

ENVIRONMENTAL PROFESSIONAL CERTIFICATION PROGRAM



SELF REGULATION APPROACH
Mainstreaming of Environmental Agenda
in Industrial Premises

“Meeting Your Environmental Obligations”

Environment Institute Of Malaysia
Department Of Environment



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FOREWORD

The Environment Institute of Malaysia (EiMAS) under The Department of Environment has over the years conducted certification courses to industrial sectors in meeting environmental obligations as required under the Environmental Quality Act, 1974 (Act 127).

Specific courses in the Environmental Professional Certification Program were developed with the primary objective to produce the much needed knowledgeable and skilled human capital for the operation and maintenance of pollution control systems in industrial premises. The **must know** principle has been used to determine the content of this program. The course will cultivate a positive culture within the industry where the underpinning principles / drivers of self regulation, social accountability, "beyond compliance", "informal decision making", are practiced. The culture will keep mainstream pollution control system performance issues into the day to day management of the industry, paving the way for excellence in environmental regulatory compliance.

By having competent persons in industrial sector, the environmental agenda is being addressed technically and being brought to the attention of the industry management.

This book provides the necessary information regarding the various certification courses carried out by EiMAS and procedures on how to be and stay on as a competent person.

I hope that the book will benefit personnel from the industrial sector to be together with the Department of Environment in preventing environmental pollution and enhances the quality of life of Malaysians.



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Director General
Department of Environment
Malaysia.

November, 2016



ENVIRONMENT INSTITUTE OF MALAYSIA (EiMAS) DEPARTMENT OF ENVIRONMENT

Objectives

EiMAS is established with the following objectives :

1. To enhance manpower resource development program for environmental management;
2. To develop and intensify capacity building in the field of environmental protection; and
3. To implement program and activities that will promote the application of cleaner production technologies and best industrial environmental management practices.



Vision

EiMAS aspires to become a Centre of Excellence for Environmental Management in Malaysia

Mission

EiMAS is dedicated to achieve excellence in Environmental protection efforts through its human resource development program and other programs that will contribute towards achieving solutions to Environmental problem in the context of providing a clean and healthy environment for human living.

PART I:

**INTRODUCTION ON
SELF REGULATION
APPROACH**

**Mainstreaming of Environmental
Agenda in Industrial Premises**

SELF REGULATION APPROACH

Mainstreaming of Environmental Agenda in Industrial Premises



- The Environment Institute of Malaysia (EiMAS) has intensified its training programs on environmental management and pollution control in the past years. EiMAS also continues to conduct the certification courses to industrial sectors, as to fulfill the requirement of the Environmental Quality Act, 1974 (Act 127) for an owner or occupier of a premise who shall employ a person who has been certified by the Director General as a competent person to conduct the operation of a control equipment; the management of scheduled wastes; and the conduct of studies.
- The Environmental Professional Certification Program was developed in line with the national goal of enhancing human capital in all fields in order to sustain the national development plans and help achieve the Vision 2020. The primary objective of the certification program is to produce the much needed knowledgeable and skilled human capital for the operation and maintenance of pollution control systems, as well as the safe and proper management of scheduled wastes in industrial premises.
- The contents of the certification course focus on developing competency in the performance monitoring of the pollution control system, an important area which has been given less attention by the majority of industries in Malaysia. In order to ensure effective learning process and achievement of the desired learning outcomes, the training modules, the style of course delivery and the mode of competency assessment have taken into account the outcome based and student centered learning approach as well as adult learning styles. Additionally, the competency assessment package encompasses the evaluation of the effectiveness of training up to level III, that is "the change of behavior".
- The complete competency certification package comprises requirements on course attendance, passing of the exam and submission of field training report. The requirements on competent person to supervise the operation and maintenance of pollution control system are mandated in the specific regulations under the Environmental Quality Act, 1974.
- The certification course is a technical as well as a management vehicle to mainstream environmental agenda and cultivate self regulation culture within the industrial sector which would result in continuous regulatory compliance and cost saving in enforcement and pollution control recovery work. The certification procedure which entails commitment from all levels in the management as well as changes and improvement in working procedure will result in the mainstreaming of environmental agenda and compliance issues in industrial sector.





IS COMPETENT PERSON A LEGAL REQUIREMENT?

