
- 6) Control of Spilled Oil
- 7) Discrimination and Identification of Oil
- 8) Prevention of Marine Disasters
- 9) Off-shore Training
- 10) Air Training
- 11) Field Training
- 12) Oil Sample Analysis
- 13) Observation Tour
- 14) Intensive Japanese Language

5. FACILITIES AND INSTITUTIONS

- 1) Maritime Safety Agency
- 2) The 11th Regional Headquarters of Maritime Safety Agency
- 3) Okinawa International Centre (OIC), JICA

6. REMARKS

No. 34

AIR POLLUTION CONTROL 大気汚染対策

1. PERIOD

June 7, 1990 to September 30, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Technical administrators engaged in air pollution control measures in the central or local government, with at least 3 years of experience in the related field.
- 3) Between twenty-five (25) and thirty-five (35) years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Legislation concerning air pollution
 - Preventive measures
 - Measuring techniques
 - Estimation techniques
 - Environmental control techniques
- 2) Practice
 - Practices of preventive measures, measuring techniques, etc., in experimental plants and working plants
- 3) Observation
 - Treatment facilities
 - Wind-tunnel experimental facilities
 - Environmental control systems

5. FACILITIES AND INSTITUTIONS

Osaka City Institute of Public Health and Environmental Sciences

6. REMARKS

1. PERIOD

February 4, 1991 to May 31, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

Applicants should:

- 1) be university graduates or have equivalent academic background.
- 2) be technical engineers/administrators who have three years or more experience on air pollution monitoring practice and/or equivalent technical knowledge.
- 3) have a sufficient command of spoken and written English to understand lectures, participate in discussions, and write technical reports in English.
- 4) be not more than 40 years of age, and
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Basic theory on combustion engineering
 - Administrative framework on air pollution control in Japan and Kitakyushu City
 - Lectures on meteorological aspects
 - Practical training on simulation of atmospheric diffusion
 - Practical training on fuel analysis
 - Practical training on ambient air monitoring
 - Practical training on exhaust gas analysis
- 2) Observation tours
 - Factories manufacturing air quality monitoring apparatus in Kyoto
 - Factories manufacturing boiler/turbine in Osaka
 - Petrochemical complex operating air pollution monitoring system in Yokkaichi
 - National Institute for Environmental Studies in Tsukuba

5. FACILITIES AND INSTITUTIONS

- 1) Kyushu Institute of Technology (KIT)
- 2) Kitakyushu University
- 3) Kitakyushu City Government
- 4) Kitakyushu Municipal Institute of Environmental Health Sciences
- 5) Other related industries.

6. REMARKS

No. 36

**SEMINAR ON THE PROMOTION OF THE OZONE LAYER
PROTECTION IN ASIAN COUNTRIES** オゾン層保護対策セミナー

1. PERIOD

November 25, 1990 to December 2, 1990 (1 week)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Senior level administrators who are in charge of the protection of the ozone layer,
- 2) Sufficient command of spoken and written English,
- 3) In good health, both physically and mentally, to undergo the course of seminar.

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Overview of ozone layer depletion problem
 - Ozone depletion process
 - Environmental impacts by increased radiation of UV-B
 - Overview of technologies to reduce CFCs and other ozone depleting substances
 - Legal and institutional arrangements to comply with the Montreal Protocol
- 2) Field visit

5. FACILITIES AND INSTITUTIONS

Japan Environmental Sanitation Center (JESC)

6. REMARKS

No. 37

**MEASURES TO REDUCE THE USE OF THE OZONE
DEPLETING SUBSTANCES** 特定フロン等使用削減技術

1. PERIOD

October 25, 1990 to November 8, 1990 (2 weeks)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Officers in charge of industry or environment related to CFCs or other ozone depleting substances
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Brief introduction on issues on protection of the Ozone Layer
 - State of Ozone Observations and Research
 - Outline of the Vienna Convention and the Montreal Protocol
 - Policy measures for the Protection of the Ozone Layer in Japan
 - Substitutes and Alternatives for Controlled Substances
 - Technologies to reduce consumption of ozone depleting substances
- 2) Observation tour

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of International Trade and Industry (MITI)
- 2) Japan Industrial Conference for Ozone Layer Protection (JICOP)

6. REMARKS

No. 38

**ENVIRONMENTAL RADIOACTIVITY ANALYSIS AND
MEASUREMENT**

環境放射能分析

1. PERIOD

November 6, 1990 to December 16, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) Be college graduates or university graduates who have majored in science or technology, or those who have equivalent technical knowledge
- 2) Be working or going to work in organizations concerned with environmental radioactivity analysis and measurement
- 3) Have a sufficient command of spoken and written English, this item will be checked strictly
- 4) Be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as a disqualifying condition for the participation in the course

4. DESCRIPTION OF TRAINING

- 1) Basic Subjects: Environmental Radioactivity Analysis and Measurement.
- 2) Sampling and Pretreatment: Sampling and Pretreatment of Precipitation, Water, Fish, Vegetable, etc.
- 3) Analysis and Measurement for Tritium, Radioactive Strontium, Uranium and Plutonium in Environmental Samples.
- 4) Gamma Ray Spectrometry: Gamma Ray Spectrometry with Germanium Semiconductor Detector.
- 5) Gamma Ray Dose Measurement: Gamma Ray Dose Measurement with Thermoluminescence Dosimeter Systems.

5. FACILITIES AND INSTITUTIONS

Japan Chemical Analysis Center (JCAC)

6. REMARKS

No. 39

ENVIRONMENT IMPACT ASSESSMENT

環境アセスメント技術

1. PERIOD

February 11, 1991 to March 10, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be technical officials presently in charge of environmental assessment in central or local government
- 2) be University graduates or equivalent with technical qualifications in the field
- 3) good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and practical training
 - Development and Environment
 - Assessment technology
 - Assessment information
 - Japan's case study
- 2) Country report presentation

5. FACILITIES AND INSTITUTIONS

Japan Environmental Sanitation Centre

6. REMARKS

No. 40

INDUSTRIAL POLLUTION CONTROL PRACTICE 産業環境対策

1. PERIOD

August 6, 1990 to December 20, 1990 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) have occupational experience of not less than 3 years in the field of environmental control administration or pollution control in the corporation
- 3) be not more than 40 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
 - Introduction (the History of Industrial Pollution Preventive Measures in Japan)
 - Health Effects of Environmental Pollutants
 - Environmental Engineering
 - Environmental Administration
 - Environmental pollutants Measuring Method
 - International Cooperation in the field of Environment
 - Environmental Pollution Control Measures taken by Industries
 - Making of Action Plan
 - Maintenance
 - Computer literacy
 - Measures for improving working environments
 - Environmental management
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Kyushu International Centre, JICA
- 2) Kitakyushu International Training Association
- 3) Kitakyushu Municipal Government

6. REMARKS

No. 41

INDUSTRIAL POLLUTION CONTROL RESEARCH 産業公害防止

1. PERIOD

November 26, 1990 to March 25, 1991 (4.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Technical officials
- 2) University graduates
- 3) Three years experience in their respective fields
- 4) Under 40 years of age
- 5) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Measuring techniques of air quality
 - Measuring techniques of water quality
 - Air pollution prevention technology at source and automobile
 - Atmospheric Chemistry
 - Biorological treatment of waste water
 - Pysico-chemical treatment of waste water
 - Assessment technology for air and water pollution
- 2) Field excursion
 - to related institute, municipals and companies

5. FACILITIES AND INSTITUTIONS

- 1) National Research Institute for Pollution and Resources, Ministry of International Trade and Industry (MITI)
- 2) Environmental Protection Guidance Division, MITI
- 3) Industrial Pollution Control Association Japan
- 4) Japan Machinery and Metals Inspection Institute
- 5) Tsukuba International Centre, JICA

6. REMARKS

No. 42

INDUSTRIAL WASTE WATER TREATMENT TECHNIQUE 産業廃水処理技術

1. PERIOD

August 20, 1990 to December 22, 1990 (4.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) be university graduates or equivalent in the fields of chemical engineering, mechanical engineering, electrical engineering or civil engineering
- 2) have 3 years or more experience on actual management of industrial waste water/effluent (inc. designed to be appointed in future)
- 3) be presently engaged in engineering services on wastewater treatment of various manufacturers
- 4) be not more than 40 years of old
- 5) have a sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Outline of water pollution control law
 - Outline of wastewater treatment
 - Wastewater analysis technique
 - Wastewater investigation & treatment test
 - Planning, design & execution of wastewater treatment facilities
 - Operation, inspection & maintenance of treatment facilities
 - Computer literacy
 - Automatic control technique
 - Computer Aided Design
 - Field study in Enterprise
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Kyushu International Centre, JICA
- 2) Kitakyushu International Training Association
- 3) Kyushu Institute of Technology (KIT)
- 4) Kitakyushu Municipal Government
- 5) Kankyo Engineering Co., Ltd (Kitakyushu Branch Office)
- 6) Nippon Steel Corporation, Yawata Works

6. REMARKS

1. PERIOD

January 14, 1991 to April 28, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

Applicants should:

- 1) be university graduates or have equivalent academic background
- 2) be technical engineers/administrators who have three years or more experience on domestic waste-water treatment practice and/or equivalent technical knowledge.
- 3) have a sufficient command of spoken and written English to understand lectures, participate in discussions, and write technical reports in English.
- 4) be not more than 40 years of age
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Basic theory on water quality conservation
 - Administrative framework on water pollution control in Japan and Kitakyushu City
 - Practical training on water quality analysis
 - Technical training on night-soil treatment
 - Technical training on sewage/drainage treatment
 - Technical training on septic tank management
 - Practical training on waste disposal
 - Practical training on river/water-way management in urban area
 - Practical training on water supply
- 2) Observation tours
 - Factories manufacturing water quality monitoring apparatus in Kyoto
 - Lake Biwa Research Institute in Otsu
 - National Institute for Environmental Studies in Tsukuba
 - United Nations Centre for Regional Development in Nagoya

5. FACILITIES AND INSTITUTIONS

- 1) Kyushu Institute of Technology (KIT)
- 2) The University of Occupational and Environmental Health
- 3) Kitakyushu University
- 4) Kitakyushu City Government

6. REMARKS

No. 44

PRACTICAL STATISTICS II 一般統計実務Ⅱ

1. PERIOD

September 29, 1990 to March 25, 1991 (6.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirty-three (33)

3. QUALIFICATIONS

- 1) University graduates specialized in statistics, economics or sociology or those who have the equivalent knowledge and experience
- 2) be over twenty-five (25) but under thirty-five (35) years of age
- 3) have a sufficient command of spoken and written English
- 4) have a sufficient knowledge of basic mathematics

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Statistical methods
 - Sampling methods
 - Statistical operations, Computing
 - National accounting statistics
 - Demographic and social statistics
 - Economic statistics
 - Food and agricultural statistics
- 2) Observation of field operations of statistical surveys

5. FACILITIES AND INSTITUTIONS

- 1) Statistical Institute for Asia and the Pacific (SIAP)
- 2) Management and Coordination Agency

6. REMARKS

This course is organized mainly for ESCAP countries.

AUTOMATIC DATA PROCESSING (ADP) 自動データ処理 (A D P)

1. PERIOD

May 7, 1990 to August 13, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) University graduates or have the equivalent knowledge and experience
- 2) Upper and middle level statisticians or statistical officers whose present or intended work includes responsibility for statistical censuses, surveys or other statistical activities and the use of computers in fulfilling their responsibilities.
- 3) Over 25 but under 35 years of age
- 4) have a sufficient command of spoken and written English
- 5) be as fully informed as possible about their countries' statistical systems and related data processing facilities

4. DESCRIPTION OF TRAINING

- 1) Systems analysis and equipment selection
- 2) Electronic data processing and PL/I programming language
- 3) Large-file statistical data processing
- 4) Computer methods in statistical analysis
- 5) Statistical operations
- 6) Computer laboratory

5. FACILITIES AND INSTITUTIONS

- 1) Statistical Institute for Asia and the Pacific
- 2) Management and Coordination Agency

6. REMARKS

This course organized mainly for ESCAP countries.

No. 46

ELECTRONIC DATA PROCESSING FOR GOVERNMENT
INFORMATION ACTIVITIES

行政情報システム

1. PERIOD

January 14, 1991 to March 13, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Officials who belong to
 - i) a government body responsible for overall management and coordination of GIS, being engaged in relevant works
 - ii) a government body planned to be responsible or considered to be suitable for the task mentioned above.
- 2) Knowledge and skills in data processing by computer, preferably with experiences of developing and/or managing computer systems
- 3) University graduates or have equivalent educational backgrounds
- 4) Good working knowledge of English
- 5) Under 40 years of age

4. DESCRIPTION OF TRAINING

- 1) Outline of Public Administration and Government Information System
- 2) Methodology of Management and Coordination of GIS
- 3) Computerization of Statistics
- 4) Technology of Database
- 5) Technology of Communication Network
- 6) Office Automation
- 7) Software Development
- 8) Application of Computer
- 9) New Technologies of Hardware and Software
- 10) Presentation of Country Report
- 11) Individual or Small Group Study

5. FACILITIES AND INSTITUTIONS

Office of Government Information Systems Planning Division, Administrative Management Bureau,
Management and Coordination Agency

6. REMARKS

No. 47

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(SENIOR PROGRAMMER) (シニアプログラマー)

1. PERIOD

May 10, 1990 to September 8, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fourteen (14)

3. QUALIFICATIONS

- 1) University graduates or have the equivalent knowledge in the field,
- 2) have one (1) to five (5) years experience in system development and maintenance, and have more than three (3) years programming experience in at least one of programming languages as COBOL, FORTRAN, PL/I, and so forth,
- 3) Being able to make a programme in COBOL,
- 4) Not exceeding thirty-five (35) years of age, and
- 5) Having sufficient command of both spoken and written English to take classes in English.

4. DESCRIPTION OF TRAINING

- | | |
|--|---|
| 1) Hardware Introduction | 11) Data Communication System Design |
| 2) OS (Operating System) Introduction | 12) Data Communication Network Introduction |
| 3) Programme Design | 13) System Development Outline |
| 4) Programme Structure Design | 14) System Development Workshop |
| 5) Online Database System Introduction | 15) Special Lecture |
| 6) Database Programming | 16) Introduction to Personal Computer |
| 7) TSS (Time Sharing System) Usage | 17) Advanced Computer Technology |
| 8) JCL (Job Control Language) Usage | 18) Observation Tour |
| 9) Database Design | |
| 10) Data Communication Programming | |

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 48

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(INSTRUCTOR) (インストラクタ)

1. PERIOD

September 27, 1990 to March 17, 1990 (6 months)

2. NUMBER of PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) University graduates with more than one (1) year experience in system development and maintenance or, be person with more than three (3) years experience in the field
- 2) Having more than three (3) years experience in programming in any one of programming languages: such as COBOL, FORTRAN, PL/I, etc., and being able to make a programme in COBOL
- 3) Person who will be a instructor of programmers
- 4) Not exceeding thirty-five (35) years of age
- 5) Having sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- | | |
|--|--|
| 1) Hardware Introduction | 13) Data Communication System Design |
| 2) OS (Operating System) Introduction | 14) Module Design |
| 3) Data Communication Network Introduction | 15) Testing Method |
| 4) Programme Design | 16) System Development Workshop |
| 5) System Development Outline | 17) Instructor Training I |
| 6) Personal Computer Introduction | 18) Instructor Training II |
| 7) Online Database System Introduction | 19) Instructor Training III |
| 8) Database Programming | 20) Special Lecture |
| 9) TSS (Time Sharing System) Usage | 21) S System Outline |
| 10) JCL (Job Control Language) Usage | 22) External Database System Utilization |
| 11) Database Design | 23) Observation Tour |
| 12) Data Communication Programming | |

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 49

**INFORMATION PROCESSING PERSONNEL
(MANAGEMENT)**

情報処理要員養成
(マネージメント)

1. PERIOD

October 25, 1990 to December 17, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Sixteen (16)

3. QUALIFICATIONS

- 1) University graduates with more than one (1) year experience in system development and maintenance, or, have the equivalent background
- 2) Presently engaged in management and have less than one (1) year experience of data processing division management
- 3) Not exceeding forty-five (45) years of age
- 4) Having sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- 1) DP System Planning
- 2) Case Study
- 3) Project Management Game
- 4) DP Division Management
- 5) System Audit
- 6) Special Lecture
- 7) DSS (Decision Support System)
- 8) Observation Tour

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 50

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(PERSONAL COMPUTER PROGRAMMING A) (パーソナルコンピュータ・プログラミングA)

1. PERIOD

April 5, 1990 to July 28, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates, or be person who has the equivalent knowledge in the field
- 2) Having a half year to two (2) years programming experience which includes programming in software packages, such as database, spreadsheet, and so forth
- 3) Not be over thirty (30) years of age
- 4) Having sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- | | |
|--------------------------------------|----------------------------------|
| 1) Personal Computer Introduction | 8) System Development Workshop |
| 2) Wordprocessing (WORDPERFECT) | 9) Special Lecture |
| 3) Spreadsheet (Lotus 1-2-3) | 10) Case Study |
| 4) Database (dBASEIII ⁺) | 11) Advanced Computer Technology |
| 5) BASIC Programming | 12) OSI and LAN Technology |
| 6) Testing Method | 13) Observation Tour |
| 7) System Design | |

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 51

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(PERSONAL COMPUTER PROGRAMMING B) (パーソナルコンピュータ・プログラミング B)

1. PERIOD

July 26, 1990 to November 17, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates, or be person who has the equivalent knowledge in the field
- 2) Having a half year to two (2) years programming experience which includes programming in software packages, such as database, spreadsheet, and so forth
- 3) Not be over thirty (30) years of age.
- 4) Having sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- | | |
|--|----------------------------------|
| 1) Personal Computer Introduction | 8) System Development Workshop |
| 2) Wordprocessing (WORDPERFECT) | 9) Special Lecture |
| 3) Spreadsheet (Lotus 1-2-3) MULTIPLAN | 10) Case Study |
| 4) Database (dBASEIII+) | 11) Advanced Computer Technology |
| 5) BASIC Programming | 12) OSI and LAN Technology |
| 6) Testing Method | 13) Observation Tour |
| 7) System Design | |

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 52

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(SYSTEM ENGINEER A) (システム・エンジニア A)

1. PERIOD

April 5, 1990 to September 29, 1990 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates with more than three (3) years experience in system development or, have the equivalent background
- 2) Having more than three (3) years experience in programming in any one of programming languages: such as COBOL, FORTRAN, PL/1, etc., and being able to make a programme in COBOL
- 3) Not exceeding thirty-five (35) years of age
- 4) Having sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- | | |
|--|--|
| 1) Programme Design | 13) Reliable System Design |
| 2) Online Database System Introduction | 14) Data Communication Network Design |
| 3) Database Programming | 15) System Configuration Design Workshop |
| 4) TSS (Time Sharing System) Usage | 16) System Development Outline |
| 5) JCL (Job Control Language) Usage | 17) Project Management Game |
| 6) Database Design | 18) System Development Workshop |
| 7) Data Communication Programming | 19) Special Lecture |
| 8) Data Communication System Design | 20) Personal Computer Introduction |
| 9) Module Design | 21) Language C |
| 10) Testing Method | 22) S System Outline |
| 11) System Analysis | 23) External Database System Utilization |
| 12) System Estimation/Evaluation | 24) Observation Tour |

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 53

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(SYSTEM ENGINEER B) (システム・エンジニア B)

1. PERIOD

September 27, 1990 to March 31, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates with more than three (3) years experience in system development or, have the equivalent background,
- 2) Having two (2) to five (5) years experience in system development and more than three (3) years experience in programming in at least one of programming languages such as COBOL, FORTRAN, PL/I, and also being able to make a programme in COBOL.
- 3) Not exceeding thirty-five (35) years of age
- 4) Having a sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- | | |
|--|--|
| 1) Programme Design | 13) Reliable System Design |
| 2) Online Database System Introduction | 14) Data Communication Network Design |
| 3) Database Programming | 15) System Configuration Design Workshop |
| 4) TSS (Time Sharing System) Usage | 16) System Development Outline |
| 5) JCL (Job Control Language) Usage | 17) Project Management Game |
| 6) Database Design | 18) System Development Workshop |
| 7) Data Communication Programming | 19) Special Lecture |
| 8) Data Communication System Design | 20) Personal Computer Introduction |
| 9) Module Design | 21) Language C |
| 10) Testing Method | 22) S System Outline |
| 11) System Analysis | 23) External Database System Utilization |
| 12) System Estimation/Evaluation | 24) Observation Tour |

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 54

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(DATABASE SYSTEM DESIGN A) (データベースシステム設計 A)

1. PERIOD

April 5, 1990 to September 8, 1990 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates with more than one (1) year experience in system development and maintenance or, be person with more than three (3) years experience in system development
- 2) Having more than three (3) years experience in programming in any one of programming languages such as COBOL, FORTRAN, PL/I, and being able to make a programme in COBOL
- 3) Having experience in system design using conventional files
- 4) Not exceeding thirty-five (35) years of age
- 5) Having sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- | | |
|--|--|
| 1) File System Design | 11) Recovery Design |
| 2) Programme Design | 12) Module Design |
| 3) Online Database System Introduction | 13) Testing Method |
| 4) Database Programming (NDB, RDB) | 14) Project Management |
| 5) TSS (Time Sharing System) Usage | 15) System Development Workshop |
| 6) JCL (Job Control Language) Usage | 16) Special Lecture |
| 7) Database Design (NDB, RDB) | 17) Personal Computer Introduction |
| 8) Database Creation | 18) S System Outline |
| 9) Data Communication Programming | 19) External Database System Utilization |
| 10) Data Communication System Design | 20) Observation Tour |

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 55

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(DATABASE SYSTEM DESIGN B) (データベースシステム設計 B)

1. PERIOD

September 27, 1990 to March 9, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates, or be person who has the equivalent knowledge in the field,
- 2) Having one (1) to five (5) years experience in system development and maintenance, and having more than three (3) years programming experience in at least one of programming languages such as COBOL, FORTRAN, PL/I, and so forth,
- 3) Being able to make a programme in COBOL,
- 4) Having experience in system design by using conventional files,
- 5) Not be over thirty-five (35) years of age, and
- 6) Having sufficient command of both spoken and written English to take classes in English.

4. DESCRIPTION OF TRAINING

- | | |
|--|--|
| 1) File System Design | 12) Recovery Design |
| 2) Programme Design | 13) Test Planning |
| 3) Online Database System Introduction | 14) Project Management |
| 4) TSS (Time Sharing System) Usage | 15) System Development Workshop |
| 5) JCL (Job Control Language) Usage | 16) Special Lecture |
| 6) Database Programming (NDB, RDB) | 17) Case Study |
| 7) Programme Structure Design | 18) Introduction to Personal Computer |
| 8) Database Design (NDB, RDB) | 19) Computer Assisted Software Engineering |
| 9) Database Creation | 20) Advanced Computer Technology |
| 10) Data Communication Programming | 21) Observation Tour |
| 11) Data Communication System Design | |

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 56

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(ONLINE SYSTEM DESIGN A) (オンラインシステム設計A)

1. PERIOD

May 10, 1990 to October 8, 1990 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates with more than one (1) year experience in system development and maintenance or, be person with more than three (3) years experience in system development
- 2) Having more than three (3) years experience in programming in any one of programming languages: such as COBOL, FORTRAN, PL/I, etc., and being able to make a programme in COBOL
- 3) Having experience in system design in batch processing system
- 4) Not exceeding thirty-five (35) years of age
- 5) Having sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- | | |
|--|--|
| 1) Programme Design | 12) System Estimation/Evaluation |
| 2) Online Database System Introduction | 13) Reliable System Design |
| 3) Database Programming | 14) Data Communication Network Design |
| 4) TSS (Time Sharing System) Usage | 15) System Configuration Design Workshop |
| 5) JCL (Job Control Language) Usage | 16) Project Management |
| 6) Database Design | 17) System Development Workshop |
| 7) Data Communication Programming | 18) Special Lecture |
| 8) Data Communication System Design | 19) Personal Computer Introduction |
| 9) Data Communication System Creation | 20) E System Outline |
| 10) Module Design | 21) External Database System Utilization |
| 11) Testing Method | 22) Observation Tour |

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 57

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(ONLINE SYSTEM DESIGN B) (オンライン・システム設計 B)

1. PERIOD

October 18, 1990 to March 31, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates, or be person who has the equivalent knowledge in the field,
- 2) Having one (1) to five (5) years experience in system development and maintenance, and having more than three (3) years programming experience in at least one of programming languages such as COBOL, FORTRAN, PL/I, and so forth,
- 3) Being able to make a programme in COBOL,
- 4) Having experience in system design in batch processing system,
- 5) Not be over thirty-five (35) years of age, and
- 6) Having sufficient command of both spoken and written English to take classes in English.

4. DESCRIPTION OF TRAINING

- | | |
|--|--|
| 1) Programme Design | 13) Reliable System Design |
| 2) Programme Structure Design | 14) Data Communication Network Design |
| 3) Online Database System Introduction | 15) System Configuration Design Workshop |
| 4) Database Programming | 16) Project Management |
| 5) TSS (Time Sharing System) Usage | 17) System Development Workshop |
| 6) JCL (Job Control Language) Usage | 18) Special Lecture |
| 7) Database Design | 19) Case Study |
| 8) Data Communication Programming | 20) Introduction to Personal Computer |
| 9) Data Communication System Design | 21) Computer Assisted Software Engineering |
| 10) Data Communication System Creation | 22) Advanced Computer Technology |
| 11) Test Planning | 23) Observation Tour |
| 12) System Estimation/Evaluation | |

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 58

INFORMATION PROCESSING PERSONNEL 情報処理要員養成
(PERSONAL COMPUTER NETWORK) (パーソナル・コンピュータネットワーク)

1. PERIOD

November 21, 1990 to March 31, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates with more than one (1) year experience in system development and maintenance on personal computer or, be person with more than three (3) years' experience in the field
- 2) have more than three (3) years' experience in programming in any one of programming languages: such as BASIC, COBOL, FORTRAN, etc.
- 3) be not exceeding thirty-five (35) years of age
- 4) have sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Personal computer introduction
- 2) Wordprocessing
- 3) Spreadsheet
- 4) Database
- 5) Language C
- 6) PC LAN System Design
- 7) Micro-Mainframe Communication Design
- 8) Testing Method
- 9) UNIX System Usage
- 10) PC Network System Design
- 11) System Development Workshop
- 12) Σ System Outline
- 13) External Database System Utilization
- 14) Special Lecture
- 15) Observation Tour (Computer manufacturers, computer system centres, research institutes, etc.)

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 59

MICRO-ELECTRONICS ENGINEERING (MICROCOMPUTER) マイクロエレクトロニクス技術

1. PERIOD

November 26, 1990 to March 12, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

Applicants should:

- 1) be design or development engineers who have experienced more than 3 years of developing and designing software or hardware for personal computer or microprocessor.
- 2) be under 35 years of age (in principle).
- 3) be university or college graduates who have majored in electricity, electronics and information processing, and have studied within the past 10 years.
- 4) be able to operate DOS (Disc Operating System) and Text Editor of personal computers.
- 5) have experience in developing programs by using C-language or assembly language.
- 6) have experience in designing and developing digital circuits or print circuited board.
- 7) have a sufficient command both of spoken and written English. [TOEFL examination scores (scores of 500 and above)]
- 8) be in good health, both physically and mentally, to pursue the study. Pregnancy is regarded as disqualified.

4. DESCRIPTION OF TRAINING

- 1) Lectures:
 - Microcomputer I (Application for 8 bit microcomputer)
 - Microcomputer II (High-end microprocessor)
 - Interface techniques
 - Data structure and software techniques
 - Assembler and C-language
- 2) Exercises and Experiments
 - Assembling microcomputers
 - Operating microcomputers and debugging
 - Practical technologies of interfaces
 - Controlling peripherals
 - C-language
 - Operations of host computers
 - Computer networks
 - Logic simulation
 - Designing PLD
- 3) Practical training will be put into practice for one or two weeks in the related agencies and institutions.
- 4) Observations

5. FACILITIES AND INSTITUTIONS

Sapporo Electronics Center

6. REMARKS

1. PERIOD

January 24, 1991 to April 22, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates from department of engineering or the equivalent, and majored in information engineering, system engineering or electronics,
- 2) Those who have experience of at least 3 years in the related field, and are presently engaged in office automation operation,
- 3) Under 30 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

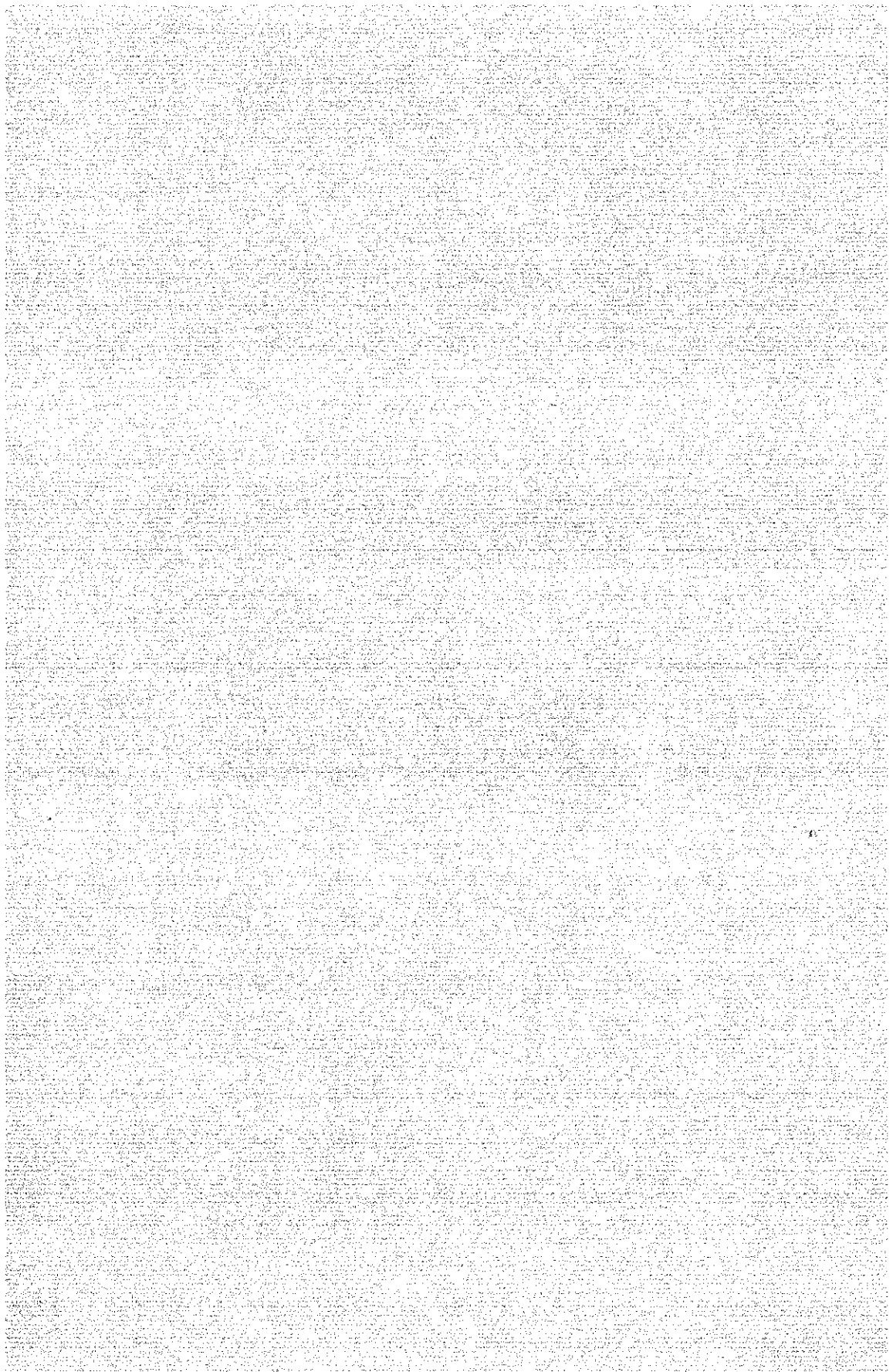
- 1) Lectures and practical training
 - Information intensive society and business management
 - Business administration and office automation (Introduction and propagation of automatically controlled office work)
 - Theory of office automation
 - Designing office automation by computers
 - Practical training of system design
 - Integrated office automation and information technology
 - Concept of integrated OA, On-line network, Data-base management
 - Integrated office automation and human interface
 - System approach to support intellectual creativity
 - Development of consumer-oriented system
 - System approach and utilization of 4th generation language
 - System supervision and security
 - Human resources development for office automation
 - Development of future office automation (DSS, SIS, EIS)
- 2) Observations and study tours
 - OA in design, OA in manufacture, OA in distribution
 - Case study will include observation of examples of office automation in various fields

5. FACILITIES AND INSTITUTIONS

Kansai Institute of Information Systems

6. REMARKS

PUBLIC UTILITY WORKS



No. 61

WATER WORKS ENGINEERING II 上水道施設 II

1. PERIOD

May 14, 1990 to August 10, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Water supply planning
 - Water works management
 - Water purification and quality
 - Pipeline
 - Mechanical and electrical installation
 - Personal programme
 - Financial cooperation
 - Technical cooperation
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Health and Welfare
- 2) Japan Water Works Association

6. REMARKS

No. 62

SEWAGE WORKS ENGINEERING 下水道技術

1. PERIOD

August 20, 1990 to November 23, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) *Qualified in their respective fields*
- 3) Senior technical officers
- 4) Good working knowledge of English
- 5) Under 40 years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Basic concept of sewage works
 - *Collection system*
 - Wastewater treatment
 - Sludge handling
 - Case study
 - Water quality analysis
 - *Industrial wastewater and its management*
 - Practice on Master Plan making
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) City Bureau, Ministry of Construction
- 2) Japan Sewage Works Agency

6. REMARKS

No. 63

SOLID WASTE MANAGEMENT AND NIGHT SOIL TREATMENT II 廃棄物処理 II

1. PERIOD

May 21, 1990 to July 26, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be technical officials presently in charge of solid waste management (domestic and industrial solid waste management and night soil treatment excluding sewerage system) in central or provincial governments or in local bodies, with three (3) or more years of experience in this field,
- 2) be university graduates or possess equivalent technical qualifications in this field,
- 3) have a sufficient command of spoken and written English,

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Introduction
 - Planning of solid waste management
 - Solid waste collection and transportation
 - Solid waste disposal and treatment
 - Night soil treatment
 - Industrial waste management
 - JICA's activities in the solid waste management field
- 2) Observation tours
- 3) Country report

5. FACILITIES AND INSTITUTIONS

- 1) Environmental Health Bureau, Ministry of Health and Welfare
- 2) Department of Sanitary Engineering, The Institute of Public Health
- 3) Japan Environmental Sanitation Centre
- 4) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 64

WASTE MANAGEMENT PRACTICE

廃棄物処理実習

1. PERIOD

March 25, 1991 to July 7, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) be directly involved in waste disposal administration for the central or local government, having engineering background and experience of 3 years or more
- 3) be between 25 and 35 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

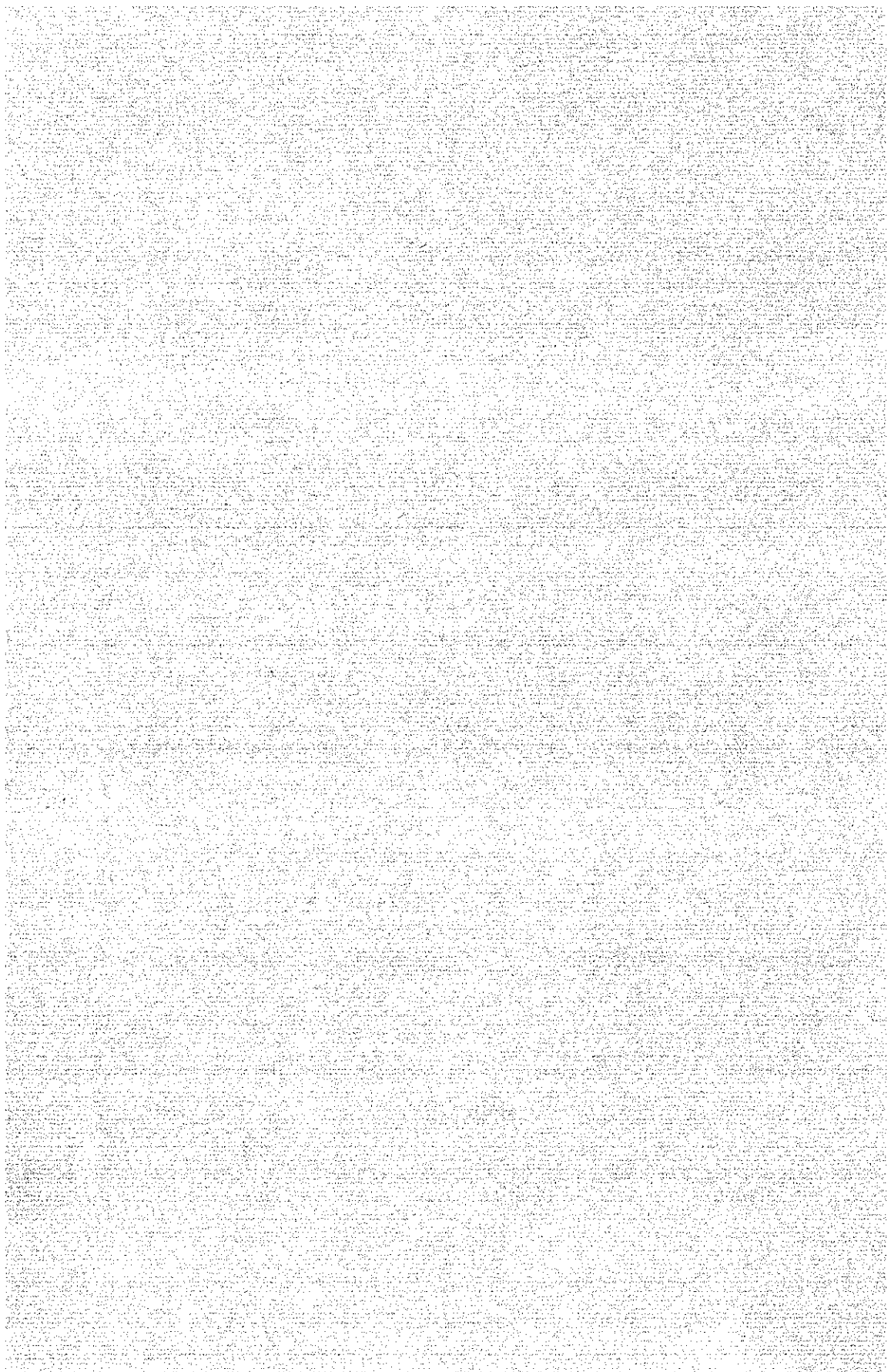
- 1) Lectures and Practical Training
 - A) General Outline
 - Waste Disposal and Public Cleaning Law
 - History of Waste Disposal
 - The State of Treatment
 - Outline of Pollution Control Laws
 - History of Pollution Control
 - B) Industrial Waste Disposal
 - Practice at Site (Iron, Chemical and Cement etc.)
 - Intermediate Treatment (Dehydration, Drying, Incineration, Oil-water Separation, Neutralization, Shredding, Toxic Substance Treatment)
 - Final Disposal Site
 - Recycling Elution Test
 - C) Waste Disposal
 - Disposal Planning, Education
 - Collection & Transportation (Collection & its Planning, Large-size Domestic Waste)
 - Intermediate Treatment (Incineration and Shredding)
 - D) Raw Sewage Treatment
 - The Outline of Collection & Treatment
 - Private Raw Sewage Treatment System
 - Sewerage (Outline of System and Treatment, Inspection of Facilities)
- 2) Study Trip

5. FACILITIES AND INSTITUTIONS

Kitakyushu City Office

6. REMARKS

TRANSPORTATION AND TRAFFIC



No. 65

AUTOMOBILE ENGINEERING ADMINISTRATION

自動車技術行政

1. PERIOD

January 17, 1991 to February 27, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in the field of motor vehicles' administration
- 3) Occupy a responsible position at present in the governmental or public organization
- 4) Good working knowledge of English
- 5) Under 50 years of age

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Outline of legal system of motor vehicle in Japan
 - Regulation of motor vehicle safety and pollution control measures
 - Motor vehicle maintenance and repair
 - Motor vehicle registration
 - Motor vehicle inspection
 - Motor vehicle transport
 - Controlling traffic operation and reporting traffic accidents
 - Motor vehicle insurance
 - Driver's licence
 - Motor vehicle safety and pollution control
 - Standard and production activities on motor vehicle
 - Road service, adequacy of drivers and traffic control
- 2) Observation and study tours

5. FACILITIES AND INSTITUTIONS

- 1) Automobile Inspection & Registration Association
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 66

MODERNIZATION OF PHYSICAL DISTRIBUTION 物流近代化

1. PERIOD

January 10, 1991 to March 17, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be university graduates or equivalent with occupational experience of more than three (3) years,
- 2) be presently engaged in the field of physical distribution (land transportation) at governmental organizations,
- 3) be between thirty (30) to forty (40) years of age,
- 4) have sufficient command of spoken and written English,

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Administration of physical distribution
 - Planning and coordination for physical distribution
 - Modernization for physical distribution
 - Strategy for physical distribution

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Transport
- 2) Universities and public institutes
- 3) Related industries

6. REMARKS

No. 67

HIGHWAY CONSTRUCTION SEMINAR II ハイウェイセミナーII

1. PERIOD

September 20, 1990 to November 11, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 2 years
- 4) Under 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Road system planning
 - Maintenance and repairs
 - Pavement earth work
- 2) Observation tours
 - Road Traffic Information Centre
 - Kansai district
- 3) Presentation of country reports and discussions
- 4) Participation on a symposium

5. FACILITIES AND INSTITUTIONS

- 1) Road Bureau, Ministry of Construction
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 68

URBAN TERMINAL FACILITY PLANNING

ターミナル施設計画

1. PERIOD

January 31, 1991 to March 27, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) University graduate or equivalent
- 2) Experience in the field of Urban Road Maintenance

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Planning, project of urban terminal facilities
 - Design method of urban terminal facilities
 - Integral management of urban terminal facilities
- 2) Observation tours
- 3) Practical training

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Construction
- 2) Osaka City

6. REMARKS

No. 69

**RAILWAY MODERNIZATION FOR ROLLING
STOCK MAINTENANCE** 鉄道車両整備近代化

1. PERIOD

July 16, 1990 to October 15, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be presently engaged or expected to be engaged in the near future, in engineering work in the field of rolling stock.
- 2) have more than seven (7) years of practical experience after graduation from university, college, or a technical school of equal standing,
- 3) be under forty (40) years of age,
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Outline of Japanese rail transport
- 2) Outline of rolling stock
- 3) Management of rolling stock
- 4) Maintenance of rolling stock
- 5) Materials
- 6) Operation and safety systems
- 7) Safety management (accident and prevention)
- 8) New transport systems
- 9) Development of rolling stock
- 10) Manufacturing of rolling stock and components
- 11) Manufacturing of electrical equipment components
- 12) Manufacturing of rolling stock components

5. FACILITIES AND INSTITUTIONS

- 1) International Cooperation Division, International Transport and Tourism Bureau, Ministry of Transport
- 2) International Division, Corporate Planning Department, East Japan Railways Company (JR East)
- 3) Japan Rolling Stock Exporters' Association (JARSEA)
- 4) Japan Association of Rolling Stock Industries

6. REMARKS

1. PERIOD

October 15, 1990 to December 23, 1990 (2.2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Be presently engaged, or expected to be engaged in the near future, in planning and management work in railway electrification.
- 2) Be university graduates or equivalent who majored in electrical engineering
- 3) Have more than five (5) years of practical experience
- 4) Be under 40 years of age
- 5) Have good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Planning of railway electrification
 - Effects and economy by electrification
 - Equipments for electric traction and maintenance of them
 - Performance and maintenance of electric rolling stocks
 - Improvement of railway tracks
 - Planning of railway operation
- 2) Field study (observation)
 - Electrification project site
 - Replacement work of electric equipments
 - Power sources facilities and substations
 - Comprehensive inspection car
 - Traction facilities of private railways
 - Manufacturing plants of electric equipments

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Transport
- 2) Japan Railways Group (JR Group)
- 3) Railway Electrification Association

6. REMARKS

1. PERIOD

January 31, 1991 to March 6, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirteen (13)

