# State Board for Certification of Water and Wastewater Systems Operators 

## Operator Certification Program <br> Guidelines

Jantary 17, 2004February 2007

## WORKING DRAFT

COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection For more information, visit DEP's directly at Web site at www.depweb.state.pa.us, Keyword: "

# DEPARTMENT OF ENVIRONMENTAL PROTECTION 

## State Board for Certification of Water and Wastewater Systems Operators

DOCUMENT NUMBER: 150-002-002
TITLE: Operator Certification Program Guidelines
EFFECTIVE DATE: Jantary 10,2004
Minor edits were made on pages i, 10, 11 and 15 (May 17, 2004)

## AUTHORITY:

## POLICY:

PURPOSE

## APPLICABILITY:

## DISCLAIMER:

PAGE LENGTH: $\underline{10121}$ pages
LOCATION:
Volume 3, Tab 6

# STATE BOARD FOR CERTIFICATION OF WATER AND WASTEWATER SYSTEMS OPERATORS 

## OPERATOR CERTIFICATION PROGRAM GUIDELINES

## TABLE OF CONTENTS

Introduction
Membership of the Board
Powers and Duties of the Board

## Background

## Authority

## General

1.1 Definitions

General Provisions
2.1 General requirements of the Act

Criminal History Records
3.1 Submission of a Criminal History Record
3.2 Categories of criminal activities
3.3 Review of Criminal History Records by the Board
3.4 Board actions as a result of a Criminal History Record

## Experience

4.1 Experience Equivalency for a high school diploma

Examinations
5.1 Approved Examination Provider Program
5.2 Eligibility to examine
5.3 Failure to take an examination
5.4 Use of materials and electronic devices
5.5 Examination administration
5.6 Examination conditions
5.7 Review of examination questions
5.8 Examination passing score

Provisions for Professional Engineers
6.1 General

Application for Certification Action
7.1 General application requirements
7.2 Submission of application for certification action
7.3 Board procedure for applications for certification action

## TABLE OF CONTENTS, cont.

Board Decisions on Applications for Certification Action
8.1 General requirements for certification
8.2 Board actions
8.3 Reciprocity
8.4 Suspension and revocation of a certificate
8.5 Training appeals to the Board
8.6 Delegation of Board authority

Extensions for Certain Requirements
9.1 Extensions
9.2 Reasons for extensions

Administrative Hearings of the Board
10.1 General requirements
10.2 Hearings

## Appendices

Appendix A: Approved Examination Provider Manual (01/2006)
Appendix B: Proctor Manual ( $01 / 2006$ )
Appendix C: Upgrade Model (06/30/2005)
Appendix D: Experience Credit for DEP Employees
Drinking Water Program (December 19, 2006)
Filter Plant Performance Program (August 31, 2004)
Wastewater Program (December 19, 2005)
Appendix E: Reciprocity Model (06/30/2005)
Appendix F: Decision Matrix - Board/Staff Actions

# STATE BOARD FOR CERTIFICATION OF WATER AND WASTEWATER SYSTEMS OPERATORS 

# "OPERATOR CERTIFICATION PROGRAM GUIDELINES" 

## INTRODUCTION

The 1996 Amendments to the Federal Safe Drinking Water Act, Section 1419, require states to meet federal guidelines for operator certification programs. In February of 2002, Governor Mark Schweiker signed into law House Bill 1830, the Water and Wastewater Systems Operators’ Certification Act (Act) to insure Pennsylvania's compliance with these federal guidelines. The Act as amended provides the State Board for Certification of Water and Wastewater Systems Operators (Board) with separate and distinct powers and duties for program administration. These guidelines address how the Board will administer their authority until final rules and regulations are adopted by the Environmental Quality Board (EQB). .The amended Act transferred this authority to adopt program rules and regulations from the Board to the EQB. The Department of Environmental Protection (DEP) has also adopted interim guidelines, "Pennsylvania's Interim Program for Operator Certification", DEP ID:-_383-_2300-_001, available for viewing on DEP's w-Website at www.depweb.state.pa.us, as provided by the Act until such time that final rules and regulations are promulgated.

## Membership of the Board

The Act defines the membership of the Board. -In addition to the existing six members, a seventh member from the general public having knowledge of water and wastewater systems was added. The six existing members include an individual certified to operate a water system, an individual certified to operate a wastewater system, a certified operator who is the owner or official of a privately owned water or wastewater system, a certified operator who is an employee of a political subdivision or represents a state association of political subdivisions, an individual who is on the teaching staff of the civil, environmental or sanitary engineering department of an accredited Pennsylvania university or college, and the Secretary of DEP or his designee.

## Powers and Duties of the Board

The Act identified specific duties and powers to the Board. They include:
Review and Act Upon Applications: The Certification Board shall review and act upon all applications for certification, recertification and renewal of water and wastewater system operators. The application shall include a Report of Criminal History Record from the Pennsylvania State Police.

Administer Examinations: At least one examination shall be held each year at a time and place designated by the Board. -An individual may not appeal examination results to the Board. The content of an examination and its validity may be appealed to the Environmental Hearing Board (EHB). The content of an examination shall not be shared with -the Certification Program Advisory Committee or the general public.

Approve and Issue Certificates: Upon completion of all requirements for certification, re-certification or certification renewal, the Board shall approve applications and issue the appropriate levels of certification.

Revoke, Suspend, Modify or Reinstate Certificates: Upon petition by DEP, the Board has the authority to revoke, suspend, modify or reinstate an operator's certification. -The Board must promptly schedule a hearing to take such an action. These hearings must be held in accordance with the Administrative Agency Law, 2 Pa.C.S.A. $\S 501$ et seq. Revocation, suspension or modification of an operator's certificate must be based on misconduct, including, but not limited to, negligence in the operation of a water or wastewater system, fraud, falsification of application, falsification of operating records, incompetence or failure to use reasonable care or judgment in the performance of duties as specified in the Act or other applicable laws administered by DEP.

Section $3 \mathrm{a}(1)$ of the Act makes all actions of the Board appealable to the EHB. This guidance immediately enforces these new provisions. The existing sections and paragraphs contained in Chapter_ 301.11, 301.12, 301.13 Hearings remain in place until new rules and regulations are promulgated by the EQB.

Review and Act Upon Complaints: The Board shall deal with all complaints submitted to them that are relative to its powers and duties.

Subpoena and Issue Written Orders: The Act grants the Board the authority to subpoena witnesses, records and other physical evidence to implement their duties and responsibilities as necessary. The Board may enforce its subpoena in Pennsylvania Commonwealth Court. -The Board may also issue written orders as necessary to implement their duties and responsibilities.

Adopt By-Laws: The Board shall adopt bylaws as needed to properly direct and carry out the activities of the Board. These bylaws recognize Roberts Rules of Order for conducting Board business.

Collect and Establish Fees: The current structure of $\$ 20$ per examination application, $\$ 5$ for a 1-year renewal application, and $\$ 15$ for a 3-year renewal application shall remain in force until such time as rules and regulations are adopted by the EQB.

Comments on Proposed Rulemaking: Comments from the Board on any proposed rules and regulations related to the Operator Certification Program must be included in the regulatory package submitted to the EQB. These comments shall include a major and minor opinion of the Board and be submitted in written form according to EQB requirements.

Approve or Disapprove Training: DEP has the authority to review, approve, disapprove or return incomplete training proposals. These DEP actions are in accordance with DEP's "Training Provider Manual for the Pennsylvania Water and Wastewater System Operator Training Program" guidance, DEP ID:_-383--2300-_002. All training actions taken by DEP are appealable by petition to the Board.

One-Time Re-Issuance of Certifications: The Board is authorized to complete a one-time re-issuance of certifications in accordance with "Pennsylvania's Interim Program for Operator Certification", DEP ID: _383-2300-001 available for viewing on DEP's \#Web_site, or rules and regulations promulgated by the EQB.

Establish Equivalency for Professional Engineers: Professional engineers may no longer become certified to operate a water or wastewater system based on a professional engineer license. The Act gave the Board some flexibility to establish equivalency standards for operator certification, based on
the requirements for a professional engineer. If developed by the Board, these provisions must also meet federal guidelines and be approved by the US Environmental Protection Agency.

The Board provides the following "Program Guidelines" to administer their duties and responsibilities established by the Act. These Program Guidelines will be replaced when the EQB adopts final rules and regulations governing this program.

## BACKGROUND

The Act directs the Board to administer an operator certification program to assure the proper operation of water and wastewater systems in Pennsylvania. The Act charges the Board and DEP with specific and separate responsibilities to carry out this program. These " Operator Certification Program Guidelines" further define the specific responsibilities of the Board until such time that the EQB adopts final rules and regulations. These "Operator Certification Program Guidelines" complement DEP's program outlined in "Pennsylvania's Interim Program for Operator Certification", DEP ID:-_383-_2300-_001, and is in response to the defined program roles established for the Board.

## AUTHORITY

The provisions of these guidelines are issued under Section 3 and 4 of the Water and Wastewater Systems Operator_s? ${ }^{2}$ Certification Act.

## GENERAL

## § 1.1 Definitions.

The following words and terms, when used in these guidelines, have the following meanings, unless the content clearly indicates otherwise.

Application for certification - means-a written request to the Board using approved DEP forms and includes a request to take an exam or waive the exam based on reciprocity, all required documentation of experience and training, criminal history record, and all appropriate fees.