YES

- Certified by the Director General of DOE that he/she is duly qualified to supervise the operation of pollution control system.
- Responsibility of an owner or occupier to employ a Competent Person to conduct the operation of a pollution control equipment, management of scheduled wastes, studies or prepare and submit documents, reports etc.
- Governed under the Environmental Quality Act, 1974

ENVIRONMENTAL QUALITY ACT, 1974 (AMENDMENT) 2012 - SECTION 49A(1)

- Competent Person
- 49A. (1) An owner or occupier of a premise shall employ a person who has been certified by the Director General as a competent person to conduct all or any of the following activities:
 - (a) the operation of a control equipment;
 - (b) the management of scheduled wastes;
 - (c) the conduct of studies;
 - (d) the preparation and submission of reports, plans, proposals, engineering drawings or other documents relating to environmental matters.

ENVIRONMENTAL QUALITY (INDUSTRIAL EFFLUENT) REGULATIONS 2009 - REGULATION 10

- Competent Person
- 10. (1) The operation of an industrial effluent treatment system shall be supervised by a competent person.
- (2) A competent person shall be any person who has been certified by the Director General that he is duly qualified to supervise the operation of an industrial effluent treatment system.
- (3) An owner or occupier of a premises shall ensure that a competent person is on duty at any time the industrial effluent treatment system is in operation.



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IS COMPETENT PERSON A LEGAL REQUIREMENT?

ENVIRONMENTAL QUALITY (SEWAGE) REGULATIONS 2009- REGULATION 6

• Competent Person

- 6. (1) The operation of a sewage treatment system shall be supervised by a competent person.
- (2) A competent person shall be a person who has been certified by the Director General that he is duly qualified to supervise the operation of a sewage treatment system.
- (3) An owner or occupier of any premises shall ensure that a competent person is on duty at any time the sewage treatment system is in operation.



ENVIRONMENTAL QUALITY (CLEAN AIR) REGULATIONS 2014 - REGULATION 7

• Air pollution control system

- 7(4) The operation of the air pollution control system shall be supervised by a competent person who shall be on duty at all times during the operation of the air pollution control system.

PART II:

**PROCEDURES ON HOW TO
BECOME A COMPETENT
PERSON**



HOW TO BECOME A COMPETENT PERSON/ CERTIFIED ENVIRONMENTAL PROFESSIONAL?

WHO?

- A competent person/ certified environmental professional is a person who has been certified by the Director General of the DOE to be competent to supervise the operation of a pollution control system or the management of scheduled wastes.
- The individual needs to go through the certification process and comply with all the requirements before he/she can be certified competent



Should have knowledge (minds on) in:

- basic tools, equipment, methods, safe work practices in the operation and routine maintenance of the mechanical and basic electrical components of the pollution control system.
- typical unit operations and unit processes utilized for the treatment system.
- typical causes of the pollution control system non compliance problems.

• Should have skills (hands on) in:

- reading and interpreting meters, gauges and other recording devices and in adjusting controls in the operation of the pollution control system.
- conducting performance monitoring activities which involve sampling, in situ measurements and basic process control laboratory tests.
- performing corrective actions to address common pollution control upset situations.

HOW?

- **Step 1:** Registration to attend relevant Competency Course.
- **Step 2:** Attending the Competency Course.
- **Step 3:** Completing the course assignments.
- **Step 4:** Passing the comprehensive assessments.
- **Step 5:** Getting the Certificate of Competency (first level)
- **Step 6:** Preparing the Field Training Report (FTR).
- **Step 7:** Submission of the FTR.
- **Step 8:** Appearance at the professional interview.
- **Step 9:** Certified as Competent Person (by the Director General of DOE)