3. QUALIFICATIONS

- 1) University graduate or equivalent
- 2) More than 5 years of practical experience in this field
- 3) Under 40 years old
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Outline of railway in Japan
 - History of railway development in Japan
 - The law related to railway management
 - Assistance and Subsidiaries to railway companies in Japan
 - From JNR to JR (outline of JNR destruction)
 - New management systems of JR group
 - Management system of other railway private enterprises
- 2) Equipment investment planning
- 3) Establishment of the railroad rate in Japan
- 4) Activation and modernization of railway
 - Improvement of deficit operation by change of management way
 - The operation shifting from manual to automation
- 5) Outline of LRT

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Transport
- 2) Japan Railways (JR) Group

6. REMARKS

No. 72

**RAILWAY SIGNAL, TELECOMMUNICATION AND
INFORMATION SYSTEM ENGINEERING** 鉄道情報システム

1. PERIOD

January 10, 1991 to April 16, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be railway signal engineering officials with more than five (5) years of practical experience,
- 2) be presently engaged or expected to be engaged in the near future, in planning and administration work in the field of Signal Engineering,
- 3) be university or college graduates or have the equivalent educational backgrounds,
- 4) have a sufficient command of spoken and written English,
- 5) be not more than forty-five (45) years of age

4. DESCRIPTION OF TRAINING

- 1) Management
 - Signal Engineering in General
 - Railway Telecommunication in General
 - Planning of Development
 - Maintenance
- 2) Basic Signal System
 - Fundamental
 - Switch Point
 - Track circuit
 - Blocking System
 - Interlocking
- 3) Safety System and Others
 - Relay Interlocking and Electronic Interlocking
 - Automatic Train Stop System (ATS) and Automatic Train Control System (ATC)
 - Centralized Traffic Control System
 - Electronic Block System
 - Railway Traffic Control System
 - Dispatcher Information System
 - Railway Telecommunication

5. FACILITIES AND INSTITUTIONS

- 1) International Cooperation Division, International Transport and Tourism bureau, Ministry of Transport
- 2) International Division, Corporate Planning Department, East Japan Railway Company (JR East)
- 3) Japan Association of Signal Industries
- 4) Signal Manufacturers

6. REMARKS

No. 73

ADMINISTRATION FOR SEAMEN'S EDUCATION 船員教育行政

1. PERIOD

October 18, 1990 to November 28, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 25 and 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Administration for seafarers
 - General Introduction to Administration
 - Employment
 - Insurance and Welfare
 - Labour Standards for Seafarers
 - Mariner's Law
 - Labour Standards
 - Labour Safety and Sanitation
 - Educational System for Seafarers
 - Education
 - Training on Training Ship
 - The Certification System for Seafarers
 - The Law for Ship's Officers
 - National Examination for Ship's Officers
 - Others
 - International Shipping Development
- 2) Observation tours
 - Study Tour to Institutions Training Ship, etc.
 - Observation Visit to Shipyards, Port & Harbor

5. FACILITIES AND INSTITUTIONS

- 1) Maritime Technology and Safety Bureau, Ministry of Transport
- 2) Maritime International Cooperation Centre
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 74-1

MARINE TECHNIQUE (NAVIGATOR) 航海技術 (航海士)

1. PERIOD

April 5, 1990 to December 3, 1990 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) High school graduate with more than three years' of seafaring, or those who have the equivalent knowledge and experience, preferably including an experience as an officer and should not be in possession of a certificate of STCW III or higher.
- 2) Male, between twenty-two (22) and thirty-five (35) years of age
- 3) Have a sufficient command of both spoken and written English
- 4) Good health, both physically and mentally

4. DESCRIPTION OF TRAINING

- | | |
|--|--|
| 1) Japanese Language | 17) Ships Power Plant |
| 2) Personal Computer | 18) Basic Seamanship |
| 3) Nautical Instrument | 19) Prevention of Marine Pollution |
| 4) Aids to Navigation | 20) Medical Care and Aids |
| 5) Nautical Charts and Publications | 21) Life Saving |
| 6) Tides and Currents | 22) Fire-fighting, etc.
(MDPC-Yokosuka Training Center) |
| 7) Terrestrial Navigation | 23) Marine Disasters |
| 8) Celestial Navigation and Great Circle Sailing | 24) Search and Rescue |
| 9) Electronic Navigation | 25) Training and Management of Crew |
| 10) Voyage Planning | 26) Rules of the Road |
| 11) General Ship Design | 27) International Conventions Laws and Regulations |
| 12) Ship Construction Strength | 28) Ship's Survey and Inspection |
| 13) Stability and Damage Control | 29) RKK Ship |
| 14) Watchkeeping | 30) Training Ship of Institute for Sea Training |
| 15) Meteorology and Oceanography | 31) Observation Tour |
| 16) Ship handling | |

5. FACILITIES AND INSTITUTIONS

Okinawa Branch of Japan Educational Institute for Seamen (JEIS)

6. REMARKS

No. 74-2

MARINE TECHNIQUE (ENGINEER) 航海技術(機関士)

1. PERIOD

April 5, 1990 to December 3, 1990 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) High school graduate with more than three years of seetime, or those who have the equivalent knowledge and experience, preferably including an experience as an engineer officer and should not be in possession of a certificate of STCW III or higher.
- 2) Male, between twenty-two (22) and thirty-five (35) years of age
- 3) Have a sufficient command of both spoken and written English
- 4) Good health, both physically and mentally

4. DESCRIPTION OF TRAINING

- | | |
|---|---|
| 1) Japanese Language | 13) Electric and Electronic machines and equipments |
| 2) Personal Computer | 14) Life Saving |
| 3) Basic knowledge on Engine | 15) Fuel and Lubricants |
| 4) Internal Combustion Engines | 16) Auxiliary Machinerles |
| 5) Gas turbine Engines | 17) Prevention of Marine Pollution |
| 6) Outline of Steam turbine Engines | 18) Ship Survey Inspection |
| 7) Propeller, propeller shaft and transmitting system | 19) International Conventions and Maritime Laws |
| 8) Boilers | 20) Medical Care and First Aid |
| 9) Practice on Crayton Boiler | 21) Fire-Fighting (MDPC Yokosuka Training Center) |
| 10) Ship's Workshop and Tools | 22) General Marine Engineering |
| 11) Ship-building Engineering and the Structure of Ship | 23) RKK Ship |
| 12) Outline of Navigation | 24) Training Ship of Institute for Sea Training |
| | 25) Observation Tour |

5. FACILITIES AND INSTITUTIONS

Okinawa Branch of Japan Educational Institute for Seamen (JEIS)

6. REMARKS

No. 75

AIDS TO MARINE NAVIGATION 航路標識

1. PERIOD

August 23, 1990 to October 27, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) High school graduates or equivalent with sufficient knowledge on physics
- 2) Middle class officers in the maintenance and management of aids to marine navigation
- 3) Under 45 years of age
- 4) Have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Maritime Safety Activities in Japan
 - Maritime Traffic in Japan
 - Aids to Navigation System in Japan
 - Visual Aids to Navigation
 - Outline of Buoys
 - Outline of Radio Aids to Navigation
 - Treatment of Lighthouse Monitoring Equipment
 - Automatic Control for Lighthouse
 - Treatment of Lighting Equipment
- 2) Observation tours
 - Maritime Safety Agency Research Centre
 - Maritime Safety School
 - Omega Data Analysis Centre
 - Tokyo Lighted Beacon
 - Decca Station
 - Loran Station
 - Tokyo Bay Traffic Advisory Service Centre
 - Vessel Traffic Information Station
 - Hesaki Lighthouse
 - Tidal Stream Signal Station
 - Omega Station
 - Aids to Navigation Research Vessel
 - Buoy Tender
 - Wave Activated Generator Factor
 - Buoy Factory
 - Air Cell Factory
 - Solar Battery Factory
 - Chain Factory

5. FACILITIES AND INSTITUTIONS

Aids to Navigation Department, Maritime Safety Agency, Japan

6. REMARKS

No. 76

MARINE DISASTER PREVENTION AND RESCUE
OPERATION 救難防災

1. PERIOD

September 17, 1990 to December 13, 1990 (3.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than five (5) years in the field of marine disaster prevention and, search and rescue operation
- 2) Those who are presently engaged in the above-mentioned field
- 3) Under forty (40) years of age
- 4) A sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - organization and function of JMSA,
 - International maritime search and rescue activities under the International Convention on Maritime Search and Rescue, 1979,
 - maritime search and rescue systems in Japan,
 - maritime search and rescue operations,
 - case studies of maritime search and rescue operations,
 - Method on rescue of capsized and a grounded ship
 - Global Maritime Distress and Safety System (GMDSS),
 - information collection system of JMSA,
 - prevention of marine pollution system,
 - JMSA's activities on Marine Disaster Prevention,
- 2) Practice
 - experimental sail on a JMSA's fire fighting vessel or craft,
 - work on marine disaster prevention,
 - experimental sail on a JMSA's patrol vessel,
 - experimental fly in a JMSA's aircraft (observation of Special Rescue Station),
 - rescue training including special rescue,
- 3) Observation and Study Tour
 - training of Special Rescue Team and patrol vessels with improved rescue capability of JMSA
- 4) Discussion

5. FACILITIES AND INSTITUTIONS

- 1) Japan Maritime Safety Agency (JMSA)
- 2) Disaster Prevention Training Centre

6. REMARKS

No. 77

LINER SHIPPING BUSINESS 定期船業務

1. PERIOD

May 14, 1990 to June 22, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be university graduates or have the equivalent academic background,
- 2) have occupational experience of more than 3 years in shipping authority or business, and be eager to acquire basic knowledge of the shipping business,
- 3) be presently engaged in shipping authorities or business,
- 4) be under forty (40) years of age,
- 5) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Presentation and Discussion of Country Report
- 2) Lectures
 - a) Governmental Administration for Shipping
 - Shipping Policy of Japan
 - Present Condition of Container Terminals in Japan
 - b) Maritime Law
 - Ocean Carrier's Liability
 - Charter Party and Maritime Arbitration
 - Cargo Claim
 - c) Ship's Operation Business
 - Liner Shipping Service of the World
 - Shipping Conference
 - Activities of Japan Shippers' Council
 - Liner Ship's Operation Business
 - Containerization in the Shipping Field
 - Container Management
 - Purchasing and Leasing of Container
 - Container Terminal Operation
 - International Combined Transportation
 - Profitability Calculation in New Vessel
- 3) Practical Study
- 4) Observation and Study Tour

5. FACILITIES AND INSTITUTIONS

The Maritime International Cooperation Center of Japan (MICC)

6. REMARKS

No. 78

PORT ADMINISTRATION AND MANAGEMENT SEMINAR

港湾管理運営セミナー

1. PERIOD

September 27, 1990 to November 26, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seventeen (17)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Be presently engaged or will be engaged in the administrative work and/or management
- 3) Occupational experience of more than 8 years in the field of ports and harbours
- 4) Between 35 and 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction to Ports and Harbours in Japan
 - Planning Development Policy of Ports and Harbours
 - International Cooperation in Ports and Harbours
 - Management and Operation of Ports and Harbours
- 2) Case Study
- 3) Presentation of Country Report
- 4) Observation Trips

5. FACILITIES AND INSTITUTIONS

- 1) Bureau of Ports and Harbours, Ministry of Transport
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 79

PORT AND HARBOUR ENGINEERING II 港湾工学 II

1. PERIOD

May 15, 1990 to September 23, 1990 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Under 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Outline of ports and harbours in Japan
 - Planning techniques of ports and harbours
 - Design techniques of port and harbour facilities
 - Execution techniques of port and harbour works
 - Basic theory of port and harbour engineering
- 2) Exercise
 - Design of port and harbour facilities
- 3) Intensive study on harbour works at Onahama Port
- 4) Discussions on technical problems in ports and harbours in participating countries
- 5) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Bureau of Ports and Harbours, Ministry of Transport
- 2) Port and Harbour Research Institute
- 3) District Port Construction Bureaus

6. REMARKS

No. 80

DEVELOPMENT OF CONTAINER TERMINAL

コンテナ埠頭整備計画

1. PERIOD

January 14, 1991 to March 9, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent with more than 8 years of occupational experience in development and management of terminal
- 2) Engaged in the field of development and management of container terminal of the government or related public organization
- 3) Between 30 and 45 years of age
- 4) *Good working knowledge of English*

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
 - Containerization and development of container terminals
 - Planning method of container terminal
 - Development of container terminal
- 2) Intensive study (Case study)
 - Management and maintenance of terminal (Kobe port)
- 3) Observation tours
 - Container terminal of Tokyo, Yokohama, Shimizu, Osaka and Nagoya Port

5. FACILITIES AND INSTITUTIONS

Bureau of Ports and Harbours, Ministry of Transport

6. REMARKS

No. 81

AERODROME (SEMINAR) 空港セミナー

1. PERIOD

August 2, 1990 to September 23, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Under forty (40) years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Introduction to Civil Aviation in Japan
 - Airport development
 - Airport planning
 - Airport construction and maintenance
 - Management of operation of airport
- 2) Discussion on the subjects of country reports
- 3) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Civil Aviation Bureau, Ministry of Transport
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

AVIATION SECURITY SEMINAR 航空保安セミナー

1. PERIOD

January 28, 1991 to February 21, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fourteen (14)

3. QUALIFICATIONS

- 1) University graduates, or equivalent with occupational experience of more than 5 years
- 2) Presently engaged in airport management and aviation security in the government organization or the public authorities
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - a) Civil Aviation in Japan
 - b) International Measures for Aviation Security
 - Outline of Unlawful Acts Against Civil Aviation in the World
 - International Treatment of Prevent Acts of Unlawful Interference Against Civil Aviation
 - International Measures to Prevent Acts of Unlawful Interference Against Civil Aviation
 - c) Countermeasures for Aviation Security in Japan
 - Organization for the Prevention of Unlawful Acts Against Civil Aviation in Japan
 - Countermeasures to Prevent Acts of Unlawful Interference Against Civil Aviation in Japan
 - Management of Response to Acts of Unlawful Interference in Japan
 - d) Security Control Systems
 - Preventive Measures by Air Carriers Against Acts of Unlawful Interference
 - Manuals for Security Control
 - Training of Aviation Security Personnel
 - Outline of Equipment and Its Development
- 2) Country Report
- 3) Observation

5. FACILITIES AND INSTITUTIONS

- 1) Civil Aviation Bureau, Ministry of Transport
- 2) Japan Transport Consultants Association
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 83

SEMINAR ON AIR TRAFFIC CONTROL 航空管制セミナー

1. PERIOD

October 15, 1990 to November 30, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University or college graduates or equivalent
- 2) Occupational experience of more than 3 years
- 3) Presently engaged in Air Traffic Control or in administration of saidfield
- 4) Under 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures:
 - Civil Aviation and Transportation (Policy of Transportation, Administrative System, Aviation Statistics and Accounting System)
 - Air Traffic Services Now and Future (Air Navigation Aids, Operation & Flight Inspection Services, ATS planning, Flight Inspection, etc.)
 - Air Traffic Control Services in Japan (Organization & History of ATC in Japan, Regulation of ATC, Structure of Controlled Airspace, etc.)
- 2) Study-tours:
 - Study-tours to Airports, Area Control Center and Aeronautical Safety College, etc.
- 3) Discussion on Country Reports submitted by Participants

5. FACILITIES AND INSTITUTIONS

- 1) Civil Aviation Bureau, Ministry of Transport

6. REMARKS

This course is initiated in 1989.

No. 84

URBAN TRANSPORT (SEMINAR) 都市交通セミナー

1. PERIOD

May 17, 1990 to July 9, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of more than three (3) years
- 3) Presently engaged in urban transport administration preferably in the field of railway
- 4) Under forty (40) years of age

4. DESCRIPTION OF TRAINING

- 1) General orientation on Japan
- 2) Lectures
 - Outline of urban transport in Japan
 - Specific characteristics of each mode
 - Method of general urban transport planning
 - Case study of the actual railway project
- 3) Discussion on the subjects of country reports
- 4) Observations

5. FACILITIES AND INSTITUTIONS

- 1) International Transport and Tourism Bureau, Ministry of Transport
- 2) Japan Transport Consultants Association
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 85

COMPREHENSIVE URBAN TRANSPORTATION PLANNING

総合都市交通施設計画

1. PERIOD

October 1, 1990 to December 5, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than three (3) years
- 2) Presently engaged in urban transport administration
- 3) Under 35 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Presentation of country reports and discussions
- 2) Lectures
 - Outline
 - Present situation and problems of urban transportation in Japan
 - Comprehensive urban transportation planning
 - Individual transportation facility planning
- 3) Observation tours
- 4) Practices
 - Urban transportation planning
- 5) International conference

5. FACILITIES AND INSTITUTIONS

- 1) City Bureau, Ministry of Construction
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 86

SEISMOLOGY AND EARTHQUAKE ENGINEERING II 地震工学 II

1. PERIOD

September 3, 1990 to July 28, 1991 (10.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) University graduates or equivalent with professional experience of more than 5 years
- 2) Well versed in basic mathematics
(Differential and integral calculus, etc.)
- 3) Under 35 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Both of courses: General seismology, basic programming of computer, etc.
 - Seismology course: Seismological application computer, elasticity, etc.
 - Earthquake engineering course: Earthquake resistant design of building structure, etc.
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) International Institute of Seismology and Earthquake Engineering (IISEE), Building Research Institute, Ministry of Construction
- 2) Tsukuba International Centre, JICA

6. REMARKS

SEISMOLOGY AND EARTHQUAKE ENGINEERING
(SEMINAR)

地震工学セミナー

1. PERIOD

Not conducted in 1990

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) Preferably ex-participants in Group Training Course in Seismology and Earthquake Engineering or their equivalent
- 2) Engaged in the field of Earthquake Engineering more than 10 years
- 3) More than 35 years of age
- 4) Having a sufficient command of spoken and written English
- 5) Good health

4. DESCRIPTION OF TRAINING

- 1) Attend the World Conference on Earthquake Engineering
- 2) Seminar on present conditions of structures which have suffered many earthquake damages in recent earthquakes and their main causes
- 3) Disaster-prevention countermeasures for structures which have suffered earthquake damages.

5. FACILITIES AND INSTITUTIONS

- 1) International Institute of Seismology and Earthquake Engineering, Ministry of Construction
- 2) Tsukuba International Centre, JICA

6. REMARKS

The course will be conducted in 1991 fiscal year
(The course is principally conducted every other year.)

No. 87

METEOROLOGY 气象学

1. PERIOD

August 16, 1990 to December 20, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Be presently engaged in meteorological observation or forecasting, of the governmental or related public bodies
- 3) Occupational experience of more than 3 years
- 4) Under forty (40) years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
— Practical meteorology, meteorological observation, data processing, telecommunication systems, meteorological analysis forecasting, satellite data application, marine meteorological service, and aviation weather service.
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Japan Meteorological Agency
- 2) Meteorological Research Institute of JMA
- 3) Meteorological Satellite Centre of JMA
- 4) Meteorological College of JMA

6. REMARKS

No. 88

TECHNOLOGY FOR DISASTER PREVENTION SEMINAR 防災技術セミナー

1. PERIOD

September 24, 1990 to December 10, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates in the related sciences or technologies, or those who have equivalent qualification in the field of disaster prevention administration
- 2) Should have experiences of more than seven (7) years in this field
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
 - Seismology and earthquake damage mitigation
 - Prevention against tsunami and fire induced by an earthquake
 - Rainfall disaster and flood control
 - Prevention against slope failure and other geological hazards
- 2) Advanced study
- 3) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Institute of Disaster and Earth Sciences (IDES), Science and Technology Agency
- 2) Tsukuba International Centre, JICA

6. REMARKS

No. 89

VOLCANOLOGY AND VOLCANIC SABO 火山学・火山砂防工学
ENGINEERING

1. PERIOD

January 16, 1991 to July 12, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University or college graduated or equivalent
- 2) Occupational experience of more than 3 years
- 3) Qualified in their respective fields
- 4) Under 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

Participants shall be introduced basic and modern concepts of volcanology and mitigation volcanic disasters through lectures, practice and field study.

The course is divided into three categories of Common Course, Volcanology and Volcanic Sabo Engineering Course

- 1) Common course
 - To obtain comprehensive and general knowledge of volcanology and volcanic disaster prevention engineering.
- 2) Volcanology course
 - Earth's structure, origin and nature of magmas, and how volcanoes work,
 - Basic theory of seismology, geodesy, geomagnetism geothermy and geochemistry with the aid of exercise,
 - Volcanic hazards and available methods for hazard reduction including forecasting volcanic behavior,
 - Method of volcano monitoring, interpretation and analysis of data.
- 3) Volcanic Sabo Engineering course
 - Basic theories necessary for study and planning of erosion and sediment control engineering,
 - Mechanism and structure of debris mud flows,
 - Technology of administrative volcanic disaster countermeasure.

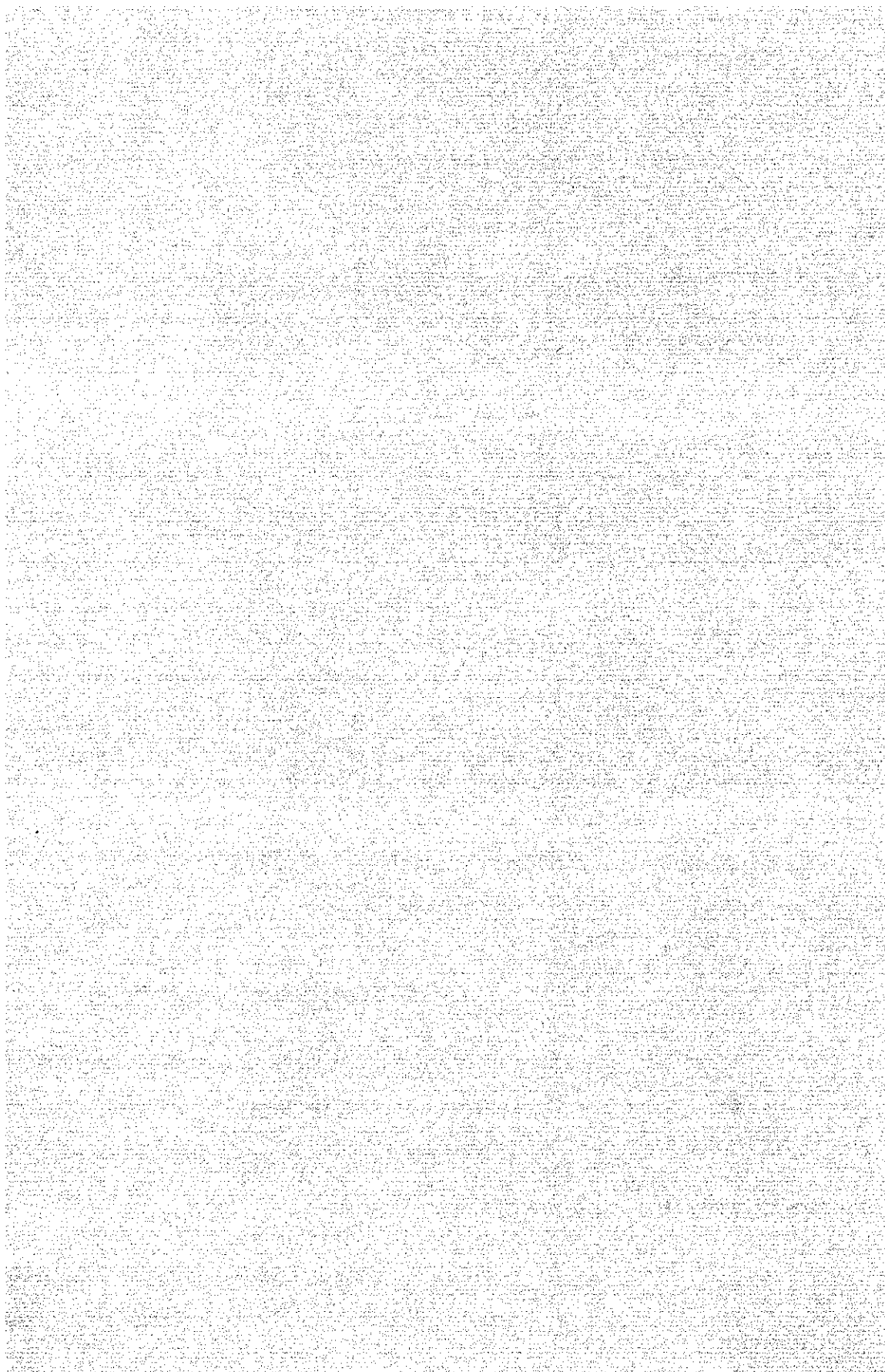
Participants can select either Volcanology or Volcanic Sabo Engineering Course after completing the Common Course.

5. FACILITIES AND INSTITUTIONS

- 1) Department of Erosion and Sediment Control, Ministry of Construction
- 2) Japan SABO Association
- 3) Hatagaya International Centre, JTCA
- 4) Tsuba International Centre, JICA
- 5) Volcanology Observatories and Research Institutes concerned

6. REMARKS

INFRASTRUCTURE



No. 90

BRIDGE ENGINEERING II 橋梁工学 II

1. PERIOD

August 16, 1990 to November 3, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than 3 years
- 2) Qualified in their respective fields
- 3) Presently engaged in highway construction
- 4) Under 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and field study
 - Roads and Bridges in Japan
 - Design and construction of substructures
 - Design and construction of concrete bridges
 - Fundamental bridge design theory
 - Design and construction of bridges in Japan
 - Maintenance and Repair of bridges
- 2) Presentation and discussion on country report
- 3) Observation

5. FACILITIES AND INSTITUTIONS

- 1) Road Bureau, Ministry of Construction
- 2) Japan Association of Steel Bridge Construction
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 91

CONSTRUCTION ENGINEERING (CIVIL WORKS) 建設施工

1. PERIOD

August 16, 1990 to November 30, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University or college graduates who specialized in civil engineering, or equivalent
- 2) Professional experience of more than 5 years in planning, design, execution and project control of civil works
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - International construction projects
 - Basic engineering
 - Construction management
 - Construction technology (road and others)
- 2) Observations
 - Visits and observations to construction sites
 - Study tours

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Construction
- 2) Faculty of Engineering, Kyoto University
- 3) Osaka International Training Centre, JICA

6. REMARKS

No. 92

PROJECT MANAGER (CONSTRUCTION) 建設施工管理者

1. PERIOD

October 4, 1990 to December 20, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

10 (ten)

3. QUALIFICATIONS

- 1) University graduates or those who have undergone higher education in the field of civil engineering or equivalent
- 2) At least 5 years of experience as construction managers
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Important elements related to construction work (lectures)
- 2) Work execution plans (lectures, case studies, site observations)
- 3) Process control (lectures, case studies, site observations)
- 4) Group study (site observations, presentation, discussion, evaluation)

5. FACILITIES AND INSTITUTIONS

Japan Construction Training Center (Foundation)

6. REMARKS

No. 93

SOIL ENGINEERING AND FOUNDATION 土質及び基礎工学

1. PERIOD

October 18, 1990 to December 15, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalent (soil engineering)
- 2) More than 8 years practical experience in central or local governments
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Outline of earth structures
 - Outline of foundation of structures
 - Site exploration and laboratory soil test
 - Improvement of soil engineering properties
 - Evaluation of soil foundation design-case study
 - Others
- 2) Discussions with the guidance of Japanese lecturers
 - Soil improvement planning, foundation design, project feasibility, etc.
- 3) Practice
 - Soil survey method
 - Soil test method
 - Foundation design
- 4) Observation tours

5. FACILITIES AND INSTITUTIONS

Ministry of Construction

6. REMARKS

No. 94

REGIONAL DEVELOPMENT PLANNING SEMINAR 国土開発セミナー

1. PERIOD

October 11, 1990 to November 24, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) Presently engaged in the planning or implementation of national or regional development projects and policy
- 2) Under forty (40) years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
 - History of regional development policy in Japan
 - Population problems and regional development planning
 - Urban and rural area development planning
 - Land use plan, water resources development plan, transportation plan and housing plan
 - Disaster countermeasure in Japan
 - Theory and method of regional development planning
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) National Land Agency
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 95

SEMINAR ON ADMINISTRATION FOR DISASTER PREVENTION

防災行政管理者セミナー

1. PERIOD

October 22, 1990 to November 18, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) Presently engaged in the field of disaster prevention administration
- 2) Under forty-five (45) years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
 - Disasters in the world and worldwide disaster prevention systems
 - Basic framework of disaster prevention in Japan
 - Disaster countermeasures; research and development, disaster preparedness, national land conservation, disaster emergency and recovery measures, information and tele-communication system, etc.
 - Japan's international cooperation and IDNDR
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) National Land Agency
- 2) Tokyo International Center, JICA

6. REMARKS

RIVER AND DAM ENGINEERING 河川及びダム工学

1. PERIOD

July 30, 1990 to November 11, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates specialized in civil engineering or equivalent
- 2) Occupational experience of more than 5 years in the field of construction project management of flood control works or water resources development projects
- 3) Under 35 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Introduction (Characteristics of river and the outline of river works in Japan)
- 2) Hydrology (Statistical procedure of hydrological data and the run-off analysis)
- 3) River Planning (only for River group) (techniques for river planning and design of river facilities)
- 4) Dam engineering (only for Dam group) (techniques for planning, design, construction, operation and maintenance of dam)
- 5) SABO (Erosion and sediment control) works
- 6) Individual training
- 7) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Construction
- 2) Tsukuba International Centre, JICA

6. REMARKS

Participants will be separated into two groups, namely River Group and Dam Group
River Group will learn the river improvement, and Dam Group will learn the techniques for dam project

1. PERIOD

August 2, 1990 to October 13, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than 3 years
- 2) Presently engaged in city planning
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - History of Japanese Cities
 - City Planning Legislation
 - Land Use Planning and Building Regulations
 - Japanese Urban Policies; Roles of National and Local Government
 - Japanese Tax System
 - Recent Problems in Japanese Large Cities
 - Intelligent City
 - Contribution of Private Sector in Urban Development
 - Discussion about City Planning and Urban Policy
 - Road Construction and its Problems in Japan
 - Urban Rapid Transit Railroad System
 - Urban Transportation Policies and its Problems
 - Alternative Urban Development Methods
 - Housing Areas Development in relation to Railway Construction
- 2) Presentation of "Country Report" and Group Discussion
- 3) Case Study
- 4) Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Construction
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

URBAN DEVELOPMENT 都市整備

1. PERIOD

May 14, 1990 to July 3, 1990 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than 3 years
- 2) Presently engaged in planning and/or implementation of urban development and redevelopment
- 3) Under forty (40) years of age
- 4) A sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures and observations
 - Present situation of Japanese cities
 - Japanese policy for urban areas
 - Japanese administrative system and budget for urban development
 - Outline of urban planning
 - Outline of Urban Development and Urban Facility Improvement Projects
 - KUKAKU-SEIRI (Land Readjustment Project)
 - Urban Area Renewal Project
 - New Town Development Project
- 2) Presentation and Discussion of Country Report
- 3) Group Discussion
 - Deepen understanding on contents of training course
- 4) Observation tours

5. FACILITIES AND INSTITUTIONS

City Bureau, Ministry of Construction

6. REMARKS

No. 99

HOUSING 住宅建設

1. PERIOD

October 18, 1990 to December 10, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) Mid-career officers in charge of housing policy
- 2) University graduates or equivalent
- 3) Between 30 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Housing conditions and policies in Japan
 - Public housing supply
 - Housing finance
 - Urban planning system
 - Development of residential area
 - Modernization of housing production
 - Planning and development of new town
 - Housing problem and housing policy in developing countries
- 2) Group study
- 3) Presentation of country reports
- 4) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Housing Bureau, Ministry of Construction
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 100

IMPROVEMENT OF HOUSING AND LIVING

ENVIRONMENTS SEMINAR

住宅・住環境改善セミナー

1. PERIOD

January 31, 1991 to March 3, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent,
- 2) Be experienced officials in charge of executing various development projects on housing and living environment at the central or local government, or at the related governmental organization,
- 3) Be between thirty (30) and forth-five (45) years of age,
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Housing problems and countermeasures in Japan
 - Improvement projects on housing and living environment
 - History of the housing policy and technological development in Japan
 - Rural development in housing and living environment
 - Housing problems and countermeasures in the third world countries
- 2) Special Discussion based on Country Report
- 3) Group Study
- 4) Study Tour

5. FACILITIES AND INSTITUTIONS

- 1) Housing Bureau, Ministry of Construction
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

1. PERIOD

April 12, 1990 to June 13, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirteen (13)

3. QUALIFICATIONS

- 1) University graduates or equivalents with occupational experience of more than five years
- 2) Be officials of the government or the related government organization
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction
 - Standard Specification
 - System Concerning Building Laws and Regulations
 - Building Standard
 - Facility management
 - Highrise Building Construction Technology
 - Building Physics and Environmental Research
 - Public Housing Construction
 - Structural Design Technology
 - Fires Prevention of Building
 - Significance of Conventional Housing System
 - Construction Management
 - Quality Control
 - Prefabricated Housing System
 - Building Materials
 - Computer aided design
- 2) Observations
- 3) Country Report
- 4) Study Tour
- 5) Group Study

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Construction
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 102

ADVANCED TECHNOLOGY OF CONSTRUCTION

建設工事先進技術

1. PERIOD

February 4, 1991 to March 17, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Graduate of University majored in the Civil Engineering Course
- 2) 10 years occupational experience in the field of Public Construction

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Advanced technology of construction in general
 - Advanced construction materials and construction works
 - Advanced inspection for construction
- 2) Observation tours
- 3) Practical training

5. FACILITIES AND INSTITUTIONS

Japan Construction Training Center

6. REMARKS

1. PERIOD

June 4, 1990 to February 9, 1991 (8.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be engaged in mapping at present or in the near future, and have the knowledge of geography, chemistry mathematics and physics of university graduate level or equivalent experience of more than 3 years in the field of mapping
- 2) Good working knowledge of English
- 3) Under thirty-five (35) years age

4. DESCRIPTION OF TRAINING

- 1) Introduction (Current activities for surveying and mapping in Japan and the activities for geodetic surveying of GSI).
- 2) Photogrammetric Engineering
- 3) Geographical surveying and cartographic engineering
- 4) Map reproduction
- 5) Other subject relating to surveying and mapping
- 6) Technical report

5. FACILITIES AND INSTITUTIONS

- 1) Geographical Survey Institute (GSI), Ministry of Construction
- 2) Tsukuba International Centre, JICA

6. REMARKS

- 1) This course is conducted to focus each of two themes mentioned below in turn every year.
 - a) Geodesy, surveying management
 - b) Mapping
- 2) In Japanese fiscal year 1991, the theme of this course will be "Geodesy" and "Surveying management"

HYDROGRAPHIC SURVEY 水路測量**1. PERIOD**

April 12, 1990 to November 7, 1990 (7 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be technical college graduates or equivalent with at least two (2) years occupational experience in hydrographic services
- 2) have obtained credits for two (2) years' course of mathematics and physics at least on the level of technical college or equivalent educational institution,
- 3) be presently employed at the national hydrographic office or other related organization,
- 4) have a sufficient command of spoken and written English,
- 5) be not more than forty (40) years of age

4. DESCRIPTION OF TRAINING

- | | |
|---|--|
| <ol style="list-style-type: none"> 1) Lectures <ul style="list-style-type: none"> - Computing - Physics: Theory - Applied Physics - Hydrography: Control
(Geodesy, Projections, Horizontal Control, Vertical Control, Astronomy, etc.) - Hydrography: Practice
(Positioning at Sea, Track Control, Measurement of Tide, Determination of Depth, etc.) - Environmental
(Meteorology, Oceanography, Tides, etc.) - Nautical Science
(Navigation, Seamanship, etc.) - Legal Aspects - Nautical Charting Surveys
(Sweeping, Tides and Tidal Streams, Photogrammetry, Data Processing, Law of the Sea, etc.) - Port and Harbour Surveys
(Control Surveys, Determination of Position, Special Purpose Survey and Operations, Sedimentology, etc.) | <ol style="list-style-type: none"> 2) Practice <ul style="list-style-type: none"> - Data Processing of Harbour and Coastal Surveys - Computer Programming - Control Surveys - Astronomy - Cartography 3) Field Training <ul style="list-style-type: none"> - Field Training of Harbour and Coastal Surveys - Field Training of Navigation, Seamanship, Submarine Geology, etc. on board Survey Vessel SHOYO, 1,900 tons 4) Observation and Study Tours |
|---|--|

5. FACILITIES AND INSTITUTIONS

Hydrographic Department, Maritime Safety Agency

6. REMARKS

International Accreditation of the Training Course

This Group Training Course in Hydrographic Survey has been recognized by the FIG/IHO International Advisory Board as Category B Course pertaining to Specialization in Nautical Charting and Port and Near Shore Surveys since 1 June 1988. Participants who have successfully completed the course and passed the examinations required therein will be awarded a certificate of Category B Hydrographic Surveyor.

No. 105

PHYSICAL OCEANOGRAPHIC SURVEY 海洋物理調査

1. PERIOD

November 5, 1990 to March 20, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) College graduates or equivalent
- 2) Qualified in their respective fields
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Dynamics of ocean current
 - Tide and tidal current
 - Field training of oceanographic observation
 - Data processing of oceanographic observation
 - Field training of tide and tidal current observation
 - Data processing of tidal current observation
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

Hydrographic Department, Maritime Safety Agency

6. REMARKS

The course is conducted alternately with the Nautical Cartography

NAUTICAL CARTING 海図作製

1. PERIOD

Not conducted in 1990

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Junior college or special school graduates or equivalent
- 2) Qualified in their respective fields
- 3) Under 35 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Nautical chart in general
 - How to use chart
 - Principle of cartography
 - Collection and evaluation of chart information
 - Computer assisted cartography including practice
 - Practical training of planning, compiling, drafting and printing of chart
- 2) Observation tours

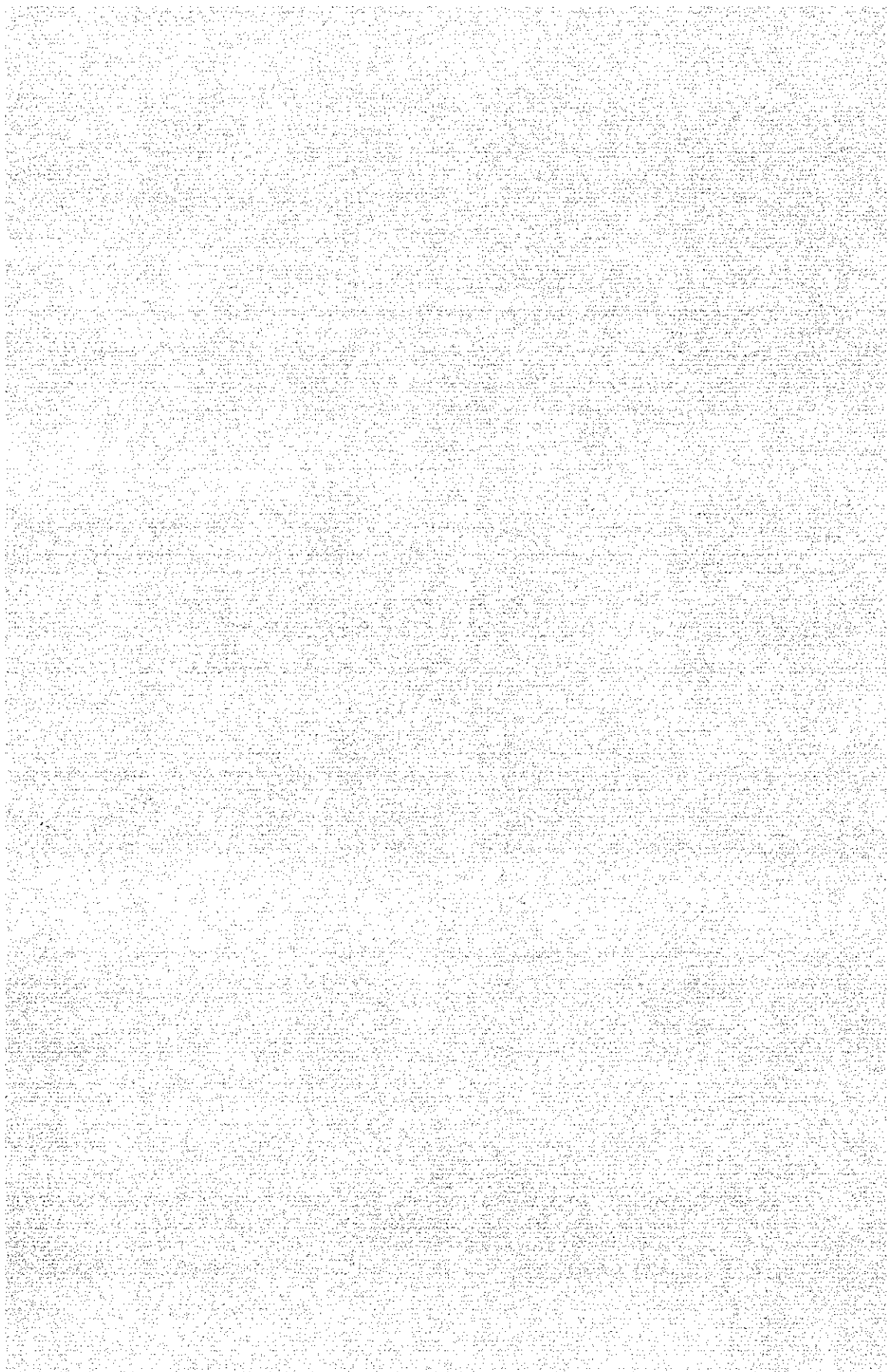
5. FACILITIES AND INSTRUCTIONS

Hydrographic Department, Maritime Safety Agency

6. REMARKS

The course will be conducted in 1991 fiscal year
(The course is conducted alternately with the Physical Oceanographic Survey)

**POSTAL SERVICE, TELECOMMUNICATION AND
BROADCASTING**



RADIO FREQUENCY MONITORING 電波監視

1. PERIOD

August 13, 1990 to October 6, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be those who have practical experience in the field of radio regulatory administration (radio frequency monitoring, frequency management, etc.) or those who may engage in this field of work within a year,
- 2) Be college graduates or those who have the equivalent knowledge,
- 3) Have a sufficient command of spoken and written English,
- 4) Be under forty (40) years of age

4. DESCRIPTION OF TRAINING

- | | |
|--|--|
| <p>1) Lecture</p> <ul style="list-style-type: none">-Outline of Radio Regulatory Administration Laws and Regulations of Radio Regulations-Frequency Management-Practice of Frequency Allocation-Radio Operators Qualification System-Organization and System of Monitoring Activities-Practical Rules of Monitoring Activities (Inspection, Detection of Illegal Frequency, Investigation of Interference and International Monitoring)-Site Selection of Monitoring Stations-Outline of monitoring facilities-Maintenance of Monitoring Equipment-Aeronautical Radio Station-Land Radio Communication Station (I), (II)-Maritime Radio Station-System for Telecommunications Administration Real-Time Service (STARS) | <p>2) Practice</p> <ul style="list-style-type: none">-Monitoring Equipment-Operation of Monitoring Equipment (Measurement of Frequency and Frequency Band Width, Automatic Frequency Spectrum Recorder and Measurement of Field Strength, Direction Finder and Movie Monitoring VAN)-Practical study at the Telecommunications Dept. of the Kanto Telecommunications Administration Bureau-Practical study at the International Monitoring Dept. Kanto Telecommunications Administration Bureau-Practical Training at the Telecommunications Dept. of a regional Telecommunications Administration Bureau <p>3) Observation tours</p> <ul style="list-style-type: none">-Kansai Observation tour |
|--|--|

5. FACILITIES AND INSTITUTIONS

Ministry of Posts and Telecommunications

6. REMARKS

POSTAL EXECUTIVES' SEMINAR II 郵政幹部セミナーⅡ

1. PERIOD

March 3, 1991 to March 17, 1991 (0.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Directors or high-ranking officials in charge of postal administration in governmental organizations
- 2) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lectures and discussion

- Present situation and problems faced by Japanese postal service
- Postal mechanization in Japan
- International Postal Service (organization, management and operation)
- Presentation and discussion by participants on competition from private courier services and countermeasures (including new postal services such as EMS, INTELPOST etc.)