Application processing fee means a fee charged to an applicant for certification for processing the application. This fee isthat is not refundable.

Approved Examination Provider (AEP) -means-an individual, company, association or industry organization approved by the DEP to administer certification examinations in accordance with Board guidelines and procedures.

Bi-operable - means a certified operator holding a valid certification for both water and a wastewater system

Board designee - means-a Board member given certain powers and duties to act on behalf of the Board. (Mike -- Could anyone other than a Board member (like DEP staff) be a Board designee?)

Board Secretary - means-a Board designated DEP staff member who acts on behalf of the Board for the administrative aspects of the program.

Certification Action - means any action taken by the Board to allow an operator to take a certification exam, or the issuance of initial certification, certification based on reciprocity, certification upgrade, certification renewal, or re-certification.

Criminal History Record (CHR) - means-a report of criminal history record from the Pennsylvania State Police pursuant to 18 PA.C.S. CH. 91 containing the proper designation that the CHR is issued by the Pennsylvania State Police. No CHR issued by another local, state or federal law enforcement agency is valid or acceptable.

Crosswalk - means-a one-time re-issuance of operator certifications to change the existing certification classifications and types to the new certification classifications and subclassifications provided by the Act and "Pennsylvania's Interim Program for Operator Certification", DEP ID:-_383-_2300-_001.
$D E P$ - means the Pennsylvania Department of Environmental Protection
Examination - means-a test or sections of a test (modules) administered by the Board or its designees deemed necessary to determine in part the competency of applicants for certification or recertification.

Interim Program -means-DEP guidelines adopted in accordance with Section 6.1 of the Water and Wastewater Systems Operators' Certification Act. These guidelines are documented in "Pennsylvania's Interim Program for Operator Certification", DEP ID:-_383--2300-_001.

Investigation - means-a detailed inquiry as to the nature, circumstances and official records regarding a conviction identified in a Criminal History Record.

Person-means-an individual, board, corporation, partnership, government entity, political subdivision or authority.

Petition - means a written request from DEP or any person to the Board to take an action or review an action taken by DEP.

Processing fee - means-a non-refundable monetary cost established to eff-setcover the expenses incurred by the Commonwealth of Pennsylvania to implement this program.

Psychometrics - The the field of test development, evaluation and measurement.
Training Provider - means-a_DEP approved training partner-agent who designs and/or delivers education or training activities, courses or programs.

Training Sponsor -means-a training provider who satisfies DEP's requirements to become an approved | provider of training activities for Pennsylvania water and/or wastewater system operators.

## GENERAL PROVISIONS

## § 2.1. General Requirements of the Act.

The Board shall administer and implement its powers and duties outlined in the Act and the existing rules and regulations identified in § $\mathbf{1 . 2}$ Existing Rules and Regulations of the Interim Program and these guidelines.

## CRIMINAL HISTORY RECORDS

## § 3.1 Submission of Criminal History Records.

(a) The Board requires a Criminal History Record (CHR) to accompany an application whenever an applicant:
(1) submits an application for certification,
(2) submits an application requesting certification by reciprocity,
(3) submits an application to change or upgrade their current certification and the applicant has not been assigned to a 3-year renewal cycle,
(4) submits an application for recertification, or
(5) submits an application for their initial three (3) year certification renewal. A CHR is not required for subsequent renewals.
(b) An applicant holding a bi-operable certification must meet the above requirements for each separate water and wastewater certification.
(c) A CHR submitted with a certification application shall be valid for one (1) year for purposes of re-examination and, or meeting education and experience requirements.
(dㄷ) The date of issuance on a CHR must be no more than 90 days before the date affixed to the signature on the initial application for certification action.

## § 3.2 Categories of criminal activities.

The Board establishes the following categories of criminal activities that are to be used to define convictions that may require further investigation:
(a) Category I - a further investigation is needed for any conviction(s) of:
(1) a felony related directly to activities associated with carrying out their duties and responsibilities as a certified operator,
(2) a felony that if repeated in a professional setting in their role as an operator could pose a threat to public health, safety or the environment,
(3) a recent felony that results in incarceration,
(4) numerous felonies over an extended period of time.
(5) a misdemeanor(s) related directly to activities associated with carrying out their duties and responsibilities as a certified operator, or
(6) a misdemeanor that if repeated in a professional setting in their role as an operator could pose a threat to public health, safety or the environment.
(b) CatergoryCategory II - No further investigation is needed if there are conviction(s) of:
(1) a felony(ies) that occurred in the distant past not related to the professional duties and responsibilities of an operator,
(2) a misdemeanor associated with a single arrest incident that occurred in the distant past, or
(3) a misdemeanor(s) not related to the professional duties and responsibilities of an operator.
(c) The Board or its designees shall conduct an evaluation of all applicants with a conviction noted on their CHR to determine the appropriate category in this section. Convictions meeting the Category I criteria require DEP to conduct an investigation and submit and-a report to the Board or its designees. The report presented to the Board shall contain the following:
(1) recommended action,
(2) reasons for the recommended action, and
(3) associated documentation.

## § 3.3. Review of Criminal History Records by the Board.

(a) The Board shall review all CHRs submitted with applications for certification action in accordance with the Act and these guidelines.
(b) A preliminary review committee will conduct a review, and if necessary, appropriate investigations and make a recommendationa recommendation to the Board for action. -The | membership of this committee shall include:
(1) a designee who is a member of the Board (appointed quarterly),
(2) a DEP employee, and
(3) DEP legal counsel $_{5}=$
(c) If the preliminary review committee feels there is a potential for the Board to deny an application for certification action based on the results of their review, they shall instruct the Board Secretary to send the operator a certified letter notifying the operator of this potential and offering him or her the opportunity to appear at the next regularly scheduled Board meeting to present any information he or she feels is relevant related to the conviction. The DEP employee on the committee will also solicit further information from the appropriate Regional Office as it relates to the circumstances that resulted in the conviction(s) and the applicant's record as an operator.
(ed) The preliminary review committee shall provide reasons for their recommendation and any associated documentation.
(de) These recommendations shall be assigned into the following 3 categories:
(1) Recommend approval of the application for certification action.
(2) Recommend denial of the application for certification action because further investigation indicates the individual may represent a threat to public health, safety or the environment.
(3) Recommend that the full Board review the CHR and investigation findings.
(ef) No certified operator shall be denied a temporary certification for renewal pending a final action of the Board on a CHR. In this case a letter, extending the certified operator's existing license until such time as the Board takes final action, will be sent.
(fg) No applicant for certification shall be denied admittance to the certification exam pending a final action on a CHR.
(gh) The DEP will complete the investigation within 60 days upon notification by the Board of the need for an investigation. This time period may be extended with Board approval when circumstances prohibit the necessary collection of information needed to make a recommendation.

## § 3.4. Board actions as the result of a Criminal History Record.

(a) The Board shall actshall act on all CHRs submitted with anwith an application for certification action.
(b) The Board shall find no further action is necessary when an applicant's Criminal History Record shows no convictions or circumstances that may put the public at risk.
(c) Pursuant to18 PA. C.S. CH. 19, the Board may deny an application for certification action based on a conviction of either:
(1)(1) a felony, or
$(2)(2)$ any misdemeanor related to the trade, occupation or profession for which the certification is sought.
(d) The Board shall review the recommendations of the preliminary review committee before taking action. Based on this review the Board can:
(1) agree with the preliminary review committee and take action on the CHR accordingly,
(2) disagree with the preliminary review committee and take action on the CHR accordingly, or
(3) ask the operator to provide further explanation or information before taking action to approve or deny a certification. An applicant may be given an opportunity to explain to the Board issues pertinent to their conviction. The applicant should be notified by registered mail of this opportunity to address the Board.
(e) The Board shall notify an applicant in writing of its decision to deny an application for certification action based on their CHR.
(f) If an application for certification action is denied, the Board shall identify the reason(s) for the decision, since this decision prohibits the individual from practicing as a certified operator in the Commonwealth of Pennsylvania.
(g) Any applicant wishing to appeal a Board action must petition the Environmental Hearing Board- The Board shall not hear appeals as the result of their action.

## EXPERIENCE

## §4.1. Experience equivalency for high school diploma.

(a) A non-certified individual applying for certification must have a minimum of a high school diploma or GED to meet the basic education requirement for certification. The individual must certify on their application for certification that they have the diploma or GED.
(b) Section 4.1. paragraph (a) not withstanding, if the individual submitting an application for certification may can document that he or she was working in a water or wastewater system before February 21, 2002, the requirement for a high school diploma or GED is waived. Documentation of such work experience must be verified by the individual's supervisor or another certified operator with direct knowledge of the applicant's experience and included with the application for certification.

## EXAMINATIONS

## §5.1. Approved Examination Provider (AEP) Program

(a) The Board may provide certification examinations using an approved examination provider (AEP).
(b) All AEPs must apply and be granted approval by the Board Secretary to participate as an examination provider.
(c) AEPs must meet the requirements and standards as defined in Appendix A, the "Approved Examination Provider Manual."

## §5.1. Failure to take an examination.

(a) An individual who fails to take a seheduled examination must re-apply for certification using the appropriate forms and pay the required fees.
(b)(b) The Board will not reimburse the processing fee when an individual fails to be present to take the examination.