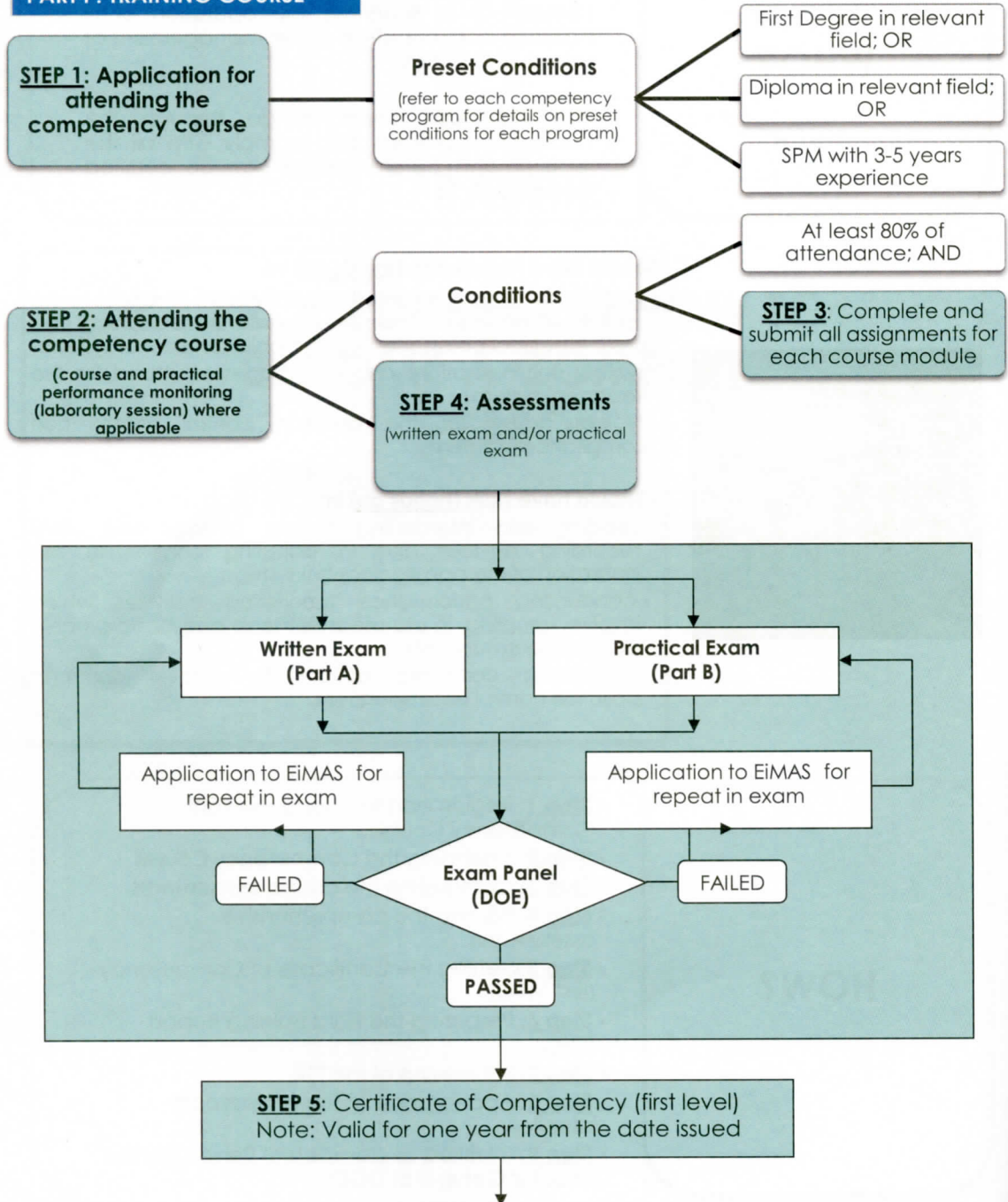


COMPETENT PERSON PROCESS FLOW



Kindly refer to the Department of Environment's (DOE) website at www.doe.gov.my - DOE's sub web – Courses and Training at EIMAS – Training Calendar for Industries, for details and on how to apply