2) Observation tours

- Mechanized sorting office, international exchange office, small sized post office and other postal facilities

5. FACILITIES AND INSTITUTIONS

Postal Bureau, Ministry of Posts and Telecommunications

6. REMARKS

No. 108

**POSTAL SAVINGS AND POSTAL MONEY ORDER
EXECUTIVES' SEMINAR** 郵便貯金・郵便為替幹部セミナー

1. PERIOD

October 14, 1990 to October 28, 1990 (14 days)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Directors or high-ranking officials of saving organizations
(National or Government Savings Bank or Postal Savings) or Postal Money Order and Postal Giro Services
- 2) A sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Outline of the Postal Banking Services
 - Personnel Management in the Postal Banking Services
 - Computerization of the Postal Banking Services
 - Management of the Postal Banking Services
 - Investment of the Postal Savings funds
 - Promotion and Publicity Activities of the Postal Banking Services
- 2) Observations
 - Postal Personnel Training Institute
 - Postal Savings Business Center
 - Post Office
- 3) Study Tour to Kyoto, Nara area
- 4) Discussion
 - "The role of National Savings Institutions and their problems"

5. FACILITIES AND INSTITUTIONS

International Service Division, Postal Savings Bureau, Ministry of Posts and Telecommunications

6. REMARKS

No. 109

INTERNATIONAL TELECOMMUNICATION SERVICES
(ADMINISTRATION AND COMMERCIAL) II 国際通信業務管理 II

1. PERIOD

May 14, 1990 to July 22, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in traffic and commercial work of international telegraph or telephone services
- 3) Occupational experience of more than 5 years in the field of international telecommunication services
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lectures

- | | |
|--|---|
| <p>a) Management</p> <ul style="list-style-type: none">- Corporate Planning- Traffic Demand Forecast- Tariff- International Accounting- Billing & Collection- Marketing and Sales Activities- Network Planning- Network Management- International Relations- International Organizations Activities (ITU, APR)- Personnel Management- Human Resources Development- Effective Education Method- Business Computerization | <p>b) System & Technologies</p> <ul style="list-style-type: none">- KDD's Telecom Facilities- Fundamentals of Computers- Switching Technologies- Transmission Technologies (Satellite/Submarine Cable)- Outline of KDD's Submarine Cable Plan- International Satellite Organizations (INTELSAT/INMARSAT)- Outline of ISDN- Trends in New Technologies <p>c) Service & Operation</p> <ul style="list-style-type: none">- Telephone- Telex & Telegraph- Leased Circuit- VENUS (Data Service)- AUTOMEX & Dedicated System- TV Conference |
|--|---|

- 2) Field Practice
Field Practice will be conducted at relevant KDD field offices.

- 3) Observation tours

5. FACILITIES AND INSTITUTIONS

Kokusai Denshin Denwa Co., Ltd. (KDD)

6. REMARKS

No. 110

INTERNATIONAL TELEPHONE COMMUNICATION ENGINEERING 国際電話通信技術

1. PERIOD

January 14, 1991 to March 24, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) University graduates or equivalent, majoring in telecommunications and or electrical engineering
- 2) Under 45 years of age
- 3) Good working knowledge of English
- 4) Basic knowledge of telephone switching technology, and to be currently engaged in or expected to be engaged in the field of establishment and maintenance of international telephone switching network

4. DESCRIPTION OF TRAINING

1) Lectures

- International Telephone Service Operation in Japan
- Telephone Networking
 - International Telephone Switching System Planning
 - Numbering Plan
 - Signalling Systems
 - Network Planning
 - Network Management
- ISDN
- Telephone Switching System
 - Electronic Switching
 - Digital Switching
- Digital Transmission System
 - PCM Communication
- Computer Technology
 - Fundamentals of Computers
 - Introduction to C Programming
- System Application
 - XE-20 Digital Switching System (Hardware & Software)

2) Field practice

Field practice will be conducted at relevant KDD field offices.

3) Observation tours

5. FACILITIES AND INSTITUTIONS

Kokusai Denshin Denwa Co., Ltd. (KDD)

6. REMARKS

No. 111

INTERNATIONAL DATA COMMUNICATIONS ENGINEERING 国際データ通信技術

1. PERIOD

September 3, 1990 to November 4, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) be university graduates specializing in telecommunications and/or electrical engineering or those who have fully equivalent technical knowledge and experiences in this field
- 2) have basic knowledge on computer hardware, software and be currently engaged in or expected to be engaged in the planning or the policy making of international data communications engineering,
- 3) Under 40 years of age
- 4) Have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction to Data Communications
 - Data Transmission
 - Data Switching
 - International Data Communications Technologies
 - Data Communications Systems
 - New Communications Services
 - Current Status of Data Communications
- 2) Field practice
Field practice will be conducted at relevant KDD field offices
- 3) Observation tours

5. FACILITIES AND INSTITUTIONS

Kokusai Denshin Denwa Co., Ltd. (KDD)

6. REMARKS

No. 112

DATA COMMUNICATION ENGINEERING データ通信技術

1. PERIOD

January 14, 1991 to March 7, 1991 (2.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Working for data communication services, such as in digital switching, digital transmission or digital processing
- 2) University graduates or equivalent
- 3) Have a sufficient command of spoken and written English
- 4) Under 40 years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Basic and Theoretical Technology for Data Communication Systems of Domestic Services.
The basic concept of a data communication system consisting of information network, data transmission, transmission control procedures and computer technology will be explained.
 - Digital Data Switching Systems
The switching process, and the hardware and software of the D-50 system will be explained. This will include an outline of the various digital data switching systems in the world. Maintenance philosophy will be briefly presented.
- 2) Practical studies
Participants will conduct practical exercises, using the D-50 system installed at NTT's training school, to increase knowledge acquired from lectures.
- 3) Observation tours

5. FACILITIES AND INSTITUTIONS

Nippon Telegraph and Telephone Corporation (NTT)

6. REMARKS

RADIO COMMUNICATION ENGINEERING 無線通信技術**1. PERIOD**

May 14, 1990 to July 26, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirteen (13)

3. QUALIFICATIONS

- 1) University graduates or equivalent majored in telecommunication or electrical engineering
- 2) Working for telecommunication administrations or common career organizations except broadcasting stations
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING**1) Lectures and practical training**

1. Fundamental Knowledge of Digital Transmission	1.1 Basic of Digital Transmission	3. Microwave Communication Equipments	3.1 Antenna
	1.2 Digital Microwave Communication Technique	4. Practical Study	3.2 Power Plant
	1.3 Radio Propagation & Diversity Technique		4.1 Transmission Standards
	1.4 Optical Fiber Transmission	5. Administration Techniques	4.2 Microwave Relay System Design
	1.5 Digital Subscriber System		5.1 Economic Studies and Comparisons
2. Microwave Communication System	2.1 Satellite Communication System	6. Practical Exercise	5.2 Planning and Plant Engineering
	2.2 Rural Telecommunications		Optical Fiber Transmission System, Microwave Communication System, Mobile Communication System, TV Transmission System
	2.3 Mobile Communication System		
	2.4 TV Transmission System		

2) Observation tours**5. FACILITIES AND INSTITUTIONS**

Nippon Telegraph and Telephone Corporation (NTT)

6. REMARKS

All participants are requested to submit a brief report written in English on the present situation of telecommunications, its future programs and its problems in applicants' country.

No. 114

SATELLITE COMMUNICATION ENGINEERING II 衛星通信技術 II

1. PERIOD

May 14, 1990 to August 5, 1990 (3.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Qualified in their respective fields
- 2) University graduates or equivalent majored in telecommunications or electric/electronic engineering
- 3) Fundamental knowledge of microwave engineering such as microwave propagation, microwave elements and microwave communication system
- 4) Experience in the field of INTELSAT satellite communications service
- 5) Engaged in the field of satellite communication service
- 6) Good working knowledge of English
- 7) Under 40 years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Outline of Microwave Communication Technology
 - INTELSAT System
 - Satellite Communication System
 - Facilities of Satellite Earth Station
 - Operation and Maintenance of Satellite Earth Station
- 2) Observation tours
 - Earth station system configuration
 - Earth station facilities

5. FACILITIES AND INSTITUTIONS

Kokusai Denshin Denwa Co., Ltd. (KDD)

6. REMARKS

No. 115

SATELLITE COMMUNICATION ENGINEERING (PLANNING AND MANAGEMENT)

衛星通信技術（計画管理）

1. PERIOD

September 3, 1990 to November 4, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Be university graduates who majored in telecommunications or electric/electronics engineering, or have completed the Group Training Course in the Satellite Communication Engineering (Regular) conducted by the Government of Japan, and have had experience of not less than three years in the field of INTELSAT satellite communication service since then,
- 2) Have a sufficient command of spoken and written English,
- 3) Be under forty-five (45) years of age,

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - INTELSAT System
 - Satellite Communication and Radio Wave Transmission
 - INTELSAT Communication System and Related Technology
 - Facilities of Satellite Earth Station
 - Maritime Satellite Communication
 - Maintenance Management
 - Field Practice
- 2) Observation tours
 - KDD Facilities
 - NTT Television Relay Center
 - Mitsubishi Electric Kamakura Plant

5. FACILITIES AND INSTITUTIONS

Kokusai Denshin Denwa Co., Ltd. (KDD)

6. REMARKS

No. 116

OPTICAL FIBER CABLE TRANSMISSION TECHNOLOGY

光ファイバーケーブル伝送技術

1. PERIOD

February 7, 1991 to March 24, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Sufficient practical experience on their own transmission system
- 3) Under 40 years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Fundamental of transmission technology
 - Optical fiber cable
 - Optical fiber transmission system
 - Latest optical fiber transmission systems
 - Field practice
 - Measuring technic
- 2) Observation tours
 - Kansai observation tour

5. FACILITIES AND INSTITUTIONS

Japan Telecommunications Engineering and Consulting Service

6. REMARKS

TELECOMMUNICATION NETWORK PLANNING AND DESIGNING 通信網計画設計

1. PERIOD

October 22, 1990 to December 20, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seventeen (17)

3. QUALIFICATIONS

- 1) University graduates or equivalent majored in telecommunication or electrical engineering
- 2) Working for telecommunication administrations or common carrier organizations
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Telecommunication network design
This study deals with design techniques required to establish a nation-wide telecommunication network.
 - Outlines of various facilities
Brief explanations of various facilities making up the network are given.
 - Expansion planning techniques
Yearly and long term expansion planning techniques, including practical exercises, are dealt with.
- 2) Observation tours to Kansai Area

5. FACILITIES AND INSTITUTIONS

Nippon Telegraph and Telephone Corporation (NTT)

6. REMARKS

All participants are requested to submit a brief report written in English on the present situation of telecommunications, its future programs and its problems in applicants' country.

No. 118

TELECOMMUNICATION OUTSIDE PLANT ENGINEERING II

通信線路技術Ⅱ

1. PERIOD

August 10, 1990 to November 1, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirteen (13)

3. QUALIFICATIONS

- 1) Qualified in their respective fields
- 2) University graduates or equivalent
- 3) Working for telecommunication administrations or common carrier organizations
- 4) Sufficient practical experience on telephone outside plant system
- 5) Under 40 years of age
- 6) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Digital Line Transmission System Engineering
 - Design Engineering
 - Maintenance Engineering
 - Construction Engineering
 - Method of Measurement
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

Nippon Telegraph and Telephone Corporation (NTT)

6. REMARKS

All participants are requested to submit a brief report written in English on the present situation of telecommunication, its future programs and its problems in applicants' country.

No. 119

TELECOMMUNICATION LINE MAN TECHNICAL TRAINING (OJT)

通信線路技術指導者育成

1. PERIOD

August 13, 1990 to December 13, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be presently work for telecommunication or common carrier organization
- 2) be university graduates or those who have equivalent technical knowledge
- 3) have a sufficient practical experience on their own telephone outside plant systems
- 4) be under 35 years of age and have over 3 years' of practical experience
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for the participation in the training
- 6) have a sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Basic knowledge on outline equipment (Basic designing of communication equipment, local line equipment, Civil engineering equipment, Network system, Transmission and wireless)
 - Construction (Aerial cable, Underground cable, Optical fiber cable)
 - Maintenance engineering (Outside equipment, Gas-filled cable, Aerial cable, Plant record management)
 - Design engineering
 - Construction and maintenance of communication equipment and devices
 - Basic knowledge in inside plant
 - Safety and quality control
- 2) Study trip

5. FACILITIES AND INSTITUTIONS

Nippon Telegraph and Telephone Corporation (NTT), Kitakyushu Branch

6. REMARKS

No. 120

TELECOMMUNICATION EXECUTIVES' SEMINAR II 電気通信幹部セミナーⅡ

1. PERIOD

September 26, 1990 to October 13, 1990 (0.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) Qualified in their respective fields
- 2) Directors general or equivalent officials responsible for management or administration of telecommunications in government or operational organizations
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Domestic Telecommunications Business Management in Japan
 - International Telecommunications Business in Japan
 - Present Situation of Japan's International Cooperation in Telecommunications
 - Role of Telecommunications Consultant
- 2) Discussion
 - Presentation and Discussion of Country Reports
 - Discussion on Human Resources Development
- 3) Observation tours

5. FACILITIES AND INSTITUTIONS

Ministry of Posts and Telecommunications

6. REMARKS

No. 121

DIGITAL SWITCHING ENGINEERING II

デジタル交換基礎技術 II

1. PERIOD

June 14, 1990 to August 9, 1990

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirteen (13)

3. QUALIFICATIONS

- 1) Qualified in their respective fields
- 2) University graduates or equivalent
- 3) Working for telecommunication administrations or common carrier organizations
- 4) Sufficient practical experience on their own switching systems
- 5) Under 40 years of age
- 6) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Digital Switching System (D-70)
 - Practical Exercise (D-70)
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

Nippon Telegraph and Telephone Corporation (NTT)

6. REMARKS

No. 122

DIGITAL SWITCHING SYSTEMS ENGINEERING デジタル交換システム技術

1. PERIOD

January 10, 1991 to March 14, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates or equivalent majored in telecommunication or electrical engineering.
- 2) Working for telecommunication administrations or common career organizations at least five (5) years.
- 3) Sufficient practical experience on their own switching systems
- 4) Under 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION ON TRAINING

- 1) Lectures and practical training
 - Basic and theoretical technology for Telecommunications
The basic concept of a digital switching system, which consists of routing, numbering, signaling, charging plan and an outline of traffic theory, will be explained. This information will give the participants background data on fundamental functions regarding operations of a digital switching system composing a part of a telephone network.
 - Electronic switching systems (ESS)
 - a) Switching process, hardware and software configuration and signaling of the D70 ESS (Digital) will be explained.
 - b) A series of procedures from traffic forecasting to equipment estimation of the D70 System will be explained, including a case study. Maintenance philosophy will be briefly presented.
 - Practical studies
Participants will conduct practical exercise, using D70 installed at NTT's Central Training Institute, to increase the knowledge acquired during lectures as well as emphasizing practical applications of this data.
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

Nippon Telegraph and Telephone Corporation (NTT)

6. REMARKS

All participants are requested to submit a brief report written in English on the present situation of tele-communications, its future programs and its problems in applicants' country.

No. 123

DIGITAL TRANSMISSION SYSTEMS ENGINEERING デジタル伝送技術

1. PERIOD

September 17, 1990 to December 6, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Qualified in their respective fields
- 2) University or college graduates or equivalent who majored in telecommunication or electrical engineering
- 3) Working for telecommunication administrations or common carrier organization at least for five (5) years
- 4) Under 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Digital Line Transmission System
 - Microwave Communication System
 - Practical Exercise
 - Administration Techniques
 - Practical Study
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

Nippon Telegraph and Telephone Corporation (NTT)

6. REMARKS

All participants are requested to submit a brief report written in English on the present situation of telecommunication, its future programs and its problems in applicants' country.

No. 124

INTERNATIONAL ISDN ENGINEERING 国際ISDN技術

1. PERIOD

January 14, 1991 to February 16, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Be engineers who engaged in the field of International Telecommunications
- 2) Have fundamental knowledge of Digital Communications (such as Digital Transmission Principles of PCM, Multiplexing, Synchronization, etc. and Digital Switching)
- 3) Have a sufficient command of spoken English and written English
- 4) Be in good health, both physically and mentally to undergo the training

4. DESCRIPTION OF TRAINING

- 1) Overview of ISDN
- 2) Basic Technologies of ISDN
 - a) Review of digital technologies
 - b) Basic Technologies
 - Services in ISDN
 - OSI
 - User-Network interface
 - No. 7 Signaling System
 - Interworking
 - Network Management
 - c) ISDN System
 - Digital Transmission System
 - Digital Switching System
 - Terminal Equipment
- 3) Basic items for ISDN introduction plan

5. FACILITIES AND INSTITUTIONS

Kokusai Denshin Denwa Co., Ltd. (KDD)

6. REMARKS

1. PERIOD

February 11, 1991 to March 22, 1991 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be college graduates or equivalent knowledge
- 2) Be those who have more than 3 years of experience of planning and designing in the field of radio transmission
- 3) Be working for telecommunication common carrier
- 4) Have a sufficient command of spoken and written English
- 5) Be under 40 years of age

4. DESCRIPTION OF TRAINING

- 1) Introduction of application technology for rural telecommunication
- 2) International trends of rural telecommunication
- 3) International regulation of radio transmission
- 4) Rural telecommunication technology (terrestrial radio system, satellite communication and others)

5. FACILITIES AND INSTITUTIONS

World Communications Development Organization (Work-Japan)

6. REMARKS

1. PERIOD

October 29, 1990 to December 2, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be university graduates or the equivalent,
- 2) have sufficient practical experience in their telecommunications training center, and hopely be familiar with the personal computer,
- 3) be under forty (40) years of age

4. DESCRIPTION OF TRAINING

- 1) -- realize a basic concept of learning theory, then apply it to the CBT courseware development
-- understand and explain the procedure of each phase in the courseware development
-- implement the job analysis, the course design, development and evaluation,
-- explain briefly the CBT strategy carried out with ITU
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

Japan Telecommunications Engineering and Consulting Service

6. REMARKS

No. 127

COLOR TELEVISION ENGINEERING (FUNDAMENTAL) II

テレビジョン放送技術(基礎)Ⅱ

1. PERIOD

July 16, 1990 to September 30, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be engineers serving in a broadcasting organization with practical experience of more than 3 years and less than 5 years in TV engineering or those who have knowledge of TV engineering enough to undergo this training course,
- 2) Be college or university graduates or those who have the equivalent technical knowledge in electronic engineering,
- 3) Have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

1) Lectures and Practices

- Color television fundamentals and operation of equipment and materials for broadcasting use.
- Programme production technique.
- Fundamental of digital technique.
- Measurement of broadcast equipment.
- Recent technical development

2) Field Training

- VTR and VTR editing
- Programme production
- Television transmitter

) option

3) Study and observation tour

- Various facilities of NHK
- Broadcast-equipment manufacturers etc.

5. FACILITIES AND INSTITUTIONS

- 1) NHK Communications Training Institute
- 2) NHK Broadcasting Center

6. REMARKS

No. 128

COLOR TELEVISION ENGINEERING (ADVANCED) テレビジョン放送技術(上級)

1. PERIOD

January 14, 1991 to March 3, 1991 (2.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be engineers serving in a broadcasting organization with at least five years of practical experience in TV engineering or those who have knowledge of TV engineering enough to undergo this training course
- 2) Be college graduates or those who have the equivalent technical knowledge in electronic engineering
- 3) Have a sufficient command of spoken and written English
- 4) Be healthy enough to undergo the course of training

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practices
 - a) TV studio equipment
 - b) Color TV cameras and solid-state imaging devices
 - c) Application of digital technique
 - d) Video tape recording and video tape editing
 - e) Direct satellite broadcast
 - f) Transmission and reception
 - g) Latest trends of broadcast technique
- 2) Observations
 - NHK Broadcasting Center
 - NHK Technical Research Laboratories
 - Manufacturers
- 3) Observation tours
 - a) NHK Regional Station and others
 - b) Other NHK facilities

5. FACILITIES AND INSTITUTIONS

- 1) NHK Communications Training Institute
- 2) Other NHK facilities

6. REMARKS

No. 129

EDUCATIONAL TELEVISION PROGRAMME (FUNDAMENTAL) II

教育テレビジョン番組（基礎）II

1. PERIOD

July 16, 1990 to September 16, 1990 (2.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields (as a programme director)
- 3) be serving in a broadcasting corporation directly and continuously as a producer or director with practical experience of more than 2 years and less than 7 years in the field of television programme production.
- 4) Under 35 years of age
- 5) Good working knowledge of English
- 6) Continue working in the above mentioned field after returning to home countries

4. DESCRIPTION OF TRAINING

- 1) Lectures, discussions and practical training
 - General concept of educational television
 - The fundamental production technique for educational programmes
 - The applied production technique for educational programmes
 - Practical training in programme production.
- 2) Observation tours
 - An observation of local NHK stations, schools using school program and historical sites

* Besides the above-mentioned, observation studies on programming at studios, discussions with producers and exchanges of opinions with specialists in broadcasting for education in Japan, are also scheduled in the training course.

5. FACILITIES AND INSTITUTIONS

- 1) NHK Communications Training Institute
- 2) Other NHK facilities
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

All participants are requested to submit TV programmes which was produced by you or your own TV station to NHK Communications Training Institute upon their arrival Tokyo.

No. 130

EDUCATIONAL TELEVISION PROGRAMME (ADVANCED) 教育テレビジョン番組(上級)

1. PERIOD

January 14, 1991 to March 3, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be serving in a broadcasting corporation directly and continuously as a producer or director with practical experience of more than 7 years and less than 12 years in the field of educational television programme production.
- 2) Be under forty (40) years of age.
- 3) Be graduates of college or universities, or have an equivalent educational background.
- 4) Continue working in the above mentioned field after returning to their home countries.
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures, discussions and practical training
 - General idea and role of Educational Television to get a general outlook of the current situation of ETV in the world.
 - Practice of Programme Production to acquire the know-how of producing programme.
 - Observation of Actual Production Site to get acquainted with the production system of NHK.
 - Introduction to New Technology/New Media surrounding broadcasting
- 2) Observation Tour to local station of NHK and primary school.

5. FACILITIES AND INSTITUTIONS

- 1) NHK Communications Training Institute
- 2) NHK Broadcasting Center
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

All participants are requested to submit TV programmes which was produced by you or your own TV station to NHK Communications Training Institute upon their arrival Tokyo.

No. 131

TELEVISION BROADCASTING MANAGEMENT II テレビジョン放送管理Ⅱ

1. PERIOD

May 17, 1990 to July 1, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Staff with ranks higher than division-chief engaged in administrative or planning department of a television broadcasting organization.
- 2) College or university graduates, between 30 and 40 years of age
- 3) Good working knowledge of English.

4. DESCRIPTION OF TRAINING

- 1) Lecture and discussion
 - Television broadcasting
 - Management system of public and private broadcasting
 - The latest engineering system of broadcasting
 - The comprehensive activities of television broadcasting system
- 2) Field observation and study tour

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Ministry of Posts and Telecommunications

6. REMARKS

No. 132

BROADCASTING EXECUTIVES' SEMINAR

放送幹部セミナー

1. PERIOD

November 28, 1990 to December 15, 1990 (0.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) Directors general or equivalent high-ranking officials responsible for management or administration of broadcasting in government or operational organizations
- 2) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussion
 - Present Situation and Future Prospects of Broadcasting in Japan
 - Management and Organization of Broadcasters in Japan
 - New Media of Broadcasting
 - Personnel Management and Training
 - Utilization of Broadcasting Programmes in Education
 - Presentation and Discussion of Country Reports
- 2) Observation tour
 - Broadcasting stations
 - Plants in computers, broadcasting equipments and communications
- 3) Study tours
- 4) Others

5. FACILITIES AND INSTITUTIONS

Ministry of Posts and Telecommunications

6. REMARKS

All applicants are requested to submit a report written in English on the present situation of broadcasting and its problems in an applicant's country.

No. 133

AUDIO BROADCASTING ENGINEERING 音声放送技術

1. PERIOD

July 16, 1990 to September 16, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be engineers who have practical experience in the field of audio broadcasting enough (more than three (3) years) to undergo this training course
- 2) Be between twenty-five (25) and thirty-five (35) years of age
- 3) Be college graduates or those who have the equivalent technical knowledge in audio broadcasting
- 4) Continue working in the above mentioned field after returning to their home countries
- 5) Have a sufficient command of spoken and written English and (this item will be checked strictly)
- 6) Be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as disqualifying condition for the participation in the course

4. DESCRIPTION OF TRAINING

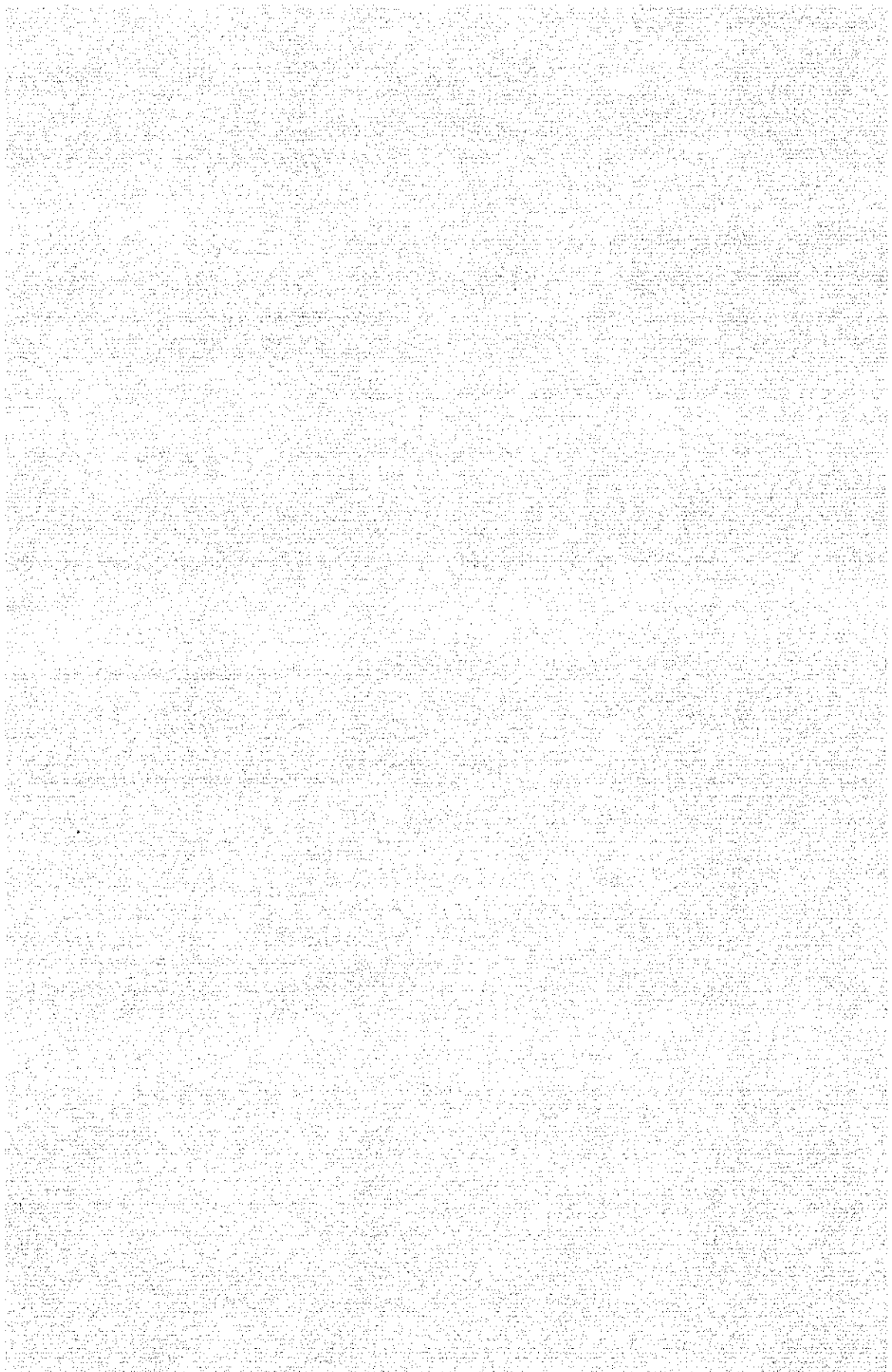
- 1) General orientation of broadcasting of Japan
- 2) Audio broadcasting system
- 3) MW transmitting
- 4) FM transmitting
- 5) Latest broadcasting technique
- 6) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) NHK Communications Training Institute
- 2) Other NHK Facilities

6. REMARKS

AGRICULTURE



No. 134

AGRICULTURAL COOPERATIVES II 農業協同組合 II

1. PERIOD

May 13, 1990 to July 14, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University or professional school graduates, engaged in the offices of co-operative service
- 2) Be requested to work in the co-operative movement after participation in the course
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture & Discussion
 - Management of Agri. Coops
 - Economic Business & Credit Business of Agri. Coops
 - Mutual Insurance Business of Agri. Coops
 - Farm Guidance Activities of Agri. Coops
 - Establishment of Farming Complex
 - Educational, Better Living Activities of Agri. Coops
 - Establishment of the Regional Agriculture Promotion Plan
- 2) Field observation and study tour

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute for the Development of Agricultural Cooperation in Asia (IDACA)

6. REMARKS

No. 135

AGRICULTURAL EXTENSION SERVICE FOR LEADER II

農業普及指導者 II

1. PERIOD

May 14, 1990 to August 24, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Engaged in agricultural extension service administration or subject-matter specialist (S.M.S.) who are in charge of training for extension workers with more than five (5) years of experience
- 3) Under 50 years of age
- 4) Have a sufficient command of spoken and written English, and preferably working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Agriculture and its extension services in Japan
 - Basic theory of extension method
 - Extension activities in the countries of participants
- 2) Observation tours
 - Extension offices
 - Experimental research facilities
- 3) Field study
 - Administration and management of extension service and education by the local government
 - Visit to extension stations, experimental research institutions and private companies, etc.

5. FACILITIES AND INSTITUTIONS

- 1) Extension and Education Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries
- 2) Japan Agricultural Development and Extension Association

6. REMARKS

No. 136

FARM HOUSEHOLD DEVELOPMENT 農家生活水準向上

1. PERIOD

August 23, 1990 to November 14, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be national, state, or provincial government level officials who are involved in rural society development, rural women development, extension & education, and other working services which include the planning and execution of instruction and training for the improvement of rural household standards of living, and improvement of the technological abilities of rural women.
- 2) be female under forty-five (45) years of age in principle, and have experience of more than five (5) years in this field,
- 3) have a sufficient command of spoken and written English,
- 4) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) Lectures, discussions, workshops, practices and field trip.
 - Technologies for the utilization of regional produce, etc.
 - Utilization technology for produce etc., which exists in the region
 - Improvement technologies for agricultural work and home living environments.
 - Methods for promoting practical use of regional resources by rural women and utilization activities.
 - Human resource training and case study.
 - Conditions of rural household life styles and utilized resources in participating nations.
 - Training and guidance plan for rural women leaders.
 - Creating and training in regional promotion and human resource development programs by women.
 - Main points in the improvement of rural standard of farmer's living in Japan.
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Agriculture, Forestry and Fisheries
- 2) The Rural Home and Family Living Improvement Study Association.

6. REMARKS

No.137

RICE PRODUCTION 米生産

1. PERIOD

March 4, 1991 to October 25, 1991 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in agricultural training or extension service in the field of rice cultivation
- 3) Good working knowledge of English
- 4) Between 25 and 35 years of age

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Agriculture in general
 - Rice agronomy
 - Soil and fertilizer
 - Varietal improvement
 - Rice physiology
 - Plant protection
 - Agricultural extension
 - Economy of rice farming
- 2) Experiment and field practice
 - Seedling and land preparation
 - Transplanting
 - Crop management
 - Harvesting and post harvest
 - Chemical analysis of soil
 - Field experiment on specific subjects
 - Laboratory experiments
- 3) Study Tour
 - Progressive farmers
 - Agricultural research stations
 - Rice marketing and agricultural cooperatives
 - Agromachinery manufactories

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

No. 138

PRODUCTION DU RIZ 米生産 (仏語)

1. DUREE

du 4 mars 1991 au 25 octobre 1991 (8 mois)

2. NOMBRE DE PARTICIPANTS QUI SONT ACCEPTEE

cinq (5)

3. QUALIFICATION DES CANDIDATS

Les candidats doivent être:

- 1) Titulaire d'un diplôme universitaire ou équivalent,
- 2) Chargée des services de formation agricole ou de mise en valeur dans le domaine rizicole,
- 3) En bonne connaissance du français,
- 4) de moins de 35 ans

4. PROGRAMME DE FORMATION

- 1) Cours
 - Culture et Physiologie du riz
 - Sols et engrais
 - Protection des plantes
 - Machinisme
 - Vulgarisation
 - Infrastructure de la rizière
- 2) Pratique et Expérimentation
 - Préparation des pépinières et semences
 - Semis direct et repiquage
 - Manoeuvre des machines agricoles
 - Observation des plants
 - Analyse de sol
 - Récolte, séchage et Décorticage
 - Essais en groupe
- 3) Voyage d'étude
 - Paysan pilote
 - Station d'expérimentation agricole
 - Bureau de vulgarisation
 - Usin de fabrication des appareils agricoles

5. ORGANISME RESPONSABLE DU STAGE

Tsukuba International Agriculture Training Centre (TIATC)

6. AUTRE

En règle générale, la langue française sera utilisée au cours du stage, lorsque le cours sera donné en japonais, l'interprète francophone se présentera.

Le cours intensif de langue japonaise est organisé avant le stage de formation, pour 5 semaines pendant la matinée.

1. PERIOD

February 4, 1991 to November 22, 1991 (9 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates with an occupational experience of more than five years in the field of rice
- 2) Presently engaged in the research work or education in the field of rice
- 3) Between 27 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Agriculture in general
 - Rice agronomy
 - Soil and fertilizer
 - Varietal improvement
 - Rice physiology
 - Plant protection
 - Statistical procedure for agriculture research
- 2) Experiment and field practice
 - Individual experiment on specific subject matter
 - Fundamental experiment on soil analysis, photosynthesis, pest collecting, artificial pollination, tissue culture, etc.
 - Field practice from sowing to post harvest
- 3) Study tour
 - Progress farmers
 - Agricultural research stations
 - Agricultural cooperatives
 - Agro-machineries manufacturers etc.

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

No. 140

VEGETABLE CROPS PRODUCTION II 野菜生産 II

1. PERIOD

March 4, 1991 to September 27, 1991 (7 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates with occupational experience for more than three years in their specialties
- 2) Presently engaged in extension service, research work or training activity in the field of vegetable horticulture, or be agronomists who are to work in the said field having a good knowledge of vegetable cultivation
- 3) Between 27 and 37 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

The course deals with the following subjects through lectures, experiments, practices and observations in study tours, on major vegetable crops in Japan

- 1) Applicable method of intensive cultivation of major vegetable crops
- 2) Fundamental knowledge on plant physiology, plant protection and soil in relation to high yielding in vegetable crops
- 3) Principal matters pertaining to rationalization of vegetable marketing and circulation

The following major subjects will be covered in the course.

- 1) Lecture
 - Agriculture in general
 - Vegetable cultivation in general
 - Vegetable cultivation in particular
 - Soil and fertilizer
 - Plant protection
 - Post harvest technology and marketing
 - Breeding and seed technology
 - Technology development and transfer method
- 2) Experiment and practice
- 3) Study tour

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

All participants are requested to prepare some statistical data and references on vegetable and its seed production in their country for the presentation of country report.

VEGETABLE SEED PRODUCTION 野菜採種

1. PERIOD

February 4, 1991 to November 22, 1991 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates with occupational experience for more than three years in their specialities
- 2) Presently engaged in vegetable seed production, seed technology or varietal improvement
- 3) Between 27 and 37 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

The course deals with the following subjects through lectures, experiments, practices and observations in study tours, on major vegetable crops in Japan

- 1) Seed production method of major vegetable crops
- 2) Seed technology on sorting, drying, storage, and germination of vegetable seeds
- 3) Applicable method of varietal improvement of major vegetable crops

The following major subjects will be covered in the course.

1. Lecture
 - (1) Agriculture in general
 - (2) Vegetable growing in general
 - (3) Vegetable seed growing method
 - (4) Seed technology
 - (5) Varietal improvement
2. Experiment and practice
3. Study tour

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

All participants are requested to prepare some statistical data and references on vegetable and its seed production in their country for the presentation of country report.

No. 142

SUGAR CANE CULTIVATION サトウキビ栽培

1. PERIOD

June 21, 1990 to February 24, 1991 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in research work or extension services in the field of sugar cane cultivation
- 3) Not exceeding thirty-five (35) years of age
- 4) Having a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

The course will be divided into three groups (sub-courses)

- | | |
|---|--|
| <ol style="list-style-type: none">1) Common Subjects<ul style="list-style-type: none">- Agriculture in Japan and Okinawa- <i>Sugar Cane Cultivation</i>- Characteristics of Soil in Okinawa- Sugar Cane Industries in Japan and Okinawa- Observation Tour2) Sugar Cane Breeding<ul style="list-style-type: none">- Outline of Sugar Cane Breeding- Role of Wild Sugar Cane Germ Plasm- Crossing and Seedling Raising- Selection Tests- Fundamental Researches on Sugar Cane Breeding | <ol style="list-style-type: none">3) Soil Management and Conservation<ul style="list-style-type: none">- General Information on Soils- Soil Survey- Soil Conservation- Laboratory Researches and Field Work on Soil- Statistical Analysis by Computer4) Sugar Cane Cultivation and Mechanization<ul style="list-style-type: none">- Tractor and Other Machines for Tilling and Soil Preparation- Machinery for Sugar Cane Practice- Sugar Cane Harvesters |
|---|--|

5. FACILITIES AND INSTITUTIONS

- 1) *Okinawa Prefectural Agricultural Experiment Station*
- 2) Okinawa International Centre (OIC), JICA

6. REMARKS

No. 143

PESTICIDE UTILIZATION FOR PLANT PROTECTION 農薬利用

1. PERIOD

January 10, 1991 to June 22, 1991 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 40 years of age
- 5) Good working knowledge of English
- 6) Request to attain skill to operate Gas Chromatograph during their stay in Japan

4. DESCRIPTION OF TRAINING

- 1) Orientation on Specific Subject
- 2) Training on Specific Subject
 - Lecture and Practice
 - Administration and laws pertaining to the use of pesticides
 - Bioassay of pesticides
 - Exposition of pesticides
 - Pesticides in crops, foods and environment
 - Application and application equipments
 - Observation Tours and Visits

5. FACILITIES AND INSTITUTIONS

- 1) Hyogo International Centre, JICA
- 2) Hyogo Prefectural Agricultural Institute
- 3) Department of Plant Protection, Faculty of Agriculture, Kobe university
- 4) National Institute of Hygienic Sciences, Osaka Branch

6. REMARKS

1. PERIOD

May 31, 1990 to December 7, 1990 (6.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - General view on rice cultivation in Japan
 - General principles of rice diseases and insect pests control
 - Rice diseases
 - Rice insect pests
 - Pesticides and Application methods
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Hyogo International Centre, JICA
- 2) Hyogo Prefectural Agricultural Institute
- 3) Department of Plant Protection, Faculty of Agriculture, Kobe University

6. REMARKS

No. 145

PLANT GENETIC RESOURCES 植物遺伝資源

1. PERIOD

May 14, 1990 to August 11, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Presently engaged in conservation or management of plant genetic resources
- 3) Under 45 years of age
- 4) Good working Knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Introduction
- 2) Exploration and collection of plant genetic resources
- 3) Germplasm preservation
- 4) Elimination of diseases and pests from genetic stocks
- 5) Information management
- 6) Individual training
- 7) Observations

5. FACILITIES AND INSTITUTIONS

- 1) National Institute of Agrobiological Resources (NIAR), Ministry of Agriculture, Forestry and Fisheries
- 2) Tsukuba International Centre, JICA

6. REMARKS

PLANT QUARANTINE (DISINFESTATION OF FRUIT FLIES)

植物検疫 (ミバエ類殺虫技術)

1. PERIOD

May 24, 1990 to October 28, 1990 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or having the equivalent academic background
- 2) Having experience in engaging plant quarantine works and having sufficient knowledge about the pest such as fruit flies
- 3) Under forty (40) years of age
- 4) Having a sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- | | |
|---|---|
| 1) Plant Quarantine in Japan | 7) Injury test of fruits by vapor heat treatment and cold treatment |
| 2) Morphology and Taxonomy of fruit flies | - Outline of injury test |
| 3) Physiology and Ecology of fruit flies | - Injury experiment |
| 4) Artificial rearing of fruit flies | - Data analysis |
| - Outline of artificial rearing | 8) Eradication of fruit flies |
| - Rearing of larva | - Principle of eradication method |
| - Control of pupa | - Male annihilation method |
| - Rearing of adult and egg collection | - Release method of sterile insects |
| - Data analysis | - Suppression of the density of fruit flies |
| 5) Disinfestation method of fruit flies (Outline) | - Mass production |
| - Fumigation treatment | - Sterilization |
| - Cold treatment and vapor heat treatment | - Sterilization and release of sterile flies |
| 6) Disinfestation test by vapor heat treatment and cold treatment | - Discrimination between sterile flies and wild ones |
| - Outline of disinfestation test | - Eradication project of fruit flies in Japan |
| - Operation of treatment equipment | 9) Make the report - Exercise |
| - Inoculation of larvae into the fruit | |
| - Method to find out standard of vapor heat treatment | |
| - Data analysis | |

5. FACILITIES AND INSTITUTIONS

- 1) Naha Plant Protection Station, Ministry of Agriculture, Forestry and Fisheries
- 2) Fruit-fly Eradication Project Office, Okinawa Prefectural Government
- 3) Okinawa International Centre (OIC), JICA

6. REMARKS

No. 147

SOIL ANALYSIS AND IMPROVEMENT 土壤分析改良

1. PERIOD

August 23, 1990 to November 26, 1990

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Be university graduates or have the equivalent academic background
- 2) Occupational experience
- 3) Qualified in their respective fields
- 4) Have a sufficient command of spoken and written English
- 5) Be not more than forty (40) years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures:
Method/classification of soil analysis
Theory of soil reforming
- 2) Practices and Experiments:
Soil analysis and its classification
Technics of soil reforming on farm land
Soil analysis technics by computer system
- 3) Observation
Ten days study tour for related research centers and tropical research institute of Japan

FACILITIES AND INSTITUTIONS

- 1) Obihiro Center for antipollution measures
- 2) Hokkaido National Agricultural Experiment Station
- 3) Tokachi Agricultural Experiment Station
- 4) Obihiro University of Agriculture and Veterinary Medicine

6. REMARKS

1. PERIOD

March 4, 1991 to June 2, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates in the field of agronomy or agro-chemistry
- 2) Presently engaged in research work or education in the field of agronomy or agro-chemistry
- 3) Between twenty five (25) and forty (40) years of age
- 4) A sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

The course deals with the following subjects through lectures, experiments, practices and observations in study tours

- 1) The characteristics of soilless culture and its world situation
- 2) Systems and structure of soilless culture and solid media science
- 3) Preparation and management of nutrient solution
- 4) Practical crops management in hydroponics
- 5) Nutritional disorders and plant physiology
- 6) Analytical procedure of mineral elements
- 7) Disease and insect pests control in hydroponics

5. FACILITIES AND INSTITUTIONS

- 1) University of Tsukuba
- 2) Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

No. 149

**EFFECTIVE UTILIZATION OF TROPICAL AGRICULTURE
AND FORESTRY RESOURCES**

熱帯農林資源の有効利用

1. PERIOD

July 19, 1990 to March 25, 1991 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) be university graduates with more than three (3) years laboratory research experience and be presently engaged in research works
- 2) be under forty (40) years of age
- 3) Have a sufficient command of both spoken and written English
- 4) be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as a disqualifying condition for the participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Joint programme
 - Lecture
 - Observation
 - Computer application (for agriculture)
- 2) Specialized programme
 - a) Technical applications to the study of crop production
 - Studies on crop cultivation and crop physiology including photosynthesis
 - Studies on farm management
 - b) Fundamental techniques for afforestation and forest survey of mangroves
 - Studies on stand structure and ecology
 - Studies on remote sensing techniques
 - Studies on prevention functions
 - Studies on tree population genetics
 - Studies on forest pathology
 - Studies on forest policy and economics
- 3) Field trip

5. FACILITIES AND INSTITUTIONS

- 1) College of Agriculture, University of the Ryukyus
- 2) Okinawa International Centre (OIC), JICA

6. REMARKS

**No. 150 ENVIRONMENTAL PLANNING AND MANAGEMENT IN AGRICULTURE
AND RURAL AREA**

農業・農村環境保全

1. PERIOD

January 7, 1991 to March 21, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty one (21)

3. QUALIFICATIONS

- 1) be university graduates or have the equivalent academic background
- 2) be presently engaged in the works of irrigation and drainage or rural area improvement, and have about 10 years of occupational experience in this field
- 3) have a sufficient command of spoken and written English
- 4) be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

Productivity increase in agriculture and elimination of poverty in rural area contribute to prevent the expansion of agriculture to the marginal lands and environmentally sensitive areas, which will have positive impact on the prevention of desertification or deforestation of tropical forest and on the preservation of earth environment.