## §5.2. Use of materials and electronic devices.

(a) The Board allows the use of non printing calculators by an applicant during the examination.
(b) The Board does not allow the use of hand held computers or other devices that may store teehnieal information about water or wastewater systems during the examination.
(c) The Board does not allow the use of any electronic communication devices, cell phones, earphones, CD players or any other memory storage devices during the examination.
(d) The Board does not allow the use of printed materials other than the materials provided during the examination.

## §5.32. Eligibility to examine.

(a) The DEP shall process an application for certifieation action to take an examination provided an applieant:
(1) completes and submits the application form provided by the DEP and provides all documentation requested,
(2) submits a valid CHR with the application,
(3) submits thepays the processing fee when invoiced, with the application, and
(4) the Board secretary receives the application before the deadline specified in the published announcements for examinations.
(b)(b) An individual must provide sufficient documentation that demonstrates the basic educational requirements of the $A c t$, regulations and guidelines are met.
(a) An applicant for examination must submit a request for examination using approved Board forms to one of the Approved Examination Providers. -The applicant must also pay any fees defined by the AEP for processing this request.
(b) If the applicant wants to attend an examination session offered by the Board, the applicant must submit a request for examination using approved Board forms to the Board Secretary by the registration deadline. The applicant must also pay any fees defined by the Board as part of the examination announcement for processing this request.
(c)(c) No individual is required to meet experience requirements of the Act, regulations and-or guidelines as a condition for examination.
(d) No individual is required to successfully attain any training as a condition for examination, except in these cases where the applicant has failed on two previous oceasions to obtain a minimum passing seore on the examination, as further described in $\S 5.5$ (c) or $\S 5.6$ (c).

## §5.3. Failure to take an examination.

a) The Board will not reimburse the processing fee when an individual fails to be present to take the examination.
§5.4. Use of materials and electronic devices.
(a) The Board allows the use of non-printing calculators by an applicant during the examination.
(b) The Board does not allow the use of hand held computers or other devices that may store technical information about water or wastewater systems during the examination.
(c) The Board does not allow the use of any electronic communication devices, cell phones, earphones, CD players or any other memory storage devices during the examination.
(d) The Board does not allow the use of printed materials other than the materials provided during the examination.

## §5.5. Admittance to the examinationExamination administration.

(a)(a) No applicant for an examination shall be admitted to the examination site after the specified scheduled time for the beginning of the examination.
(b)(b) The examination proctor has the authority to modify the scheduled start time for the examination where circumstances prevent initiation of an examination at the scheduled time.
(c)(c) The examination proctor may at any time terminate an individual's examination when an individual is:
(1)(1) using forbidden materials as listed in Appendix B, The Proctor Manual, or §4.2. Use of materials and electronic devices or
(2)(2) engaged in disruptive behavior, or
(3)(3) engaged in fraudulent behavior.
(d) The proctor shall provide a written report to the Board regarding any applicant in violation of this section.
(e) The Board secretary shall notify all applicants of the time, date, location and any instructions for examination no later than 15 days before the date of the appropriate examination.
(f) An applicant shall not be admitted to an examination without showing a valid government-issued photo identification.

- (g) The Board may make exceptions to a written examination or other examination requirements in those cases upon written request by an applicant who qualify as a "reasonable accommodation" under the Americans With Disabilities Act when:
(1)(1) an applicant or representative makes a "reasonable accommodation" request in written form to the Board,
$(2)(2)$ the request documents the reason for such "reasonable accommodation," and
(3) such requests are submitted to the Board secretary in writing at least 15 days before the date of the exam.
(h) The Board may make exceptions to the scheduled date and location of an examination upon written request by an applicant for the following reasons:
(1) religious preference,
(2) jury duty, or
(3) other compelling reasons.
(i) The proctors and DEP staff shall follow all procedures for the administration of an examination as defined in Appendix B, Drinking Water and Wastewater Operator Certification Program Proctor Manual.
\$5.6-Examinations before the crosswalk.
(a)(a) The Board shall continue to administer the existing examinations to the applicant based on the applicant's certification request until such time as the crosswalk oceurs.
(b)(b) The test results of examinations for purposes of certification shall not expire.
(c)(c) There are no training or experience requirements necessary to take the examination unless the applicant fails the examination twice. If the applicant fails the examination twice, the applicant must complete 12 contact hours of DEP approved training prior to re-examining.
(d) An applicant who holds a valid certification who passes an examination for another classification, and meets the educational and experience requirements, shall be given the choice of which level certification they wish to hold. An operator may not hold more than one class certification for either water or wastewater.
(e)(e) A certified operator shall not be required to successfully re-examine for currently held certification unless:
(1)(1) an individual fails to renew their certification within 2 years from the expiration date of certification,
(2) the individual fails to complete the required amount of continuing education within the 3 -year renewal cycle, or
(3) the Board takes action to suspend or modify their certifieation. A certified operator whose license is revoked may not apply to become re-certified or to reexamine.


## §5.6. Examinations_after the crosswallk conditions.

(a)(a) The Board shall administer the Part I General Examination and the appropriate Part II Technology based examinations as prepared by the DEP according to the Interim Program.
(b)(b) The test results of examinations for purposes of certification shall not expire.
(c) There are no training or experience requirements necessary to take the an examination.
unless the applicant fails the examination twice. However,
(1) if the applicant fails the Part I examination twice, the applicant must complete 12 contact hours of DEP approved training prior to re-examining, or
(2) if the applicant fails the Part II, Dc or Dn examination twice, the applicant must complete 6 hours of DEP approved training prior to re-examining.
(d) A certified operator shall not be required to successfully re-examine for currently held eertification-re-take an examination already successfully passed unless:
(1) an individual fails to renew their certification within 2 years from the expiration date of the certification,
(2) the individual fails to complete the required amount of continuing education within the 3-year renewal cycle, or
(3) the Board takes action to suspend or modify their certification. -A certified operator whose license is revoked may not apply to become re-certified or to reexamine.
(e) A certified operator cannot hold more than one classification of certification for water and one for wastewater, except for these operators with the Class E Water Distribution license. A certified operator can hold certification for multiple subclassifications for different technologies.

## §5.7 Review of examination questions.

(a) The Board-DEP shall review all examination questions at a minimum of once every $Z$ yearsyear using appropriate subject matter experts to include at least one member of the Board.
(b) Before the examination begins the proctor shall instruct all applicants as to the process for raising comments or concerns relating to any of the questions on the exam. This process is:
(1) the applicant shall raise his or her hand, and
(2) the Proctor shall provide the operator with a Candidate-Question Comment Form that must be completed immediately and promptly returned to the proctor.
(3) upen receiptAs part of the annual review of examination questions, the Board or DEP will carefully review all comments received from applicants. The Board will make an attempt to respond to the A respense to the applicant may or may not be provided by the Board..

## §5.8. Passing examination score.

An applicant obtaining a successful numerical score of correctly answered questions shall be deemed as strecessfully passing an examination for operator certification. The development of questions, the examinations and the definition of a stecessfully successful numerical score will be based on sound psychometric principles.

## PROVISIONS FOR PROFESSIONAL ENGINEERS

## § 6.1. General.

Professional engineers will be required to meet all the requirements as any individual submitting an application for certification action, including meeting all examination and experience requirements.

## APPLICATION FOR CERTIFICATION ACTION

## §7.1. General application requirements.

(a)(a) An operator applying for certification action for initial certification shall complete a DEP approved application form for each certification request, and::
(1) submit a complete application and required documentation to the State Board for Certification of Water and Wastewater Systems Operators, Rachel Carson State Office Building, P.O. Box 8454, Harrisburg, PA 17105-8454 or other designated address, and
(2) provide the Pennsylvania State Police Criminal History Record (SP--164) in $\mid$ accordance with § 3.1 Submission of Criminal History Records, and
(3) submit upon request of the DEP a non-refundable processing fee for each examination session ofmodule of application of $\$ 20$ per session.
(b) The application for certification action for initial certification or re-certification must include:
(1) certification of a high school diploma or GED or,
(2) documentation of equivalent experience as defined in §4.1. Experience equivalency for high school diploma,
(3) college transcripts from the college/university if applicable for experience requirements, and
(4) notarized documentation of completed experience.
(e)(c) An operator, certified before October 1, 2002 requesting certification renewal for 1 year, shall complete a DEP approved application and submit a non refundable processing fee of $\$ 5$.
(d)(d) An operator holding a certification before October 1, 2002 shall renew their certification for 3 years according to the schedule provided in the DEP's Interim Program. In addition to completing a DEP approved renewal form the operator shall:
(1)(1) provide a copy or original of an official Pennsylvania State Police Criminal History Record completed no more than 90 days prior to the date the application is signed by the operator,
(2)(2) submit a non-refundable processing fee of $\$ 15$.
(e) Certified operators in a 3-year renewal cycle shall meet the following requirements:
(1) if requested by the DEP, provide further documentation establishing the applicant met their continuing education requirements.
(2) submit a processing fee of $\$ 15$.

## §7.2. Submission of application for certification action.

(a)(a) A separate application for certification action in water or wastewater with appropriate documentation shall be filed for each request.
(b)(b) An incomplete application for certification action shall be returned to the applicant. The processing fee shall not be returned with the incomplete application.