PART I : TRAINING COURSE



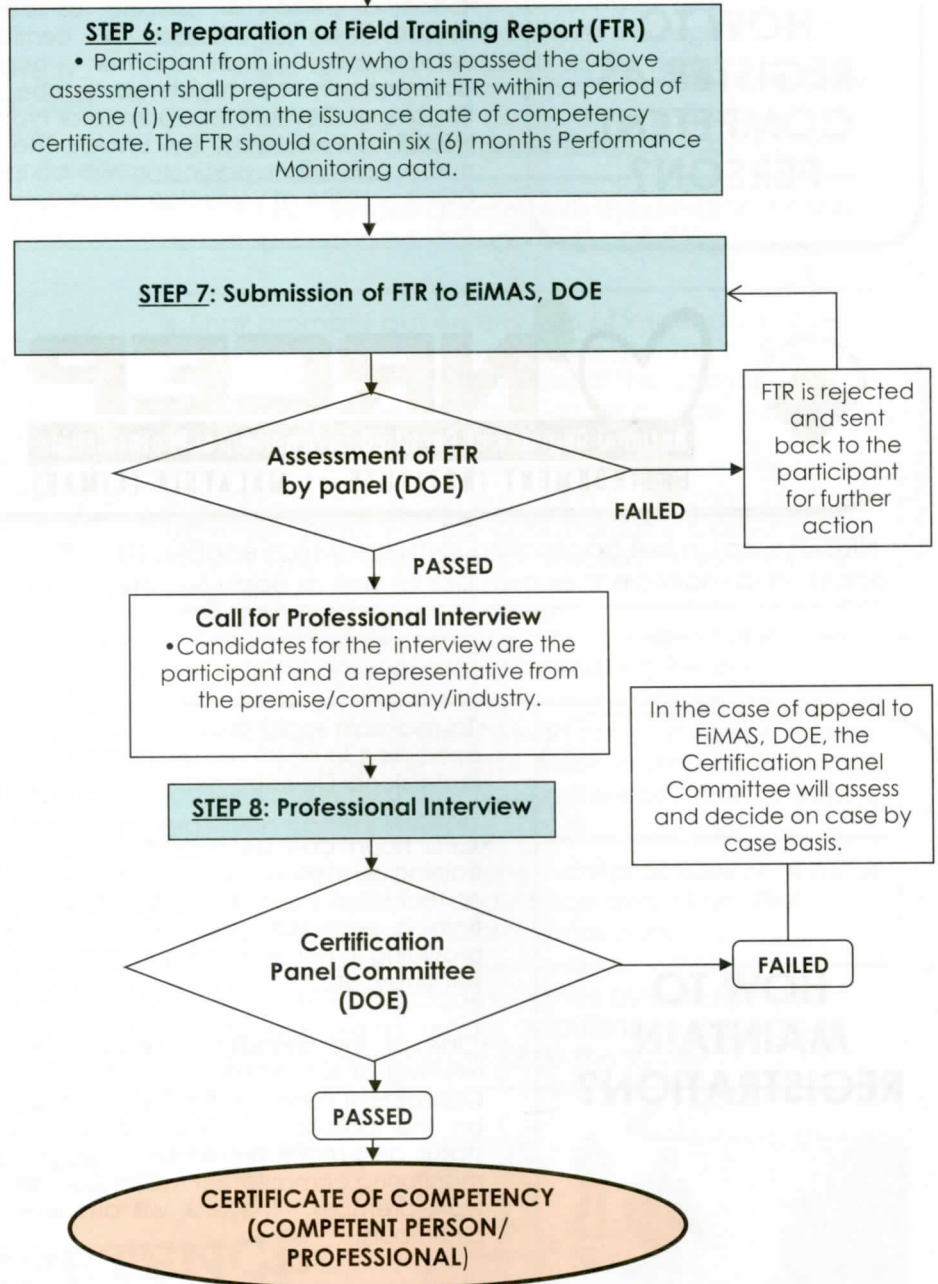


COMPETENT PERSON PROCESS FLOW



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PART II : PRACTICAL ON THE JOB TRAINING (FIELD WORK)



Note: A Competent Person will automatically be registered in the National Registry of Certified Environmental Professionals, NRCEP administered by EiMAS. The Competent Person's name and particulars will be posted on DOE's website at www.doe.gov.my. The Competent Person needs to update his/her Continuing Professional Development, CPD information on the NRCEP of 50 CPD hours per year, in order to remain professionally competent. NRCEP is an on line application software which enables NRCEP registrants to access and maintain their own files as well as apply for renewal of registration on line.



DOES A COMPETENT PERSON NEED TO REGISTER?

HOW TO REGISTER AS COMPETENT PERSON?

- Once a person is certified as competent, he/she will be issued a certificate of competency and his/her name will automatically be registered in the National Registry of Certified Environmental Professionals, NRCEP administered by EiMAS. The person's name and other particulars will be posted on DOE's website at www.doe.gov.my.



NRCEP

National Registry of Certified Environmental Professionals
ENVIRONMENT INSTITUTE of MALAYSIA (EiMAS)



NRCEP is an on line application software which enables NRCEP registrants to access and maintain their own files as well as apply for renewal of registration entirely through the internet.

HOW TO MAINTAIN REGISTRATION?

- To maintain registration, the Competent Person is required to obtain a minimum of 50 Continuing Professional Development, CPD hours a year.
- CPD hours can be accumulated from several training related activities such as : attendance at technical courses offered by EiMAS or other training providers; preparing technical reports, providing in house training to other industry staff, self study, etc.
- One of the mandatory requirements for the renewal of registration in the NRCEP is that the Competent Person is required to prepare reports on the pollution control system performance status and make presentations at performance monitoring committee (PMC) meetings at his/her work premises. This task will also earn him/her CPD hours.
- Other details on CPD requirements can be obtained from DOE's and EiMAS's website and User Manual.



THE ETHICS OF A COMPETENT PERSON



A Competent Person is a responsible profession which provides valuable services to the society. The privilege of the profession imposes high degree of obligations of morality, responsibility, professional knowledge and conduct as well as personal honor and integrity.