The course is to provide the knowledge and know-how on the appropriate irrigation and drainage technology, the conservation and rehabilitation of agricultural lands, the effective use of local energy, etc. for environmental planning and management.

5. FACILITIES AND INSTITUTIONS

- 1) Agricultural Structure Improvement Bureau,
- 2) Ministry of Agriculture, Forestry and Fisheries

6. REMARKS

1. PERIOD

March 7, 1991 to May 31, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Middle management class government officers who are in charge of administration of market operation in urban areas and control of distribution of fresh fruits and vegetables,
- 2) Occupational experience of at least 2 years,
- 3) University graduates or the equivalent,
- 4) Good health both physically and mentally,
- 5) Under 35 years of age,
- 6) Good working knowledge of English.

4. DESCRIPTION OF TRAINING

Lectures, observations, practical training

- Administration of wholesale markets,
- Distribution system of wholesale markets
- Legal system related to wholesale markets
- Facilities in wholesale markets
- Plan and design of wholesale markets
- Production and shipping of fresh fruits and vegetables
- Promotive policies and measures for agriculture and distribution of fresh fruits and vegetables
- Measures for rationalization of distribution system
- Roles played by retail markets and their present situation
- Modernization and rationalization of retail markets
- Consumer oriented administration
- Theory and reality of pricing of fresh fruits and vegetables
- International distribution of fresh fruits and vegetables
- Case studies and discussions

5. FACILITIES AND INSTITUTIONS

- 1) Central Wholesale Market of Osaka City
- 2) Economic Bureau of Osaka City Government
- 3) International House, Osaka

6. REMARKS

No. 152

IRRIGATION AND DRAINAGE II

灌漑排水Ⅱ

1. PERIOD

February 11, 1991 to November 22, 1991 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 25 to 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

This course imparts the comprehensive technology of irrigation and drainage fields in order to improve the water management in terminals.

- 1) Lectures and practical training
 - Irrigation and drainage (irrigation planning, drainage planning, water resources development, etc.)
 - Structure and construction (dams, headworks, pipelines, etc.)
 - Practice (surveying, water requirement in depth, etc.)
 - Experiments (soil, concrete, hydraulics, etc.)
- 2) Observation tours
 - Irrigation and drainage projects
 - Reclamation and consolidation projects
 - Dam construction projects
 - National research institutes

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

No. 153

AGRICULTURAL LAND AND WATER RESOURCES DEVELOPMENT 農地水資源開発

1. PERIOD

June 18, 1990 to September 2, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Sixteen (16)

3. QUALIFICATIONS

- 1) Be presently engaged in the said field
- 2) University graduates or the equivalent academic background with occupational experience of more than 7 years
- 3) Under 45 years of age
- 4) Good working knowledge of English
- 5) Be in good health

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Outline of Japan's agriculture and land improvement project
 - Land reclamation and consolidation
 - Irrigation and Drainage System
 - Design criteria
 - Operation and maintenance facilities and water management
- 2) Observation tours
 - Present situation of agricultural land utilization and water resources development in Japan
- 3) Country Report session

5. FACILITIES AND INSTITUTIONS

- 1) Agricultural Structure Improvement Bureau, Ministry of Agriculture, Forestry and Fisheries
- 2) The Japanese Institute of Irrigation & Drainage

6. REMARKS

No. 154

IRRIGATION WATER MANAGEMENT 水管理

1. PERIOD

April 16, 1990 to October 12, 1990 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 5 years
- 4) Between 30 and 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

This course transfers the intensive technology of irrigation water management by the use of mathematical model simulation.

- 1) Lectures and practical training
 - Design (canal, dams, headworks, pipeline, etc.)
 - Related subjects (hydraulic simulation, case study using unsteady flow, economic evaluation, etc.)
 - Practice (computer programming, water requirement in depth, etc.)
 - Experiment (hydraulic model)
- 2) Observation tours
 - National research institutes
 - Canal works
 - Water management system

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

1. PERIOD

August 13, 1990 to December 4, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be university graduates or have an equivalent academic background,
- 2) be presently engaged in either research or educational activity and have more than 2 years of occupational experience in this field,
- 3) be not more than forty years old,
- 4) have a sufficient command of spoken and written English,
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Lectures, Experiment and Practical training
 - Natural environments of arid areas
 - Runoff analysis
 - River and groundwater engineering
 - Facilities of water storage and water supply
 - Water quality
 - Agricultural practice of arid areas
 - Irrigation and drainage
 - Water management
 - Water resources planning
- 2) Study Visit
 - North Okinawa water resources development project, Minafuku underground dam (Okinawa prefecture)
 - Matano dam (Tottori prefecture)
 - Kiso river basin irrigation and drainage project (Aichi prefecture)
 - The Hojo sand dune area farm (Tottori prefecture)

5. FACILITIES AND INSTITUTIONS

Tottori University

6. REMARKS

FARM MECHANIZATION II 農業機械化 II

1. PERIOD

March 4, 1991 to November 22, 1991 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 27 and 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and practical training
 - Farm mechanization: Effective introduction of farm machinery (inspection and selection), its utilization and systematic mechanized farming mainly connected with rice production
 - The related subject to mechanization: Rice cultivation, land consolidation, administration of mechanization and co-operative of farm machinery in Japan
 - Experiment on farm mechanization
- 2) Observation tours
 - Experimental and research institutes and other related organs

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

No. 157

FARM MACHINERY DESIGN 農業機械設計

1. PERIOD

February 11, 1991 to October 5, 1991 (8.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates from faculty of agricultural engineering or mechanical engineering
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 25 and 42 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and practical training
 - Design engineering: Machine design technology such as drawing & design of machine elements, its parts and simple farm machinery
 - Trial-make of simple farm machinery and its performance test
 - Materials: Physical properties of metallic
 - Strength of materials, and heat treatment of metal. Physical property of plant and soils.
 - Technology in common
- 2) Observation
 - Experimental and research institutes and other related organs

5. FACILITIES AND INSTITUTIONS

Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

1. PERIOD

May 7, 1990 to November 29, 1990 (6.9 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Agricultural engineers in supervising posts
- 3) At least three (3) years of experience in the field of agricultural machinery management and/or instruction
- 4) be under forty (40) years of age
- 5) good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Principles and structures of agricultural machinery and components
 - Agricultural machinery management
 - Fundamentals of mechanical engineering
 - Reference subjects
- 2) Practice
 - Measurement
 - Disassembly, reassembly and maintenance
 - Field operation
 - Welding
- 3) Agricultural machinery management
 - Microcomputers
 - LP, DP and simulation techniques
 - Cost analysis methods
 - Management schemes of agricultural machinery
- 4) Observations
- 5) Report presentation and discussion
- 6) Examination and evaluation

5. FACILITIES AND INSTITUTIONS

- 1) Member plants of Japan Farm Machinery Manufacturers Association and other plants
- 2) Kyoto University
- 3) Osaka International Training Centre, JICA

6. REMARKS

1. PERIOD

March 4, 1991 to May 31, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates from faculty of agricultural engineering or mechanical engineering
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 25 and 50 years of age
- 5) A sufficient command of spoken & written English

4. DESCRIPTION OF TRAINING

- 1) Lecture and practical training
 - Testing methods of agricultural machinery
 - The methods of data processing and evaluation
 - Testing and measuring facilities
 - Technology in common
- 2) Observation
 - Manufacturers
 - Experimental and research institutes and other related organs

5. FACILITIES AND INSTITUTIONS

- 1) Bio-oriented Technology Research Advancement Institution (BRAIN)
- 2) Institute of Agricultural Machinery (IAM)
- 3) Tsukuba International Agricultural Training Centre, JICA

6. REMARKS

No. 160

POST-HARVEST RICE PROCESSING 米のポストハーベスト研修

1. PERIOD

August 27, 1990 to November 27, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fourteen (14)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Senior technical administrators in the government or the public organizations engaging in planning and promoting improvements of all post-harvesting process of rice such as paddy drying, storage, rice milling, etc.
- 3) Under 45 years of age
- 4) Good working knowledge of English
- 5) Not be instructor or professor of college and university or researcher

4. DESCRIPTION OF TRAINING

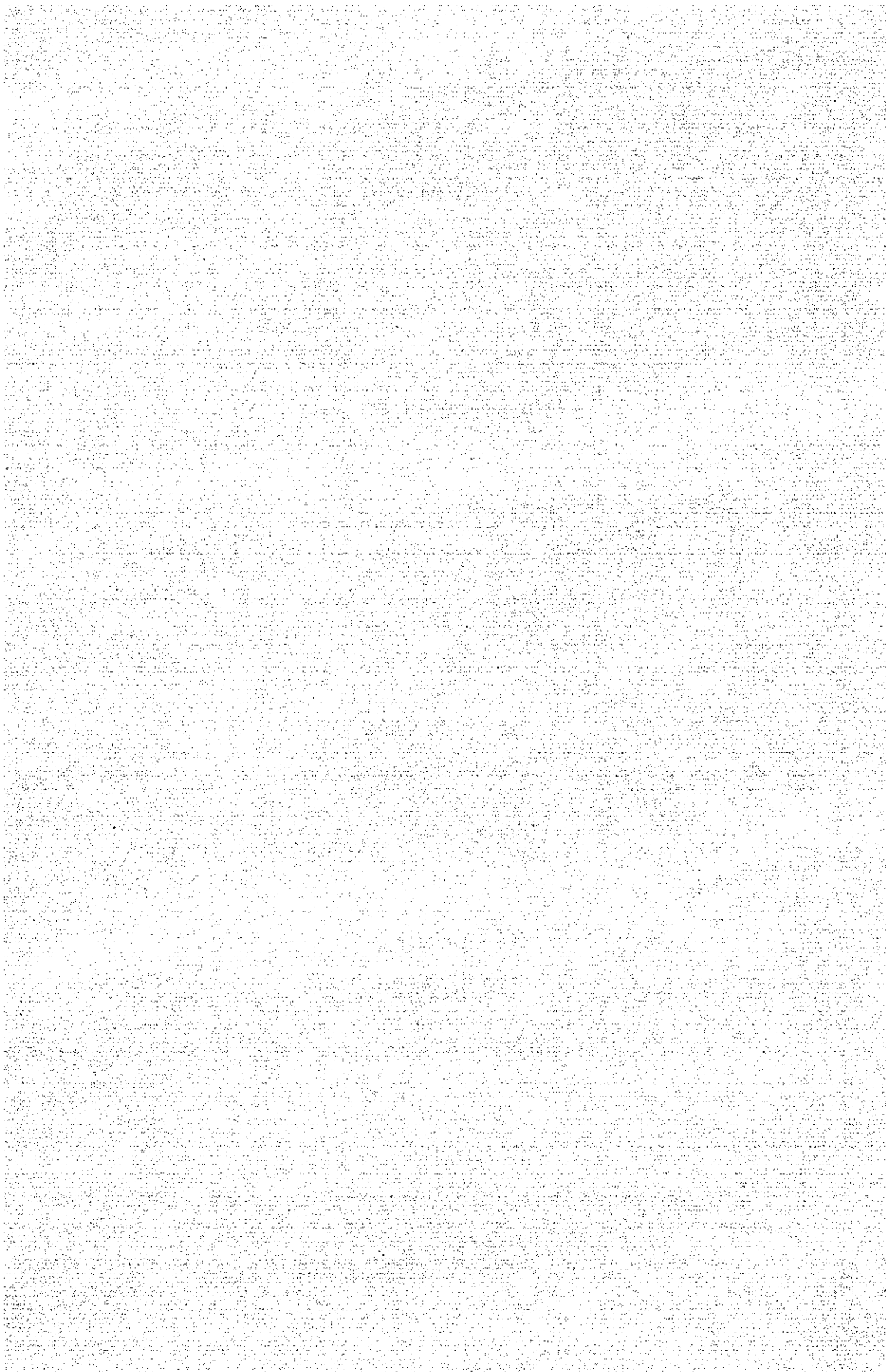
- 1) Lectures and practical training
 - Rice and food situation in Japan and in the world
 - Government policies and control system on rice and food in Japan
 - Pre-harvest methods and machinery
 - Drying and storage of rice and the role of agricultural co-operatives
 - Milling machines and rice mill planning and management
 - Quality of rice and its control
 - Rice and by-product utilizations
- 2) Observation tours of machine making factory

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Agriculture, Forestry and Fisheries
- 2) Japan Grain Inspection Association

6. REMARKS

ANIMAL HUSBANDRY



No. 161

POULTRY PRODUCTION AND BREEDING TECHNOLOGY

鶏育種・生産技術

1. PERIOD

May 10, 1990 to September 22, 1990 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of more than 2 years
- 3) Between 26 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Feeding management for layers and broilers
 - Breeding statistics
 - Hatching and brooding
 - Feed and composition
 - Artificial insemination
 - Poultry farm management
 - Poultry house and equipment
 - Hygiene
 - Inspection of quality and egg processing
 - Extension and education
 - Private poultry industry in Japan

5. FACILITIES AND INSTITUTIONS

- 1) Okazaki National Poultry Breeding Station, Ministry of Agriculture, Forestry and Fisheries (MAFF)
- 2) Poultry Research Institute, Aichi-ken Agricultural Research Centre
- 3) Nagoya International Training Centre (NITC), JICA

6. REMARKS

No. 162

ARTIFICIAL INSEMINATION FOR CATTLE 家畜人工授精

1. PERIOD

May 17, 1990 to October 15, 1990 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates or equivalent academic background
Be presently engaged in livestock administration, holding veterinarian's licences or artificial inseminator's licence.
- 2) Qualified in their respective fields
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Breeding of cattle
 - Feed management for dairy cattle
 - Artificial insemination
 - Embryo Transfer
 - General aspect of livestock industry
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

Fukushima National Livestock Breeding Station, Ministry of Agriculture, Forestry and Fisheries

6. REMARKS

No. 163

EMBRYO TRANSFER FOR CATTLE 受精卵移植技術

1. PERIOD

June 11, 1990 to September 26, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Be university graduates or have the equivalent academic background;
- 2) Hold veterinarian's license or artificial inseminator's license and have sufficient knowledge about artificial insemination by using rect-vaginal method and more than three years experience in practice;
- 3) Have a good command of English both spoken and written;
- 4) Be under forty (40) years of age in principle;

4. DESCRIPTION OF TRAINING

The purpose of the course is to provide the latest ET techniques in Japan for livestock breeding personnel in countries faced with the necessity of it, and ultimately to contribute to the progress of animal industry by the application and improvement of the techniques under their respective countries' condition.

The course provides basic theory and practical use of ET as well as its administration.

5. FACILITIES AND INSTITUTIONS

Hidaka National Livestock Breeding Station, Ministry of Agriculture, Forestry and Fisheries.

6. REMARKS

No. 164

**TWINNING AND INVITRO FERTILIZATION TECHNOLOGY
FOR CATTLE**

双子生産・体外受精技術

1. PERIOD

September 24, 1990 to February 5, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) be university graduates or have the equivalent academic background
- 2) hold a veterinarian's license or artificial inseminator's license, and have sufficient knowledge and practical experience
- 3) be staff members of institutes or universities that participate in the improvement of animal reproduction
- 4) have a good command of both spoken and written English
- 5) be in good health, both physically and mentally (pregnancy is regarded as a disqualifying condition for participation in the course).

-- Twinning and IVF techniques are based on ET techniques. In this course, a non-surgical method is applied for practice drills in recovery and transplantation of embryo. This method requires proficiency in artificial insemination (AI) by the Rect-vaginal method. Therefore, applicants must have enough knowledge and at least three-years practical experience in AI or ET.

4. DESCRIPTION OF TRAINING

- 1) Japanese Language Class
- 2) Lectures and practical training at National Livestock Center
 - General aspects of livestock industry in Japan
 - Bovine reproductive physiology
 - Theory and practical training of Embryo Transfer for cattle
 - Theory and practical training of In-vitro Fertilization for cattle
 - Theory of Twinning in cattle
 - Theory and practical training of Embryo Splitting
 - Application of new technology in livestock industry
- 3) Observation trip
- 4) Report making and Evaluation meeting

5. FACILITIES AND INSTITUTIONS

National Livestock Center Ministry of Agriculture, Forestry and Fisheries

6. REMARKS

DAIRY FARMING AND RELATED INDUSTRIES

酪農振興・検査技術

1. PERIOD

August 27, 1990 to November 20, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Be engaged in fields related to animal husbandry
- 3) Have a sufficient command of spoken and written English
- 4) Under 40 years of age

4. DESCRIPTION OF TRAINING

The purposes of the course are to train dairy specialists and technicians to be leaders in their fields by providing basic, practical knowledge about the techniques essential to strengthening dairy farming such as livestock health inspection techniques, sanitary methods and inspection techniques for maintaining meat and milk quality, etc..

5. FACILITIES AND INSTITUTIONS

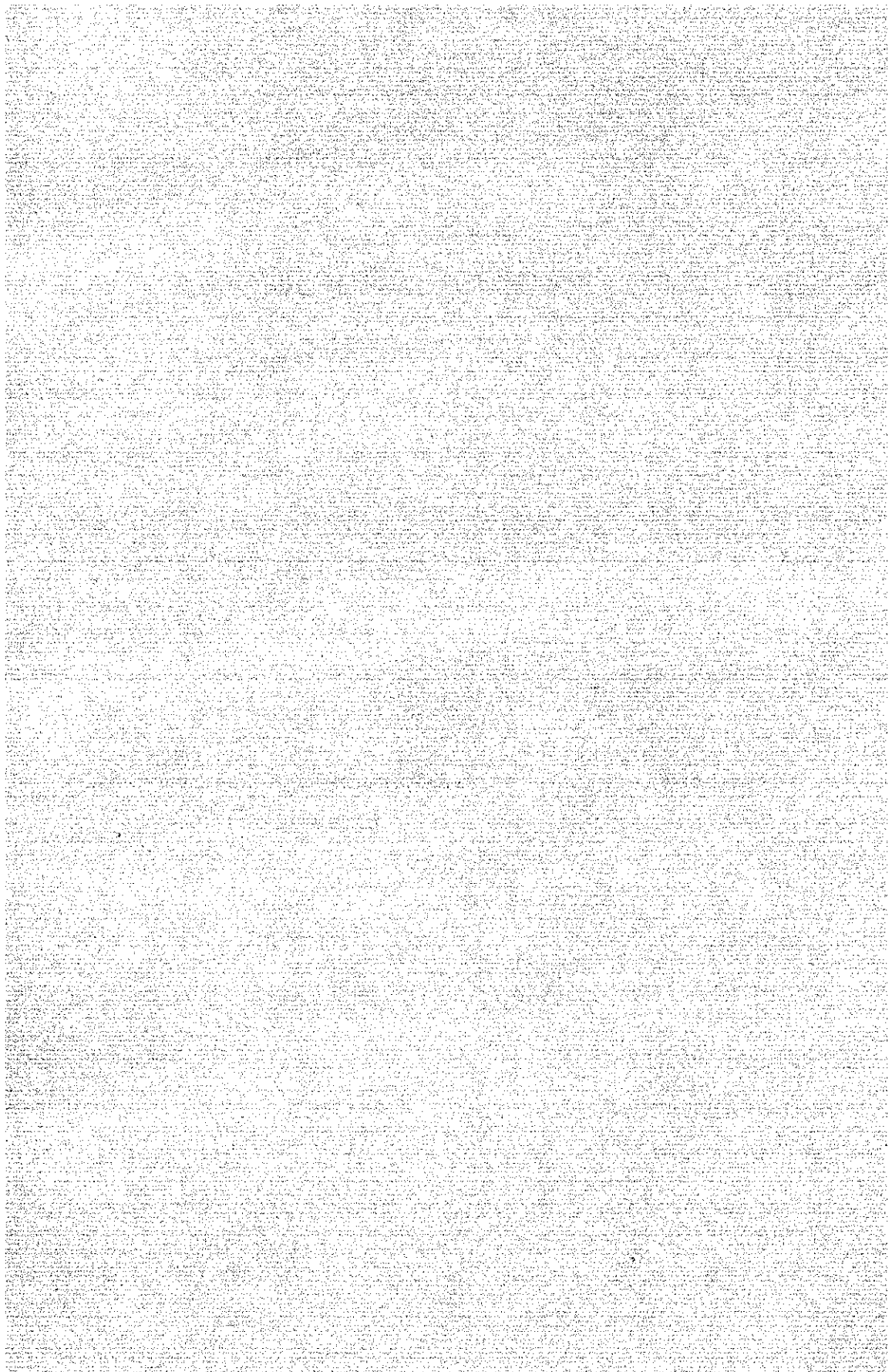
Obihiro University of Agriculture and Veterinary Medicine

6. REMARKS

Participants are asked to select "subcourse 1 or 2."

1. Quality tests and Sanitary inspection techniques in Dairy and Meat Products
2. Animal Husbandry Techniques

FORESTRY



1. PERIOD

August 13, 1990 to December 9, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University or college graduates or equivalent
- 2) Occupational experience of more than 5 years
- 3) Qualified in their respective fields
- 4) Under 40 years of age
- 5) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

Lectures and practical training

Lectures:

Forestry and Forest Products in Japan, Present Situation and Level of Forestry Research in Japan

Individual Studies:

Individual studies for 57 days will be given during the training period at one of the following divisions.

- (1) Forest Environment Division
- (2) Forest Biology Division
- (3) Bio-resources Technology Division
- (4) Forestry Technology Division
- (5) Forest Management Division

5. FACILITIES AND INSTITUTIONS

- 1) Forestry and Forest Products Research Institute, Ministry of Agriculture, Forestry and Fisheries
- 2) Tsukuba International Centre, JICA

6. REMARKS

Training Courses on Forestry and on Forest Products are provided every other year. In 1990, training course on forestry will be given.

1. PERIOD

July 9, 1990 to October 18, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

Applicants should:

- 1) be forestry university and/or college graduates, equivalents with occupational experience of more than five years in the field of forestry administration,
- 2) be presently engaged in planning work in the governmental forestry organizations,
- 3) not be researchers of public organizations or instructors or professors of colleges and/or universities,
- 4) have a sufficient command of spoken and written English,
- 5) be under forty years of age,
- 6) be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Outline of forestry and wood industry in Japan
- 2) Forestry and forest products administration in Japan
- 3) Forestry technique
- 4) Silvicultural technique in the Tropics
- 5) Observation tours (Tokyo, Kyushu, Okinawa and Tsukuba)

5. FACILITIES AND INSTITUTIONS

Forestry Agency, Ministry of Agriculture, Forestry and Fisheries

6. REMARKS

This course is not suitable for person presently being engaged in either research or educational activity.

FOREST SOIL 森林土壤

1. PERIOD

August 23, 1990 to December 10, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates with occupational experience more than 5 years in the field of forest soil research
- 2) Presently serving at forestry research organizations or universities
- 3) Under forty (40) years of age
- 4) Having a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Forest Soil Science
 - General Description of Forest Soils
 - Formulation, Classification and Distribution of Forest Soils
 - Vegetation, Productivity and Water Conservation with Forest Soils
 - Soils and Fertilizers for Forest Nursery
 - Forest Soils in Okinawa
- 2) Investigation into Forest Soils
 - Methods of Forest Soil Investigations (sampling and analysis)
 - Soil Mapping and Utilization on Forest Maps
 - Field Research and Investigations
- 3) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Forestry Agency, Ministry of Agriculture, Forestry and Fisheries
- 2) College of Agriculture, University of the Ryukyus
- 3) Japan Forest Technical Association
- 4) Okinawa International Centre (OIC), JICA

6. REMARKS

1. PERIOD

September 2, 1990 to December 16, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) be senior technical staff in charge of forest management in the governmental organization and have more than 5 years of experience.
- 2) be university graduate or have the equivalent academic background.
- 3) have a sufficient command of spoken and written English
- 4) be not more than forty-five (45) years of age

4. DESCRIPTION OF TRAINING

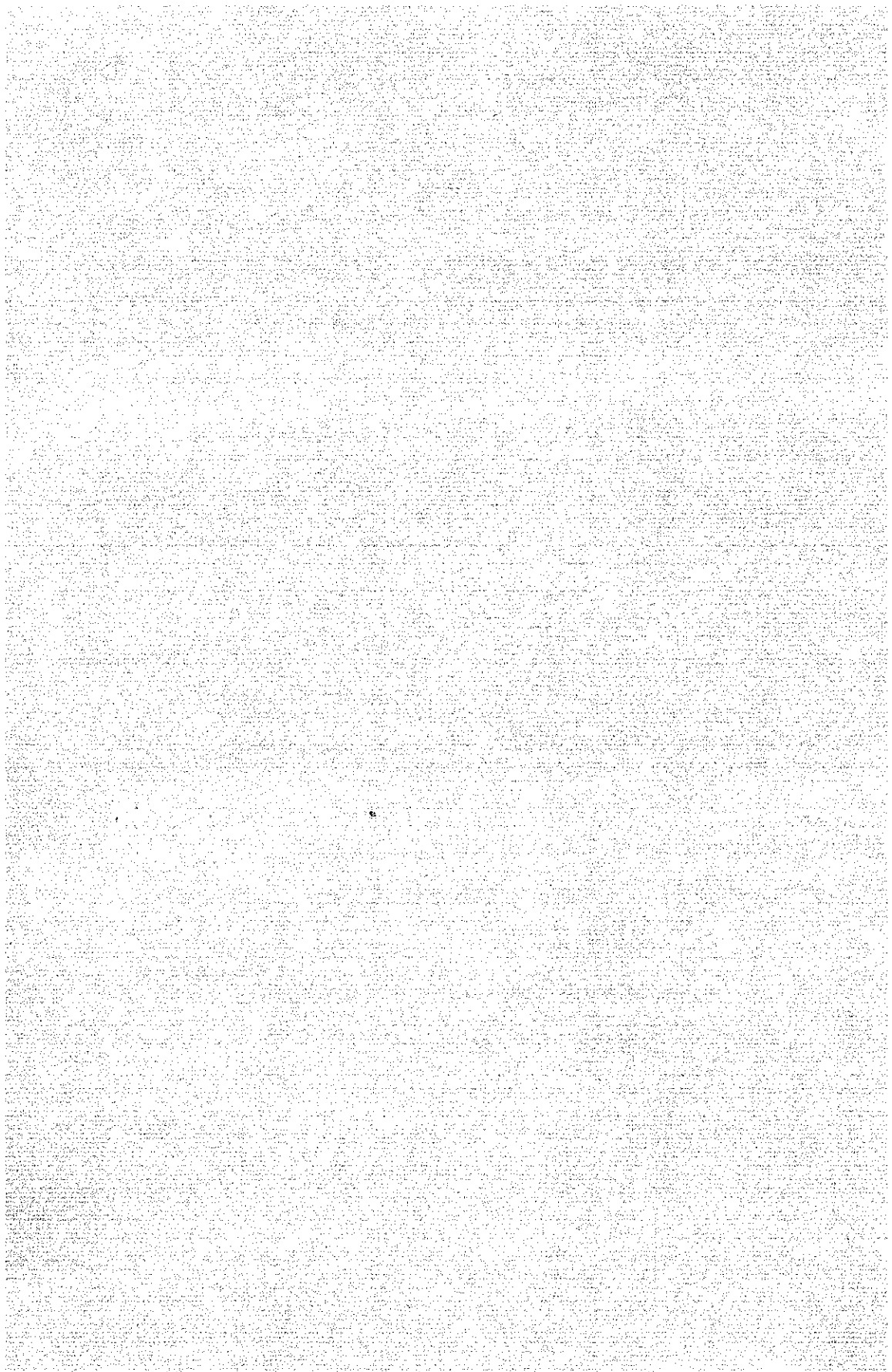
- 1) Lectures, discussion and practice
 - Outline of Japanese forest and forestry
 - Forest management and planning in Japan
 - Inventory survey method of forest
 - Forest policy in rural development
 - Management of tropical natural forest resources
- 2) Field observation and study tour
- 3) Forum

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) National Forestry Training Institute, Ministry of Agriculture, Forestry and Fisheries.

6. REMARKS

FISHERIES



No. 170

FISHERY COOPERATIVES 漁業協同組合

1. PERIOD

July 2, 1990 to December 17, 1990 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduate or equivalent
- 2) Fishery cooperative experience of more than 3 years
- 3) Under 10 years of age
- 4) To have a sufficient command of English language

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Outline of fishery cooperatives, fish marketing, fisheries finance, fishery cooperative management, accounting of fishery cooperatives
 - Fisheries legislation, Fisheries Cooperatives Law
 - Fisheries administration, Fisheries economics
 - Resources management
 - Other essential subjects related to fishing industry
- 2) Observation tours
 - Fisheries cooperatives association
 - Fishing ports
 - Fishing markets
 - Fish processor plant of fishing companies
 - Fishermen's houses
 - Aquaculture farms, and some research institutes
 - Consumer cooperative

5. FACILITIES AND INSTITUTIONS

Kanagawa International Fisheries Training Centre, JICA

6. REMARKS

It is desirable to hold TOEFL (Test of English as foreign language) score more than 500 points.

1. PERIOD

January 7, 1991 to March 22, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Be presently engaged study of fishing gear and methods by research work, education, fishing gear fabrication or actual fisheries operation,
- 2) University graduate or equivalent,
- 3) Under 35 years of age,
- 4) To have a sufficient command of English language

4. DESCRIPTION OF TRAINING

- 1) Lectures and practice
 - Fishing gear and methods of fisheries in Japan
 - Design of fishing gear
 - Relation between fish behavior and fishing gear
 - Experiment on characteristics of model net fishing gear
 - Construction and operation of net fishing gear
- 2) Observation tours
 - Fishing ports
 - Fish market
 - Fishing operations by commercial fishing boats
 - Universities and research institute of fisheries

5. FACILITIES AND INSTITUTIONS

Kanagawa International Fisheries Training Centre, JICA

6. REMARKS

No. 172

COASTAL FISHING TECHNOLOGY 沿岸漁業技術

1. PERIOD

April 10, 1990 to December 17, 1990 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Senior high school graduates or equivalent
- 2) Fishery experience of more than 3 years
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practice
 - Fishing gear and methods of coastal fisheries in Japan
 - On board training by training vessels
 - Fishing practice by commercial fishing boats
 - Net handling practice
 - Model net construction
 - Engine handling practice
- 2) Observation tours
 - Fishing ports
 - Fishing markets
 - Fishing operations by commercial fishing boats
 - Fish processing plants
 - Fishing Net & Rope Mfg., Plants

5. FACILITIES AND INSTITUTIONS

Kanagawa International Fisheries Training Centre, JICA

6. REMARKS

No. 173

GENERAL AQUACULTURE 養殖一般

1. PERIOD

January 7, 1991 to June 22, 1991 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) To be a university graduate or its equivalent
- 2) To have a previous experience in aquaculture or fisheries work over two (2) years
- 3) To be under thirty five (35) years of age
- 4) To have a sufficient command of English language
- 5) To have some assurance of being employed in aquaculture activities on the completion of training

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Introduction to fisheries in general
 - Aquaculture in general
 - Biological and chemical principles underlying the practice of aquaculture
 - Aquacultural engineering
- 2) Practice
 - Artificial insemination and seed production (Larval rearing)
 - Pituitary extraction and hormone injection
 - Living food organisms culture
 - Fish anatomy and histology
 - Feed analysis and determination of digestibility
 - Water quality analysis
- 3) Observation Tours
 - National and regional fisheries research laboratories
 - Prefectural fisheries experimental stations
 - Sea farming center
 - University of fisheries
 - Various types of private fish farms and other relevant organization

5. FACILITIES AND INSTITUTIONS

Kanagawa International Fisheries Training Centre, JICA

6. REMARKS

The purpose of the training course is to impart general information or outline of aquaculture, and general principles of aquaculture techniques to those who are employed in aquaculture activities. Therefore, the course does not involve any specific species of organisms and techniques.

No. 174

PRAWN PROPAGATION TECHNIQUE エビ増養殖技術

1. PERIOD

January 28, 1991 to July 22, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Be presently engaged either in practical production or research and have more than one year of occupational experience in this field,
- 2) Be junior college graduates or have an equivalent academic background,
- 3) Have a sufficient command of spoken and written English,
- 4) Be not more than thirty-five years of age,
- 5) Be in good health, both physically and mentally, be undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Biology of *Penaeus japonicus*
- 2) Seedling production of *Penaeus japonicus*
- 3) Technique of *Penaeus japonicus* culture
- 4) Aqua propagation in general
- 5) Seedling production of fishes and shellfishes
- 6) Sickness control and feeds of *Penaeus japonicus*
- 7) Marine environment and management of water quality in ponds

5. FACILITIES AND INSTITUTIONS

Yamaguchi Prefectural Naikai Sea Farming Center

6. REMARKS

No. 175

MARINE RANCH (MARINE FARM) SYSTEM 海洋牧場システム

1. PERIOD

July 30, 1990 to December 10, 1990 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Be university graduates or have the equivalent academic background, and be experienced in business over 5 years,
- 2) Be presently engaged in either research or educational activity in fisheries,
- 3) Be not more than forty years old,
- 4) Have a sufficient command of spoken and written English,
- 5) Be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Management of Water Quality
 - Fisheries Hydrography
 - Marine Botany and Planktology and Benthos
 - Techniques in Preparing Seaweed Beds
 - Ichthyology
 - Seed Production for Shellfish, Shrimp and Marine Fish
 - Fisheries Engineering and Ecology on Artificial Reefs
 - Planning of Marine Ranch Systems
- 2) Observation tours
 - Seed Production Institute
(Japan Farming Fisheries Center, Yashima in Takamatsu)
 - Marine Fish Culture Farm
(Hyogo and Kyoto Prefectural Experimental Station)
 - Marine Ranching Field and Oyster Culture Ground
(Ohita and Hiroshima Prefectural Experimental Station)

5. FACILITIES AND INSTITUTIONS

Uda Marine Biological Institute, Kochi University

6. REMARKS

No. 176

MARINE FISH CULTURE 海面養殖

1. PERIOD

February 4, 1991 to July 19, 1991 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) be senior engineers who graduated from universities, majoring in the faculty of fisheries in aquaculture, especially marine fish culture, or those who have the equivalent academic background.
- 2) have a sufficient command of spoken and written English.
- 3) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Outline of Marine Fish Culture
 - Fish Physiology
 - Fish Nutrition and Diets
 - Seed Production
 - Cultural Ground Management
 - Fish Farming Technology
 - Fish Pathology
 - Engineering for Fish Culture
 - Marketing and Aquacultural Management
 - Live Fish Transportation
- 2) Practice
 - Culture of Living Foods
 - Seed Production of Sea Bream
 - Culture of Sea Bream and Yellow Tail
 - Preparation of Foods
 - Water Analysis
 - Fish Pathological Examination

5. FACILITIES AND INSTITUTIONS

Propulsion Conference of Nagasaki International Fisheries Training Affairs, Nagasaki City, Nagasaki Prefecture.

6. REMARKS

1. PERIOD

March 11, 1991 to June 25, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Be university graduates or have the equivalent academic background
- 2) Be presently engaged in either research or educational activity and have more than 3 years of occupational experience in this field.
- 3) Be not more than 40 years old.
- 4) Have a sufficient command of spoken and written English.
- 5) Be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Lectures, Experiment and Practical Training
 - Principles of Aquaculture
 - Fish Nutrition
 - Water Quality Management
 - Fish Physiology
 - Pathogenic Microbiology in Fish
 - Bacteriology
 - Fish Pathology
 - Prevention of Epizootics in Fish
 - Others
- 2) Study trip

5. FACILITIES AND INSTITUTIONS

Simonoseki University of Fisheries

6. REMARKS

No.178

HULL AND ENGINE MAINTENANCE OF SMALL FISHING BOAT
小型漁船の船体・機関保守

1. PERIOD

January 7, 1991 to June 22, 1991 (5.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Senior high school graduates or equivalent
- 2) Fishery boat or engine experience of more than 3 years
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) *Lectures and practice*
 - Basic information about fisheries in Japan
 - Hull maintenance
 - Diesel engine and outboard engine
 - Marine auxiliaries
 - Knowledge and handling of FRP
- 2) *Observation tours*
 - Shipyards
 - Fishing ports
 - Marine engine factories
 - Marine engine operation by commercial fishing boats

5. FACILITIES AND INSTITUTIONS

Kanagawa International Fisheries Training Centre, JICA

6. REMARKS

No. 179

**FISH PROCESSING, MANAGEMENT, MARKETING, FISHERIES
BUSINESS AND ECONOMICS**

水産加工流通経営

1. PERIOD

August 6, 1990 to December 14, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

Applicants should:

- 1) be university graduates or have the equivalent academic background,
- 2) be presently engaged and have more than three (3) years experience on guidance, research and educational activities in the field of fishery business administration and be expected to be working on their return in this field,
- 3) not more than 40 years old
- 4) have a sufficient command of spoken and written English,
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction to Fishery Economics
 - Fishery Business Administration
 - Theory of Fishery Products Distribution
 - Theory of Fishery Products Consumption
 - Statistical Analysis Method
 - Introduction to Book Keeping
 - Theory of Fishery Industry Cooperative Association
 - Theory of Fishery Policy
 - Theory of Fishery Public Facilities
 - Science of Fishery Laws
 - Theory of Fishery Products Distribution
 - Fishery Chemistry
 - Food Sanitary
 - Refrigeration
- 2) Practical Trainings
 - Refrigeration (Practice)
 - Fish Processing (Practice)
 - Fishery Chemistry (Experiment & Practice)
 - Food Sanitary (Practice)
- 3) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Propulsion Conference of Nagasaki International Fisheries Training Center
- 2) Nagasaki Prefectural Nagasaki Fisheries Experimental Station

6. REMARKS

No. 180

MARINE FOOD PROCESSING TECHNOLOGY 水産食品加工

1. PERIOD

October 1, 1990 to May 27, 1991

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Under 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

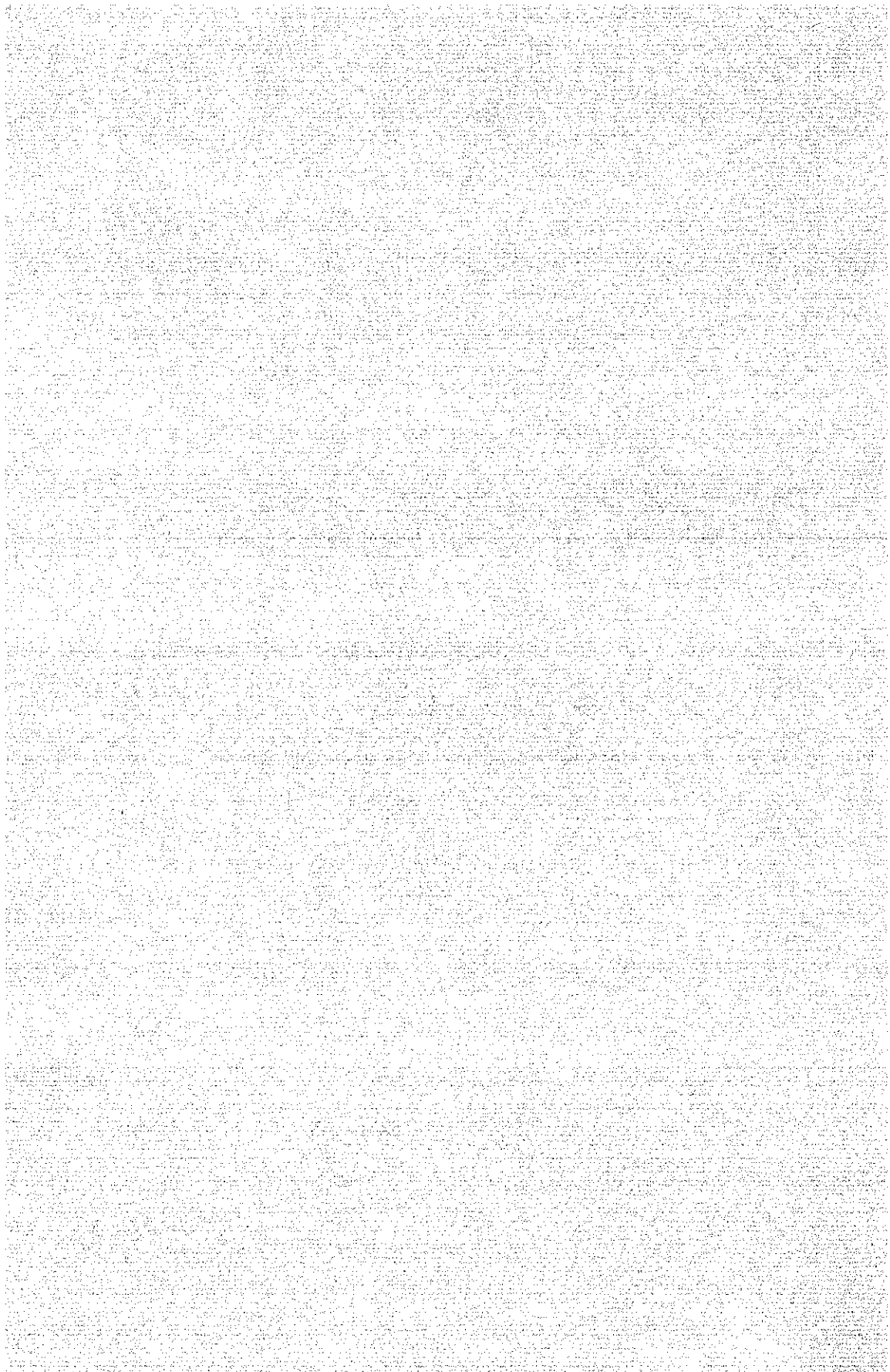
- 1) Lectures and practical training
 - Present situation of marine resources, Fishery industry and marine processing in Japan, Fish culture, Environmental engineering
 - Japanese eating habits, Food supply in Japan, Food self-supply through technical advancement, Food packaging and storage Food distribution and its problems, Law concerned with food, Agricultural products, Livestock products, Marine products, etc.
 - In-plant training (Meat products, Frozen food, Marine products operation and application of analytical instruments, Analysis of food)
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Hyogo International Centre, JICA
- 2) Public Research Institutions
- 3) Food processing Factories (Food Manufacturing Plants)

6. REMARKS

MINING AND MINERALS



1. PERIOD

May 14, 1990 to December 17, 1990 (7 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Geophysicists, geologists or engineers presently engaged in geoscience
- 3) Occupational experience of more than 3 years
- 4) Not more than thirty five (35) years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Geology (marine geology, petroleum geology, mineral deposits, etc.)
 - Geophysics (Seismic, gravitational, magnetic, electric and logging methods, etc.)
 - Applied mathematics, computer use
 - Laboratory and field work
 - Petroleum exploration
 - Remote sensing, etc.
- 2) Study Trip and Field Work
 - Onboard training
 - Study trip to related facilities

5. FACILITIES AND INSTITUTIONS

- 1) Geological Survey of Japan, Ministry of International Trade and Industry
- 2) Tsukuba International Centre, JICA

6. REMARKS

No. 182

COAL MINE SAFETY 石炭鉱山保安

1. PERIOD

January 28, 1991 to April 27, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalent who have basic knowledge of mine safety with occupational experience of more than 3 years
- 2) Under 35 years of age in principle
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Outline of Mining in Japan
 - Administration and Mine Safety Law
 - Approval Test Methods of Mine Appliances
 - Rock Mechanics
 - Ventilation
 - Gas, Coal and Dust Explosion
 - Mine Fire
 - Explosion Proof
 - Dust Measurement
 - Explosives and Blasting etc.
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) National Research Institute for Pollution and Resources, Ministry of International Trade and Industry
- 2) Tsukuba International Centre, JICA

6. REMARKS

MINERAL PROCESSING AND METALLURGY

選鉱製錬

1. PERIOD

August 6, 1990 to August 12, 1991 (12 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Engineers or researchers who have graduated from universities, majoring in mining and metallurgy programmes or similar subjects or those who have an equivalent academic background, with more than three years of occupational experience in the related field.
- 2) Between twenty-five (25) and thirty-five (35) years of age.
- 3) Presently engaged in the research work at universities, vocational institutes, research and development divisions in industries.
- 4) A sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

i) Subjects.