## §7.3. Board procedure for applications for certification action.

(a)(a) The Board shall use this procedure for processing applications for certification action relating to initial certification and re-certification:
(1)(1) The applicant shall submit a completed application for certification according to the process described in $\mathbf{\$ 7 . 1}$ General application requirements at least 75 days before the next examination date.
(21) The Board secretary shall review and determine if the applicant is eligible for certification examination and either notify the qualified applicant in writing of time and location for the exam, or notify the unqualified operator in writing of reasons for denial.
(23) The Board secretary shall administer the examination and provide each individual his or her test results and an application for initial certification for those individuals who have passed enough examinations to qualify for certification.
(43) The Board secretary reviews the CHR in accordance with these guidelines for all applicants who have successfully passed the exam.
(5)4) The Board secretary shall review the documentation submitted with the application for those applicants who have passed the examination and make a recommendation as to the appropriate certification class and type or subclassification for Board consideration and action.
(56) The Board reviews the CHR in -accordance with §3.2. Review of Criminal History Records by the Board.
(76) The Board secretary notifies the applicant of the Board decision to issue or deny an applicant a certification.
(87) If the applicant for certification is employed by a water or wastewater system in the Commonwealth, and the Board denies certification because of a finding relative to the applicant's CHR, DEP shall notify the applicant's employer, if the employer's contact information is available.
(98) The Board secretary notifies approved applicants for certification that:
(i) the examination results are valid according to §5.57. Examinations before the crosswalk. and §5.6. Examinations after the erosswallk., conditions and
(ii) as appropriate, they may apply for a higher level of certification based on accumulated experience.
(b) The Board shall use this procedure for processing applications for 1 -year certification renewals submitted according to the sehedule provided in DEP's Interim Program:
(1)(1) the Board secretary sends the certified operator an application for renewal at least 60 days prior to the date of expiration of the operator's certificate,
(2) the certified operator completes the application and returns the application for renewal to the Board secretary, and
(3) the certified operator pays the $\$ 5$ renewal processing fee-
(eb) For those operators certified before October 1, 2002, t the Board shall use this procedure for processing applications for the operator's first 3-year certification renewals submitted according to the schedule provided in the DEP's Interim Program:
$(1)(1)$ the Board secretary sends the certified operator an application for renewal at least 60 days prior to the date of expiration of the operator's certificate,
(2) the certified operator completes and returns the application for renewal to the Board secretary,
(3) the Board reviews the CHR in -accordance with §3.2. Review of Criminal History Records by the Board. and
(4) the applicant pays the $\$ 15$ renewal processing fee.
(c) Except as identified in section (b), the Board shall use this procedure for processing applications for certification renewal:
(1) the Board secretary sends the certified operator an application for renewal at least 60 days prior to the date of expiration of the operator's certificate,
(2) the certified operator completes and returns the application for renewal to the Board secretary,
(3) the DEP reviews the operator's continuing education transcripts and any Discrepancy Reports submitted by the operator and determines compliance with the continuing education requirements as defined in DEP's Interim Program, document 383-2300-001.
(d) The Board shall use the following procedure for processing all applications for an upgrade in certification:
(1) the certified operator submits an application for certification action according to §7.1. General application requirements,
(2) if the certified operator is not in a 3-year renewal cycle, the Board reviews the CHR in accordance with §3.2. Review of Criminal History Records by the Board.,
(3) the Board secretary shall review the documentation submitted with the application and make a recommendation as to the appropriate certification class and type or subclassification for Board consideration and action, and
(4) the applicant pays the $\$ 20$ processing fee.
(e) The Board secretary shall provide the Board the names of all applicants who passed and failed to qualify for consideration of their application for certification action and the specific reasons for a recommendation of certification denial.

## BOARD DECISIONS ON APPLICATIONS FOR CERTIFICATION ACTION

## §8.1. General requirements for certification.

(a) As defined in the DEP's Interim Program, document 383-2300-001, An an applicant must $\mid$ meet all the specified requirements for:
(1) certification,
(2) recertification,
(3) certification upgrade, or
(4) certification renewal.
(b) An applicant who has met the requirements for certification, but does not have the appropriate amount of experience shall be issued a letter designating them as an Operator-In-Training.
(c) The test results do not expire. Therefore, the applicant can submit documentation to the Board secretary whenever the applicant has accumulated the necessary experience.
(d) The Board shall issue a certification-certificate when an applicant provides the necessary documentation that meets the experience and all other requirementsthe requirements as defined in section (a) have been met. The certificate shall:
$(1)(1)$ be issued on a date corresponding to the nearest quarter in the 3-year renewal cycle,
(2)(2) be issued for a 3-year period,
(3)(3) specify the class and type-subclassification of certification,
$(4)(4)$ be issued with a wallet size card for identification purposes,
$(5)(5)$ be issued with a client ID, and
(6)(6) expire on the date indicated.

## §8.2. Board actions.

(a)(a) The Board shall take action on all complete applications for certification action. All actions shall be considered an action of DEP and are appealableappeal ableappealable to the EHB.
(b)(b) The Board is required to take an action on complete applications for certification action within 120 days provided:
(1) all applications are complete,
$(2)(2 \underline{1})$ all individual applications are sufficiently definedcompleted to the satisfaction of the Board,
(32) all issues related to the applicant's Criminal History Record are finalized, and
(43) the Board's and DEP's review procedure has been completed.

Mike -- What if our "review procedure" is not completed because of our own fault. Does that mean we are then not required to take action - and for how long can that delay go on? What protects the application from undue delay in this case?
(c) The Board shall review applications for certification upgrade in accordance with the principles defined in Appendix C, Upgrade Model.
(d) The Board shall review applications for DEP employees and the documentation of experience in accordance with Appendix D, Experience Credit for DEP employees.
(c) Failure by the Board to take action does not constitute issuance of a certification.

## §8.3. Reciprocity.

(a)(a) An applicant for a certification action based on reciprocity shall submit a completed application with all required documentation at least 60 days before a scheduled Board meeting. The Board secretary shall place any application failing to meet this requirement into the next review cycle.
(b)(b) The Board may issue a classification and subclassification or type to a person holding a valid certificate issued under the law of another state, territory, the District of Columbia, or by an approved Board registry provided that:
(1) the individual submits a properly completed application for certification with all the necessary documentation,
(2) the other certificate was issued as a result of the passing of an examination comparable to that given by the Board,
(3) the individual meets the experience and educational requirements, and
(4) the legal entity -that issued the individual's certification verifies the applicant's certification status and confirms the individual is in compliance with their laws, regulations and any other requirements.
(c)(c) The Board shall determine, based on the individual's application, the appropriate classification and subclassification or type that is consistent with their current out of state certification using the approved Reciprocity Model described in Appendix E.
(d)(d) An applicant who is denied reciprocity or denied the level of reciprocity requested may appeal the Board's decision to the EHB.
(e)(e) The following are considered a Board approved registry:
(1)(1) Association of Boards of Certification Registry, and
(2)(2) discharge papers documenting water or wastewater system operation from the United States Military or United States Coast Guard.
(f) The Board may approve additional certification registry(s) upon petition by a certified operator or the entity maintaining the registry.
(g) An operator with a valid ABC Wastewater Collection System License on or after the effective day January 1,2004 of these guidelines-will be granted reciprocity provided they meet all the requirements for certification as delineated in these guidelines after the crosswalk described in DEP's Interim Program is implemented. Mike -- MUST we grant reciprocity through ABC for this forever?

## § 8.4. Suspension and revocation of a certificate.

(a) Upon DEP petition, the Board may take action to suspend, revoke or modify an operator's certification for:
(1)(1) misconduct,
(2)(2) negligence in operating a system,
(3)(3) fraud,
(4)(4) falsification of state, local or federal documents or records,
(5)(5) incompetence in system operation,
(6)(6) failure to use reasonable care and professional judgment in performing the duties of a certified operator,
(7)(7) violation of state and-or federal regulations,
(8)(8) creating a clear or potential threat to public health, safety or the environment, or
$(\Theta)(9)$ failure to comply with duties assigned to certified operators in this-the Act, including but not limited to:
(i) meeting the requirements of certification,
(ii) reporting to the system owner any known violation or system conditions that may be or are causing violations of any DEP regulation, or permit condition or requirement,
(iii) providing for the suitable operation and maintenance of a system using available resources,
(iv) reporting to the owner any action necessary to prevent or eliminate a violation, or
(v) making appropriate process control decisions, or taking or directing actions related to process control decisions.
(b) Nothing in this section shall limit the authority of the Board to take action against a certified operator as provided for in the Act.

## §8.54. Training appeals to the Board.

(a)(a) A training provider or sponsor may request that the Board review an action taken by DEP in accordance with DEP's authority to:
(1) approve, disapprove, suspend, or revoke approval of training for certification and continuing education,
(2)(2) approve course content,
(3)(3) review instructor's qualifications, and
(4)(4) assign appropriate education hours.
(b)(b) A training provider's or sponsor's request to the Board must be submitted within 75 days of receiving notification of DEP's decision. The request must include the following:
(1) the reasons for DEP's decision, Mike -- Would the training provider or sponsor always know this?
(2) the reasons why the Board should review DEP's decision,
(3)(3) identification of the desired action from the Board, and
(4)(4) any circumstances that may merit consideration because of the unique nature of the training proposal that is not part of DEP's training approval guidelines.
(e)(c) The Board must take action on any training appeal request within 120 days of completion of the scheduled Board meeting(s) dealing with the training action.
(d)(d) The Board decision may be appealed to the EHB.