1. Shall strive his/her utmost to ensure that the pollution control system is optimally operated so that the discharge/ emission complies with the regulatory discharge/ emission standards all the time.
2. Shall never engage or corroborate in any act that would result in a discharge/emission through by pass.
3. Shall keep himself abreast with the development in his competent area through CPD activities.
4. Shall promptly act on any sign of impending upset of any unit operation or unit process of the pollution control system and inform/ consult the appropriate personnel in his/her organization for advice, further instruction or action.
5. Shall not be involved in making false information or statement regarding the operation of the pollution control system even though directed to do so by the employer.
6. Shall not falsely or maliciously attempt to damage the reputation of another Competent Person.
7. Shall strive to cooperate with others in the profession and encourage the ethical dissemination of technical knowledge in best practices in the operation of the pollution control system.
8. Having knowledge of unethical practices of another Competent Person shall distance away from that Competent Person in professional work.
9. Shall uphold this Code of Ethics by behavior and example and encourage, by guidance and advice, other Competent Person to do the same.



PART III:

**TRAINING PROGRAMS/
COMPETENCY COURSE FOR
INDUSTRIES**



TRAINING PROGRAMS/ COMPETENCY COURSE FOR INDUSTRIES

WATER POLLUTION CONTROL SYSTEM



- 1. Course For Certified Environmental Professional in the Operation Of Industrial Effluent Treatment Systems(Physical Chemical Processes) – CePIETSO–PCP
- 2. Course For Certified Environmental Professional in the Operation Of Industrial Effluent Treatment Systems (Biological Processes)-CePIETSO–BP
- 3. Course For Certified Environmental Professional in the Treatment Of Palm Oil Mill Effluent-CePPOME
- 4. Course For Certified Environmental Professional in Sewage Treatment Plant Operation-CePSTPO

AIR POLLUTION CONTROL SYSTEM



- 5. Course For Certified Environmental Professional in Bag Filters Operation- CePBFO
- 6. Course For Certified Environmental Professional in the Scrubber Operation - -CePSO

SCHEDULED WASTE MANAGEMENT



- 7. Course For Certified Environmental Professional in Scheduled Waste Management - CePSWaM





**TRAINING PROGRAMS/ COMPETENCY COURSE
FOR INDUSTRIES ON WATER POLLUTION
CONTROL SYSTEM**



- 1. Course For Certified Environmental Professional
in the Operation Of Industrial Effluent Treatment
Systems (Physical Chemical Processes) –
CePIETSO-PCP**



CePIETSO (PCP) **COURSE FOR CERTIFIED ENVIRONMENTAL PROFESSIONALS** **IN THE OPERATION OF INDUSTRIAL EFFLUENT TREATMENT** **SYSTEMS** **(PHYSICAL CHEMICAL PROCESSES)**



INTRODUCTION

The success of the operation of an Industrial Effluent Treatment System (IETS) is primarily in the hands of the operator. A knowledgeable and skilled operator or supervisor knows how to monitor the processes occurring in his IETS, understands what factors affect the IETS performance, knows what operational conditions are best for his IETS and how to maintain them, knows how to respond to upset conditions, understands the social obligations and legal implications for non compliance.

Successful operation of an IETS is an integral part of the operation of a successful industry. A trained and skilled IETS operator or supervisor is not anymore a luxury but rather a must-have to the industry. Good environmental performance does not only portray positive corporate image, but avoids possibility of factory downtime and hefty monetary penalties due to legal actions from the environmental authority. The industries must pay great attention to the training of their staff in the proper operation and maintenance of the IETS. EiMAS is providing a training program to train your IETS operators and supervisor to be competent in operating IETS particularly in conducting performance monitoring of the IETS component units.

The competent operator or supervisor will ensure that the IETS is operating optimally. This unique training course which integrates both the "minds- on" and "hands-on" aspects is in fact the only one of its kind in Malaysia. A Certificate of Competency will be awarded to participants who successfully completes the course, passes the examination and submits a field training report (FTR).

Who Should Attend

- Responsible person to be in charge of the operation of an IETS at their work premise;
- Supervisors of IETS.

Benefits of Attending

Course attendance is a mandatory pre requisite for the competency certification program for IETS operators and supervisors

Course Methodology

- Lectures / Discussions
- Course Assignments
Hands on IETS Eng. Lab and IETS pilot plant practical Sessions
- Computer session
- Field Training Report Assessment

Objectives

- To impart understanding of the Industrial Effluent Regulations 2009 (IER);
- To impart knowledge and develop skills on the conduct of IETS performance monitoring and evaluation of performance monitoring data;
- To produce industry personnel who possess both technical competence in IETS operation and thorough understanding of regulatory requirements

Minimum Entry Requirement

Candidate must possess a:

- Bachelors degree or higher in Science or Engineering; or
- Diploma in Science or Engineering with 1 year experience in IETS operation or supervision.