- 1) Applied Mineralogy
Physical Chemistry of Minerals, Mineral Engineering, Resource and Environment Management.
- 2) Mineral Processing
Crushing and Grinding of Ore, Particulate Technology, Physical Chemistry of Flotation
- 3) Ferrous Extractive Metallurgy
Pretreatment of Ore, Ironmaking, Steelmaking, Solidification
- 4) Non-ferrous Extractive Metallurgy
Pyrometallurgy, Hydrometallurgy, Electrometallurgy, Environmental Chemistry
- 5) Process Analysis and Simulation of Metallurgical Process
Transport Phenomena, Process Simulation, Optimum Design of Processes
- 6) Materials Science for Metallurgist
Introduction to Materials Science, Ceramics and Metal Processing.
- 7) Selected Topics in Mineral Processing and Metallurgy
Energy Resources, Data Bank System, System Engineering, Seminar.

ii) Methodology

- 1) Group Study with Lectures
 - a) Physical Chemistry of Minerals and Mineral Processing*
 - b) Fundamentals in Metallurgical Thermodynamics*
 - c) Fundamentals in Metallurgical Kinetics*
 - d) Applied Mineralogy and Mineral Processing
 - e) Ferrous Extractive Metallurgy
 - f) Non-Ferrous Extractive Metallurgy
 - g) Transport Phenomena and Process Analysis
 - h) Japanese Language and Culture*
 - i) Advanced course in Mineral Processing and Metallurgy (optional programme)
- 2) Group Study with Lectures and Practice
Instrumental Analysis (Principle and Experiments)
 - X-ray Diffraction*
 - X-ray Fluorescent Analysis*
 - Atomic Absorption Spectroscopy*
 - Electron Probe Microanalysis*
 - Calorimetry (DSC, DTA) (on demand)
 - Materials Testing (on demand)
 - Computer Training (on demand)
 - Chemical Analysis (on demand)
 - Laboratory Automation (on demand)
- 3) Independent Study
Participants are expected to have more professional experiences in respective research programmes under supervision of the professors of SENKEN.
*: All participants may be suggested to have the credit of this subject.
- 4) Observation tours

5. FACILITIES AND INSTITUTIONS

Research Institute of Mineral Dressing and Metallurgy (SENKEN), Tohoku University

6. REMARKS

Japanese language lesson is also offered in this course.

1. PERIOD

February 28, 1991 to June 27, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) University or College graduates or equivalent with basic knowledge of mineral mining or smelting
- 2) Qualified in their respective fields with more than five (5) years of practical experience
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Technology, policy and administration of mining industry and smelting in Japan
- 2) Observation tours
 - Visits to:
 - Mines and Smelters
 - Manufactures of Related Equipments
 - National Research Institute for Pollution and Resources
 - Geological Survey of Japan
 - Akita University
 - Tohoku University

5. FACILITIES AND INSTITUTIONS

International Institute for Mining Technology (Minetec)

6. REMARKS

- 1) Coal mining industry will not be covered in this course
- 2) The training program has following three groups,
 - mining geologist,
 - mining engineers,
 - milling & smelting engineers

No. 185

SEPARATION AND REFINEMENT OF UNUTILIZED
MINERAL RESOURCES

未利用資源の分離精製

1. PERIOD

March 4, 1991 to June 29, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University or collage graduates, hopefully with M.A. degree
- 2) Occupational experience in research job of more than 3 years
- 3) Quallified in their respective fields
- 4) Under 35 years old of age
- 5) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

1) Lectures:

Introductory lectures in the separation and refining techniques for one week, then the participants are allocated to the individual fields listed below for 3.5 months.

2) Individual Studies:

a) Mineralogy Group:

- Mineral identification of Nb-Ta minerals by means of X-ray diffraction and electron probe micro analysis.
- Size distribution analysis of particle size by image analyser.
- Temperature dependency of magnetic properties of ilmenite and wolframite.
- Temperature dependency of dielectric constant and electric conductance of some rare metal mineral species.
- Effect of electrostatic separation behaviour by changing mineral surface properties.

b) Hydrometallurgy Group:

- Solvent extraction of rare earth elements
Determination of distribution coefficients for rare earth elements.
- Ion-exchange separation of gallium or indium using metal-selective polymer resin.
Batchwise experiments to determine their adsorption capacities and distribution coefficients.
Column separation experiments for separation.
- Ion-exchange separation of rare earth metals
Batchwise experiments to determine adsorption capacities and distribution coefficients.
- Separation of platinum group metals by iron-pair formation.
Chemical and instrumental analysis of rare metals are also covered in the training course i.e.,
 - (i) Dissolution of mineral samples.
 - (ii) Gravimetric and volumetric analysis.
 - (iii) Spectroscopic analysis.

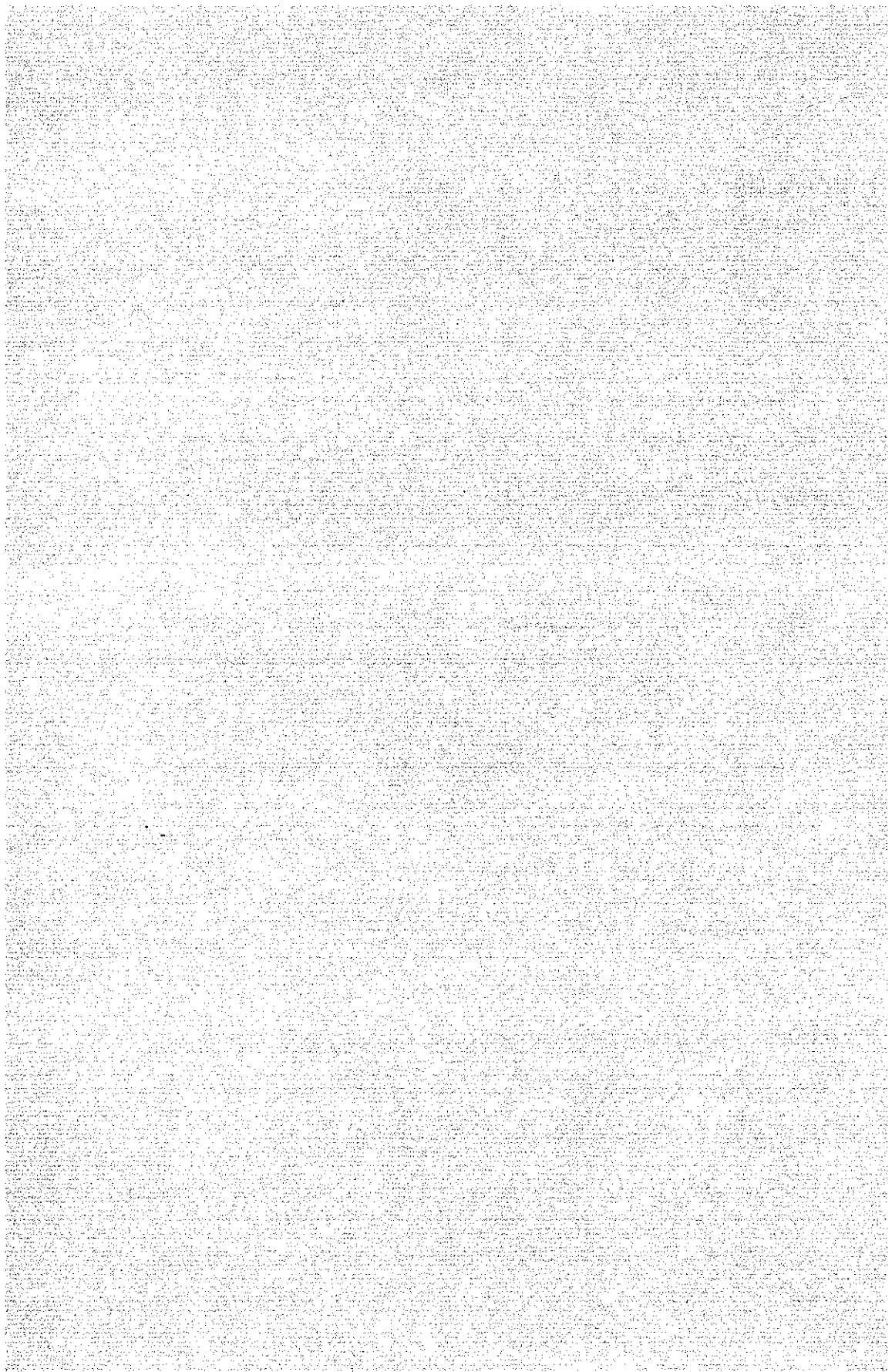
5. FACILITIES AND INSTITUTIONS

Government Industrial Research Institute, Tohoku

6. REMARKS

- 1) This course is aimed at M.A.-Ph. D. level of OJT (On the Job Training), so that a small research subject will be given to each participant.
- 2) The participants are expected to send publications, if any, to the host Institute in advance.

INDUSTRY



No. 186

SMALL INDUSTRY DEVELOPMENT SEMINAR II 中小工業開発セミナーⅡ

1. PERIOD

July 3, 1990 to August 3, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Senior administrative officials in charge of implementation and/or planning of small industry development
- 3) Occupation experience of more than 5 years
- 4) More than 30 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and discussions
 - General Environment for Small Industry
 - a) Economic Situation
 - b) Political Situation
 - c) Social & Cultural Conditions
 - d) Development Policies
 - Japanese Case Study
 - a) Financing
 - b) Tax and Credit
 - c) Management
 - d) Technology
 - e) Human Resources
 - International Comparative Study
 - a) Ancillarization
 - b) Rural Industrialization
 - c) Export-Oriented Industrialization
 - d) Institutional Set-ups
(Industrial Estate, Cooperative)
 - Policy Making Workshop
- 2) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre (NITC), JICA
- 2) Special Faculty Committee for Small Industry Development Seminar

6. REMARKS

Senior class seminar

No. 187

**IMPLEMENTATION OF TOTAL QUALITY CONTROL AND
STANDARDIZATION ACTIVITIES II T Q C 標準化活動実践Ⅱ**

1. PERIOD

June 21, 1990 to September 2, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirteen (13)

3. QUALIFICATIONS

- 1) be working for promotion of standardization and/or quality control with experience of more than three (3) years in government office, public corporation, public or private institute, or private company,
- 2) be under forty (40) years of age,
- 3) be graduates of college or university, or have an equivalent educational background,
- 4) continue working in the above mentioned field after returning to their home countries,

4. DESCRIPTION OF TRAINING

- | | |
|---|---|
| <ol style="list-style-type: none">1) Lectures<ol style="list-style-type: none">a) Industrial Standardization<ul style="list-style-type: none">- Industrial Standardization Activities in Japan- Japanese Industrial Standards (JIS)- JIS Marking System- Company Standardization- International Movements on Standardizationb) Quality Control (including actual practice)<ul style="list-style-type: none">- Philosophy of Quality Control- Problem Solution by Statistical Methods- Sophisticated Techniques of Quality Control (Experimental Design Method etc.)- How to Promote TQC- Small Group Activities (QC Circle)- Quality Assurance- Metrology- Others | <ol style="list-style-type: none">c) Other Relative Subjects<ul style="list-style-type: none">- Ergonomics and Standardization- 7 Management Tools- Approach to ISO 9000 Series- Sampling Inspection2) Technical Visits<ul style="list-style-type: none">- JIS Licenced Factories- Small and Medium Scale Industries- Metrology Institute- Inspection Institutes3) Observation Tour4) Country Reports Presentation |
|---|---|

5. FACILITIES AND INSTITUTIONS

- 1) Standards Department, Agency of Industrial Science and Technology, Ministry of International Trade and Industry
- 2) Japanese Standards Association (JSA)
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 188

**INDUSTRIAL STANDARDIZATION AND QUALITY CONTROL
(SENIOR SEMINAR)**

工業標準化・品質管理シニアセミナー

1. PERIOD

October 30, 1990 to November 23, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) be working for promotion of industrial standardization and/or quality control in government office, public corporation, public or private institute, or private company,
- 2) be ranked as a senior-class staff (director of department or its equivalent) presently engaged in policy-making of industrial standardization and/or quality control,
- 3) be university graduates or the equivalent,
- 4) be between thirty five (35) and fifty (50) years of age,
- 5) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Country Report Presentation
- 2) Lectures
 - Outline of Industrial Standardization, Quality Control and Certification-Inspection System in Japan
 - Industrial Standardization as one of measures of Industrial Policy
 - National Standardization and International Standardization Activities
 - Promotion of In-Company Standardization
 - Japanese Management System
 - TQC and Promotion of TQC in a Company
 - Some new topics in Japanese Standardization Activities
- 3) Panel Discussion with Japanese QC Leaders
- 4) Visit to Factories and/or Inspection Institute
- 5) Observation Tour

5. FACILITIES AND INSTITUTIONS

- 1) Standards Department, Agency of Industrial Science and Technology, Ministry of International Trade and Industry
- 2) Japanese Standards Association (JSA)

6. REMARKS

1. PERIOD

September 6, 1990 to November 7, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Officials who have experience as:
 - Group A -- a general administration officer in the industrial property offices or related organizations,
 - Group B -- an examiner for examination of patent, design or trademark applications in a country which does not have the industrial property system.
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

Lectures

Group A and B

- Brief introduction to Industry Property Systems
- Promotion of Inventive activities and the role of Industrial Property System
- Industrial Property Information Services
- Transfer of technology and licencing
- Consultation and agential activities
- Practical use of Industrial Property System in enterprises
- Outline of the Japanese Patent Law and Utility Model Law, the Japanese Design Law, and the Japanese Trademark Law

Group A. Lectures

- The Present Conditions of Patent Administration
- The Use and Economic Value of Patents
- Industrial Property Management
- Technology Transfer and Licensing
- Protection of Trademarks and Prevention of Unfair Trade

Group B

- 1) Practical training
 - Examination practice (Group and Individual)
- 2) On-the-spot training
 - At Japanese Patent Office (JPO), and Japan Institute of Invention and Innovation (JII)
- 3) Case studies
 - Actual development of new products, industrial property management in large enterprises and in medium and smaller enterprises
- 4) Observation tour
 - Private Enterprises

5. FACILITIES AND INSTITUTIONS

- 1) Japanese Patent Office (JPO), Ministry of International Trade and Industry
- 2) Japan Institute of Invention and Innovation (JII)
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 190

INDUSTRIAL PROPERTY SYSTEM (SEMINAR) 工業所有権セミナー

1. PERIOD

June 5, 1990 to June 30, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) be ranked as senior-class officials (Directors of departments or the equivalents) of a competent government department (Industrial Property Office and its supervisory ministry) who are or will be in charge of policy-making in the field of industrial property administration,
- 2) have a sufficient command of spoken and written English,
- 3) be university graduates or the equivalent,
- 4) be between thirty (30) and fifty (50) years of age,

4. DESCRIPTION OF TRAINING

- 1) Orientation
- 2) Brief introduction to Industrial Property System with movies and VTR
- 3) Visits to Japanese Patent Office (JPO) and Japan Institute of Invention and Innovation (JIII)
- 4) Lectures followed by discussions on:
 - The Role of the Industrial Property System
 - Use of Industrial Property by the enterprise sector
 - Consultation and agential activities
 - Industrial Property Information Services
 - Others
- 5) Panel discussion based on the Country Reports
- 6) Visits to enterprises

5. FACILITIES AND INSTITUTIONS

- 1) Patent Office (JPO), Ministry of International Trade and Industry
- 2) Japan Institute of Invention and Innovation (JIII)

6. REMARKS

METROLOGY AND MEASUREMENT STANDARDS 計量標準

1. PERIOD

June 4, 1990 to December 17, 1990 (6.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in measurement or inspection of measuring instruments at governmental, semi-governmental or local metrology services
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and individual studies
 - Essentials of metrology and measurement standards
 - International system of units
 - Regulations related to metrology
 - Standardization related to metrology
 - Export inspection system
 - Fundamental theory of measurement
 - Maintenance of measurement standards
 - Specialized practical training
- 2) Observation tours
 - To related institutions

5. FACILITIES AND INSTITUTIONS

- 1) National Research Laboratory of Metrology (NRLM)
- 2) Japan Measuring Instruments Federation
- 3) Tsukuba International Centre, JICA

6. REMARKS

No. 192

CERTIFICATION SYSTEMS 認証検査制度

1. PERIOD

January 7, 1991 to March 7, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be presently engaged in the work relating to certification, inspection and/or testing,
- 2) be under thirty (30) years of age,
- 3) be graduates of college or university, or have an equivalent educational background,
- 4) continue working in the above mentioned field after returning to their home countries,
- 5) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

1) Lectures

Certification

- Outline of Certification System
- Compulsory Standards & Voluntary Standards
- Consumer Product Safety Law
- Measurement Control System based on the Measurement Law
- Certification system based on Electrical Appliance and Material Control Law
- Industrial Standardization Law
- JIS & JIS Marking System
- Procedure for JIS Marking System
- Measures Required by Plants Desiring JIS Authorization
- Inspection for Export Goods

Inspection

- Outline of Inspection
- Sampling Inspection

2) Technical visits

3) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Standards Department, Agency of Industrial Science and Technology, Ministry of International Trade and Industry (MITI)
- 2) International Trade Administration Bureau, MITI
- 3) Japanese Standards Association (JSA)
- 4) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 193

INDUSTRIAL DESIGN インダストリアル・デザイン

1. PERIOD

August 27, 1990 to November 8, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Practical experience in design work for more than 5 years
- 2) Under 35 years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Guidance
 - Orientation
 - Presentation of Country Report
- 2) Lecture
 - Design Promotion Policy in Japan
 - Outline and Basic Knowledge on Package Design
 - Technology
 - Advertising
 - Design Process
 - Marketing
 - Case Study
 - Design Management
- 3) Study Visits
- 4) Practical Training
 - Package Design Plan and Concept Plan
 - Idea Development
 - Design Work
 - Presentation Technique
 - Finish Work
- 5) Presentation and Evaluation

5. FACILITIES AND INSTITUTIONS

- 1) Japan Industrial Design Promotion Organization (JIDPO)
- 2) Japan Package Design Association (JPDA)

6. REMARKS

There are three subjects in this course as are mentioned below, and one of these subjects in order will be implemented every fiscal year.

- (i) Industrial design (Industrial Products) - 1989 Fiscal Year
- (ii) Package design (Package of Foods and General Goods) - 1990 Fiscal Year
- (iii) Interior design (Furniture, Space)

No. 194

APPLICATION TECHNOLOGY FOR HIGH TEMPERATURE REFRACTORIES

高温構築材応用技術

1. PERIOD

September 20, 1990 to March 10, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Be presently engaged in refractory production or research work
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Raw materials
 - Testing and evaluation of raw materials
 - Trial manufacturing of bricks
 - Application technology for industrial furnaces
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre (NITC), JICA
- 2) Technical Research Laboratory of Mino Yogyo Co., Ltd.

6. REMARKS

1. PERIOD

September 6, 1990 to March 10, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in this field at industries, research institutes or vocational institutes
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lectures and practical training

Quality control: To study concept of quality control through the ideas of mean value, dispersion, etc. and how to summarize data for the quality control

Body preparation: To study tiles of earthenware, stoneware and porcelain and how to evaluate body preparation through lectures and experimentation

Forming: To study influence of green body on formed ware and structure of forming machine in dry and wet method

Analysis and evaluation of raw materials for the better-suited tile manufacturing:
To study the theory to evaluate and to apply raw materials for tile with analyzed data of raw materials

Glaze preparation: To study following items:
properties of materials, design and its printing methods, affinity of glaze to body, coloration of glaze in firing

Kiln and firing: To study construction of a tunnel kiln, kiln control technology and heat balance

Other products: Sanitary ware, Common brick, Roof tile, Clay pipe

2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre (NITC), JICA
- 2) INAX Corporation

6. REMARKS

The large part of this training course is dedicated to the production process and technique of ceramic wall tile from raw materials to finished products. In addition, as for the other ceramic building materials (common brick, roof tile, sanitary ware, and so on), their production technique and problems are introduced during lectures and visits.

No. 196

HIGH TECHNOLOGY MATERIALS APPLICATION

フラインセラミックス応用技術

1. PERIOD

September 13, 1990 to December 14, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of more than 3 years
- 3) Between 26 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Resisting materials for wear, corrosion, chemicals etc.
 - Functional materials for photochemical, electromagnetic etc.
 - Superconductive materials
 - Application technology for other high technology materials
 - Application technology for future materials

5. FACILITIES AND INSTITUTIONS

- 1) Japan Fine Ceramics Center
- 2) Government Industrial Research Institute, Nagoya
- 3) Universities and public institutes
- 4) Related industries

6. REMARKS

No. 197

PETROCHEMICAL INDUSTRY 石油化学工業

1. PERIOD

January 17, 1991 to March 2, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Presently engaged in responsible assignment and development planning in the field of petrochemical industry
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - General features of petrochemical industries
 - Petrochemical industries in the world (demand & supply)
 - Petrochemical industries in Japan
 - Petrochemical plant construction and engineering firms
 - Plastic processing technology
 - Planning, construction, production control, marketing, maintenance, safety and environmental problem of petrochemical industries
- 2) Observation and Field Trip
 - Observation visits to plants and relevant industries (ethylene, synthetic fibre, synthetic rubber plants, downstream industries, engineering firms, etc.)

5. FACILITIES AND INSTITUTIONS

Japan Petrochemical Industry Association (JPCA)

6. REMARKS

1. PERIOD

September 3, 1990 to September 2, 1991 (12 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent in the field of chemical technology
- 2) Occupational experience as researchers of more than three (3) years in respective fields of chemical technology
- 3) Between 25 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Orientation at JICA and the Laboratory
- 2) List of themes for individual studies
 - Structure Analysis of Large Biomolecules by Mass Spectrometry
 - Preparation and Property of Transition Metal Complexes from Multi-sulfur Ligands
 - Organic Chemistry - Applied Organometallic Chemistry
 - Preparation and Characterization of Catalysts
 - Gene Technology - Protein Production in Yeast and Protein Engineering
 - Lipid Chemistry
 - Chemistry of Bioactive and Biomimetic Materials - Synthesis and Active Measurement
 - Characterization of Polymers
 - Development of Membranes and Membrane Reactors
 - Extraction and Purification of High-boiling Components Using Supercritical Fluid
 - Powder Technology - Sintering of Inorganic Fine Powders
 - Fossil Fuel Chemistry - Characterization and Utilization of Heavy Oils and Coals
 - Development of Adsorbent for Removal of Inorganic Anions in Industrial Effluent
 - Environmental Chemistry - Photochemical Method

Remarks: 1. Applicants can choose three themes from the above with indication of priority order.
2. Capacity of participants in each theme is in principle only one.

5. FACILITIES AND INSTITUTIONS

- 1) National Chemical Laboratory for Industry, Ministry of International Trade and Industry
- 2) Tsukuba International Centre, JICA

6. REMARKS

1. PERIOD

August 30, 1990 to February 27, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. PERIOD

- 1) have master's degree or be equivalent with scientific experience of more than two years after university graduation.
- 2) be engaged in surface chemistry, applied chemistry, industrial chemistry, materials chemistry, catalytic science, electrochemistry or related fields.
- 3) have a good command of spoken and written English
- 4) preferably be under 40 years old
- 5) be in good health, both physically and mentally, to pursue the study. Prepnancy is regarded as disqualified.

4. DESCRIPTION OF TRAINING

- 1) Research for catalytic science
- 2) Observation and study tours to related facilities

The purpose of the course is to enable participants to understand both basic and practical aspects of catalysis through lectures on three main themes in catalysis: heterogeneous catalysis, surface science and electrocatalysis. It is aimed to help and encourage the participants through laboratory courses in one of these themes to engage themselves in catalytic research field in future.

5. FACILITIES AND INSTITUTIONS

Catalysis Research Center, Hokkaido University

6. REMARKS

No. 299

BIOINDUSTRY バイオインダストリー

1. PERIOD

May 10, 1990 to August 12, 1990 (3 months)

2. NUMBER of PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in this field for promotion of the industry at a government organization
- 3) Good working knowledge in English

4. DESCRIPTION OF TRAINING

- 1) Lectures and training
 - Basic technology of bioindustries
 - Applied technology of bioindustries
 - Strategy of bioindustries
 - Effective application of biological resources
 - Equipments & technology for bioindustries
 - Key points for planning & execution of bioindustries
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre
- 2) Bioindustry Development Center (BIDEC)
- 3) Public institutes & universities
- 4) Related industries

6. REMARKS

No. 201

ORGANIC FINE-CHEMICALS TECHNOLOGY 有機ファインケミカルズ工学

1. PERIOD

May 10, 1990 to September 9, 1990

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Master's or doctor's degree majoring in organic chemistry, or organic industrial chemistry (especially synthesis and application of color-stuff chemistry, dyes, detergents or intermediates of organic chemicals)
- 2) At least three (3) years of experience of manufacture, application or research in organic chemical technology
- 3) Between twenty-five (25) and thirty-five (35) years of age
- 4) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

Lectures, practices and factory observations on compounding techniques, application techniques of organic finechemicals, preventive measures against environmental pollution, handling techniques of analytical instruments

5. FACILITIES AND INSTITUTIONS

Osaka Municipal Technical Research Institute

6. REMARKS

No. 202

POLYMER MATERIALS AND TECHNOLOGY 高分子材料工学

1. PERIOD

September 6, 1980 to December 24, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates having majored in organic chemistry or organic industrial chemistry, polymer chemistry or chemical engineering, or equivalent
- 2) At least 3 years of experience in production, test, research, application or development in organic chemical industry or polymer industry
- 3) Between 25 and 35 years of age
- 4) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

Lectures, practices and observations concerning production techniques of high performance, high functional polymer materials; molding techniques of high performance polymer materials; application techniques of functional polymer materials; characterization techniques of polymer materials; testing and evaluation techniques of polymer materials

5. FACILITIES AND INSTITUTIONS

Osaka Municipal Technical Research Institute

6. REMARKS

1. PERIOD

January 10, 1991 to July 9, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) Senior engineers engaged in research, development and/or manufacture in the field of glass technology
- 2) Occupational experience of at least 3 years
- 3) Under 35 years of age
- 4) University graduates from department of technology with Master's degree or above
- 5) Good working knowledge of English
- 6) Good health, both physically and mentally, to undergo the training

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practices
 - Functionality and future prospects of glass
 - Function related to light
 - Function related to electricity
 - Function related to surface
 - Raw materials of glass, purity
 - Glass structure and function
 - Melting techniques, including special melting techniques
 - Evaluation techniques of functionality
 - Application of functional glass
 - Mixing of raw materials of special glass, melting and forming
 - Heat treatment of glass
 - Measurement of functionality such as permeability and refraction index, etc.
 - Measurement of insulating property and conductivity
 - Measurement of modulus of elasticity and strength, etc.
- 2) Observations and study tours

5. FACILITIES AND INSTITUTIONS

Governmental Industrial Research Institute, Osaka (Agency of Industrial Science and Technology,
Ministry of International Trade and Industry)

6. REMARKS

No. 204

QUALIFIED METAL CASTING TECHNOLOGY II 高品位鋳物技術 II

1. PERIOD

September 6, 1990 to March 10, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Presently engaged in foundry engineering at research institutes, educational institutes or industries
- 3) Occupational experience of more than 2 years
- 4) Under 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - High technology in materials
 - Moulding high technology
 - Advanced melting technology
 - Modern casting design
 - Equipment modernization
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre (NITC), JICA
- 2) Government Industrial Research Institute, Nagoya
- 3) Aichi Prefectural Industrial Research Institute
- 4) Metal Industries Institute, Mie Prefecture
- 5) Foundry Industries

6. REMARKS

No. 205

SURFACE MODIFICATION TECHNOLOGY FOR MATERIALS

(Metal, non-metal & new materials) II 表面改質技術（金属・非金属・新素材）II

1. PERIOD

April 12, 1990 to September 22, 1990 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 2 years
- 4) Under 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and/or Practical Training
 - Ni, Cr, Zn coat, Al-anodizing, phosphating
 - Plasma surface modification
 - Physical, chemical vacuum vapour deposit
 - Surface functionizing for electronics
 - Modification for composite, new materials
 - Surface modification for super conductive materials
 - Theory and practice of corrosion
 - Waste water treatment & recycling
 - Related high technology
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Industrial Research Institute, Aichi Prefecture
- 2) Nagoya Municipal Industrial Research Institute
- 3) The Plating Industrial Association of Aichi Prefecture
- 4) Nagoya International Training Centre (NITC), JICA
- 5) Industries

6. REMARKS

No. 206

**ARC FURNACE AND CONTINUOUS CASTING
CONTROL TECHNOLOGY** 電弧連鋸管理技術

1. PERIOD

November 8, 1990 to March 10, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be university graduate majored in metallurgical or mechanical engineering or the equivalent,
- 2) be currently engaged in the field of electrical steel making for more than three (3) years and not be academic researchers or technicians,
- 3) be under thirty five (35) years of age,
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Steel materials
 - Electric arc furnace equipment and control units
 - Electrical steel making and its control
 - Continuous casting operation and computerized control
 - Secondary refining technology
 - Quality control
 - Others (refractories, electrodes, etc.,)
- 2) Observation tours
 - Control techniques of arc furnace melting
 - Control techniques of continuous casting
 - Other related techniques

5. FACILITIES AND INSTITUTIONS

- 1) Aichi Steel Works, Ltd.
- 2) Chubu Steel Plate Co. Ltd.
- 3) Daido Steel Corporation
- 4) Topy Industries Ltd.
- 5) Government Industrial Research Institute, Nagoya
- 6) Nagoya International Training Centre (NITC), JICA

6. REMARKS

No. 207

PROPERTIES AND TESTING OF STEEL PRODUCTS 鋼材の性質と試験検査

1. PERIOD

May 14, 1990 to September 13, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates in metallurgy, mechanics or chemical engineering
- 2) have more than 2 years practical experience in production or fabrication of steel
- 3) be under 35 years of age
- 4) have a sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Introduction of steel production
 - Properties of steel products
 - Fundamental properties of steel
 - Testing and inspection technics of steel products
- 2) Observation tours
 - Producers of various kinds of steel products

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu Industrial Research Institute
- 2) Kitakyushu International Training Association
- 3) Nippon Steel Corporation etc.

6. REMARKS

1. PERIOD

October 11, 1990 to January 28, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of over 2 years
- 3) Mechanical or metallurgical engineer (not academic researchers)
- 4) Between 26 and 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lectures and practical training

- a) Basic Knowledge
 - Metallic Materials
 - Fundamentals of Heat Treatment
 - Heat Treatment Equipment
- b) Heat Treatment of Steel and Iron
 - Structural Steel
 - High Speed Steel
 - Alloyed Tool Steel
 - Case Hardening
- c) Related Technologies
 - Related Technologies
 - Quality Control
 - Technical Meeting

2) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre (NITC), JICA
- 2) Nagoya Municipal Industrial Research Institute

6. REMARKS

No. 209

MAINTENANCE OF CONSTRUCTION MACHINERY 建設機械整備 (英語)

1. PERIOD

May 14, 1990 to August 10, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) University graduates (mechanical engineering), or equivalent with occupational experience of more than 3 years
- 2) Presently engaged in or expected to be engaged in near future in planning and administration work in the field of construction machinery
- 3) Under 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Development and present situation of mechanized construction work and use of construction machinery
 - Planning of mechanized construction work and use of construction machinery
 - Function, structure and performance of construction machinery
 - Maintenance, repair, inspection, troubleshooting and field construction machinery
 - Planning, layout, parts control, tool control and administration of work shop
 - Construction sites and related manufacturing firms
- 2) Practical training
 - Fundamental Practice: Engine, Clutch, Torqueconverter, Transmission, Final drive, Differential gear, Brake, Steering, Hydraulic System, Power shift transmission, Undercarriage, etc.
 - Specialized Practice: Bulldozer, Scarper, Grader, Wheel-loader, Hydraulic excavator, Crane, Compaction Machinery, Dump Trunk, etc.
- 3) Presentation of country report
- 4) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Construction
- 2) Japan Construction Mechanization Association

6. REMARKS

No. 210

**D'ENTRETIEN ET DE REPARATION DE
L'EQUIPEMENT DE CONSTRUCTION 建設機械整備 (仏語)**

1. Durée

Du 4 Octobre 1990 au 23 Décembre 1990 (2 mois)

2. Nombre de participants à recevoir

Huit (8)

3. Qualifications

- 1) Etre titulaire de diplôme universitaire ou équivalent avec plus de trois ans d'expérience professionnelle
- 2) Etre engagé actuellement ou dans l'avenir dans le service de planification et d'administration dans le domaine de l'équipement de construction
- 3) Etre âgé de moins de 40 ans
- 4) Bonne connaissance de la langue française pour le travail

4. Nature de formation

- 1) Cours théoriques
 - Planification de travail de construction mécanisé et utilisation d'équipements de construction
 - Fonctionnement, structure, performance d'équipements de construction
 - Entretien, réparation, inspection et dépiage de pannes d'équipements de construction
 - Planification, disposition, contrôle de pièces et d'outillage ainsi que gestion d'atelier de réparation
- 2) Travaux pratiques
 - Pratique fondamentale = Moteur, Embrayage, Boîte de vitesses, Différentiel etc.
 - Pratique spécialisée = Bulldozer, Scraper, Niveleuse, Excavatrice, Grue

5. Etablissements et institutions

- 1) Centre International de Formation de Hachioji, JICA
- 2) Association Japonaise de Mécanisation de Construction

6. Remarques

Le Cours s'effectuera en français ou par la traduction du japonais en français

No. 211

MECANIQUE AUTOMOBILE VEHICULES DIESEL
(AUTOBUS, CAMIONS POIDS-LOURD) バス・トラック整備技術 (仏語)

1. Durée

Du 10 janvier 1991 au 30 mars 1991 (3 mois)

2. Nombre de participants à recevoir

Douze (12)

3. Qualifications

- 1) Formation qualifiée dans leur domaine concerné
- 2) Expérience professionnelle de plus de 3 ans dans le domaine de l'entretien et la réparation de véhicules diesel
- 3) Age entre 25 et 40 ans
- 4) Bonne connaissance de la langue française pour le travail

4. Nature de formation

- 1) Cours et pratique
- Connaissances de base sur le mécanisme et le fonctionnement de véhicules diesel
- 2) Voyage d'études

5. Etablissements et institutions

- 1) Centre International de Formation de Hachioji, JICA
- 2) Hino Motors S. A.

6. Remarques

Le Cours s'effectuera en français ou par la traduction du japonais en français.

No. 212

PLANT MAINTENANCE ENGINEERING プラント・メインテナンス技術

1. PERIOD

May 21, 1990 to October 8, 1990 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates or the equivalent
- 2) have 3 years' or more occupational experience in the field of plant maintenance business
- 3) not more than 45 year old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Introduction
 - Computer Literacy
 - Procedures for Planning and Executing the Maintenance
 - Improvement Techniques
 - Maintenance Data Processing
 - Maintenance Management Simulation
 - Inspection Technique
 - Lubrication Technique
 - Non-destructive Testing
 - Sequence Control
 - Anti-fatigue Measures
 - Anti-Corrosion measures
 - Reliability Engineering
 - Management of Maintenance Cost
 - Maintenance Materials Management
 - Maintenance Skill Evaluation
 - Plant Visits
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Kyushu International Centre, JICA
- 2) Kitakyushu International Training Association
- 3) Related Industries

6. REMARKS

AUTOMATIC CONTROL 自動制御

1. PERIOD

July 16, 1990 to November 29, 1990 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) Have two years' occupational experience or more in the field of production, planning of plants and machineries, or laboratory research and be engaged in the automation at present or in the near future.
- 2) Be those who graduated from university's engineering department of mechanics, electricity or instrumentation, or have the equivalent academic background.
- 3) Have a sufficient command of spoken and written English, and
- 4) Be not more than 40 years old
- 5) Be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) The course will be conducted in the form of:
Lecture/discussions, studies by simulators, field trips, etc.
 - Theory of Feedback control and feedforward Control
 - Modeling and its application in practical situations
 - Advanced control theory
 - Measurement and sensors and its importance in the control system
 - Basic knowledge of hydraulic, pneumatic and electric sequence control circuits, and then designing
 - Application of hydraulic, pneumatic and electric actuators
 - Computer literacy
 - Programmable Logic Controller (PLC), programming methods, operation and maintenance techniques
 - Practice of operation and maintenance of the industrial robots of playback system
 - Process control system
 - Selection of process features and control characteristics
 - Measuring method of dynamic characteristics of process
 - Optimum adjustment by control instruments
 - Field observations
 - etc.

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Kitakyushu Industrial Research Institute, Fukuoka Prefecture etc.

6. REMARKS

1. PERIOD

July 2, 1990 to October 27, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) have been engaged as an engineer for 3 years or more in the field of plant maintenance
- 3) have a sufficient command of spoken and written English
- 4) be not more than 35 years old
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practical Training
 - Outline of Maintenance Management
 - Reliability and Maintainability
 - Condition Based Maintenance System
 - Personal Computer Training for Plant Data Processing
 - CBM Data System Training
 - Vibration Measurement and Analysis
 - Non-destructive Testing (NDT) for Machinery Inspection
 - Rolling Element Bearing Inspection and Diagnosis Techniques
 - Gear Train Inspection and Diagnosis Techniques
 - Rotating Machinery Inspection and Diagnosis Techniques
 - Electrical Motor Inspection and Diagnosis Techniques
 - Pump Inspection and Diagnosis Techniques
 - Blower and Compressor Inspection and Diagnosis Techniques
 - Lubrication Engineering and Pherograph
 - Static Machinery Inspection and Diagnosis Techniques
 - Bearing & Gear overhauls & Reassembling
- 2) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Related Industries

6. REMARKS

No. 215

MAINTENANCE MANAGEMENT 保全管理

1. PERIOD

November 19, 1990 to March 31, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) have more than 5 years' occupational experience of plant maintenance
- 3) be not less than 30 years old, and not more than 40 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Basic Subjects
 - Computer Literacy (P)
 - Introduction to Maintenance Management (L)
 - "Management" on Shop Floor (L)
 - Maintenance Planning (L)
 - Nondestructive Testing (P)
 - Lubrication (P)
 - Inspection Technique (P)
 - Improvement Technique (L, P)
 - Data Processing Method (L)
 - Practical Maintenance Planning (L, P)
 - Maintenance Cost Control (L)
 - Maintenance Material Control (L)
 - Maintenance Skill Evaluation (L)
 - Fabrication Technique and Welding Control (L)
- 2) Plant Visits
 - Repair Job of Machine (L, P, F)
 - Spare Parts Reclamation (L, P)
 - Maintenance Activity in Steel Plant (L, F)
 - Maintenance Activity in Chemical Plant (L, F)
 - Maintenance Activity in Automotive Plant (L, F)
 - Maintenance Activity in Other Industries (L, F)
 - Machinery Manufacturer (L, F)
 - Electrical Machine Maintenance (L, F)

3) Study Trip

L; Lecture, P; Practice, F; Field Study

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Other related industries

6. REMARKS

No. 216

**DESIGN & PRODUCTION OF SPARE PARTS FOR
MAINTENANCE**

保全用部品の設計・製造

1. PERIOD

June 25, 1990 to November 18, 1990 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates or equivalent with occupational experience for more than 3 years
- 2) be presently engaged in maintenance management and/or production control of spare parts
- 3) be between 30 and 45 years old
- 4) have a sufficient command of spoken and written English
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.

4. DESCRIPTION OF TRAINING

- 1) *Lectures and Practical Training*
 - Improvement Technique of Industrial Control
 - Sketching & Drafting Technique of Machine Parts
 - CAD/CAM Programming
 - Machine Condition Diagnosis Technique
 - Manufacturing of Casting Parts, its Technique & Control
- 2) *Field Training & Observation Tour*

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Kyushu Institute of Technology
- 3) Kitakyushu College of Technology
- 4) Fukuoka Industrial Technology Center

6. REMARKS

No. 217

HIGH TECHNOLOGY OF METAL WORKS 金屬加工高品質化技術

1. PERIOD

September 20, 1990 to March 10, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University graduates or equivalent (mechanical engineering)
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Advanced cutting technology & its new materials
 - Electronic control metal works
 - NC programming & metal works
 - CAD & CAM technology
 - Factory automation
 - 3-dimensional precision measurement
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre (NITC), JICA
- 2) Government Industrial Research Institute, Nagoya
- 3) Industrial Research Institute, Aichi Prefecture
- 4) Metal Working Industries
- 5) Universities
Nagoya University and other related university

6. REMARKS

No. 218

PROCESS ENGINEERING FOR PRODUCTION MANAGERS

生産工程管理技術

1. PERIOD

September 20, 1990 to March 10, 1991 (6 months)

2. NUMBER of PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of more than 5 years
- 3) In charge of production management industrial engineering, etc.
- 4) Under 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Introduction of production engineering
 - Selection of materials for jigs & fixtures, and heat treatment
 - Practical knowledge of jigs and tools designing
 - Process design for product manufacturing
 - Application of tool engineering to process improvement
 - Practical factory management in Japan
 - Methods for productivity improvement
 - Integrated production system
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) CHU-SAN-REN (Central Japan Industries Association)
- 2) Nagoya International Training Centre (NITC), JICA
- 3) Related industries

6. REMARKS

No. 219

WELDING TECHNOLOGY 溶接技術

1. PERIOD

April 12, 1990 to October 12, 1990 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 26 and 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Theoretical education
 - Welding processes and equipment ab 4 weeks
 - Materials and their behaviour during welding ab 4 weeks
 - Construction and design ab 2 weeks
 - Fabrication, applications engineering ab 4 weeks
- 2) Fundamental practical skills ab 2 weeks
- 3) Observation and practice in industries, research institutes and educational facilities ab 3 weeks
- 4) Individual training

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre (NITC), JICA
- 2) The Japan Welding Engineering Society

6. REMARKS

No. 220

AIR-CONDITIONING ENGINEERING 空調技術

1. PERIOD

July 19, 1990 to November 29, 1990 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates majoring in mechanical engineering or electrical engineering
- 2) Experience of at least 3 years in air-conditioning engineering including system layout
- 3) Under forty (40) years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

Lectures, practices in plants and construction sites, on the job training and observation trips will cover the following items;

- 1) Fundamentals of air-conditioning
 - Fundamental knowledge
 - Basic practice
- 2) Air-conditioning basic works
 - Connecting pipings
- 3) Air-conditioning system design
- 4) Cooling and heating
 - Electric circuit
 - Mechanism and function of air-conditioners
- 5) Advanced system design

5. FACILITIES AND INSTITUTIONS

Sakai Plant, Daikin Industries, Ltd.