## §8.6. Delegation of Board Authority.

In order to expedite the delivery of services by the Board, the Board has delegated a number of decisions to the Board Secretary or other DEP program staff in accordance with the matrix in Appendix F.

## EXTENSIONS FOR CERTAIN REQUIREMENTS

## §9.1. Extensions.

The Board may provide a time extension to a certified operator for meeting continuing education requirements, taking the exam and completing other mandated training provided that:
(a)(a) the certified operator files a petition with the Board using an approved form and containing completed information and appropriate affidavits requests an extension in writing with
appropriate justification ;within a practical period of time once he or she becomes aware of the conditions that will prevent the operator from meeting all the continuing education, mandated training and testing required by the Act, regulations and appropriate guidelines
(b)(b) the certified operator agrees to meet all the requirements of the Act, regulations or guidelines within a specific time period established by the Board, and
(c) any Board extension is consistent with only those specific powers and duties granted to the Board.

## §9.2. Reasons for extensions.

The Board may provide a time extension to a certified operator for meeting continuing education requirements, taking the exam and completing other mandated training for the following circumstances:
(a)(a) military service that would prohibit an operator's ability to access continuing education, mandated training or Board testing,
(b)(b) health related circumstances that would prohibit an operator's ability to participate in continuing education, mandated training or Board testing, or
(e)(c) other extreme circumstances.

## §9.3. Conditions for extensions.

工——The Board shall not renew, modify or continue to extend the authority of any operator's certification unless the operator has:
(a)(a) requested an extension in writing with appropriate justification using approved DEP forms within a practical period of time once he or she becomes aware of the conditions that will prevent the operator from meeting all the continuing education, mandated training and testing required by the Act, regulations and appropriate guidelines,
(b)(b) met all the continuing education, mandated training and testing required by the Act, regulations and appropriate guidelines for the period of time in which the extension was granted, and
(c)(c) provided written notification to the Board prior to an action affecting certification status stating the appropriate reason.

## ADMINISTRATIVE HEARINGS OF THE BOARD

## §10.1. General requirements.

(a) The board will hold administrative hearings, subpoena witnesses, records and other physical evidence upon petition of DEP to revoke, suspend, modify or re-instate an operator's certificate.
(b) Administrative hearings of the Board shall be in accordance with 2 Pa.C.S.A. $\S 501$ et seq., commonly known as the "Administrative Agency Law."

## JUDY --- PLEASE REVIEW:

## §10.2. Hearings and Appeals

1) Hearings and appears-shall be held before the Board State Board for Certification of Water and Wastewater Systems Operators (the Board) or before a hearing examiner assigned by the by the Board. The hearing examiner must be a member of the Board.
2) Request for Hearings
a) All requests for hearings or appeals-shall be directed in writing to the secretary of the Board.
b) Any personDEP may request a hearing or request for disciplinary action under section § 8.4. "Suspension and revocation of a certificate." of this guidelines before the State Board for Certification of Water and Wastewater Systems Operators-Board by submitting a written request containing the following information:
i) identification of the person(s) requesting the hearingDEP contact person including the address, telephone number and other contact information
ii) the subject matter or factual basis of the request including the dates, times and places of the occurrences and the name(s) of the responsible party(ies)
iii) the statutory and/or regulatory authority for the request; and iv) the relief requested.

Any person affected or aggrieved by a decision of the Board or the Board's designee may request a hearing before the State Board for Certification of Water and Wastewater Systems Operators by submitting a written request containing the following information:
identification of the person(s) requesting the hearing including the address, telephone number and other contact information
the subject matter or factual basis of the request including the dates, times and places of the occurrences and the name(s) of the responsible party(ies)
the statutory and/or regulatory authority for the request; and
iv) the action requested.Environmental Hearing Board.

## 3) Time and Place of Hearing

a) A hearing will be held in Harrisburg, except when the Board or hearing examiner, for cause shown, determines that a hearing be held at a different location.
b) A hearing will be held at a time set by the Board or hearing examiner.
c) A hearing may be rescheduled or cancelled at the discretion of the Board or hearing examiner.
4) Notice of Hearing
a) A written notice of the time, place and subject matter of the hearing shall be sent by the secretary of the Board to the party affected by the action or proposed action of the Board at least thirty (30) days prior to the date of the hearing. The notice shall be sent by certified mail or may be served personally by a person who, upon request, shall file an affidavit of the service with the secretary of the Board.
b) A request by a party or the party's attorney to reschedule or cancel a hearing shall be in writing and shall be received by the secretary of the Board at least thirty (30) days prior to the hearing.
5) Procedure
a) A party may be represented at a hearing by an attorney of his/her choice and shall be afforded reasonable opportunity for the examination and cross-examination of witnesses. A witness testifying at a hearing shall be sworn or affirmed. The Board or hearing examiner is not bound by the technical rules of evidence and relevant evidence of a reasonable probative value may be received. A party shall be given the opportunity to file a brief.
b) Testimony shall be recorded, video recorded or tape recorded and a full and complete record shall be kept of the proceedings. Parties desiring copies of the transcript, video or tape shall obtain such copies from the official reporter. Parties will also have the opportunity to review a copy of the transcript, video or tape on file with the Board.
c) The Board shall have the authority to:
i) Determine the order of presentation of evidence;
ii) Administer oaths and affirmations;
iii) Rule on procedural matters, objections, and motions;
iv) Rule on offers of proof and receive relevant evidence;
v) Close parts of a hearing to public observation or order the exclusion of witnesses upon a showing of good cause;
vi) Interrogate witnesses called by the parties in an impartial manner to develop any facts deemed necessary to fairly and adequately decide the matter;
vii) Regulate the course of the hearing and take any appropriate action necessary to maintain order during the hearing;
viii) Permit or require oral argument or briefs and determine the time limits for submission thereof;
ix) Take any other action necessary and authorized by any applicable statute or rule;
x) Waive any requirement of these rules unless a party shows that it would be prejudiced by such a waiver; and
xi) The Board's chair or the chair's designee may conduct the procedural aspects of the adjudicative proceeding under (i) through ( x ) of this subsection, unless a majority of members present vote to seek a full Board decision on any particular matter.
d) After the conclusion of the evidentiary portion of the adjudicative hearing by the Board and after the hearing examiner, if applicable, makes his/her recommendations to the Board, each Board member will present their views and arguments of the issues.
e) After each Board member presents views and arguments the Board may issue by majority vote an adjudication or enter a decision at that time but no later than 30 days after the adjudicative hearing.
f) Within thirty (30) after the Board issues an adjudication or enters a decision, the Board:
i) shall set forth in writing its findings of fact and decision; and ii) shall serve upon all parties to the proceedings or their representatives a copy of the findings of fact and decision.
g) The Board's chair is authorized to sign findings of fact and decision on behalf of the Board.
h) Any Board finding of fact and decision shall be effective immediately.
i) A party or parties who receives a finding of fact and decision of the Board may appeal the finding to the Environmental Hearing Board.
6.- Continuance
a) -Continuance of a hearing is within the discretion of the Board whether contested or uncontested by the parties. The Board may continue a hearing upon its own motion.

# Examination Provider Manual 

Pennsylvania Water and Wastewater System
Operator Examination Program


## January 2006

# State Board for Certification of Water and Wastewater System Operators COMMONWEALTH OF PENNSYLVANIA <br> Department of Environmental Protection 

## Table of Contents

## General Information

Introduction .....  2
Contact Information ..... 3
Overview of Approved Examination Provider Program ..... 3
Overview of the Approved Examiner Process ..... 4
Examination Site Requirements
Physical Location ..... 6
Seating, Writing Area and Table Arrangements ..... 6
Fee Collection
Fees charged by AEP ..... 7
Fees charged by DEP ..... 7
Data Management
General ..... 8
Examinees
General ..... 8
Examinee Identification ..... 8
Proctor Services and Examinations
Request for Proctor Services. ..... 9
Examinations ..... 9
Proctors ..... 10
Forms
Application for Approved Examiner Provider Request for Examination Services
Test Registration Form and Instructions
Template for Notification Letter
Flyer to be mailed with Notification Letter

## Section 1. General Information

## A.- Introduction

Mike -- It is interesting that on page 28 the Board states that one of the purposes for the AEP is to "provide immediate examination opportunities" and that the issue demands a flexible approach that provides the opportunity for examinations associated with training.

Just because statistics show an increased passing rate if the exam is immediately given after training does not give me a warm feeling that we (as the Board) are better assured that operators are qualified. Are operators are any better qualified simply because they could take the exam the same day the training was given (and therefore pass the exam). I think this should be discussed by the Board sometime.

This manual explains how an organization or individual becomes an approved examination provider (AEP) for water and wastewater system operator certification examinations. _This manual outlines the approved examiner's responsibilities, security needs, and documentation and testing site requirements.

The Operator Certification Program creates this AEP Program for the purpose of:

|  | Providing better geographical access to examinations. |
| :--- | :--- |
|  | Offering more examination opportunities. |
|  | Delivering pessible-on-demand examinations. |
|  | Creating stronger partnerships between the DEP and industry associations. |
| Providing asseciation training association-training efforts with program- |  |
|  | opportunities. |
| Reducing the administrative cost and -demands entor state resources. |  |

With the-an expansion of the existing examination procedures-services through the AEP, the ultimate goal of increased-increasing drinking water and wastewater system compliance with the requirement to have a qualified certified operator can be reachedenhanced. There is-appears to be a direct relationship between ruralareas of the state where examinations are not offered, and high non-compliance rates. The length of time between training and examination is also an area of concernissue raised by the industry. A nationwide survey clearly shows that training followed immediately by examination produces better examination results. This issue demands a more flexible approach tothat providing-provides the opportunity examinationfor examinations associated with training-efferts.

Further complicating the need to change the examination process is-Tthe high costs of providing examination services by private contractor is unacceptable. Expanding Any expansion of the existing contracted examination services is counter to the administration's target of goes against the recent directive requiring all_programsmaking programs more to be financially self-selfsufficientsupporting. This-These needs demands a different approach to providing-delivering examination services. To also achieve this end, the Department of Environmental Protection (DEP)DEP created this AEP Program. This process allows qualified organizations to sponsor examinations. The prototype for this new examination delivery system was explored during the "beta testing" effort completed in 2005. In partnership with different industry associations over 1700 people were tested outside of the DEP's usual examination protocol during this effort. Based upon this success, the DEP developed the program presented in this manual.

## B. B. Contact Information

If you have questions about this material manual, you may contact the Bureau of Water Standards and Facility Regulation, Division of Technical and Financial Assistance, at:

## PA DEP

Bureau of Water Standards and Facility Regulation
Division of Technical and Financial Assistance
P.O. Box 8467

Harrisburg, PA 17105-8467
Phone: 717-787-0122 or 717-705-4090
Fax: 717-772-4474
E-mail gmoyer@state.pa.us

## C. Overview of the Approved Examination Provider Program

Purpose: To allow organizations, and associations and individuals to assist in the delivery of_certification examinations to drinking water and wastewater system operators.

Options: Any organization or, association or individual may apply to the DEP to become an AEP toAEP to administer eertifieationcertification examinations in aaccordance with this mantathhis manual. -An AEP may opt to provide certification examinations in a number of environments:

1. Stand-alone examination sessions.
2. Examinations associated with organization meetings or conferences.
3. Examinations associated with specific training activities.
4. Special single-type examination. e.g. distribution only

Qualifications: Organizations, or associations and individuals having water or wastewater industry nterestsinterests. AEPs must also meet the standards set forth in this_manual.

Costs: AEPs may establish any fee schedule it finds appropriate for their services. DEP will not be chargingestablish a fee for their proctor's participation or test preparation of a AEP sponsored examination.

Application: A request to be granted AEP status is a one-time application process. An applicant for AEP status may request approval to provide water examinations, wastewater examinations or both. An applicant must submit a complete application using the AEP application form (see section 7). Allow 60 days for processing the complete application. An application for an Examination Services Request Form may accompany this request (see section 7).

## D. D. Overview of the Approved Examiner Process

The delivery of water and wastewater certification examinations is a two-step pprocess. First, organizations or individuals-wishing to provide examination services mustservices must be ggranted status as an AEP. This one-time approval process recognizes that an AEP agrees to meet the program standards and conditions for the delivery of an examination. A DEP proctor is responsible for determining if all the standards set forth in this manual are met prior to delivering the examination. The proctor or other DEP staff are required to complete a site visitation. The AEP will be advised of the lead proctor to assure this occurs. The DEP will determine the proctors to be assigned to each examination site.

## Examination Site Approval Process <br> (only first time site use)



After receiving AEP status, an examiner must register each examination event using the Request for Services Form (see section 7). The DEP shall provide sufficient proctors and appropriate examinations at the site and time specified by the AEP.

## General Responsibilities and Activities



## Section 2. Examination Site Requirements

## A. Physical Location

The physical location for an examination site mustsite must meet the following standards:

1. The siteThe site must be of sufficient construction to provide for a controlled environment that protects against weather related risks.
2. The site must have heating and air conditioning services necessary to maintain an approximate ambient air temperature of 70 degrees Fahrenheit at all times during the examination. The heating, ventilation and air conditioning system shallsystem shall adequately prevent the introduction of particulate matter, noxious and toxic fumes and any other foreign material that may impair or affect the air quality in the examination room.
3. The site mustsite must have functioning drinking water and wastewater disposal facilities within a reasonable distance of the examination room and include toilet and hand washing facilities for both male and female examinees. All toilet, hand washing and drinking areas shall be maintained in a sanitary condition.
4. The site must have sufficient lighting to provide 40 to 70 foot-candles in the examination room or meets any other national illumination standard for classrooms. No lighting shall create a distraction for the examinees.
5. The site must isolate examinees from disruptive noises or other interferences during the examination.
6. Examination areas must be posted with a notice stating: DO NOT DISTURB EXAMINATION IN PROGRESS in letters no less than 1 and $1 / 2$ inch in size.
7. The site must have provisions for adequate parking for examinees.

## B. Seating, Writing Areas and Table Arrangements

1. All examinees must be provided a flat, smooth, hard and dry writing surfacesurface with a minimum area of 432 square inches ( 18 " wide by 24 " long).
2. A maximum of two examinees per table are allowed. Examinee tables must be a minimum of 6 feet in length and at least 18 inches wide.
3. Writing surfaces shall not be arranged in such a manner as to put -eexaminees face to face with each other. Examinees may be facing a wall or other solid surface.
4. A minimum of 5 feet shall be provided between tables serving as writing surfaces from the back of the table to the front of another table with sufficient room for proctors to pass behind the examinees during_the examination.
5. All seats must have a back rest and shall be of sufficient size to accommodate an average adult.
6. The AEP shall make available an applicant registration table outside of the examination area.
7. A chair for a proctor shallproctor shall be provided for each 20 examinees.
8. A representative for the AEP shall be present on-site to insure site suitability. site

## Section 3. Fee Collection

## A. Fees Charged by AEP

An AEP may collect a fee to cover the cost of providing the examination. This fee could include the cost of the facilities, a service fee for arranging the examination, and reimbursement for AEP staff that are assisting the administration of the examination.

## B. Fees Charged by DEP

Costs incurred by the DEP will be charged to the operator upon successfully passing the examination, when the operator applies for certification.

## Section 4. Data Management

## A. General

The AEP shall use on an Excel Spreadsheet provided by DEP to capture the following information:

1. Name, Address, Phone Number, Social Security Number and Client ID (if the applicant has one) of every applicant registered to take the examination.
2. The examination(s) each applicant wishes to take and the Class of certification the applicant is requesting.

The AEP will use the Registration Form in Section 7 to register all applicants. The AEP will mail a copy of all completed registration forms with an electronic version of the Excel Spreadsheet by Certified Mail to DEP two weeks before the scheduled examination.

The AEP will also use the template for a Notification Letter in Section 7 to confirm the applicant is registered -to take the appropriate examinations as indicated on the registration form. A copy of the flyer in Section 7 will be sent with each notification letter.

## Section 5. Examinees

## A. General

No AEP may deny access to their examination services based on race, color, creed, religion or sexual preference. An AEP may not condition their examination services at a specific examination site to members of their association or organization. AEP may establish a priority for their membership's access (where applicable) to an examination based on available seating at the examination site. An AEP may charge non-members of their association a different rate for examination services. Inittations- $\underline{W}$ where the training has been provided subsequent-prior to an AEP's examination, all Iindividuals attending the training shall have first priority to take the appropriate examinations related to the training in lieu of AEP members (if applicable). MIKE -- I am not sure what this means (what is an AEP member?), but if it means that individuals attending the training can "bump" those applicants that choose not to take the training, then I have a problem with that. See my earlier comments about training/testing.

No AEP may administer a certification examination to any applicant that fails to file a completed application for examination and provide the appropriate fees. All appropriate examinee information must be in the possession of DEP priorDEP prior to the examination.

## C. Proctor(s)

DEP will provide proctors to each examination site based on the number of individuals taking the examination. Proctors shall arrive at the examination site two hours prior to the start time for the examination. The proctor shall have the authority to cancel any examination event, if they determine the site and conditions do not meet the criteria in this manual. A proctor may also modify the start time for an examination event. Proctor duties include:

1. Conducting a pre-examination inspection of the examination site (when necessary).
2. Transporting all examinations and materials to the examination site.
3. Directing all examination activities at the examination site.
4. Collecting all examinations and answer sheets.
5. Terminating the examination period.

## D.- $\quad$ Special Testing Protocol

DEP may establish modified requirements (streamline) for examination when an AEP provides a single module or same modules testing. An AEP administering a single type examination must request approval for modified testing. This may include, but isnot limited to, different registration requirements, deadlines for submittal, and processing methods.

Section 7. Forms

## APPROVED EXAMINATION PROVIDER APPLICATION

## Complete and submit this form to:

Department of Environmental Protection
Bureau of Water Standards and Facility Regulation
Technical and Financial Assistance
P.O. Box 8467

Harrisburg, PA 17105-8467
Please print or type. Copy as needed. This form is available on DEP's website at www.dep.state.pa.us .

| APPLICATION |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| 1. Approved Examination Provider Name (organization, association, corporation, institution) |  |  |  |  |  |  |  |
| 2. Street or Box Address | 4. State | 5. Zip |  |  |  |  |  |
| 3. City | 7. Phone | 8. FAX |  |  |  |  |  |
| 6. Contact Person and Title | 10. Website (if applicable) |  |  |  |  |  |  |
| 9. E-mail Address |  |  |  |  |  |  |  |

The undersigned being properly authorized to represent the above applicant hereby agrees to meet all applicable conditions set forth by the Department of Environmental Protection (DEP) for the Approved Examination Provider (AEP) Program and understands that their status as an AEP may be revoked or suspended by DEP at any time.