6. REMARKS

No. 221

**DESIGN, MANUFACTURING AND MAINTENANCE OF
INDUSTRIAL EQUIPMENT** 産業機械の設計・製造・保全

1. PERIOD

November 5, 1990 to March 31, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) have 3 years' or more occupational experience on design, manufacturing or maintenance of industrial equipment
- 3) be not more than 40 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures and Discussions
 - Computer Literacy
 - Engineering Mechanics
 - Practical Design
 - Electrical Control
 - Improvement Technique
 - Machine Parts Manufacturing & Heat Treatment
 - Assembling of Overhead Crane
 - Maintenance Technique (including Machine Diagnosis Technique)
 - Non-Destructive Testing
 - Overhead Crane Testing
- 2) Field Study
- 3) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Kyushu International Centre, JICA
- 2) Kitakyushu International Training Association
- 3) Kyushu Sangyo University
- 4) Related Industries

6. REMARKS

No. 222

OIL HYDRAULICS AND ITS APPLICATION 油圧とその応用

1. PERIOD

December 3, 1990 to April 26, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) have occupational experiences in the field of designing, manufacturing, operating or maintenance associated with oil hydraulics
- 3) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction to Oil Hydraulics
 - Construction and its Function of Elementary Components
 - Basic Conception in Application of Hydraulic System
 - Actual Application of Hydraulic System in Various Fields
 - Advanced Hydraulic System
 - Maintenance Techniques and its Practice in Actual Hydraulic System
- 2) Field Study
 - Application of Hydraulic System
 - Plant Visits
- 3) Study Trip

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association,
- 2) Mitsubishi Heavy Industries, Shimonoseki Ship Yard, Nippon Steel Yahata Works,
Japan Casting and Forging Corp., Mitsubishi Nagasaki Machinery Manufacturing Corp.,
Hydraulic Unit Manufacturers and other several companies

6. REMARKS

No. 223

INSPECTION AND TESTING TECHNIQUE FOR ELECTRIC HOME APPLIANCES

電気製品検査技術

1. PERIOD

September 27, 1990 to December 5, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Testing staff belonging to Government Inspection Organizations, or Public Institutions authorized by the Government Inspection Organizations, or under the control of the Government
- 2) University graduates majored in Electrical, Electronics, Mechanical Engineerings or the equivalent
- 3) Occupational experience of more than 3 years
- 4) Between 25 and 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction to Export Inspection System
 - Summary of Sampling Inspection Method
 - Outline of Japanese Legal Requirements
- 2) Lectures and practical training
 - Technology transfer (fundamental techniques) of inspection & testing for General Electric Heaters, lighting equipment, General Communication Equipment and Cooking Appliance, General Electric Rotating Machinery
 - Introduction of techniques in using general type of testing equipment
- 3) Observation tour
 - Related manufacturers

5. FACILITIES AND INSTITUTIONS

- 1) International Trade and Industry Inspection Institute, Ministry of International Trade and Industry (ITI)
- 2) Japan Machinery and Metals Inspection Institute (JMI)
- 3) Japan Electrical Testing Laboratory (JET)
- 4) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 224

SHIPBUILDING, REPAIRING AND MAINTENANCE

船舶建造メンテナンス

1. PERIOD

January 10, 1991 to December 9, 1991 (11 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) be university graduate who majored in engineering and have more than three (3) years of occupational experience in shipbuilding, repairing and maintenance
- 2) be not less than thirty five (35) years old
- 3) have a sufficient command of spoken and written English
- 4) be in good health, both physically and mentally

4. DESCRIPTION OF TRAINING

- 1) Japanese Language
- 2) Lectures and practical training on shipbuilding, repairing and maintenance
- 3) Practice at Shipyard

5. FACILITIES AND INSTITUTIONS

- 1) Maritime Technology and Safety Bureau, Ministry of Transport
- 2) Overseas Shipbuilding Cooperation Centre

6. REMARKS

No. 225

SEMINAR ON MOTORIZATION モーターリゼーションセミナー

1. PERIOD

February 4, 1991 to March 29, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Should have basic knowledge of automotive technology with occupational experience of more than 3 years
- 3) Under 35 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Introduction
- 2) Motor industry and relevant policies in Japan
- 3) Motorization and vehicles in future
- 4) Basic technical knowledge on automobiles
- 5) Pollution and automobiles
- 6) Safety and automobiles
- 7) Observations

5. FACILITIES AND INSTITUTIONS

- 1) Japan Automobile Research Institute (JARI)
- 2) Tsukuba International Centre, JICA

6. REMARKS

No. 226

RENOVATION OF INDUSTRIAL EQUIPMENT

設備のリノベーション

1. PERIOD

March 11, 1991 to August 10, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates in engineering
- 2) have experiences more than 3 years in plant engineering, designing or equipment maintenance
- 3) be under 40 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Maintenance and Renovation of Equipment
- 2) Technology Required for Planning of Equipment Improvement
- 3) Relevant Instrumentation

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Kurosaki Refractories Co., Ltd.
- 3) Takada Corporation
- 4) Nippon Steel Corporation

6. REMARKS

No. 227

TEXTILE MACHINERY INDUSTRIES II 繊維機械工業Ⅱ

1. PERIOD

April 12, 1990 to August 12, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Be presently engaged in the production of the textile industry with 5 years experience of management in production
- 3) Between 27 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Textile industry in economical viewpoint
 - Fiber testing method
 - Spinning & weaving, warping & sizing, winding, and dyeing & finishing machines
 - Spinning & weaving plants
 - Production control
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Tokai Textile Industrial Association
- 2) Toyoda Automatic Loom Works, Ltd.
- 3) Aichi Prefectural Textile Research Centres
- 4) Nagoya International Training Centre (NITC), JICA

6. REMARKS

No. 228

POLYMER AND TEXTILE TECHNOLOGY 繊維高分子

1. PERIOD

August 13, 1990 to January 21, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Not more than thirty five (35) years of age
- 5) Good working knowledge of English or Japanese

4. DESCRIPTION OF TRAINING

- 1) Introductory lectures one week
Introduction of RIPT, Topics concerning
the individual research training
- 2) Individual studies sixteen weeks
 - a. Synthesis and Chemical Modification
 - b. Physical Chemistry
 - c. Physical Properties
- 3) Observation tour one week
- 4) Technical report making one week

5. FACILITIES AND INSTITUTIONS

- 1) Research Institute for Polymers and Textiles, Agency of Industrial Science and Technology (RIPT)
Ministry of International Trade and Industry
- 2) Tsukuba International Centre, JICA

6. REMARKS

No. 229

**INSPECTION AND TESTING TECHNIQUES FOR
TEXTILE PRODUCTS**

纖維製品検査技術

1. PERIOD

January 14, 1991 to March 24, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

Applicants should:

- 1) belong to Government Inspection Organizations or Public Inspection Institutions
- 2) be college graduates or equivalent
- 3) have occupational experience of more than 3 years
- 4) be between 25 and 40 years of age
- 5) have good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction to Export Inspection System
 - Outline of Japanese Legal Requirements
- 2) Lectures and Practical Training
 - Technical transfer (fundamental techniques) of inspection & testing for Textile Products
 - Introduction of knowledge about testing equipment
- 3) Observation tour
 - Private Enterprises

5. FACILITIES AND INSTITUTIONS

- 1) International Trade and Industry Inspection Institute, Ministry of International Trade and Industry (IITII)
- 2) Designated Inspection Organizations

6. REMARKS

No. 230

WOOD BASED MATERIALS APPLICATION TECHNOLOGY

木質材料高度利用技術

1. PERIOD

August 23, 1990 to December 14, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of more than 5 years
- 3) Between 28 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Wood resources and their utilization
 - Production technology of improved woods
 - Wood based materials and surface finishing technology
 - Wood based materials and adhesive agents
 - Research and development for wood based materials processing

5. FACILITIES AND INSTITUTIONS

- 1) Forestry Agency
- 2) Universities and public institutes
- 3) Related industries

6. REMARKS

No. 231

**DEVELOPMENT AND APPLICATION TECHNOLOGY FOR
POTTERY AND PORCELAIN**

陶磁器開発・活用技術

1. PERIOD

April 12, 1990 to October 28, 1990 (7 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) be university graduates or the equivalent, and have more than three (3) year practical experience at educational or research institutions related to ceramics,
- 2) be working at the ceramic manufacturing plant or institutions of ceramic R & D,
- 3) be between twenty-five (25) and forty (40) years of age,
- 4) have a sufficient command of spoken and written English,
- 5) be in good health, both physically and mentally, to undergo the course of training.

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Raw materials
 - Preparation of bodies
 - Glaze
 - Screen printing (transfer paper)
 - Firing
 - Related to pottery & porcelain wares
 - Other subjects
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Nagoya International Training Centre (NITC), JICA
- 2) Government Industrial Research Institute, Nagoya
- 3) Tajimi City Pottery Design and Technical Centre
- 4) Institute for Comparative Pottery, Chykyo Junior College
- 5) Ceramic Industries

6. REMARKS

No. 232

PACKAGING ENGINEERING 包装技術

1. PERIOD

August 27, 1990 to October 21, 1990 (2.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Packaging engineers presently engaged directly in package industry
- 2) University graduates or equivalent
- 3) Experience for more than 3 years in this field
- 4) Good working knowledge of English
- 5) Under 40 years of age

4. DESCRIPTION OF TRAINING

- 1) Packaging Materials
 - Corrugated boards and boxes
 - Paperboard containers and printing
 - Treated papers and cellulose films
 - Plastic films
 - Plastic containers
 - Metal cans
 - Glass bottles
- * 2) and 3) are optional subjects.
- 2) Transport Packaging Techniques
 - Packaging plan
 - Transport packaging and wooden boxes
 - Outer packaging and its machines
 - Testing Methods and equipments
 - Packaging standardization
- 3) Consumer Packaging Techniques
 - Automation in Packaging operations and machines
 - Moisture-proof and gas-barrier packaging
 - Packaging design (graphic)
 - Safety and sanitation in packaging
 - Food packaging techniques
- 4) Technical Visit and Practical Training

5. FACILITIES AND INSTITUTIONS

Japan Packaging Institute (JPI)
Tokyo International Centre (Hatagaya), JICA

6. REMARKS

1. PERIOD

August 27, 1990 to July 26, 1991 (11 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be post-doctoral researchers in the field of mining and industrial technology
- 2) Under 35 years of age
- 3) Have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

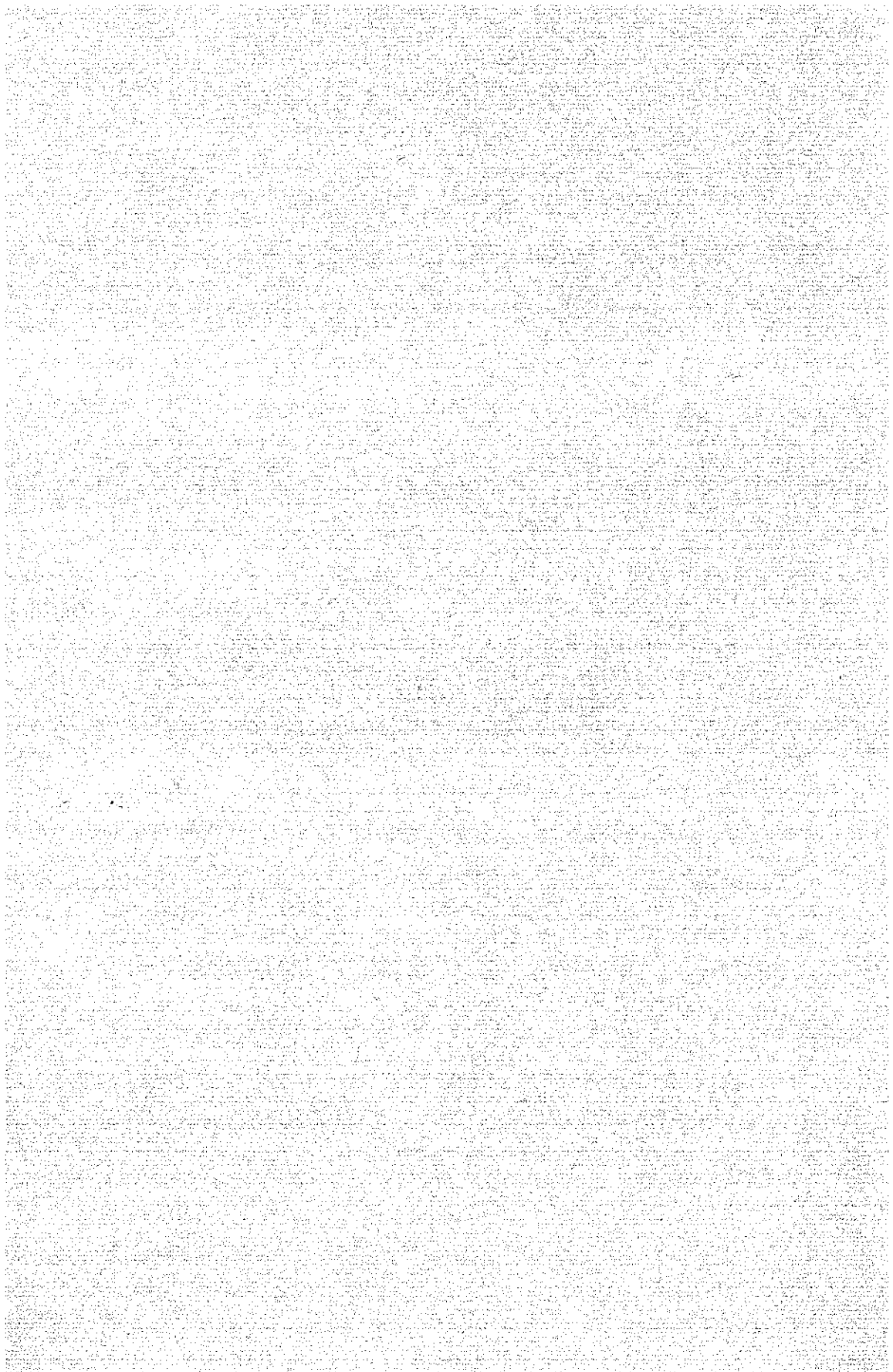
- 1) Lectures and Individual Studies
 - Thermophysical Property Measurements of Solid Materials (NRLM)
 - High Quality Grinding of Difficult-to-machine Materials (MEL)
 - Laser Diagnostics in Medicine and Biology (MEL)
 - Robotics (MEL)
 - Combustion Measuring Techniques of Diesel Engines (MEL)
 - Utilization of Natural Gases and Oils as Raw Materials for the Chemical Industry (NCLI)
 - Preparation and Characterization of Catalyst for Synthesis Gas Conversion (NCLI)
 - Studies on Electrode Reaction and Electrode/Electrolyte Interface (NCLI)
 - Effective Utilization of Biomass Using Enzyme (FRI)
 - Thermosensitive Polymer (RIPT)
 - Synthesis and Physical Properties of Functional Surfactants (RIPT)
 - Conducting Polymers (RIPT)
 - Weatherability of Polymeric Materials (RIPT)
 - Evaluation of Mineral Potential in the Mining Field (GSI)
 - Reliability Evaluation in High Temperature Atmosphere for Electronic Devices (ETL)
 - Semiconductors Crystal Growth by Molecular Beam Epitaxy (ETL)
 - Ultrafast measurements of semiconductor devices (ETL)
 - Intensified Heat Pipe Heat Exchange for High Temperature (NRIPR)
 - Acid Rain (NRIPR)
 - Measuring Method of Source Dust (NRIPR)
 - Studies on Selective Separation of Heteroatomic Components in Coal Oil by Supercritical Fluid (GIDLH)
 - Upgrading of Coal Liquids and Alkylated aromatics by Steam over Metallic Oxide Catalysts (GIDLH)
 - Studies on Rapid Pyrolysis of Bituminous Substances such as Coals (GIDLH)
 - Heat and Mass Transfer in Porous Media (GIRIT)
 - Study on Ceramic Infrared Radiants and their Application (GIRIN)
 - Pottery Manufacturing Technology and Characterization (GIRIN)
 - Thermophysical Properties of Solar Materials (GIRIN)
 - Research on the Hydrogenation of CO₂ by Catalyst (GIRIO)
 - Studies on Inorganic Microencapsulation of Pigments (GIRIQ)
 - Study on the new glass melting technique for high homogeneous lead glass (GIRIO)
- 2) Observations
 - To related institutions

5. FACILITIES AND INSTITUTIONS

- 1) National Research Laboratory of Metrology, Agency of Industrial Science and Technology (AIST), Ministry of International Trade and Industry (MITI)
- 2) Mechanical Engineering Laboratory, AIST, MITI
- 3) National Chemical Laboratory for Industry, AIST, MITI, etc.

6. REMARKS

ENERGY



No. 234

ENERGY CONSERVATION SAVING 省エネルギー

1. PERIOD

October 15, 1990 to December 5, 1990 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) be university/college graduates or equivalent and be presently employed in government, governmental institutions, industrial associations, or companies,
- 2) be presently engaged in work in the energy field or expected to be engaged in such work after returning to the country,
- 3) Good working knowledge of English.

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Energy Situation in Japan
 - Energy Conservation in Major Industries
 - Energy Management in Industry
 - Technology Development
- 2) Practice
 - Energy Management in Industry
- 3) Presentation
 - Energy Conservation Promotion of Model Factory
 - Country Report
- 4) Observation
 - Successful Cases of Energy Conservation
 - Energy Conservation Equipment Manufacturer

5. FACILITIES AND INSTITUTIONS

- 1) Agency of Natural Resources and Energy, Ministry of International Trade and Industry.
- 2) Energy Conservation Center, Japan (ECC)
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 235

ENERGY MANAGEMENT エネルギー管理

1. PERIOD

October 1, 1990 to February 21, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be university graduates or equivalent
- 2) be presently engaged in energy management
- 3) be not more than 35 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction of Energy Management
 - Basic Thermodynamics
 - Basic Electrical Engineering & Energy Conservation
 - Automatic Control
 - Heat Balance
 - Materials Elements and Units for Energy Conservation
- 2) Practical Training
 - Heat Calculation by Microcomputer
 - Automatic Control
 - Heat Balance
- 3) Plant Visits and Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) Kyushu International Training Association
- 2) Kyushu Institute of Technology
- 3) Kitakyushu Industrial Institute
- 4) Related Industries

6. REMARKS

No. 236

HYDRO-ELECTRIC POWER ENGINEERING II 水力発電 II

1. PERIOD

May 28, 1990 to July 18, 1990 (2.0 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be civil engineers who are presently employed at governmental institutions or private companies in the field of electric power supply,
- 2) be technical college graduates or equivalent and have more than three (3) years of practical experience,
- 3) be under forty five (45) years of age,
- 4) have sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

- 1) Lectures:
 - Orientation for EPDC's Programme
 - Construction Record Films
 - Present Situation and Future Prospect of EPDC
 - Economic Feasibility Study of Hydro-electric Power Development
 - Investigation of Hydro-electric Power Project Site
 - Planning of Hydro-electric Power Project Site
 - Geological Investigation of Hydro-electric Power Project Site
 - Design and Construction of Concrete Gravity Dam and Rock Fill Dam
 - Operation and Maintenance of Hydro-electric Power Plant and Reservoir
 - Others
- 2) Visits:
 - Central Load Dispatching Control Office
 - EPDC's Hydro-electric Power Station

5. FACILITIES AND INSTITUTIONS

- 1) Japan Electric Power Information Center
- 2) Electric Power Development Co., Ltd.
- 3) Agency of Natural Resources and Energy, Ministry of International Trade and Industry
- 4) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 237

COAL-FIRED THERMAL POWER ENGINEERING
(OPERATION AND MAINTENANCE) 石炭火力発電

1. PERIOD

October 4, 1990 to December 1, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Technical college graduates or equivalent
- 2) Qualified in their respective fields (Electrical and mechanical engineers)
- 3) Occupational experience of more than 7 years
- 4) Between 30 and 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Japanese electric power policy
 - Construction, operation and maintenance of coal-fired thermal power station
 - Countermeasures for environmental preservation
- 2) Observation tours
 - Various types of power station
 - Coal-fired thermal power stations
 - Manufacturers of equipment related to Coal Fired Thermal Power Industry

5. FACILITIES AND INSTITUTIONS

- 1) Japan Electric Power Information Centre, Inc.
- 2) Electric Power Development Co., Ltd.

6. REMARKS

No. 238

NUCLEAR POWER GENERATION 原子力発電

1. PERIOD

January 14, 1991 to March 22, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Be nuclear, electrical and/or mechanical engineers presently employed at governmental institutions or private companies in the field of electric power generation.
- 3) Occupational experience of more than 3 years
- 4) Be under 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Introduction
 - Characteristic features of nuclear power plant
 - Construction
 - Operation/safety management
 - Nuclear fuel cycle
- 2) Visits and observation tours
 - Nuclear power stations
 - Manufacturing plants

5. FACILITIES AND INSTITUTIONS

- 1) Japan Electric power Information Centre, Inc. (JEPIC)
- 2) The Japan Atomic Power Company (JAPC)
- 3) Agency of Natural Resources and Energy, Ministry of International Trade and Industry
- 4) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

ELECTRIC POWER MANAGEMENT 電気事業経営

1. PERIOD

August 16, 1990 to October 28, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be manager-class engineers with at least ten-year working experience of generation, transmission and distribution in electric power authorities,
- 2) be between thirty (30) and fifty (50) years of age,
- 3) have a sufficient command of spoken and written English, and
- 4) be in good health, both physically and mentally, to undergo the course of training.

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Outline of the electric power industry in Japan
 - Organization, personnel management, labor management and education
 - Information system
 - Technological development
 - Electric apparatus makers related to the electric power industry
 - Electric power supply plan, electric power sources development plan
 - Power systems operation
 - Plan, construction, operation, and maintenance of power transmitting and distributing facilities
 - Customer services
- 2) Observation tours
 - Hydro, thermal and nuclear power stations
 - Heavy machinery manufactures

5. FACILITIES AND INSTITUTIONS

- 1) Japan Electric Power Information Centre, Inc.
- 2) Chubu Electric Power Co., Ltd.
- 3) Agency of Natural Resources and Energy, Ministry of International Trade and Industry

6. REMARKS

No. 240

ELECTRIC POWER DISTRIBUTION ENGINEERING 配電技術

1. PERIOD

September 6, 1990 to November 19, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Technical college graduates or equivalent
- 2) Qualified in respective fields
- 3) Professional experience of more than 5 years
- 4) Between 25 and 35 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Japan's electric power policy
 - Transmission, transformation and distribution lines
 - Design, construction and maintenance of transmission lines
 - Distribution facilities and work
 - Indoor and outdoor wiring, etc.
- 2) Observation tours
 - Various types of power stations
 - Various facilities related to power distribution
 - Manufacturers of equipments related to power distribution

5. FACILITIES AND INSTITUTIONS

- 1) Agency of Natural Resources and Energy, Ministry of International Trade and Industry
- 2) Japan Electric Power Information Center, Inc.
- 3) Kansai Electric Power Co., Inc.

6. REMARKS

COAL SCIENCE AND TECHNOLOGY 石炭資源開発・利用

1. PERIOD

October 1, 1990 to December 14, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) have three years' occupational experience or more in the field of coal science and technology
- 2) be university graduates or equivalent
- 3) have a sufficient command of spoken and written English
- 4) be not less than 25 and not more than 45 years old

4. DESCRIPTION OF TRAINING

- 1) Lectures (basic & advanced)
 - Coal Geology
 - Coal Mining Engineering
 - Coal Chemistry
 - Mechanical Engineering for Coal Utilization
 - Environmental Engineering for Coal Utilization
- 2) Experimental study
- 3) Observation
 - Coal mines and factories in Hokkaido, Tokyo (Tsukuba etc.) & Kyushu

5. FACILITIES AND INSTITUTIONS

- 1) Hakozaki (Main) Camps, Faculty of Engineering and Faculty of Science, Kyushu University
- 2) Institute of Advanced Material Study, Kyushu University

6. REMARKS

No. 242

COAL MINING AND PREPARATION 採炭・選炭技術

1. PERIOD

August 27, 1990 to November 4, 1990

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

Applicants should:

- 1) be university or college graduates who have basic knowledge of coal mining or the equivalent,
- 2) be mining geologists, mining engineers, preparation engineers or other engineers concerned with coal mining industry who are presently employed at one of the government institutions or private companies in the field of coal mining,
- 3) have more than five (5) years of practical experience,
- 4) have a sufficient command of spoken and written English,
- 5) be between approximately thirty-five (35) and forty-five (45) of age, and
- 6) be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

The course will consist of the following;

- 1) Lectures on:
 - Coal Mining History of Japan and Recent Technology
 - Coal Policy of Japan
 - General and Practical Technology of
 - Coal Winning
 - Roadway Drivage
 - Coal Preparation
 - Coal Cleaning
- 2) Observation Tours
Visits to:
 - Main collieries - Taiheiyo, Akabira and Miike
 - National Research Institute for Pollution and Resources (NRIPR)
 - Coal Gasification Plant
 - Manufacturers of Related Equipment
- 3) Presentation of Country Report
- 4) Evaluation Meeting

5. FACILITIES AND INSTITUTIONS

The Coal Mining Research Centre, Japan (CMRCJ)

6. REMARKS

1. PERIOD

January 17, 1991 to March 17, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be college graduates or university graduates who have majored in science or technology, or those who have equivalent technical knowledge,
- 2) be working or going to work in organizations concerned with nuclear technology fields,
- 3) have a sufficient command of spoken and written English, this item will be checked strictly,
- 4) be under forty (40) years of age

4. DESCRIPTION OF TRAINING

1) Lectures

- a) Basic Subjects:
Nuclear Physics, Nuclear Chemistry, Radiation Physics, Radiation Measurements, Radiobiology and Biological Effects, Radiation Chemistry, etc..
- b) Radiological Protection:
Principle of Radiological Protection, Safety Handling of Radioactive Material and Protection against Radiation, Radiation Monitoring, Radioactive Waste Management, etc..
- c) Radiation and Radioisotope Applications:
Radiation Sources and Irradiation Facilities, Applications in Industry, Applications in Agriculture, etc..
- d) Reactor Engineering:
General Concept of Nuclear Reactors, Type of Nuclear Reactors, Nuclear Fuels and Materials, Reactor Safety, Reactor Physics, Reactor Dynamics and Control, etc..

2) Laboratory Exercises:

- a) Basic Experiments:
Computer Programming, Beta Radiation Measurements with GM Counter, Gamma-ray Spectrometry with NaI (Tl) Scintillation and Germanium Detectors, Radiation Dose Measurement, Radiation Track Observation etc..
- b) Radiation Monitoring:
Area Dose Rate Measurement, Air-borne Activity Measurement and Liquid Effluent Activity Measurement, Surface Contamination Measurement and Decontamination etc..
- c) Radiation and Radioisotope Applications:
Radiochemical Separation, Liquid Scintillation Counting, Autoradiography, Gamma-ray Radiography, Neutron Radiography, Gamma-ray Spectroscopy, Activation Analysis etc.
- d) Reactor Engineering:
Neutron-Flux Measurements, Reactor Operation, Experiments on Reactor Characteristics etc..

3) Practical Exercises

4) Observation

5. FACILITIES AND INSTITUTIONS

Japan Atomic Energy Research Institute (JAERI)
Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 244

SEMINAR ON NUCLEAR SAFETY AND REGULATION

原子力安全規制行政セミナー

1. PERIOD

October 22, 1990 to November 18, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Senior officers in charge of national nuclear safety regulation and control,
- 2) University graduates or equivalent with at least five years' experience in his/her job,
- 3) A sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

1) Lectures

- Nuclear Energy and Its Safety Administration
- Nuclear Safety Regulation in Japan
- Safety Regulations on the Application of Radiation and Radioisotopes
- Safety Regulations on the Research Reactors
- Safety Regulations of Nuclear Fuel Facilities and Transportations
- Safeguards and Physical Protection of Nuclear Materials in Japan
- Safety Regulation and Administration for Commercial Nuclear Power Plants in Japan
- Safety Regulation on the Management and Disposal of Radioactive Wastes
- Off Site Disaster Preventive Measures for Nuclear Power Plants

2) Observation and study tour

3) Presentation of Country Reports and Discussion

5. FACILITIES AND INSTITUTIONS

- 1) Nuclear Safety Bureau, Science and Technology Agency
- 2) Japan Atomic Industrial Forum
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 245

ADVANCED GEOTHERMAL ENERGY 地熱エネルギーアドバンス

1. PERIOD

August 27, 1990 to December 15, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be JICA ex-participants who have successfully completed the "Geothermal Energy" Course held at Kyushu University
- 2) or have been engaging in the field of geothermal energy development for three years at least
- 3) be leading staffs in their organization, and not over forty-five (45) years old in principle
- 4) have a sufficient command of spoken and written English, and
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation the training.

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Geothermal Geology
 - Fluid Inclusion and Alteration Mineralogy
 - Hydrothermal Geochemistry
 - Geothermics and Geothermal System
 - Analysis of Geothermal Prospecting Data
 - Geophysical Exploration
 - Geothermal Hydrology
 - Reservoir Engineering
 - Isotope Geochemistry
 - Heat and Thermodynamics
- 2) Experimental study
- 3) Observation

5. FACILITIES AND INSTITUTIONS

- 1) Geothermal Research Centre, Faculty of Engineering, Kyushu University
- 2) Hatchobaru Geothermal Power Station, Kyushu Electric Power Co., Inc.

6. REMARKS

No. 246

RADIOLOGICAL PROTECTION FOR RADIATION SAFETY OFFICER

放射線安全管理実務者

1. PERIOD

January 28, 1991 to March 6, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) At least Diploma of high school and five years experience on radiation control or health physics or Bachelor's degree of University and one year experience on radiation control or health physics
- 2) Fluency in English or Japanese

4. DESCRIPTION OF TRAINING

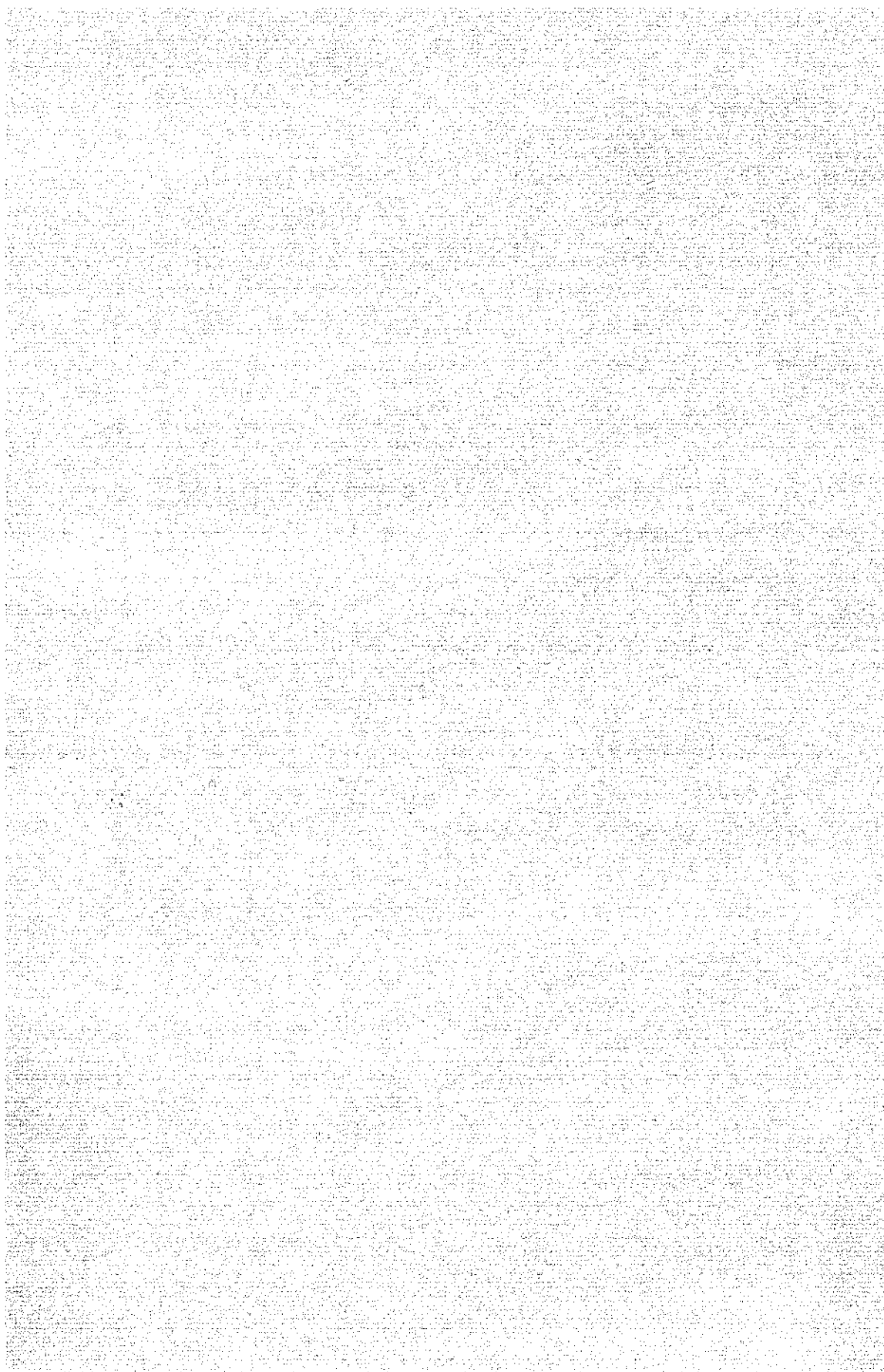
- 1) Basic knowledge for radiation protection
- 2) Environmental monitoring, personal dosimetry and radiation measuring instruments
- 3) Facilities tour

5. FACILITIES AND INSTITUTIONS

Tokai Works, Power Reactor and Nuclear Fuel Development Corporation (PNC)

6. REMARKS

COMMERCE AND TRADE



No. 247

MEASURES FOR SMALLER INDUSTRIES II 中小企業対策Ⅱ

1. PERIOD

January 10, 1991 to March 28, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in the respective fields
- 3) Professional experience of more than 5 years
- 4) Under 40 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
- Japanese measures pertaining to promotion of small businesses, especially particulars of development of smaller businesses and practices in financing, grouping, structural improvement and managerial/technical guidance.
- 2) Observations
- 3) Study trips

5. FACILITIES AND INSTITUTIONS

Osaka International Training Centre, JICA

6. REMARKS

1. PERIOD

October 11, 1990 to February 18, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be such personnel as assigned to business diagnostic services, management consultancy, and extension services at the organization engaged in the assistance for development and promotion of small scale industries
- 2) University graduate or those who have equivalent academic background and/or professional experience
- 3) Have at least three years of experiences
- 4) Between 30 and 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and Discussions:
 - System & measures for small industries promotion in Japan
 - Basic understanding of business management
 - Techniques & methods of business diagnosis
 - Program implementation & training
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Aichi Industrial Research Association
- 2) Aichi Prefectural Small Business Guidance Center
- 3) Aichi Small Scale Enterprise Promotion Corporation

6. REMARKS

No. 249

**PRODUCTION MANAGEMENT (THEORY & PRACTICE
ON WORK IMPROVEMENT)**

生産性向上技術

1. PERIOD

October 22, 1990 to March 9, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Have more than 5 years' occupational experience in the field of Production management,
- 2) be graduate from a faculty of engineering or have the equivalent academic background,
- 3) Have a sufficient command of spoken and written English,
- 4) Be under 40 years old,
- 5) Be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as disqualifying condition for the participation in the training.

4. DESCRIPTION OF TRAINING

- 1) Lecture on basic subject to improve productivity and job improvement practices on factory floors.
 - Computer Literacy
 - Quality control and 7 tools
 - QC circle activity
 - Value Engineering
 - Productivity Improvement Engineering
 - Engineering Economy
 - Industrial Engineering
 - Total Productive Maintenance
 - Employee Education
 - Computer Utilization etc.
- 2) Field trips

5. FACILITIES AND INSTITUTIONS

- 1) Kitakyushu International Training Association
- 2) Toto Co., Ltd.
- 3) Yasukawa Electric Mfg. Co., Ltd.
- 4) ASA Systems Inc.
- 5) Mishima Kosan Co., Ltd., etc.

6. REMARKS

No. 250

PRODUCTIVITY MANAGEMENT 実践的総合生産性向上

1. PERIOD

April 5, 1990 to June 13, 1990 (2.5 months)

2. NUMBER of PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be engaged in productivity management guidance, or plant management.
- 2) have at least five (5) years of experience in the field covered by this training course, i.e., industrial engineering, research and development of overall plant productivity.
- 3) be between thirty (30) and forty (40) years of age.
- 4) have a sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

- 1) the plans for improvement of plant-level productivity.
- 2) the production management techniques and application methods.
- 3) the practical methods of quality control, cost control, and delivery time control.
- 4) the skills for improvement of overall plant operations for higher productivity.

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Japan Productivity Centre

6. REMARKS

No. 251

**PRIVATE SECTOR MIDDLE MANAGEMENT FOR
PACIFIC COOPERATION** (太平洋協力民間中堅実務)

1. PERIOD

August 27, 1990 to October 6, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirtythree (33)

3. QUALIFICATIONS

Applicants should:

- 1) be selected by Chairman of their PBEC National Committee and be nominated by their government in accordance with the usual procedures (in the countries where PBEC National Committees are not established, the government will select and nominate applicants),
- 2) be part of the middle management of private companies or of government-related organization excluding government officials,
- 3) be university graduates or equivalent,
- 4) have more than three(3) years of practical experience in the field,
- 5) have a sufficient command of spoken and written English,
- 6) be under fifty (50) years of age,
- 7) be in good health, both physically and mentally, to undergo the training.

4. DESCRIPTION OF TRAINING

- 1) Seminar Programme Relating to Pacific Cooperation
(All participants will attend)
 - Representatives of the PBEC Japan Member Committee and others will give presentations on overall Pacific Cooperation.
 - An explanation on the general state of the Japanese economy will be given.
 - Country report
 - Visit to economic organizations
- 2) Practical Training Programme
The following 5 courses will be set up, and there will be training by each group
 - Medium and Small-Scale Industries Management Training Course
 - Financial Training Course
 - Trade Training Course
 - Information Training Course
 - Food processing (inc. fishery products) Training Course
- 3) Field Trip
 - The participants will visit high-tech plants

5. FACILITIES AND INSTITUTIONS

PBEC Japan Member Committee, The Tokyo Chamber of Commerce and Industry

6. REMARKS

No. 252

SEMINAR ON MANAGEMENT AND TECHNOLOGY

アジア・太平洋 経営・技術セミナー

1. PERIOD

January 17, 1991 to February 15, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fourteen (14)

3. QUALIFICATIONS

- 1) Senior executive officers responsible for administration of the related field, or
Top management of the private sector who are selected by the PECC Committee or an equivalent
Economic Association of their respective countries, and nominated by their governments
- 2) Be in good health, both physically and mentally, to undergo the course of the training
- 3) Good working knowledge of English
- 4) Be under 55 years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
 - Status quo of the Japanese economy and various factors of its development
 - Future prospects of the economy in the countries in the Pacific region and those in Japan
 - Status quo and characteristics of the economy of the Kansai Region as seen from the Japanese economy
 - Terms and conditions to do business in the Japanese market
 - The Japanese business management
 - Status quo of smaller businesses and sub-contractors and their promotive measures
 - Production control
 - Labor management
 - Roles of Japanese trading firms (Sogo Shosha) and their position in the Japanese economy
- 2) Observations and study tours
 - Private enterprises (of various sizes)

5. FACILITIES AND INSTITUTIONS

The Pacific Resource Exchange Centre (PREX)

6. REMARKS

No. 253

SEMINAR SHIPBUILDING MANAGEMENT

造船経営管理セミナー

1. PERIOD

September 24, 1990 to November 30, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) More than 8 years occupational experience in the field of management in the governmental, public, or shipyards organization
- 3) Between 35 and 50 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) General Orientation on Japan
- 2) Lectures
 - Japanese shipbuilding industries
 - Planning, business and financial system of shipyards
 - Production management of shipyards
 - Problem of future strategy in shipbuilding industry
- 3) Discussion on the present situation of shipbuilding management
- 4) Observation tours to major shipyards

5. FACILITIES AND INSTITUTIONS

- 1) Ministry of Transport
- 2) Overseas Shipbuilding Co-operation Centre

G. REMARKS

No. 254

INVESTMENT PROMOTION SEMINAR (1) 投資促進セミナー(1)
(Asian Countries) (アジア諸国)

1. PERIOD

June 21, 1990 to July 25, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Senior officials of governmental or semi governmental organizations, or equivalent position in economic promotion organizations with occupational experience of more than five (5) years
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and Discussion
Purpose: To learn Japan's overseas investment promotion policy and measures with special relevance to the organizations conducting direct investment promotion.
 - a) Outline of Japan's Overseas Direct Investment
 - b) Japanese Government Action to Promote Overseas Direct Investment
 - c) Promotion for Overseas Direct Investment by other organizations
- 2) Country Report
Purpose: To analyze present situation and incentive of the participants' countries and discuss the problems among participants tutored by the expert of global trade and investment problems.
 - a) Investment incentives in participants' country
 - b) Future programs in the promotion of the overseas investment to participants' country
- 3) Problems in the promotion of the overseas direct investment
Purpose: To analyze the problems hindering the international investment and search for the future plans of incentives to improve direct investment to the participants' countries.
 - a) Legislative Problems
 - b) Improvement of Infrastructure
 - c) Managerial Problems in multinational Enterprises
- 4) Field Trips

5. FACILITIES AND INSTITUTIONS

- 1) World Trade Centre of Japan (WTC)
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 255

INVESTMENT PROMOTION SEMINAR (2) 投資促進セミナー(2)
(Latin American Countries) II (ラテンアメリカ諸国) II

1. PERIOD

September 24, 1990 to November 7, 1990 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Senior officials responsible for administration of international investment in governmental or semi-governmental organizations or equivalents in economic promotion organizations with experience of more than 5 years.
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lectures and discussions

- a) Outline of Japan's Overseas Direct Investment and the Organizations Conducting Direct Investment Promotion
 - Ministry of Foreign Affairs
 - Ministry of International Trade and Industry (MITI)
 - Japan Overseas Development Corporation (JODC)
 - The Export-Import Bank of Japan
- b) Japanese Government Actions to Promote Overseas Direct Investment
 - JETRO's Activities
 - PAC (Project Arrangement Coordination Consulting) Program
 - Japan Overseas Enterprises Association (JOEA)
 - Investment Consulting by the Export-Import Bank of Japan
 - Development Bank
- c) Promotion for Overseas Direct Investment by Other Organizations
 - Chambers of Commerce and Industry
 - Industrial Associations
 - Sōgō Shōsha
 - Private Banks
 - Local Governments (Prefectures, Cities, etc.)
- d) Problems in the Promotion of the Overseas Direct Investment
 - Legislative Problems
 - Improvement of Infrastructure
 - Managerial Problems in Multinational Enterprises
- e) Japanese and International Economics
 - History of Japan's Economy and International Trade
 - Japan and the Japanese
 - Japanese Enterprises
 - Personnel Management in Japan
 - Decision making System in Japan
- f) Research Assignment
- g) Country Report
(Report Presentation)

2) Observation Tours and Field Trips

5. FACILITIES AND INSTITUTIONS

- 1) World Trade Center of Japan, Inc. (WTC)
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 256

TRADE PROMOTION SEMINAR (1) 貿易振興セミナー(1)
(Asian & Pacific Countries) (アジア・太平洋諸国)

1. PERIOD

May 14, 1990 to June 17, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Senior officials of governmental or semi-governmental organizations in their respective field with experience of more than 5 years
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lectures and discussions

I. Japan's trade promotion - Past & present

Purpose: To learn the past Japanese Export Promotion Policy and measures with special relevance to their feasibility of application in participants' countries.

- a) History of Japan's International Trade
- b) Japanese enterprises' effort to export
- c) Trade Insurance - Export Insurance
- d) Trade Policy of Japan - Past & present
- e) Aid to Export-Import
 - Japan External Trade Organization
 - Chamber of Commerce
 - Industrial Association
 - Trade Financing - support to overseas investment

II. Japan as a Market

Purpose: To learn the present situation of the Japanese economy and trade, especially its characteristics as a target of export from participants' countries.

- a) Corporate Decision Making - Working System of Japan
- b) Meeting with businessmen
- c) Japan as a market
- d) Businessmen's advice for entering the Japanese market

III. Country Report

Purpose: To analyze present situation of the participants' countries and discuss the problems among participants tutored by the expert of each country

2) Observation tour

5. FACILITIES AND INSTITUTIONS

- 1) World Trade Centre of Japan (WTC)
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 257

TRADE PROMOTION SEMINAR (2)

貿易振興セミナー(2)

(African Middle-East & Caribbean Countries) II (アフリカ・中近東・カリブ諸国) II

1. PERIOD

January 21, 1991 to March 17, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or the equivalent
- 2) Senior officials of governmental or semi-governmental organizations in their respective fields with more than 5 years of practical experience in the administration of international trade.
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and discussions
 - a) Japanese Export Promotion (in the past)
 - History of Japan's International trade
 - Japan's Export Policy (in the past)
 - Japanese Enterprises, Effort to Export
 - Trade Insurance-Export Insurance
 - Trade Financing
 - Administrative Guidance
 - Aid to Export (Chamber of Commerce and Industry, Industrial Associations)
 - b) Japan as a Market-1
 - Import Policy
 - Import activities of JETRO
 - Aid to Import (sōgō shōsha)
 - Japan and the Japanese
 - Personnel Management in Japan
 - Decision Making System in Japan
 - c) Japan as a Market-2
 - Marketing in Japan
 - International Marketing
 - Opening a Market
 - d) Country Report
 - e) International Economy
- 2) Practical training
Independent Marketing Research
- 3) Observation tour

5. FACILITIES AND INSTITUTIONS

- 1) World Trade Centre of Japan (WTC)
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 258

FOREIGN TRADE PRACTICE FOR LEADERS 貿易実践指導者

1. PERIOD

August 20, 1990 to December 7, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than 3 years
- 2) Leading officers in administration of foreign trade
- 3) No less than 26, and not more than 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

Lecture and practical training

- Theory, policy and structure of trade
- Business practice of trade transaction
- Function and system of customs
- *Export insurance and inspection of export and import goods*
- Foreign exchange and foreign trade finance
- Marine insurance
- Transportation
- Dispute and settlement
- Communication

5. FACILITIES AND INSTITUTIONS

- 1) Hyogo International Centre, JICA
- 2) Kobe International Association
- 3) The Kobe Chamber of Commerce and Industries
- 4) Kobe University
- 5) Kobe Customs House, Ministry of Finance

6. REMARKS

1. PERIOD

November 8, 1990 to February 10, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Attorneys-at-law, or government officers in charge of legal affairs in the field of technology and trade,
- 2) Professional experience of at least 5 years,
- 3) University graduates from the department of law,
- 4) Good health both physically and mentally,
- 5) Under 45 years of age,
- 6) Good working knowledge of English

4. DESCRIPTION OF TRAINING

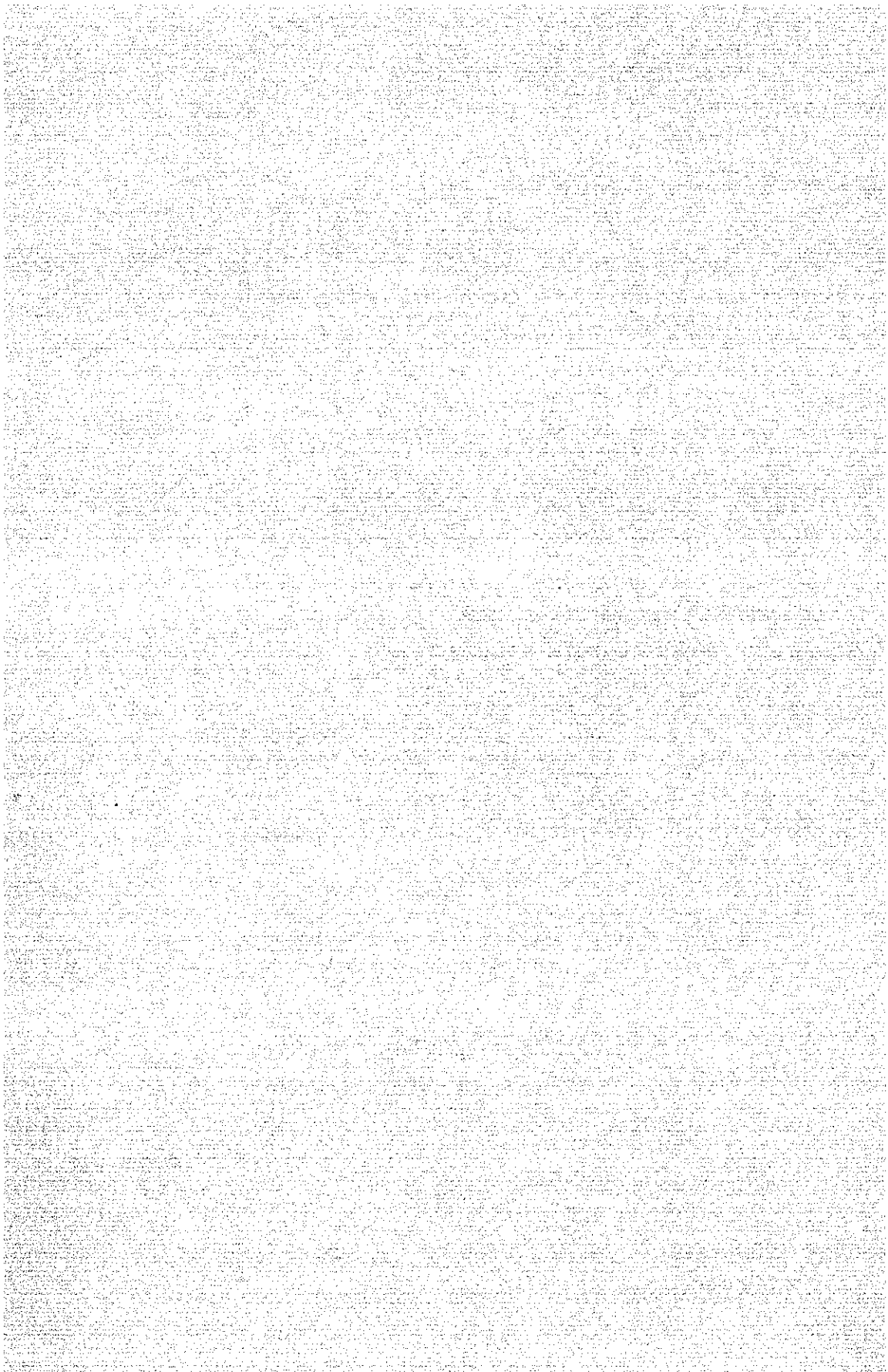
- 1) Lectures, discussions, practical training
 - Industrial development and trade policies in Japan
 - Intellectual properties and contracts
 - Legal problems related to international trade and technology transfer
 - Japanese legal system on technology trade
 - Patent act, utility model act, design act, patent act, copyright act, act providing special provisions for registration of program works, act concerning the layout of a semiconductor integrated circuit
 - Practical exercises of entering into technology contract in international trade
- 2) Observations and study tours
 - Status quo of technology contracts in Japan
 - Observations and case studies at private companies in various fields

5. FACILITIES AND INSTITUTIONS

Kyoto Comparative Law Center

6. REMARKS

TOURISM



1. PERIOD

October 4, 1990 to December 5, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eighteen (18)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Occupational experience of more than 3 years
- 3) Presently engaged in tourism promotion activities in public tourist organizations
- 4) Between twenty five (25) and thirty five (35) years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

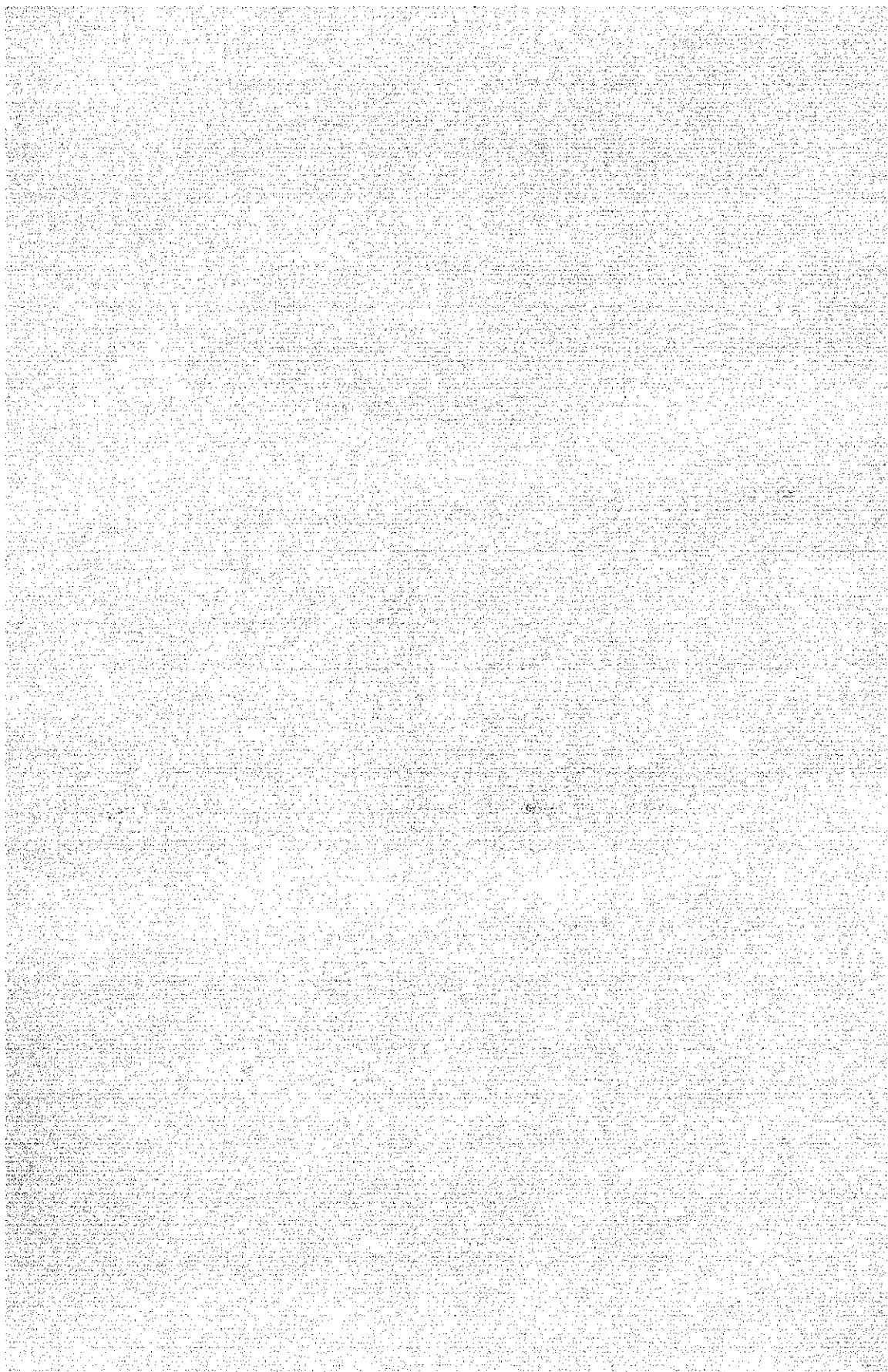
- 1) Lectures
 - a) Japanese Tourism Policy and Administration
 - Government Policy and Action (Central and Local Government)
 - Tourism Laws and Regulations
 - Current Policy Development
 - Official Development Assistance
 - b) Japanese Tourism Industries and Their Activities
 - Travel Agency Business
 - Hotel and Ryokan (Japanese-style Hotel) Business
 - Tourist Guide Business
 - Transportation Business (Airline Business, Cruise Business, etc.)
 - c) Japanese Inbound Promotion Activities by NTO
 - d) Promotion Activities towards Japanese Travel Market
 - Basic Characteristics of Japanese Travel Market
 - Promotion Activities by Foreign NTO
- 2) Presentation and Discussion of Country Report
- 3) Observation and Study Tour

5. FACILITIES AND INSTITUTIONS

- 1) Tourism Department, Ministry of Transport
- 2) International Tourism Development Institute of Japan (ITDIJ)
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

HUMAN RESOURCES



No. 261

INTENSIVE JAPANESE LANGUAGE (A) 日本語専修(A)

1. PERIOD

April 12, 1990 to October 8, 1990 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be presently engaged directly or indirectly in JICA's cooperation programme,
- 2) be under thirty (30) years of age,
- 3) have a sufficient command of both spoken and written English, and
- 4) be in good health, both physically and mentally, to undergo the course of training. Pregnancy is regarded as a disqualifying condition for the participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Elementary lessons Book 1 ~ 3
 - Writing practice
 - Pronunciation
 - Vocabulary
 - Basic grammar
- 2) Intermediate lessons Book 4 ~ 5
 - Strengthening and enlarging conversation skills
 - Strengthening reading and comprehension skills
 - Training for composition skills
- 3) Speech contest
- 4) Field trip
- 5) Final production

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 262

INTENSIVE JAPANESE LANGUAGE (B) 日本語専修 (B)

1. PERIOD

September 27, 1990 to May 27, 1991 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) The counterpart of the overseas project conducted by JICA or a governmental officer in charge of Japanese technical cooperation
- 2) Be university graduates or have the equivalent academic background
- 3) Have sufficient command of both spoken and written English
- 4) Be in good health, both physically and mentally, to undergo the training

4. DESCRIPTION OF TRAINING

- 1) Elementary lessons Book 1 ~ 3
 - Writing practice
 - Pronunciation
 - Vocabulary
 - Basic grammar
- 2) Intermediate lessons Book 4 ~ 6
 - Strengthening and enlarging conversation skills
 - Strengthening reading and comprehension skills
 - Training for composition skills
 - Practical training for conversation and composition skills
- 3) Speech contest
- 4) Field trip
- 5) Final production

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC)

6. REMARKS

No. 263

SOUND SLIDE PRODUCTION サウンドスライド制作

1. PERIOD

June 21, 1990 to October 2, 1990 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Beginners of media production for educational/instructional purpose, having less than one year experience
- 3) Expected to get a leading position in this field in future
- 4) Under thirty-five (35) years of age
- 5) Having a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Outline of AV Media
- 2) OHP Technique
- 3) Outline of Photography
- 4) Photographing
- 5) Audio Production Methodology
- 6) Script Writing Methodology
- 7) Slide Production Methodology
- 8) Sound Slide Production Methodology
- 9) Video Production Methodology
- 10) Production of Multi Media Package
- 11) Multi Media Package Presentation
- 12) Observation Tour

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

1. PERIOD

September 20, 1990 to February 4, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalents
- 2) Two to five years' experience in video program production for educational/instructional purpose
- 3) Under thirty-five (35) years of age
- 4) Having a sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Outline of Video (in comparison with other Audio Visual Media)
- 2) Basics of Video Material Production
- 3) Single-Camera Treatment I (Storyboard Shooting, Cut Editing)
- 4) Single-Camera Treatment II (A/B Roll Editing)
- 5) Animation
- 6) Production of Multi-Media Package
- 7) Observation Tour

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 265

AUDIO VISUAL TECHNOLOGY 視聽覺技術

1. PERIOD

January 24, 1991 to May 3, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduates or equivalent and presently engaged directly or indirectly in producing of AV media or being expected to take part in this job in the near future,
- 2) Expected to get a leading position in this field in future,
- 3) Under forty (40) years of age,
- 4) Have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) AV Media planning, Utilization and Evaluation
 - Theory
 - Practice (workshop)
- 2) Basic AV Media Production
 - Teaching and Training Materials
 - (Video, Audio, Slide)
- 3) Others
 - General Orientation
 - Japanese Language
 - Evaluation

5. FACILITIES AND INSTITUTIONS

Okinawa International Centre (OIC), JICA

6. REMARKS

No. 266

TRAINING SPECIALIST FOR SUPERVISORS (SEMINAR) II

監督者訓練専門家セミナーⅡ

1. PERIOD

June 14, 1990 to August 10, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) University graduate or equivalent
- 2) Specialist concerned with planning and conducting foremen training in a government organization or a public corporation
- 3) Between 30 and 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and Discussion
 - Outline of human resources development in Japan
Purpose: To study economic, social and historical background, and present situations of human resources development in Japan
 - The Training for Supervisors in Japan
Purpose: To study the methods of the training for supervisors and other in-plant training
- 2) Observation Tour
- 3) Country reports presentation

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Human Resources Development Bureau, Ministry of Labour

6. REMARKS

No. 267

**TRAINING MANAGEMENT OF VOCATIONAL TRAINING
INSTITUTIONS (SEMINAR)**

職業訓練管理セミナー

1. PERIOD

August 23, 1990 to October 19, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Presently engaged in management of a vocational training institution and be expected to work in the same field in future
- 2) Between 30 and 50 years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and Discussion
 - Human Resources Development in the field of Vocational Training
 - Management and Administration of Vocational Training Institution and Facilities
- 2) Country reports presentation
- 3) Observation Tour

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Human Resources Development Bureau, Ministry of Labour.

6. REMARKS

No. 268

HUMAN RESOURCES DEVELOPMENT ADMINISTRATION (SEMINAR)

職業能力開発行政セミナー

1. PERIOD

February 7, 1991 to March 20, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15)

3. QUALIFICATIONS

- 1) A director of the department in a central office or equivalents, presently engaged in the human resources development administration
- 2) Between 35 and 50 years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

1) Lecture & Discussion

- Outline of human resources development administration in Japan

Purpose: To study the human resources development administration and its peripheral methods.

- Outline of contemporary labour situation in Japan

Purpose: To study economic, social and historical background, and present situations of human resources development administration in Japan

2) Observation Tour

3) Country Reports Presentation

4) Comprehensive study

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Human Resources Development Bureau, Ministry of Labour

6. REMARKS

No. 269

HIGH TECHNOLOGY RESEARCH ハイテク・リサーチ

- [A] Manufacturing system of Interior Element and Units of Wooden House
- [B] Application of Mechatronization Technology

1. PERIOD

July 26, 1990 to February 24, 1991 (7 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

[A] Three (3), [B] Two (2)

3. QUALIFICATIONS

- 1) [A] be presently engaged in wood science and technology engineering field at university, research institute, or vocational training centre as professor,
[B] be presently engaged in control, electronical and mechanical engineering field at university, research institute, or vocational training centre as professor,
- 2) be graduates from the faculty of engineering at university or graduate school,
- 3) have least five (5) years for Bachelor degree holder, three (3) years for Master degree holder of occupational experience in the field,
- 4) have a sufficient command of spoken and written English, or Japanese,
- 5) be not more than thirty-five (35) years of age,
- 6) [A] have appropriate knowledges on BASIC language and be able to make programmes freely in this language
[B] have appropriate knowledges on BASIC language, C language and ASSEMBLA language and be able to make programmes freely in these languages.
- 7) have specific knowledges on the theme mentioned and be able to study of his own accord

4. DESCRIPTION OF TRAINING

- 1) Research
- 2) Report making
- 3) Study Tour

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training (IVT), Ministry of Labour

6. REMARKS

There will be an intensive Japanese language course, conducted prior to the technical training (1 month, 100 hours)

No. 270-1

VOCATIONAL TRAINING INSTRUCTORS (ELECTRICAL ENGINEERING) II

職業訓練指導員（電気工学）Ⅱ

1. PERIOD

June 6, 1990 to March 24, 1991 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Be presently engaged in electrical engineering field at university, research institute or vocational training centre as professor, engineer or teacher
- 2) Be university graduates with three (3) years of occupational experience in this field
- 3) Between 25 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - Theory of Electrical Machinery
 - Designing Electrical Machinery
 - Illumination Engineering
 - Power Electronics and Control of Servomotors
 - Introduction to Computer Programming
 - Electrical Measurement
 - Electrical Power Engineering
 - General Concept of Automatic Control
 - Design of Wiring Works
 - Electrical Wiring Construction
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month, 150 hours), conducted prior to the technical training.

No. 270-2

VOCATIONAL TRAINING INSTRUCTORS (ARCHITECTURAL ENGINEERING)

職業訓練指導員（建築工学）

1. PERIOD

June 7, 1990 to March 24, 1991 (9.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Be presently engaged in architectural engineering field at university, research institute or vocational training centre as a professor, engineer or teacher
- 2) Be university graduates with three (3) years of occupational experience in this field
- 3) Between 25 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - History of Architecture
 - Building Legislation
 - Indoor Environmental Engineering
 - Building Materials
 - Reinforced Concrete Engineering
 - Building Equipment
 - Wooden Construction Methods
 - Architectural Presentation Techniques
 - Building Construction and Management
 - Building Construction
 - City Planning
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month, 150 hours), conducted prior to the technical training.

No. 270-3

VOCATIONAL TRAINING INSTRUCTORS (ELECTRONIC ENGINEERING)

職業訓練指導員（電子工学）

1. PERIOD

June 7, 1990 to March 24, 1991 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Be presently engaged in electronic engineering field at university, research institute or vocational training centre as professor, engineer or teacher,
- 2) Be university graduates with three (3) years of occupational experience in this field
- 3) Between 25 and 40 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - TV Engineering
 - Semiconductor IC Technology
 - Electronic Computer
 - Electronic Components
 - Electronic Circuits
 - Electronic Measurements
 - Automatic Control
 - Digital Electronic Circuits
 - Radiowave propagation and Antennas
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month, 150 hours), conducted prior to the technical training.

No. 270-4

VOCATIONAL TRAINING INSTRUCTORS
(MECHANICAL ENGINEERING FOR INDUSTRY)

職業訓練指導員（産業機械工学）

1. PERIOD

June 7, 1990 to March 24, 1991 (8.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be presently engaged in automotive engineering field at university, research institute or vocational training centre as professor, or teacher,
- 2) be university graduates with at least three (3) years of occupational experience in this field,
- 3) have a sufficient command of spoken and written English and be eager to study Japanese language,
- 4) be not less than twenty-five (25), and not more than forty (40) years of age

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - Internal Combustion Engines
 - Strength of Material
 - Refrigeration and Heat Transfer
 - Automotive Engineering
 - Thermodynamics and Heat Transfer
 - Elements of Welding Procedure
 - Automotive Mechanism
 - Vibration Problems in Engineering
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month 150 hours), conducted prior to the technical training.

No. 270-5

VOCATIONAL TRAINING INSTRUCTORS
(MECHANICAL ENGINEERING FOR PRODUCTION)

職業訓練指導員（生産機械工学）

1. PERIOD

June 7, 1990 to March 24, 1991 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) be presently engaged in mechanical engineering field at university, research institute or vocational training centre as professor, or teacher,
- 2) be university graduates with at least three (3) years of occupational experience in this field,
- 3) have a sufficient command of spoken and written English and be eager to study Japanese language,
- 4) be not less than twenty-five (25), and not more than thirty-five (35) years of age

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - Machining Technology
 - Die Engineering
 - Energy Beam Processing
 - Precision Measurement
 - Strength of Materials
 - Plastic Working
 - Design of Mechanical Element
 - Materials for Mechanical Engineering
 - N. C. Equipment
 - Material Testing
- 2) Practical Training
- 3) Factory Observation and Field Trip

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Center, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month 150 hours), conducted prior to the technical training.

No. 270-6

VOCATIONAL TRAINING INSTRUCTORS
(INDUSTRIAL DESIGN ENGINEERING)

職業訓練指導員（造形工学）

1. PERIOD

June 7, 1990 to March 24, 1991 (8.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be presently engaged in industrial design engineering field at university, research institute or vocational training centre as professor, or teacher,
- 2) be university graduate with at least three (3) years of occupational experience in this field,
- 3) have a sufficient command of spoken and written English and be eager to study Japanese language,
- 4) be not less than twenty-five (25), and not more than forty (40) years of age,

4. DESCRIPTION OF TRAINING

- 1) Lecture on Specialized Subject
 - Materials for Woodworking, Gluing and Plywood
 - Design, Drawing and Furniture Construction
 - Wood working System in Production
- 2) Practical Training
- 3) Factory Observation and Field Trip

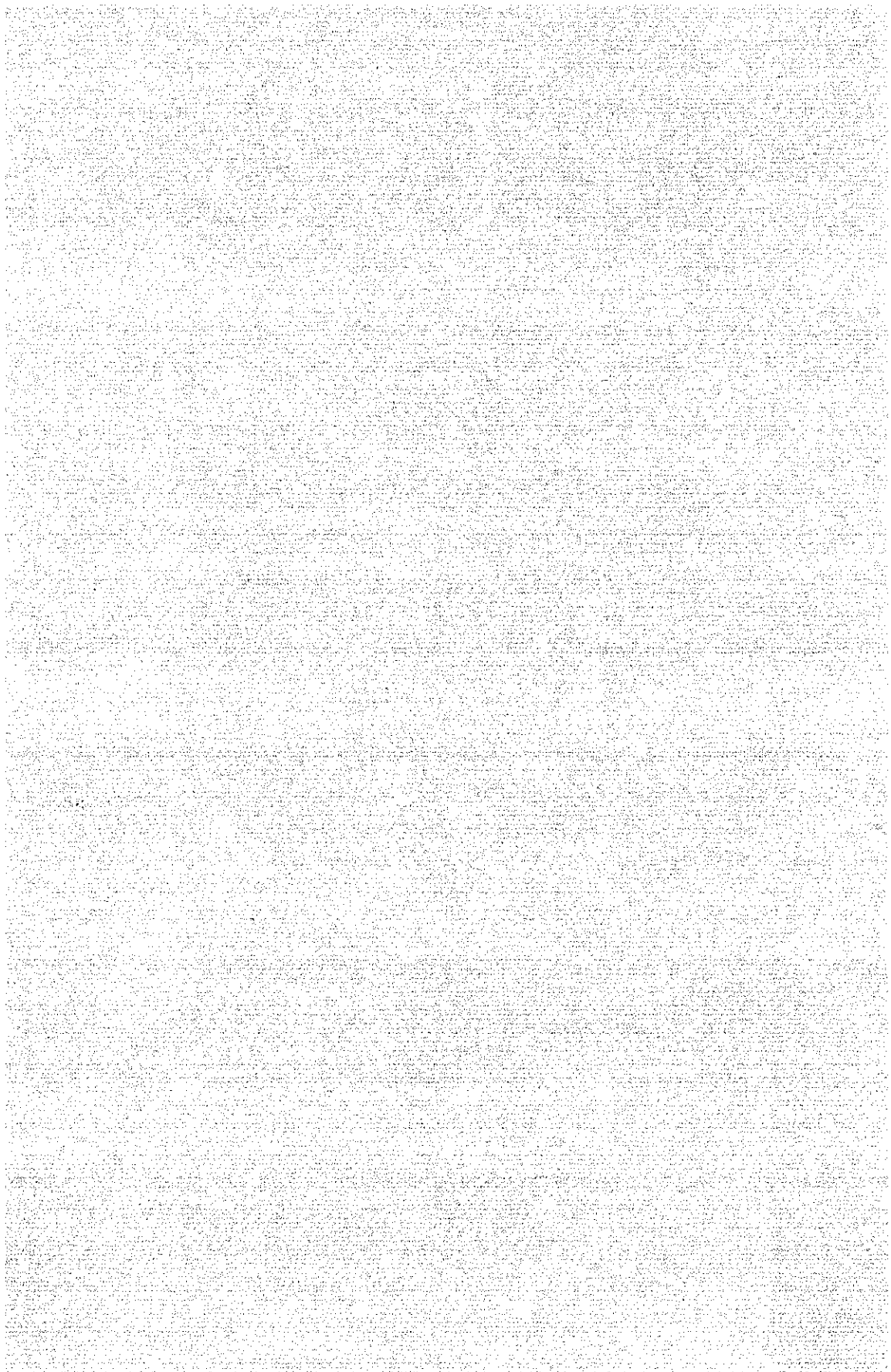
5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) The Institute of Vocational Training, Ministry of Labour

6. REMARKS

There will be an intensive Japanese Language Course (1 month, 150 hours), conducted prior to the technical training.

SCIENCE AND CULTURE



No. 271

REMOTE SENSING TECHNOLOGY (FUNDAMENTAL)

リモート・センシング技術（基礎）

1. PERIOD

May 7, 1990 to July 13, 1990 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be university graduates, or the equivalent with a fundamental knowledge of physics and mathematics,
- 2) be researchers or engineers in remote sensing application fields, such as country planning, agriculture, forest management and mapping,
- 3) be preferably under thirty-five (35) years of age,
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

1) Lectures

- Remote Sensing Activities in Japan
 - Japanese Space Activities -
 - Overview of Remote Sensing Activities in Japan -
- General Introduction
 - Basic Principles of Remote Sensing -
- Remote Sensing, as a Tool for Agriculture Resource Management
- Remote Sensing Application in Geological Survey
- Japanese Ground Station for Earth Observation Satellites
- Data Processing of Meteorological Satellite
- Image Processing System
- Sensor & Platforms
- Outline of the Observation Satellites
- Geometric Correction Theory and Technology
- Global Monitoring Information

2) Practice

- Personal Computer System and Programming for Image Processing
- Geometric Correction Theory and Technology
- Image Analysis with a Personal-Computer
- Digital Image Analysis

3) Ground Truth Investigation

4) Field Evaluation

5) Report Making

6) Observation Tours

7) Country Report Presentation

8) ISPRS COMMISSION IV

- International Symposium on Cartographic and Data Base Applications of Photogrammetry and Remote Sensing

5. FACILITIES AND INSTITUTIONS

Remote Sensing Technology Center of Japan (RESTEC)

6. REMARKS

No. 272

ENZYME TECHNOLOGY 酵素工学

1. PERIOD

April 5, 1990 to October 15, 1990 (6.4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Master's or Doctor's degree and have majored chemistry, biochemistry, agricultural chemistry, food chemistry or applied microbiology
- 2) Three (3) or more years of experience in fermentation technology or enzyme technology
- 3) Between 25 and 35 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and experimental training
 - Purification of enzymes
 - Properties of enzyme
 - Study of enzymes
 - Application of enzymes
 - Selective topics
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

Osaka Municipal Technical Research Institute (OMTRI)

6. REMARKS

No. 273

**MEDICAL AND BIOLOGICAL APPLICATION OF RADIATION
AND RADIOISOTOPES** アイソトープ・放射線の医学・生物学利用

1. PERIOD

August 20, 1990 to September 30, 1990 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) have occupational experience of more than several years in radiation treatment, and be expected to be engaged in this field after returning to their countries,
- 2) be medical school graduates and be licensed physicians authorized by their governments,
- 3) have a sufficient command of spoken and written English,
- 4) be under forty-five (45) years of age

4. DESCRIPTION OF TRAINING

1) Lectures

- Basic and General Radiology
- Radiation Therapy

2) Clinical Study and Training

- Combined treatment of radiotherapy, surgery and chemotherapy (systematic multi-modal treatment) for the head and neck cancer (CIH)
- Practice of treatment using RALS (Remote after Loading System with (using) high or medium dose rate) unit, planning, decision of treatment modalities, and follow-up for the patient of carcinoma of the uterine cervix (NIRS and TWMC)
- Radiation treatment planning for conformational radiotherapy using X-ray CT and intraoperative radiotherapy (TMKH)

3) Study Tour

- National Institute of Radiological Sciences (Chiba)
- Shimazu Seisakusho Ltd., Kyoto factory (Kyoto)
- Research Institute for Nuclear Medicine and Biology, Hiroshima University (Hiroshima)
- Hokkaido University Hospital (Sapporo)

5. FACILITIES AND INSTITUTIONS

- 1) National Institute of Radiological Sciences
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

1. PERIOD

January 7, 1991 to May 27, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

Applicants should:

- 1) be presently engaged in research work and have more than four (4) years of occupational experience in this field,
- 2) be university graduates or have the equivalent academic background,
- 3) have a sufficient command of spoken and written English,
- 4) be not less than twenty-six (26), and not more than forty (40) years of age,

4. DESCRIPTION OF TRAINING

- 1) **Lecture**
 - i) General view on biotechnology
General view on genetics
General view on biology
Structures and functions of genes
Gene manipulation, etc.
 - ii) Present situation of application of biotechnology
General view on food chemistry
General view on chemistry and technology of agricultural products
General view on fermentation technology
General view on pesticide science
Screening and collection of plant genes
Introduction to biological catalysts, etc.
- 2) **Experiment and practice**
 - i) Biotechnology utilizing microorganisms
Screening of microorganisms from nature and their identification
- 3) **Observation tour**
Sake brewing companies, sugar refinery companies, food companies in the traditional biotechnology field and factory-style plant producing companies, protected agricultural fields, gene banks, biotechnological production institutes, etc.

5. FACILITIES AND INSTITUTIONS

- 1) Faculty of Agriculture, Kobe University
- 2) Biotechnology Laboratory, Hyogo Prefectural Agricultural Institute

6. REMARKS

No. 275

PRACTICE OF SCIENCE EDUCATION 科学教育実技研修

1. PERIOD

September 20, 1990 to November 13, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) be university graduates or have an equivalent academic background (14 years school career).
- 2) be presently engaged in teaching science at secondary school or investigating in institute/university/college
- 3) be not more than thirty five (35) years old
- 4) have a sufficient command of spoken and written English
- 5) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the course
- 6) be in the promising position in science education.

The administrative officers are not qualified for this programme.

3. DESCRIPTION OF TRAINING

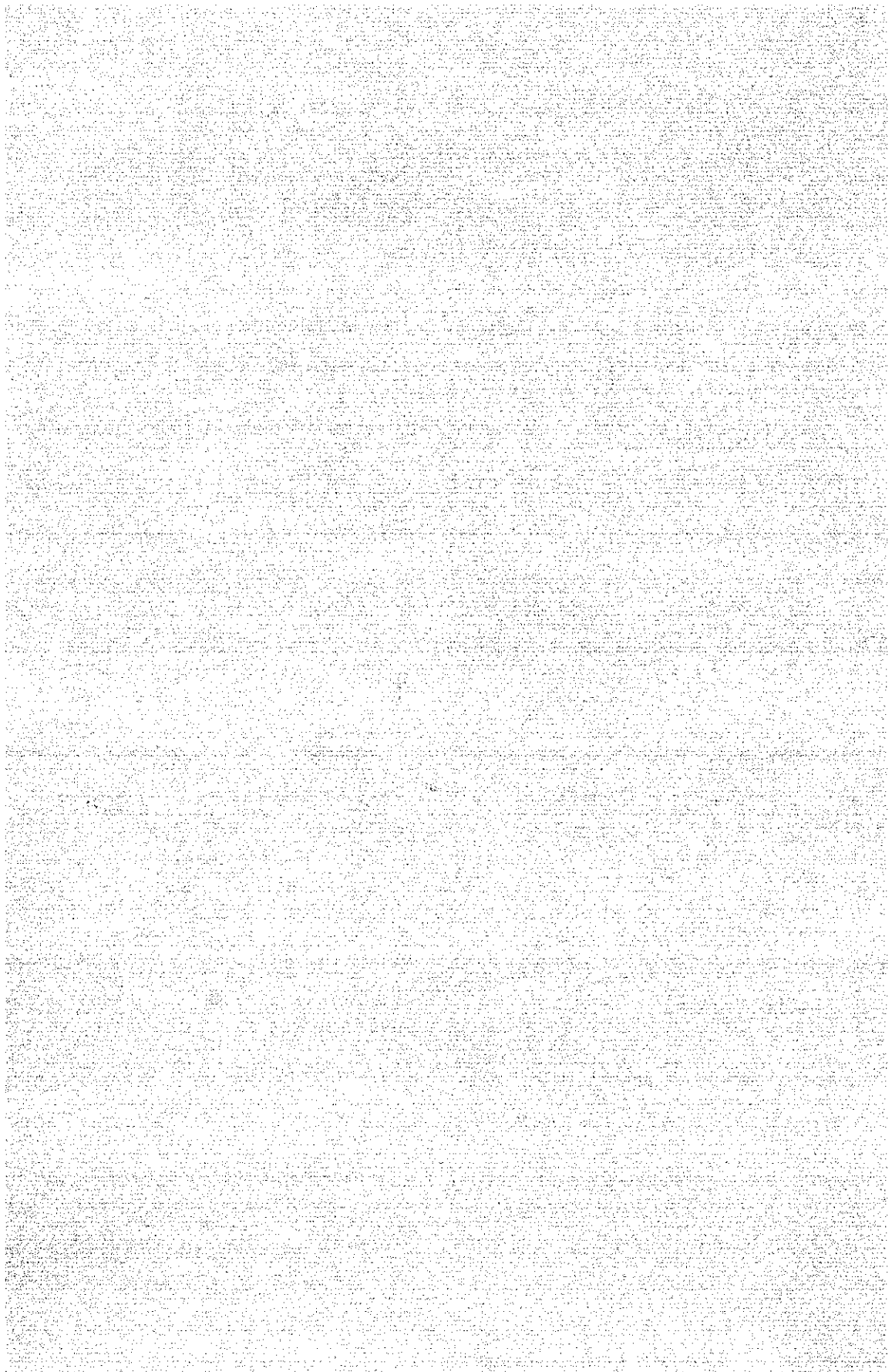
- 1) Lectures and Practical Training:
 - Basic Principle of Science
 - Practice Concerning Physics
 - Practice Concerning Chemistry
 - Practice Concerning Biology
 - Practice Concerning Earth Science
 - Practice Concerning Educational Technology
(Include Computer Operating)
- 2) Study Tour
 - Typical Natures in Japan
(Volcano, Hot Spring, Stalactite grottos, etc.)
 - Educational Facilitie
(Science museum, Automobile Factory, etc.)

5. FACILITIES AND INSTITUTIONS

Hiroshima University

6. REMARKS

MEDICAL TREATMENT



TUBERCULOSIS CONTROL II 結核対策Ⅱ

1. PERIOD

June 11, 1990 to October 15, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eighteen (18)

3. QUALIFICATIONS

- 1) Medical officers who are engaged in the national tuberculosis control programme, preferably having, or going to have, a leading role in the programme, excluding those who are engaged in pure clinical work
- 2) A sufficient command of spoken and written English
- 3) Between 26 and 45 years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Statistics
 - Epidemiology
 - General concept of tuberculosis
 - Basic science of tuberculosis
 - Preventive measures in the tuberculosis control
 - Diagnostic measures in the tuberculosis control
 - Curative measures in the tuberculosis control
 - Tuberculosis control programme
 - Epidemiology and control of leprosy
 - WHO and its role in the tuberculosis control and research
 - Role of voluntary organizations and activities in the tuberculosis control programme
 - Primary Health Care
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association(JATA)

6. REMARKS

Japanese Language Course is arranged for two weeks

TUBERCULOSIS CONTROL FOR ADMINISTRATIVE MEDICAL OFFICERS

結核対策指導者

1. PERIOD

May 7, 1990 to June 25, 1990 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Medical officers who are or are planned to be, in charge tuberculosis control programme of a certain administrative level
- 2) A sufficient command of spoken and written English
- 3) Between 30 and 50 years of age

4. DESCRIPTION OF TRAINING

- 1) Lectures, seminars, group discussions and workshops:
 - Recent advances in TB control
 - Progress and problems in the participants' TB programmes
 - Simulation of TB epidemiology
 - Evaluation of TB programmes
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association (JATA)

6. REMARKS

No. 278

LABORATORY WORKS FOR TUBERCULOSIS CONTROL 結核対策細菌技術

1. PERIOD

September 20, 1990 to February 11, 1991 (4.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Either one of the following three items
 - a) Qualified technicians experienced over two years of laboratory works in bacteriology
 - b) Doctors with over one year of experience in laboratory works in bacteriology
 - c) Senior technicians with over five years of experience in laboratory works in tuberculosis bacteriology
- 2) Engaged in the training of health personnel in laboratory works for tuberculosis control, or those who will be engaged in that after returning from the training course
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Tuberculosis control programme
 - Role of laboratory works in tuberculosis control programme
 - Accuracy control of laboratory examinations
 - Laboratory data control
 - Present status and problems in the laboratory works in tuberculosis control programmes of participants' countries
 - Essential experiences as a leading bacteriologist on laboratory techniques and methods for tuberculosis control
 - Maintenance and manipulation of microscope and other laboratory equipments
 - Principles of planning and establishment of bacteriological laboratories at various conditions
 - Principles of training method of laboratory techniques
 - Modern techniques useful for bacteriological laboratories for tuberculosis control
 - Visits to laboratories and institutions
 - Organization of laboratory services
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association (JATA)

6. REMARKS

Japanese Language Course is arranged for three weeks.

1. PERIOD

September 3, 1990 to December 9, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Licenced physicians with occupational experience of more than 2 years in diagnosis and treatment of cancer
- 2) Under 35 years of age
- 3) Engaged in the same field after return to the country
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Outline of cancer control in Japan
 - Fundamental research on cancer
 - Clinical Pathology
 - Biochemistry and immunology
 - Endocrinology
 - Chemotherapy
 - Diagnosis and treatment of cancer
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

National Cancer Center

6. REMARKS

No. 280

**EARLY GASTRIC CANCER DETECTION AND RELATED
DIGESTIVE TUMORS II**

早期胃癌診断Ⅱ

1. PERIOD

January 14, 1991 to March 13, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eighteen (18)

3. QUALIFICATIONS

- 1) Graduates of a medical college or the medical department of a university
- 2) Practically experienced for more than 7 years, majoring in the diagnosis cancer, gastritis, ulcer and polyp of stomach and its adjacent region in the field of X-ray, endoscopy, biopsy, pathology or surgery
- 3) Under 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - General radiology
 - Endoscopy
 - Histopathology
 - Chemotherapy
 - Echography
 - Diagnosis of cancer of the liver
 - Diagnosis of cancer of the pancreas, gallbladder and case studies
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

Foundation for Detection of Early Gastric Carcinoma

6. REMARKS

No. 281

**BLOOD TRANSMITTED DISEASES (Special Reference to
AIDS, ATL & Hepatitis Infection)** 血液由来感染症

1. PERIOD

August 20, 1990 to September 29, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) have a license physician authorized by their government
- 2) to hold relatively senior position and be engaged in the field of BTD
- 3) be not more than 50 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

1) Lectures

a) AIDS & ATL

- Virology of HIV and HTLV-1
- Epidemiology of AIDS
- Clinical Features Diagnosis of AIDS
- Neurological Manifestation of AIDS
- Treatment of AIDS
- Pathology of ATL and AIDS
- Epidemiology of ATL
- Clinical Features and Diagnosis of ATL
- Skin Eruption of ATL
- Treatment of ATL
- HTLV-1 Associated Myelopathy (HAM)
- a. Infection of HTLV-1 by Blood Transfusion
- b. Maternal Transmission of HTLV-1 to Child
- a. ATL and Chromosome
- b. ATL and Alimentary Lesions
- Pulmonary Involvement in Human T-lymphotropic Virus Type 1 Infection

b) Hepatitis B and Hepatitis C

- Virology of Hepatitis
- Pathology of Viral Hepatitis
- Vaccine and Viral Hepatitis
- Viral Hepatitis
- Clinical Features of Hepatitis B
- Diagnosis of Hepatitis B
- Epidemiology and Control of Hepatitis B
- Treatment of Hepatitis B and C
- Hepatitis C

2) Special Lectures

- Communicable Disease Control Programme in the Area of International Cooperation
- Discovery of ATL
- AIDS in Japan and its Control

5. FACILITIES AND INSTITUTIONS

Kumamoto National Hospital

6. REMARKS

No. 282

**CLINICAL TRAINING FOR PATIENTS CARE
OF INFECTIOUS DISEASES** 感染症患者臨床研修

1. PERIOD

January 7, 1991 to March 30, 1991 (2.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) be licensed physicians authorized by their governments, and have clinical experience of more than three years,
- 2) have a sufficient command of spoken and written English,
- 3) be between 27 and 32 years of age,

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - National policy on infectious diseases control in Japan
 - Pharmaceutical administration
 - Vaccination System
 - General aspects of infectious diseases
 - Hospital-acquired infectious diseases
 - Disinfection, sterilization and aseptic procedure
 - Management of patients with infectious diseases
 - Aseptic care in the field of nursing
 - Diagnostic examination of infectious diseases
 - Bio-clean room
 - Tuberculosis and leprosy control in Japan
 - Antibiotics, anti-viral and anti-fungal agents
 - Blood-borne diseases
 - Hepatitis
 - Sexually transmitted diseases (STD)
 - Isolation of patients
- 2) Visit to other facilities

5. FACILITIES AND INSTITUTIONS

The National Medical Centre Hospital

6. REMARKS

No. 283

**MANAGEMENT OF REAGENTS & CULTURE MEDIA IN
DIAGNOSIS OF INFECTIOUS DISEASES** 感染症の試薬及び培地の確保と管理

1. PERIOD

November 5, 1990 to May 23, 1991 (6.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be a medical doctor or have a baccalaureate on Pharmacology, Agriculture, and Biology and at the same time, a manager of middle level or above. The work should be related to this training course.
- 2) have a sufficient command of spoken and written English
- 3) be in good health, both physically & mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.
- 4) be not more than 50 years old

4. DESCRIPTION OF TRAINING

- 1) Basic Lectures
 - Production of Antiserum, Antigen and Toxin (1) & (2)
 - Supply from Outside Countries of Serum, Antigen and Toxin
 - Quality Control of Antiserum, Antigen and Toxin (1) & (2)
 - Preparation and Control of Culture Media (1) & (2)
 - Safety Control of Microbiological Experiments
 - Production of Antiserums for Diagnosis
 - Delivery System of the Antiserum, Culture Media, and Other Reagents for Diagnosis
- 2) Special Lectures
 - Control of Infectious Diseases in the Developing Countries
 - Supply of Reagents for the Control of Infectious Diseases
- 3) Practice
 - Production of Antiserum for Laboratory Diagnosis
 - Isolation and Identification of Bacteria
 - Drug Sensitivity - Sensitivity Examination of Antibiotics
 - Virus and Others
- 4) Group Work, Group Discussion
- 5) Field Trips

5. FACILITIES AND INSTITUTIONS

- 1) Kumamoto National Hospital,
- 2) Kumamoto Prefectural Institute of Public Health,
- 3) Kumamoto University Medical School,
- 4) Chemo-Sero-Therapeutic Research Institute

6. REMARKS

1. PERIOD

April 5, 1990 to March 4, 1991 (11 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) Master's or doctor's degree or equivalent knowledge in microbial diseases, or ex-participants of the IICA Group Training Course in Microbial Diseases
- 2) Under forty-five (45) years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

The latest information and most advanced techniques in the field of Microbiology, Virology, Parasitology, Molecular Biology, Genetic Engineering, etc. will be provided through individual study, practical training, observation and study tours. This course is intended for senior researchers of microbial diseases who have experience of at least 5 years in their specialized field.

5. FACILITIES AND INSTITUTIONS

Research Institute for Microbial Diseases, Osaka University

6. REMARKS

No. 285

PEDIATRICS AND PEDIATRIC SURGERY 小児専門医療

1. PERIOD

February 18, 1991 to June 22, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Licensed physicians authorized by their government
- 2) Under 35 years of age, and have occupational experience of more than two years in pediatrics or pediatrics surgery
- 3) Engaged in the same field after return to their countries
- 4) A sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

1) Lectures

- a) General Pediatrics
- b) Pediatrics
- c) Pediatrics Surgery

(All participants are requested to have lectures on selected subjects in Pediatrics and Pediatrics Surgery irrespective of their own speciality.)