Name of Authorized Agent (printed)

## Complete and submit this form to:

Department of Environmental Protection
Bureau of Water Standards and Facility Regulation
Technical and Financial Assistance
P.O. Box 8467

Harrisburg, PA 17105-8467
Please print or type. Copy as needed. This form is available on DEP's Web site at www.depweb.state.pa.us.

| APPLICATION |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| 1. Approved Examination Provider Name | AEP No. |  |  |  |  |  |  |
| 2. Street or Box Address | 4. State | 5. Zip |  |  |  |  |  |
| 3. City | 7. Phone | 8. FAX |  |  |  |  |  |
| 6. Contact Person and Title | 10. Website (if applicable) |  |  |  |  |  |  |
| 9. E-mail Address |  |  |  |  |  |  |  |
| EXAMINATION SITE |  |  |  |  |  |  |  |

11. Site
12. Street or Box Address

| 13. City |  | 14. State | 15. Zip |
| :--- | :--- | :--- | :--- |
| 16. Contact Person and Title | 17. Phone |  |  |
| 18. Proposed Date of Examination <br> (Registration Deadline: | 19. Proposed Time Slot | 20. Approximate No. of Examinees |  |

21. Directions to site
22. Fee to be charged examinees $\$$ $\qquad$
Name of Authorized Agent (printed)

Signature of Authorized Agent Date

## EXAMINATION INFORMATION

- You may apply for and take any examination(s) without meeting the experience requirements prior to taking the examination(s).
-Approximately two weeks before an examination, qualified applicants will receive a "LETTER OF NOTIFICATION" from the State Board for Certification of Water and Wastewater Systems Operators (the Board) or the Association scheduling the examination.
- Examination results will be mailed to the applicant.

A passed examination score has no expiration date.

## Part 1: Applicant Information

Complete all information as requested, including your CLIENT ID, if DEP has assigned one to you.

| Part 2: Requested Class | Part 3: Test Site |
| :--- | :--- |
| Choose class based on size systems you want to operate, <br> (see definition of classes below). | Choose only one testing site for the examination. |

Part 4: Certification Examinations (Mark appropriate boxes)

## Water Examinations

| PART 1 - GENERAL EXAMINATION | Required for Class A, B, C, or D certification. <br> 1. Class A, B, or Certification require Technology Specific Examinations applicable to your system. Class D does not, unless your system is using a specific treatment technology. <br> 2. Class Dc and Dn certification cannot be upgraded without retesting. |
| :---: | :---: |
| PART 2 - TECHNOLOGY SPECIFIC EXAMINATION | Applicable to your system - Check System Permit. |
| CLASS E - DISTRIBUTION SYSTEM EXAMINATION | Distribution System certification. <br> Technology Specific Examinations 7 thru 14 (if applicable to your distribution system). |
| Dc - SMALL SYSTEM EXAMINATION | Groundwater source that serves less than 500 individuals or 150 connections and requires disinfection. |
| Dn - SMALL SYSTEM EXAMINATION | Groundwater source that serves less than 500 individuals or 150 connections and requires NO treatment. |
| Wastewater Examinations |  |
| PART 1 - GENERAL EXAMINATION | Required for Class A, B, C, or D certification. |
| PART 2 - TECHNOLOGY SPECIFIC EXAMINATIONS | Applicable to your system - Check System Permit. |
| CLASS E4-SATELLITE COLLECTION | Satellite collection system with a pump station(s). <br> Single entity owner collection system certification. <br> This certification cannot be upgraded without retesting. |

Guidelines on the average time to take each examination are in brackets next to each examination name on the test registration form. Examination sessions are limited to four (4) hours. Applicants should not register for more examinations than can be completed in the allocated 4 hours.
If you anticipate the need for a testing accommodation due to a disability, your written request must be submitted with your registration form. Written requests must contain the following: (1) a letter from a professional who has made an assessment of your disability, describing the way in which you would be best accommodated, and (2) a letter from you describing the requested accommodation. If you have questions, please contact the Board at 717-787-5236 or through PA AT\&T Relay Services at 1-800-654-5984 (TDD).
For further information on the Operator Certification Program and the process for applying for certification, please refer to the Drinking Water and Wastewater Information Center at www.dep.state.pa.us , Keyword: "DEP operators."

$$
\text { 150-0200-002 / Draft January 3, } 2007 \text { / Page } 39
$$

## DEFINITIONS OF CLASSES

## WASTEWATER

Class A-Greater than 5 mgd
Class B-Greater than 1 mgd , but less than or equal to 5 mgd
Class C - Greater than 100,000 gpd, but less than or equal to 1 mgd
Class D - Less than or equal to 100,000 gpd
Class E - Satellite collection system with a pump station (will be combined with wastewater subclassification 4)

## Class E

Collection system - Any system of pipelines or conduits, pumping stations, force or gravity mains used for collecting and conveying wastes to a point of treatment and disposal. The term does not include a collection system within the boundaries of the property of the owner.
Satellite collection system - A publicly owned wastewater collection system that conveys sewage to a treatment plant owned by a different entity.

## WATER

Class A - Greater than 5 mgd
Class $B$ - Greater than 1 mgd , but less than or equal to 5 mgd
Class C - Greater than 100,000 gpd, but less than or equal to 1 mgd
Class D - Less than or equal to 100,000 gpd
Class E - Distribution and Consecutive Water Systems with no treatment

## DEFINITIONS OF SUBCLASSES

## WASTEWATER

Subclassification 1 - Activated Sludge - The treatment technology that mechanically introduces air into wastewater to achieve treatment such as extended aeration, sequential batch reactors, contact stabilization, conventional, step fed or oxidation ditch.

Subclassification 2 - Fixed film treatment - A wastewater treatment technology that uses a fixed contact media to achieve treatment such as trickling filters and rotating biological contactors.

Subclassification 3 - Treatment ponds and lagoons - Technology that uses aerated, anaerobic, facultative process or wetlands to treat wastewater.

Subclassification 4 - Single entity collection system - A wastewater collection system where the collection system relies on treatment from a wastewater treatment system owned by the owner of the collection system.

## WATER

Subclassification 1 - Conventional filtration - For drinking water, a series of processes for the purpose of substantial particulate removal consisting of coagulation, flocculation, sedimentation and filtration.

Subclassification 2 - Direct filtration - For drinking water, a series of processes for the purpose of substantial particulate removal consisting of coagulation, and filtration. The term normally includes flocculation after coagulation, but does not include sedimentation.

Subclassification 3 - Diatomaceous earth filtration - For drinking water, a process for the purpose of substantial particulate removal, in which a pre-coat cake of diatomaceous earth filter media is deposited on a support membrane (septum) and, while the water is filtered by passing through the cake on the septum, additional filter media, known as body feed, is continuously added to the feed water, to maintain the permeability of the filter cake.

$$
\text { 150-0200-002 / Draft January 3, } 2007 \text { / Page } 40
$$

Subclassification 4 - Slow sand filtration - For drinking water, a process for the purpose of substantial particulate removal by physical and biological mechanisms during the passage of raw water through a bed of sand at low velocity, generally less than 0.4 meters per hour.

Subclassification 5 - Cartridge or bag filtration - For drinking water, a process for the purpose of substantial particulate removal by straining with bag or cartridge filters manufactured of various materials and pore sizes.

Subclassification 6 - Membrane filtration - For drinking water, a process that uses a thin film that acts as a selective barrier (semi-permeable) to the transport of matter to remove contaminants from water and includes such processes as electrodialysis, reverse osmosis, nanofiltration, ultrafiltration, microfiltration or other similar technologies.

Subclassification 7 - Corrosion control and sequestering - A water treatment process designed to mitigate the adverse effects of corrosion in drinking water.

Subclassification 8 - Chemical addition - A water treatment process designed to improve the quality of the water being treated through the addition of chemicals such as lime, soda ash, caustic soda and permanganate.

Subclassification 9 - Ion exchange and green sand - A water treatment process such as greensand filtration, ion exchange, or activated alumina designed to improve the quality of water being treated by removal of inorganic constituents.

Subclassification 10 - Aeration and Activated Carbon Adsorption:
Activated carbon - A water treatment process designed to improve the quality of water being treated by using activated granular or powdered carbon to remove specific organic chemical compounds by adsorption.

Aeration - A water treatment process designed to improve the quality of water being treated by introducing air or oxygen into water to remove undesirable dissolved gases, to remove volatile organic compounds or to oxidize inorganic compounds so they can be removed as particulates.

Subclassification 11 - Gaseous chlorination disinfection - A water treatment process designed to inactivate pathogenic organisms from water being treated utilizing gaseous chlorine.

Subclassification 12 - Non-gaseous chemical disinfection - A water treatment process designed to inactivate pathogenic organisms from water being treated utilizing non-gaseous chemical elements or compounds.

Subclassification 13 - Ultraviolet disinfection - A water treatment process that inactivates pathogenic organisms using light with a wavelength range of 4000 to 40 angstroms.

Subclassification 14 - Ozonation - The water treatment process designed to inactivate pathogenic organisms from water being treated utilizing ozone.