2) Clinical Training on Diagnosis and Treatment

- a) Basic Training
- b) Pediatrics
- c) Pediatrics Surgery

(All Participants are requested to select either Pediatrics or Pediatrics Surgery.)

5. FACILITIES AND INSTITUTIONS

National Children's Hospital

6. REMARKS

No. 286

SEMINAR ON POLIO ERADICATION, ITS THEORY AND PRACTICE

小児麻痺根絶計画の理論と実際

1. PERIOD

October 15, 1990 to November 30, 1990 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be responsible for the national polio eradication programme or a person of equivalent position
- 2) have a sufficient command of spoken and written English
- 3) be in good health, both physically and mentally, to undergo the training. Pregnancy is regarded as a disqualifying condition for participation in the training.
- 4) be not more than 50 years old

4. DESCRIPTION OF TRAINING

- 1) Basic Lectures
 - Virology, Epidemiology, Pathology, Diagnosis and Clinical Features of Poliomyelitis
 - Quality Control of Polio Vaccine
 - Practice, Record and Analysis of Surveillance and its Feedback
- 2) Special Lectures
- 3) Symposium on Factors of Success in Polio Eradication Programme
- 4) Programme Management
 - Surveillance for Poliomyelitis Eradication
 - Polio Eradication Information Systems and Evaluation
 - Polio Eradication Programme and EPI in Brazil
- 5) Case Study
 - Analysis of History of the Past Eradication Programmes
 - Elements Needed for the Success of Polio Eradication Programme
- 6) Simulation of Field Action, Management of Field Programme
- 7) Field Trips
 - The Chemo-Sero Therapeutic Research Institute, Kumamoto
 - Japan Poliomyelitis Research Institute, Tokyo
 - National Institute of Health, Tokyo
 - Institute for Virus Research, Kyoto Univ.
 - Research Institute for Microbial Diseases, Osaka Univ.

5. FACILITIES AND INSTITUTIONS

- 1) Education and Training Institute,
- 2) Kumamoto Hospital,
- 3) Kumamoto University Medical School,
- 4) Chemo-Sero-Therapeutic Research Institute,
- 5) Department of Public Health and Hygiene,
- 6) Kumamoto Prefectural Government

6. REMARKS

1. PERIOD

March 11, 1991 to June 11, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

Applicants should:

- 1) be medical doctor or have a doctorate in medical science and also be planning to organize neonatal or infantile screening
- 2) have a sufficient command of both spoken and written English
- 3) be under 40 years of age (in principle)
- 4) be in good health, both physically and mentally, to pursue the study. Pregnancy is regarded as disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - General remarks
 - Diagnosis and treatment
 - Testing methods
 - Quality control and quality assurance
 - Data processing by micro-computer
- 2) Practice
 - Inborn errors of metabolism
(phenyl ketonuria, homocystinuria, maple syrup urine disease, galactosemia)
 - Congenital hypothyroidism and congenital adrenal hyperplasia
 - Neuroblastoma
- 3) Observations
 - Hokkaido University, Sapporo Medical College and National Sapporo Hospital in which diagnosis and treatment are conducted
 - Another screening centers in Japan

5. FACILITIES AND INSTITUTIONS

Sapporo City Institute of Public Health

6. REMARKS

No. 288

CLINICAL DENTISTRY 歯科技術

1. PERIOD

May 7, 1990 to July 23, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be dentists who have three years' professional or academic experience or more in the field of academic institution, health administration or practice.
- 2) be presently engaged or expected to be working on their return in this line.
- 3) be not more than 40 years old.
- 4) have a sufficient command of spoken and written English.

4. DESCRIPTION OF TRAINING

- 1) Dental Care Delivery System and Dental Public Health Service in Japan.
- 2) Dental Care for Children and Adolescent
- 3) Dental Caries
- 4) Periodontal Disease
- 5) Prosthetics
- 6) TMJ Arthrosis
- 7) Oral Cancer
- 8) Cleft Lip and Palate
- 9) Dental Materials and Clinical Practices in the Up To-Date Dental Medicine
- 10) Advancement in Basic Dentistry
- 11) Presentation of Out-come Acquired by Each Participant through the Course

5. FACILITIES AND INSTITUTIONS

Faculty of Dentistry, Kyushu University

6. REMARKS

1. PERIOD

January 10, 1991 to July 25, 1991 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) University or college graduates or equivalent
- 2) Experience of more than 2 years in radiography at medical organizations with fundamental knowledge of physiology
- 3) Under 35 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Fundamental theories in radiography
 - Radiation physics
 - Photographic chemistry
 - Medical X-ray engineering
 - Radiation control and radiation measurement
 - Radiography technique
 - Radiation picture
 - Computer
 - Radiation diagnosis
- 2) Clinical practice on radiography
- 3) Observations
- 4) Study trips

5. FACILITIES AND INSTITUTIONS

- 1) College of Biomedical Technology, Osaka University
- 2) Osaka University Hospital

6. REMARKS

1. PERIOD

October 25, 1990 to February 17, 1991 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20)

3. QUALIFICATIONS

- 1) University graduates or equivalent,
- 2) Occupational experience of more than 5 years in their profession,
- 3) Be presently engaged in practices of clinical laboratory and radiology,
- 4) Under forty (40) years of age,
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Japanese language
- 2) Joint Training
 - Introduction to medical science
 - Introduction to the team care system
 - Medical humanities
 - Quality control
- 3) Training Curriculum for Clinical Laboratory Technology Course
 - Basic study and technology of bacterial testing
 - Isolating method of pathogenic materials
 - Susceptible testing methods
 - Technology of parasitological testing
 - Technology of hygienic control and biosafety
 Training Curriculum for Medical Imaging Technology Course
 - Latest information on clinical imaging
 - Quality control of clinical images
 - Evaluation method of analogue imaging
 - Latest clinical imaging equipment
 - Radiology management
- 4) Clinical practice
- 5) Maintenance and management of Diagnostic Equipment
- 6) Observation and study tours

5. FACILITIES AND INSTITUTIONS

- 1) Japan International Medical Technology Foundation
- 2) The Japan Association of Radiological Technologists Education Centre
- 3) Japan Association of Medical Technologists
- 4) National Institute of Health

6. REMARKS

1. PERIOD

January 15, 1991 to March 3, 1991 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) be presently engaged in hospital administration
- 2) be University graduates or have the equivalent academic background
- 3) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lecture and Workshop
 - Hospital Administration
 - Personnel and Labour management
 - Medical Administration
 - Facilities Administration
 - Pharmacies Administration
 - Medical Evaluation
 - Nuese Administration
- 2) Observation

5. FACILITIES AND INSTITUTIONS

National Institute of Hospital Administration

6. REMARKS

No. 292

FOOD MICROBIAL CONTROL 食品微生物検査技術

1. PERIOD

January 7, 1991 to May 27, 1991 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than 3 years in the field of food microbial control.
- 2) Under forty (40) years of age.
- 3) Good working knowledge of English.

4. DESCRIPTION OF TRAINING

- 1) Discussion on country report, programme orientation and evaluation meeting
- 2) Lectures
 - Government organization and law concerned with food sanitation
 - Contamination of Food
 - Washing, sterilizing and disinfection
 - Sanitary testing for food
 - Bacteriological examination
- 3) Practice
 - Measuring of colon bacillus
 - Measuring of mold and yeast fungus
 - Preparation of medium
 - Bacteriological examination for food poisoning
- 4) Observation of private and public facilities related to food microbial control
- 5) Study Tours

5. FACILITIES AND INSTITUTIONS

- 1) Hyogo International Centre, JICA
- 2) Kobe Women's College of Pharmacy
- 3) Public Health Research Institute of Kobe
- 4) Kobe Quarantine Station

6. REMARKS

No. 293

IMPORT AND EXPORT FOOD INSPECTION 輸出入食品検査技術

1. PERIOD

August 13, 1990 to December 7, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than 3 years in the field of import and export food inspection.
- 2) Under forty (40) years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Discussion on Country Report, Programme Orientation, Evaluation Meeting and Closing Ceremony, etc.
- 2) Lectures
 - Present situation of import and export food
 - Food Sanitation Law
 - Inspection system for import and export food
 - Inspection system in domestic market
 - Rejected cases of import and export food
 - Food ingredient and its testing method
- 3) Practice
 - Chemical and bacteriological testing of import and export foods mentioned below by official method
 - Marine products
 - Canned food
 - Confectionary
 - Vegetables
 - Packaging material
 - Others
- 4) Observation of private and public facilities related to food inspection in and around Kobe
- 5) Study Tours

5. FACILITIES AND INSTITUTIONS

- 1) Hyogo International Centre (HIC), JICA
- 2) National Institute of Hygienic Sciences (Osaka), Ministry of Health and Welfare
- 3) Kobe Quarantine Station

6. REMARKS

No. 294

MYCOTOXIN INSPECTION IN FOOD

輸出入食品マイコトキシン検査

1. PERIOD

February 22, 1991 to May 27, 1991 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

Applicants should:

- 1) be presently engaged in research work and have more than four (4) years of occupational experience in this field,
- 2) be university graduates or have the equivalent academic background.
- 3) have a sufficient command of spoken and written English,
- 4) be no less than thirty (30), and not more than forty (40) years of age.

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Food Sanitation
 - Laws and regulations on mycotoxin control
 - Inspection of mycotoxin
 - Isolation and analysis of mycotoxin
- 2) Experiment and practice
 - Inspection of fungi
 - Analysis and quantitative method of mycotoxin
 - Analysis of aflatoxin
 - Analysis of fusarium mycotoxin
 - Analysis of other mycotoxin
- 3) Observation tour
 - Mycotoxin control in food processing plant

5. FACILITIES AND INSTITUTIONS

- 1) Public Health Research Institute of Kobe
- 2) Kobe Women's College of Pharmacy
- 3) Osaka Prefectural Institute of Public Health

6. REMARKS

No. 295

PARASITE CONTROL ADMINISTRATION FOR SENIOR OFFICERS (SEMINAR)

寄生虫予防指導者セミナー

1. PERIOD

January 21, 1991 to February 22, 1991 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Senior Level Administrators or Experts in Government or Private Sector in Charge of Parasite Control
- 2) Medical or Other Related Professions
- 3) Under 55 years of age
- 4) Working Knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Presentation and Discussion
 - National Parasite Control Programme in Japan
 - Parasite Control Activities by Voluntary Organization
- 2) Country Presentation and Discussion
- 3) Presentation on the Epidemiological Aspect of Parasite Control
- 4) Demonstration of the Examination Method for Mass Examination and Treatment
- 5) Field Trip

5. FACILITIES AND INSTITUTIONS

Japan Association of Parasite Control

6. REMARKS

No. 296

NURSING ADMINISTRATION 看護管理

1. PERIOD

June 25, 1990 to December 22, 1990 (6 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) Completed JICA Training Course in "Specialized Nursing" from 1986 to 1987, or "Advanced Nursing Study Course for Southeast Asian Nurses" from 1973 to 1987.
- 2) Presently engaged in nursing administration or expected to engage in future.
- 3) A sufficient Command of spoken and written English and Japanese.

4. DESCRIPTION OF TRAINING

- 1) Japanese Language
- 2) Lectures
 - Health and welfare administration
 - Nursing administration in Japan
 - Basic knowledge of administration
 - Development of creativity and nursing service administration
 - Hospital administration
 - Principles of nursing administration
 - Personnel management
 - Nursing service management
 - Management of in-service education
- 3) Practical Training
 - Hospital administration
 - Nursing administration
- 4) Study Tours

5. FACILITIES AND INSTITUTIONS

The International Nursing Foundation of Japan (INFJ)

6. REMARKS

The course is conducted every other year.

SPECIALIZED NURSING 専門看護

1. PERIOD

September 24, 1990 to July 23, 1991 (10 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

Applicants should:

- 1) be completed the fundamental nursing education programme of three years or more
- 2) have an experience in nursing practice for five (5) years or more and desirably have experienced, at least for one year, in the field of the specialized nursing which the participant is to apply for,
- 3) be under thirty-five (35) years of age
- 4) have a sufficient command of spoken and written English
- 5) be in good health, both physically and mentally, to undergo the training course, Pregnancy is regarded as a disqualifying condition for participation in the course

4. DESCRIPTION OF TRAINING

The purpose of the course is to offer promising nurses in the developing countries an opportunity to acquire advanced knowledge & technology of specialized nursing (ICC/CCU, Public Health Nursing) through lectures & field studies (on the job training) so as to enhance the quality of nurses and eventually to contribute to needs in the area of human resource development of the respective country.

5. FACILITIES AND INSTITUTIONS

The International Nursing Foundation of Japan

6. REMARKS

Japanese Language Course is arranged for three months.

1. PERIOD

August 23, 1990 to March 25, 1991 (7 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) Certified staff nurses who have more than five (5) years of experience
- 2) Staff nurse (head nurses and chief nurses are not applicable)
- 3) Not over forty (40) years of age
- 4) A sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

1) Common Programmes

- Japanese Language (2 months)
- General Orientation
- Emergency Nursing
- Nursing Care at Admission
- Observation (Tour)

2) Specialized Sub-Course Programmes

Applicants are requested to select one sub-course from four sub-courses below:

a) Emergency Nursing Training

- Surgical Ward (Including OPD)
- ICU
- CCU
- Neurosurgery
- Emergency Room

b) Internal Medicine Nursing Training

- Cardiovascular System
- Digestive System
- Respiratory System
- ICU
- Medical Ward (Including OPD)

c) Surgical Nursing Training

- Neurosurgery
- Orthopedics
- Operating Room
- ICU
- Surgical Ward (Including OPD)

d) Maternal and Child Nursing Training

- Obstetrics (Including NB)
- Pediatric
- NICU
- OPD

5. FACILITIES AND INSTITUTIONS

- 1) Okinawa Prefectural Chubu Hospital
- 2) Okinawa International Centre (OIC), JICA

6. REMARKS

1. PERIOD

August 16, 1990 to December 16, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7)

3. QUALIFICATIONS

- 1) Lincensed physicians authorized by their governments
- 2) Under 35 years of age
- 3) Professional experience of more than 2 years in diagnosis and treatment of cardiovascular diseases
- 4) To be engaged in the same field after return to their countries
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- Lectures
- Discussions
- Observations
- Practices of laboratory examinations in each department or division
- Study tours

The participants will choose a department or division according to their interests and specialities to do studies on diagnosis and treatment in the respective department or division.

5. FACILITIES AND INSTITUTIONS

The National Cardiovascular Center, Ministry of Health and Welfare

6. REMARKS

No. 300

GASTROINTESTINAL PATHOLOGY 消化管病理学

1. PERIOD

August 27, 1990 to November 19, 1990 (3 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Established pathologist
- 2) University graduate or the equivalent academic background
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

This course consists of

- | | |
|------------------------|---------|
| 1) General Orientation | 1 week |
| 2) Group Training | 5 weeks |
| 3) Individual Training | 4 weeks |
| 4) Observation Tour | 1 week |
| 5) Others | 1 week |

The following major subject will be covered in the course

- 1) Pathology of the stomach diseases and biopsy diagnosis
- 2) Pathology of the esophagus diseases and biopsy diagnosis
- 3) Pathology of the large bowel diseases and biopsy diagnosis
- 4) Pathology of the duodenum diseases and biopsy diagnosis
- 5) Pathology of the liver biopsy
- 6) Other Items
- 7) Individual Training on selected subjects

5. FACILITIES AND INSTITUTIONS

- 1) Institute of Basic Medical Sciences, The University of Tsukuba
- 2) Tsukuba International Centre, JICA

6. REMARKS

No. 301

NATIONAL HEALTH ADMINISTRATION SEMINAR

衛生行政セミナー

1. PERIOD

September 1, 1990 to September 30, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Fourteen (14)

3. QUALIFICATIONS

- 1) Medically qualified top ranking administrators of the national government in charge of health administration, or the equivalents in public institutions
- 2) *In a position to participate in planning and deciding the national health administration policy*
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture & Discussion
 - Health policy & Planning
 - *Health Resources Development Management*
 - Community Health
 - Infectious Diseases Control
 - Environmental Health & Hygienes
 - International Collaboration
- 2) Observation Tours
 - Observe the actual health services in the community

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Ministry of Health and Welfare
- 3) International Medical Foundation of Japan

1. PERIOD

June 21, 1990 to February 25, 1991 (8 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) University graduates or equivalent with occupational experience of more than three years
- 2) Presently engaged in research work as a laboratory technologist in the field of public health
- 3) Under forty (40) years of age
- 4) Sufficient command of both spoken and written English

4. DESCRIPTION OF TRAINING

- 1) General Orientation
- 2) Intensive Japanese Language
- 3) Group Training Programme
 - Programme Orientation
 - General Introduction of Okinawa
 - Study Tour
- 4) Individual Training Programme
 - (1) Air Pollution
 - ① Chemical and Instrumental Analysis of Air Pollution
 - ② Odor
 - ③ Noise and Vibration
 - ④ Analysis of Asbestos, Heavy Metals, Radioactivity, Smoke, Dust and Acid Rain
 - ⑤ General Information on Air Pollution
 - (2) Water Pollution
 - ① Water Pollution Control Measures
 - ② Sampling
 - ③ Analysis of Water and Bed Quality
 - ④ Observation of
 - Drainage
 - Sewerage
 - and Excreta Treatment Facilities systems
 - (3) Food Chemistry
 - ① Analysis of Food Additives
 - ② Determination of Metals in Food
 - ③ Test of Drinking Water
 - ④ Analysis of Pesticide Residues in Food
 - ⑤ Determination of Rancid Food Poisons
 - ⑥ Others
 - (4) Infectious Diseases
 - ① Diagnostic Procedures for Bacterial Infections
Isolation Identification and Serological Tests of Enterobacteria, Vibrios, Leptospira and others
 - ② Diagnostic Procedures for Viral Infections
Isolation and Serological Examination of Arboviruses, Enteroviruses, Myxoviruses and others
 - (5) Medical Entomology and Parasitology
 - ① Classification, Identification, Ecological Observation, and Control of Flies, Mosquitoes, Fleas, Lice, Ticks, Cockroaches, Rats and Mice
 - ② Laboratory Examination and Epidemiological Investigation of Malaria, Filariasis, in Testinal Parasite and Zoonosis
 - (6) Snake Venom and Antivenom
 - ① Fractionation of Snake Venom
 - ② Experimental Production of Snake Antivenom
 - Immunization of Animals
 - Purification of Antibody
 - ③ Assay of Snake Antivenom
 - Titration of Antilethal Units
 - Titration of Antihemorrhagic Units
 - Titration of Antiswelling Units
 - (7) Venomous Snake Control
 - ① Approach to Snake Bite As One of The Public Health Problems
 - ② Epidemiology of Snake Bites
 - ③ Ecological Survey of Venomous Snakes
 - ④ Biological Studies of Snakes
 - ⑤ Reading and Handling Snakes

5. FACILITIES AND INSTITUTIONS

- 1) Okinawa Prefectural Institute of Public Health
- 2) Okinawa International Centre (OIC), JICA

6. REMARKS

Applicants are requested to select desired subject from the training subjects mentioned below and fill in first and second choice subject in the A-3 Form

- | | |
|------------------------|--|
| 1) Air Pollution | 5) Medical Entomology and Parasitology |
| 2) Water Pollution | 6) Snake Venom and Antivenom |
| 3) Food Chemistry | 7) Venomous Snake Control |
| 4) Infectious Diseases | |

No. 303

**SEMINAR ON HUMAN RESOURCES DEVELOPMENT IN PUBLIC
HEALTH**

公衆衛生教育

1. PERIOD

January 15, 1991 to February 2, 1991 (19 days)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) Either one of the following items
 - Director or dean of school of public health
 - Chief of the educational courses/programs at school of public health
 - Governmental officials who have responsibility for human resources development in public health
- 2) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and studies
 - Modern history of public health in Japan
 - Public health personnels in health administration systems in Japan
 - Human resources development in public health and the role of the Institute of Public Health in Japan
 - Human resources development and institutional capacity building for safety water supply (special topic)
 - International cooperation for appropriate technology transfer and human resources development
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

The Institute of Public Health, Ministry of Health and Welfare

6. REMARKS

Participants will be required to submit the country-report on the special topic mentioned above in advance.

No. 304

OCCUPATIONAL HEALTH 産業医学

1. PERIOD

August 6, 1990 to December 9, 1990 (4 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be physicians or university graduates with more than 3 years' professional or academic experience
- 2) be presently engaged or expected to be working on their return in this line
- 3) be under 40 years old
- 4) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures for Occupational Health
 - the General Principles of Occupational and Environmental Health
 - Occupational Epidemiology and Biostatistics
 - Occupational Health in Agriculture
 - Occupational Diseases
 - Occupational Disorders due to Physical Factors
 - Occupational Toxicology
 - Work Physiology and Psychology
 - Ergonomics and Management
 - Evaluation of Work Environment
 - Control of Work Environment
 - Occupational Safety and Health Administration and Law
 - Occupational Health Services
- 2) Biostatistics and Data Management with Computer Course
- 3) Two Weeks Elective Seminar Course
 - Some participants will be assigned to the special course on pneumoconiosis at the Rosai Hospital for Silicosis or assigned to departments in the UOEH according to their interests
- 4) Country Report Presentation
- 5) Observation Tours

5. FACILITIES AND INSTITUTIONS

- 1) University of Occupational and Environmental Health, Japan
- 2) Keihai Rosai Hospital

6. REMARKS

1. PERIOD

January 21, 1991 to September 30, 1991 (8.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5)

3. QUALIFICATIONS

- 1) be Medical Doctors or graduates from a faculty of biology, pharmacy or agriculture, or equivalent with more than 3 years of occupational experience in medical field.
- 2) be more than 24 years old and under 40 years old
- 3) have a sufficient command of spoken and written English
- 4) be presently engaged either in the Ministry of Health or medical research laboratory

4. DESCRIPTION OF TRAINING

The course recommends an applicant to receive an intensive research training in a given department of the institute. Each department offers some conceivable research subjects on interest to the applicant. The applicants are allowed a free choice in the research subjects.

Although the training course includes the lectures, the majority of the course consists of the experimental basic research works under the guidance of the members of the institute.

The research subjects which are offered in 1990 by each department are as follows. The following subjects will be available in the course.

Pathology, Epidemiology, Parasitology, Virology, Bacteriology, Internal Medicine.

5. FACILITIES AND INSTITUTIONS

Institute for Tropical Medicine, Nagasaki University

6. REMARKS

No. 306

BIOLOGICAL PRODUCTS TECHNOLOGY 生物製劑技術

1. PERIOD

April 12, 1990 to March 11, 1991 (11 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6)

3. QUALIFICATIONS

- 1) College or university graduates or equivalent
- 2) Occupational experience of more than 3 years in developing and manufacturing biological products
- 3) under thirty-five (35) years of age
- 4) to be engaged in the same field after return to home countries
- 5) A good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures on vaccine manufacture and quality control in general
- 2) Individual study including practical training in manufacture of a specified vaccine chosen by each participant
- 3) Observations and study tours

5. FACILITIES AND INSTITUTIONS

The Research Foundation for Microbial Diseases of Osaka University

Kan-onji Institute, The Research Foundation for Microbial Diseases of Osaka University

6. REMARKS

No. 307

MAINTENANCE ENGINEERING FOR MEDICAL EQUIPMENT

医療機器保守管理技術

1. PERIOD

August 20, 1990 to September 24, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) University of electrical and electronic technology graduates or have the equivalent academic background
- 2) Have a personal experience of maintenance on X-ray equipment
- 3) Have thorough knowledge of two-pulse X-ray generation and combined radiographic devices
- 4) Under forty (40) years of age
- 5) Have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) *Lecture and Practice*
 - Normal operation of conventional diagnostic X-ray apparatus
 - Routine maintenance of diagnostic X-ray apparatus
 - Troubleshooting and repairing of diagnostic X-ray apparatus
- 2) Observation tour

5. FACILITIES AND INSTITUTIONS

Japan Association for the Advancement of Medical Equipments

6. REMARKS

No. 308

SEMINAR ON EMERGENCY/DISASTER MEDICINE (Seminar)

救急・大災害医療セミナー

1. PERIOD

November 5, 1990 to November 19, 1990 (0.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Executive doctor or administrator engaged in measures for emergency/disaster medicine and taking leadership in emergency medical institutions or medical administrative organizations
- 2) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Participation in the 18th annual meeting of the Japanese Association for Acute Medicine
- 2) Lectures, observations and discussions
 - The emergency medical service system in Japan
 - Japan Red Cross Medical Center
 - Suita City Health Center
 - Suita Municipal Hospital
 - Osaka Prefectural Senri Critical Care Medical Center
 - Department of Traumatology, Osaka University
 - Nippon Poison Information Center
 - Osaka Municipal Fire Department
 - Sakurai Hospital

5. FACILITIES AND INSTITUTIONS

- 1) JICA
- 2) Japanese Association for Acute Medicine

6. REMARKS

1. PERIOD

January 14, 1991 to April 29, 1991 (3.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) be a pharmacist or medical doctor or university graduate of pharmacy, medicine or veterinary
- 2) be a manager of middle level or above in this field, or be those who are to be appointed as the manager of evaluation of drug efficacy, or supporting advisor
- 3) have a sufficient command of English
- 4) be 45 years old or less

4. DESCRIPTION OF TRAINING

- 1) Evaluation of Traditional Medicine
 - Examination for Effective Substance
 - Separation and Analysis of Effective Substance
- 2) Development of New Drugs
 - Screening test (Pharmacological and Toxicological studies)
 - Mechanism of actions
- 3) Drug Disposition and Pharmacokinetic Analysis
 - Drug Interaction
 - Drug Disposition in Disease State
- 4) Dosage Forms and Administration
 - Improvement of Pharmaceutical properties
 - Design and Evaluation of Advanced Dosage Forms
- 5) Hospital Pharmacy
 - Drug Information (Clinical Effects and Adverse Reactions)
 - Clinical Pharmacokinetics
- 6) Simulation of Field Action, Management of Field Programme
- 7) Field Trips
 - National Institute of Health, Tokyo
 - Taisho Pharmaceutical Co. Ltd., Tokyo
 - Takeda Chemical Industries, Osaka
 - The Chemo-Sero Therapeutic Research Institute, Kumamoto
 - Panapharm Laboratories, Kumamoto

5. FACILITIES AND INSTITUTIONS

- 1) Education and Training Institute, Kumamoto Hospital
- 2) Faculty of Pharmaceutical Sciences, Kumamoto University,
- 3) Kumamoto University Medical School,
- 4) Kumamoto Prefectural Government

6. REMARKS

No. 310

COMMUNITY HEALTH SERVICES

地域保健指導者

1. PERIOD

March 25, 1991 to December 20, 1991 (9 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) have practical experiences of more than 3 years in health and hygiene work
- 2) be between 30 and 40 years old
- 3) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practical Training
 - Health and Medical Care System
 - Emergency Medical Care
 - Data Processing Methods for Health Insurance Medical Care
 - Analysis of Disease Incidence
 - Screening of Diseases (Early Detection and Treatment)
 - Measures for Infectious Diseases
 - Measures for Health Promotion
 - Rehabilitation
 - Planning for Improvement of Health in Communities
 - Methods of Developing Educational Media
- 2) Study Trip
- 3) Japanese Language (2 months)

5. FACILITIES AND INSTITUTIONS

St. Mary's Junior College, Kyushu Industrial Health Association, St. Mary's Hospital.

6. REMARKS

No. 311

**SEMINAR ON THE CONTROL OF HEALTH HAZARDS IN THE
MODERNIZING PROCESS OF AGRICULTURE AND RURAL AREA**

農村近代化過程の健康障害対策セミナー

1. PERIOD

January 21, 1991 to March 25, 1991 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be a medical doctor or a co-medical staff and, at the same time, a manager of middle level or above in the office or in the field with more than 5 years experiences. The work should be related to this training course.
- 2) be not more than 50 years old
- 3) have a sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

- 1) Basic Lectures and Practice
 - Modernization and Public Health in Rural Area
 - Importance of Health Policies and Primary Health Care in Rural Area
 - Problems on Agricultural Chemicals
 - Health Problems in the Modernizing Process of Agriculture and Forestry
 - Health Problems in Rural Area
- 2) Group Study and Discussion
- 3) Study Trip

5. FACILITIES AND INSTITUTIONS

- 1) *Foundation for Development of International Health*
- 2) Kumamoto University

6. REMARKS

No. 312

**FAMILY PLANNING ADMINISTRATION FOR
SENIOR OFFICERS (SEMINAR)** 家族計画指導者セミナー

1. PERIOD

August 20, 1990 to September 16, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) be responsible high-ranking officials in administration, planning and implementation of the field programmes of governmental organizations or private/voluntary organizations for family planning,
- 2) have a sufficient command of spoken and written English,
- 3) be between twenty-five (25) and fifty (50) years of age

4. DESCRIPTION OF TRAINING

- 1) Orientation and General Outline of Japanese Population/MCH/Family Planning
 - Population and family planning
 - Governmental MCH/family planning programme
 - Non-governmental family planning programme
 - Concept of family planning and strategies
 - Community organization
- 2) Presentation of Country Report
- 3) Field Observation
 - Prefectural governmental office
 - Prefectural health center
 - Municipal office
 - Community organizations
 - Hospital/institution
 - Primary school
- 4) Summing-up Session

5. FACILITIES AND INSTITUTIONS

Japan Organization for International Cooperation in Family Planning, Inc (JOICFP)

6. REMARKS

No. 313

COMMUNITY-BASED FAMILY PLANNING STRATEGY (SEMINAR)

家族計画組織活動セミナー

1. PERIOD

May 7, 1990 to June 10, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) Officers who are directly involved and responsible for community-based family planning programmes including Information, Education and Communication (IEC) activities of government or voluntary organizations at the central or provincial level.
- 2) Between 25 and 50 years of age
- 3) With sufficient command of spoken and written English

4. DESCRIPTION OF TRAINING

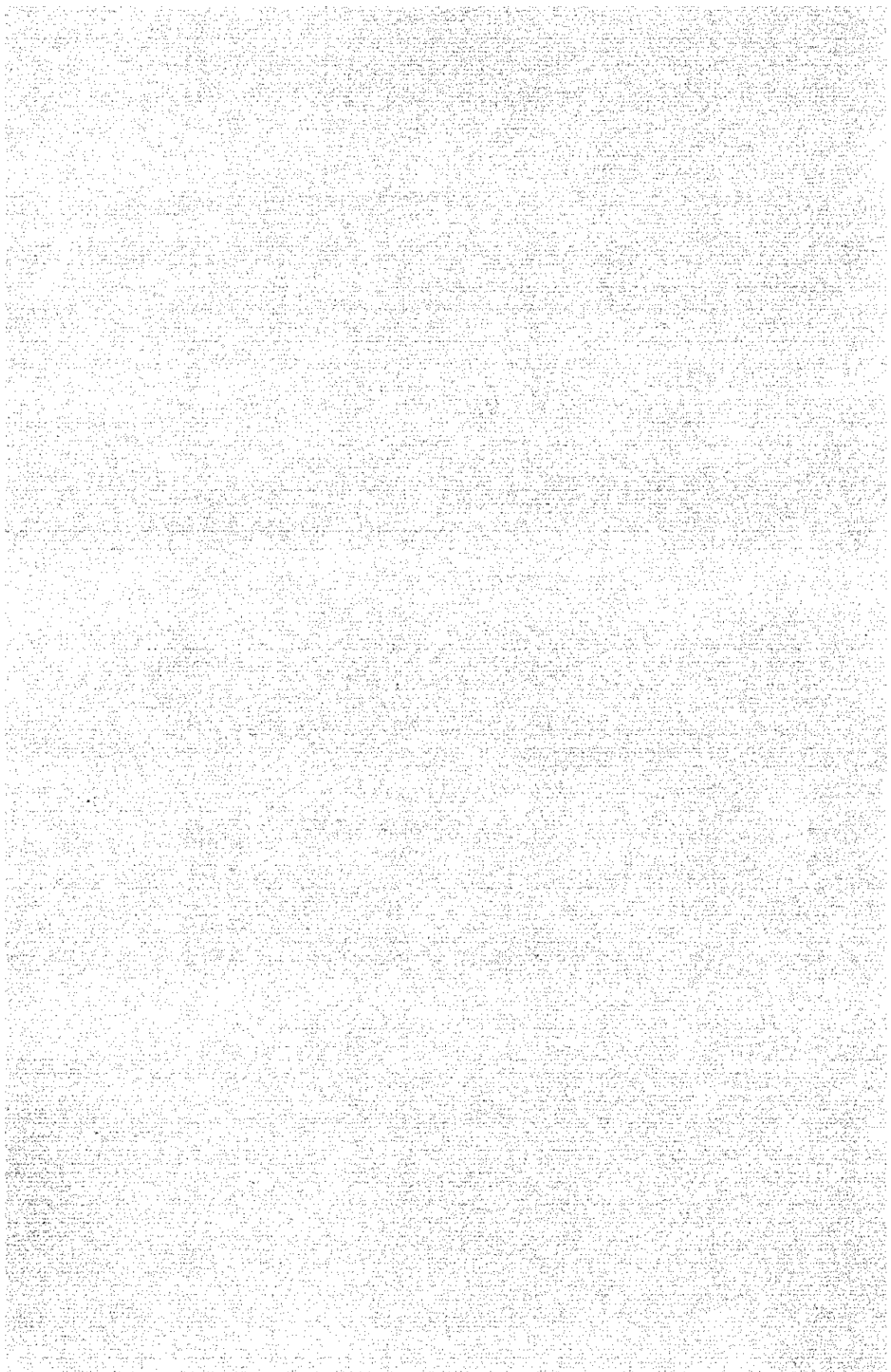
- 1) Presentation and discussions
 - Mother and Child Health / family planning
 - IEC strategies
- 2) Field study

5. FACILITIES AND INSTITUTIONS

Japanese Organization for International Cooperation in Family Planning, Inc. (JOICFP)

6. REMARKS

WELFARE



No. 314

MENTAL RETARDATION 精神薄弱福祉

1. PERIOD

June 11, 1990 to December 21, 1990 (6.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Japanese Language
- 2) General Overview
 - General Comments
 - Specific Topics including Observation
- 3) Practice
 - General Practicum
 - Special Practicum
 - Study Tour

4. DESCRIPTION OF TRAINING

- 1) Lectures and Practical training
 - Various subjects involved in this field
- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

Japan League for the Mentally Retarded (JLMR)

6. REMARKS

Japanese Language Course will be arranged for about two months prior to the course.

No. 315

PROSTHETIC AND ORTHOTIC TECHNICIANS 補装具製作技術

1. PERIOD

July 23, 1990 to December 12, 1990 (5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Four (4)

3. QUALIFICATIONS

- 1) Five years or more practical experience in the production of prosthetic and orthotic devices
- 2) Be expected to become leaders in this field
- 3) Have not studied a similar subject abroad before
- 4) *A sufficient command of spoken and written English or Japanese*

4. DESCRIPTION OF TRAINING

- 1) **Lectures**
 - a. Basic Medicine
 - b. Introduction of Prosthetics and orthotics
 - c. Functional Anatomy
 - d. Disability and Indication of Prostheses and orthoses
 - e. Materials
- 2) **Practical training**
 - a. B/K Prosthesis
 - b. A/K Prosthesis
 - c. Upper Extremity Prosthesis
 - d. Upper and Lower Orthosis
- 3) **Study Tour**

5. FACILITIES AND INSTITUTIONS

- 1) National Rehabilitation Center for the Disabled
- 2) Hachioji International Training Center, JICA

6. REMARKS

There will be an intensive Japanese language course, conducted prior to the technical training (1 month, 100 hours).

No. 316

REHABILITATION OF PHYSICALLY DISABLED PERSONS

障害者リハビリテーション指導者

1. PERIOD

September 3, 1990 to October 21, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be a rehabilitation expert with experience of more than three years, such as social worker, rehabilitation counselor, therapist, vocational skill instructor, teacher, workshop manager, and trainer in other fields of rehabilitation for physically disabled persons (except medical doctors and nurses),
- 2) have a sufficient command of spoken and written English,
- 3) be not less than twenty-five (25), and not more than forty (40) of age,
- 4) be in good health to undergo the course of training. Applicants with disabilities must be independent in activities of daily living and in moving. (No attendant available.) Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Medical and Vocational Rehabilitation Services
 - Services for Disabled Persons Provided by Local Government
 - General School System and Special Education
 - Other Programmes
- 2) Individualized Training
 - Management of Sheltered Workshops
 - Rehabilitation Social Work
- 3) Observation Tour
 - Services of Prefectural Government
 - The Sports Meeting of Disabled Persons

5. FACILITIES AND INSTITUTIONS

Japanese Society for Rehabilitation of the Disabled

6. REMARKS

No. 317

LEADERSHIP OF PHYSICALLY DISABLED PERSONS

障害者リハビリテーション指導者（身体障害者コース）

1. PERIOD

September 24, 1990 to November 11, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10)

3. QUALIFICATIONS

- 1) be a physically disabled person who has been leader of organization of disabled persons or groups with experience of more than three years,
- 2) have a sufficient command of spoken and written English,
- 3) be not less than twenty-five (25), and not more than forty (40) of age,
- 4) be in good health to undergo the course of training. Applicants with disabilities must be independent in activities of daily living and in moving. (No attendant available.) Pregnancy is regarded as a disqualifying condition for participation in the course.

4. DESCRIPTION OF TRAINING

- 1) Lecture
 - Present situation of disabled persons in Japan
 - Service provided for the disabled in Japan
 - Disabled persons Movement
- 2) Individualized Training
 - Disabled person's organizations
 - Independent living activities
 - Disabled person's workshops.
- 3) Observation Tour
 - Disabled person's activities in local cities
 - The Sports Meeting of Disabled Persons

5. FACILITIES AND INSTITUTIONS

Japanese Society for Rehabilitation of the Disabled

6. REMARKS

No. 318

SPORTS INSTRUCTOR OF PHYSICALLY DISABLED PERSONS

身障者スポーツ指導者

1. PERIOD

October 22, 1990 to December 13, 1990 (1.5 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12)

3. QUALIFICATIONS

- 1) be a workshop manager or a rehabilitation expert with more than three years experience such as a social worker, therapist, trainer in the field of sports or rehabilitation for the physically disabled (except medical doctors and nurses). Special school teachers and the leading disabled athletes are applicable.
- 2) have a sufficient command of spoken and written English or Japanese
- 3) be not less than twenty-five and not more than forty years of age.

4. DESCRIPTION OF TRAINING

- 1) Social welfare and Rehabilitation System in Japan
Lectures and Study Visits
- 2) Sports for the disabled
Lectures, Practicums and Study Visits
- 3) Discussions

5. FACILITIES AND INSTITUTIONS

Japanese Sports Association for the Disabled

6. REMARKS

No. 319

**PUBLIC ADMINISTRATION OFFICERS ON WOMEN'S
AFFAIRS (SEMINAR) II**

婦人関係行政セミナー II

1. PERIOD

September 3, 1990 to October 20, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Female
- 2) University graduates or equivalent
- 3) Presently engaged in public administration in women's problems with priority given to working women's problems at the governmental organization
- 4) Occupational experience of more than 5 years
- 5) Between 20 and 40 years of age
- 6) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Labor administration in Japan
 - Working women in Japan
 - Improvement of the status of women
 - Measures for working women's welfare
 - Maternal and child welfare
 - Improvement of living standards of households engaged in agriculture, forestry and fisheries
 - Women's education in Japan
 - The status of women in Family Law
- 2) Country Report
 - Presentation and discussion by participants on the present status of women, identifying various problems and clarifying administrative measures for the promotion of women's status in each participating country.
- 3) Observation
 - Study visits to various public institutions and organizations.
 - Field trip to local districts, including visits to farm houses and plantations where Japanese women are engaged in agricultural jobs.

(The curriculum may be subject to minor changes.)

5. FACILITIES AND INSTITUTIONS

Women's and Young Workers' Bureau, Ministry of Labour, and others.

6. REMARKS

No. 320

SEMINAR ON WOMEN'S ISSUES IN NATIONAL MACHINERIES

婦人問題ナショナルマシーナリーセミナー

1. PERIOD

November 27, 1990 to December 19, 1990 (1 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Sixteen (16)

3. QUALIFICATIONS

- 1) be senior officer in charge of national machinery on women's issues
- 2) have a sufficient command of spoken and written English
- 3) be university graduate or equivalent

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - Public administration covering women's issues in Japan
 - The role of the national machinery in Japan
 - Implementation of the National Plan of Action
- 2) Study and training regarding the implementation of the convention
- 3) Discussion on country report
- 4) Observation tour

5. FACILITIES AND INSTITUTIONS

The Office for Women's Affairs, Prime Minister's Office

6. REMARKS

No. 321

INDUSTRIAL SAFETY AND HEALTH (SEMINAR) 労働安全衛生行政セミナー

1. PERIOD

October 1, 1990 to November 18, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eighteen (18)

3. QUALIFICATIONS

- 1) University graduates or equivalent
- 2) Qualified in their respective fields
- 3) Occupational experience of more than 3 years
- 4) Between 25 and 45 years of age
- 5) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lectures and practical training
 - Role of governmental and non-governmental organizations in industrial safety and health
 - Methods of accident investigation and procedures of cause analysis and cost calculation

This seminar has two concentrations; the safety-oriented course and the health-oriented course. Nominees should indicate to which concentration he or she wants to apply.

- 2) Observation tours

5. FACILITIES AND INSTITUTIONS

- 1) Labour Standards Bureau, Ministry of Labour
- 2) Japan Industrial Safety and Health Association
- 3) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

No. 322

LABOUR-MANAGEMENT RELATIONS ADMINISTRATION (SEMINAR)

労使関係行政セミナー

1. PERIOD

April 12, 1990 to May 31, 1990 (2 months)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) Middle class official in charge of industrial relations administration in the government organization
- 2) Under 45 years of age
- 3) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture and Discussion
 - Labour-Management Relations in Japan
 - Administration of Labour-Management Relations in Japan
 - Japanese Labour Legislation on Labour-Management Relations
 - Productivity Movements and Technological Innovation
- 2) Observation Tours
 - Observe the organizations and working scene of labour administration, trade unions
- 3) Country report presentation

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Labour Policy Bureau, Ministry of Labour
- 3) Japan Institute of Labour

6. REMARKS

No. 323

LABOUR STATISTICS FOR POLICY PLANNING (SEMINAR)

労働統計政策セミナー

1. PERIOD

June 21, 1990 to August 4, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9)

3. QUALIFICATIONS

- 1) Presently engaged in labour statistics administration or expected to work in this field in future.
- 2) University graduates or the equivalent academic background
- 3) Not more than 45 years of age
- 4) Good working knowledge of English

4. DESCRIPTION OF TRAINING

- 1) Lecture & Discussion
 - Statistic System & Labour Administration
 - Employment and Unemployment Statistics
 - Wage Statistics
 - Industrial Accident and Injuries Statistics
 - Industrial Relations Statistics
 - Technique of Statistic Survey
- 2) Observation Tour

5. FACILITIES AND INSTITUTIONS

- 1) Hachioji International Training Centre, JICA
- 2) Ministry of Labour

No. 324

EMPLOYMENT ADMINISTRATION (SEMINAR)

雇用行政セミナー

1. PERIOD

September 3, 1990 to October 13, 1990 (1.5 month)

2. NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8)

3. QUALIFICATIONS

- 1) Presently engaged in policy-drafting in employment promotion administration in the governmental bodies
- 2) Over 30 years and under 45 years of age
- 3) Good working knowledge of English
- 4) University graduates or equivalent with occupational experience

4. DESCRIPTION OF TRAINING

- 1) Lectures
 - a) Labour Administration in Japan
 - b) Employment Administration in Japan
 - ① Employment Policy
 - ② Employment Placement Services
 - ③ Employment Insurance System
 - ④ Employment Measures for the Disabled
 - ⑤ Specific Employment Measures
 - Local Employment Promotion,
 - Measures for Older Workers and Youth
 - c) Human Resource Development Administration
 - d) Lifetime Employment Practice and Employment Adjustment
 - e) Labour-Management Relation in Japan
- 2) Comprehensive Study and Discussion
- 3) Observation

5. FACILITIES AND INSTITUTIONS

- 1) Employment Security Bureau, Ministry of Labour
- 2) Tokyo International Centre (Hatagaya), JICA

6. REMARKS