# AEP ADDRESS <br> AEP Phone Number 

January 4, 2005

## EXAMINATION NOTICE

<Applicant's First Name><Last Name>
<Address>
<City> <State> <Zip>
You are scheduled for the following Drinking Water or Wastewater Operator Certification examination. Please read carefully.

| Exam Date: <br> Exam Time: <br> Exam Site: | <Exam date> <br> $<$ Exam time> <br> <Exam location> |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exams | W1- | Conventional Filtration Exam |  |  |  |  |  |  |  |
|  | W2 - | Direct Filtration Exam |  |  |  |  |  |  |  |
|  | W3- | Diatomaceous Earth Filtration Exam |  |  |  |  |  |  |  |
|  | W4 - | Slow Sand Filtration Exam |  |  |  |  |  |  |  |
|  | W5 - | Cartridge or Bag Filtration Exam |  |  |  |  |  |  |  |
|  | W6- | Membrane Filtration Exam |  |  |  |  |  |  |  |
|  | W7- | Corrosion Control and Sequestering Exam |  |  |  |  |  |  |  |
|  | W8- | Chemical Addition Exam |  |  |  |  |  |  |  |
|  | W10- | Organic Removal Exam |  |  |  |  |  |  |  |
|  | WGEN - | Water - General Exam |  |  |  |  |  |  |  |
| Applicable Certificate: | WA1 | WA2 | WA3 | WA4 | WA5 | WA6 | WA7 | WA8 | WA10 |

If you need to make corrections or changes to the exam and/or certificate level, please notify us at XXX by 12 noon, April 25, 2005. No corrections or changes will be accepted after this date. Review carefully, you will not be permitted to change examinations at the exam site. There is a fee for each examination registration date/session, whether you failed, passed or did not attend. The State Board for Certification of Water and Wastewater Systems Operators will collect this fee when you apply for certification.

Bring with you:

- This notice
- Picture identification, no admittance without a photo ID
- Three sharpened No. 2 (soft) pencils
- Non-Printing calculators and slide rules may be used

Note: Formula conversion tables will be provided at the exam site.
Books, papers, notes, cellular phones, pagers/beepers, alarm watches, purses or backpacks will not be permitted in the examination room.
Smoking is not permitted in the examination room.

## Exam results will be mailed to you approximately $\mathbf{7 5}$ days after the examination.

If you are a person with a disability and require accommodation to take the examination, please contact Cheri Sansoni at 717-787-5236 or through Pennsylvania AT\&T Relay Services at 1-800-654-5984 (TDD) to discuss how the State Board for Certification of Water and Wastewater Systems Operators may accommodate your needs. Although every attempt is made to provide a quiet and comfortable testing environment, last minute circumstances beyond our control may occur. If you are sensitive to temperature variations or noise distraction, you may wish to wear clothing appropriate for a cooler or warmer examination room and bring earplugs. If the distraction becomes unbearable, please inform the chief proctor during the examination process.


Appendix B:
OPERATOR CERTIFICATION PROGRAM

# WATER \& WASTEWATER OPERATOR <br> CERTIFICATION EXAMINATION 

## Proctor Manual

(A Copy of this Manual must be available at all Examination Sites)

State Board for Certification of Water and Wastewater Systems Operators
January 2006

## EXAMINATION SCHEDULE

Examinations will be scheduled throughout the year in partnership with Approved Examination Providers (AEPs). Once the schedule of examinations to be provided by AEPs is drafted, The State Board for Certification for Water and Wastewater System Operators (Board) and the Department of Environmental Protection (DepartmentDEP)_may provide additional examinations at additional sites in the Commonwealth on an as needed basis. Additional examination sessions may also be scheduled to address a specific enforcement or compliance issue.

## EXAMINATION SITES

Examination sites must comply with requirements specified in the AEP Manual. AEPs are responsible for working with representatives from the examination site to insure site conditions meet examination site requirements.

## EXAMINATION PROCTORS

The Department-DEP shall provide the examination proctors. Specially trained personnel employed on the Outreach Assistance Provider Program (OAPP) shall proctor all examinations. Department-DEP staff shall serve as the lead proctor.

A proctor/Department-DEP staff to examinee ratio for an examination shall be:

| 1-40 examinees: | One Department DEP and one OAPP proctor will oversee the <br> examinations |
| ---: | :--- |
| $\mathbf{4 1 - 6 0}$ examinees: | One Department DEP and two OAPP proctors will oversee the <br> examinations |
| $\mathbf{6 1 - \mathbf { 0 0 }}$ examinees: | One Department DEP and three OAPP proctors will oversee the <br> Oxaminations |
| Over 80 examinees: | One additional proctor is needed for every 20 examinees. Depending on <br> site capacity, a second site or the scheduling of additional examination <br> dates may be needed. |

If the examination is being given in more than one room at an examination site, a minimum of two proctors will be provided for each room. One DEP staff person will serve as the lead proctor.

## Proctor Responsibilities

Proctor responsibilities are as follows:

- Surveying examination space and keeping all examination materials secure.
- Arranging for admission into examination space, keeping the examination area quiet.
- Maintaining the integrity of the examinations.
- Admitting anyone listed on the examination roster that has proper identification.
- Identifying the examinee and ensuring the examinee knows their seat number.
- Preventing examinees from bringing personal items into the examination area.
- Providing a designated area for examinee personal belongings.
- Assuring that only pencils and erasers are used.
- Ensuring no examinee is admitted after the examination has begun.

$$
\text { 150-0200-002 / Draft January 3, } 2007 \text { / Page } 45
$$

- Identifying defective examinations and opening another examination for the examinee. (Only under the circumstances of a defective examination is a proctor allowed to examine or review an examination.)
- Advising the examinee to answer questions to the best of their ability and encouraging them to fill out the question evaluation form if they have a problem with a particular question.
- Permitting examinees to go to the restroom one at a time. However, their examination materials are to be collected before leaving the room and returned after the examinee re-enters the room. No extra time is allowed for their absence.
- Permitting examinees to leave once the examination is completed, after insuring that the examinee has turned in all examination materials.
- Assuring the examinees that disruptive behavior will not be tolerated. Any examinee causing disruptive behavior will be required to leave the examination area.
- Completing a report if you suspect an examinee of cheating, indicating all relevant details. Allow the examinee to complete the examination.
- Ensuring each examinee starts and ends each examination on the right place in the answer sheet.
- Ensuring each examinee uses the right answer sheet corresponding to the type of examination. For example, an examinee taking the water distribution examination must use a blue answer sheet with the words "Water Distribution Exam" typed across the top.
- Returning all examination material to Department-DEP Central Office, the General Administration Business Section, Bureau of Water Standards and Facility Regulation the following business day.
- Insuring only authorized admittance into the examination area.
- Insuring all cell phones are left in the examinee's vehicle.
- No food, drinks or smoking are allowed in the examination room.


## Training

All Department-DEP and OAPP proctors shall be trained in the administration of the certification examination. Training shall include:

Proctor Responsibilities
Examination Materials
Procedures Prior to Examination Day
Receiving Examination Materials
Examination Check-In
Administering the Examination
Monitoring the Examination
Examination Check-Out
Loss of Examination Material
Packing Examination Material
Examination Site Requirements
Allowable Electronic Devices
Detailed information on proctor training is outlined in the manual entitled the "Operator Certification Program - Proctor Manual For Water \& Wastewater Operator Certification Examination".

## EXAMINATIONS AND ASSOCIATED MATERIALS

The "Examinations In A Box" shall be given to the Department's-DEP's lead proctor for each examination session. Proctors need to arrange the room, post signs and distribute the Seating and Check-In/Check-Out rosters to be ready for the examinees to begin the examination. Examination materials include:

## Contents of Examination Box

Examination Packets for each examinee
Examinee Roster - Check-In
Examinee Roster - Check-Out
Masking Tape
Post It Notes
Sign, Do Not Disturb - Examination In Progress
Sign, Check-In/Check-Out
Seat numbers
Restroom passes
Pencils
Two extra copies of each examination
A copy of each applicant's registration form
ABC Exam Administrator Report form

## Contents of Individual Examination Packet

Examination folder
Conversion Chart and Formulas
Demographic Information Form (BETA Tests Only)
Question Evaluation Form (BETA Tests Only)
Examination booklet(s)
Answer sheet(s)

The Operator Certification Program examinations consist of the following:
Part I - Water General Examination
Part I - Wastewater General Examination
Part II - Technology Specific Examination
For drinking water the Technology Specific Examinations include the following:
(1) Subclassification 1 - conventional filtration
(2) Subclassification 2 - direct filtration
(3) Subclassification 3 - diatomaceous earth filtration
(4) Subclassification 4 - slow sand filtration
(5) Subclassification 5 - cartridge or bag filtration
(6) Subclassification 6 - membrane filtration
(7) Subclassification 7 - corrosion control and sequestering
(8) Subclassification 8 - chemical addition
(9) Subclassification 9 - ion exchange and greensand
(10) Subclassification 10 - aeration and activated carbon adsorption
(11) Subclassification 11 - gaseous chlorine disinfection
(12) Subclassification 12 - non-gaseous chemical disinfection
(13) Subclassification 13 - ultraviolet disinfection
(14) Subclassification 14 - Ozonation

For wastewater the Technology Specific Examinations include the following:
(1) Subclassification 1 - activated sludge
(2) Subclassification 2 - fixed film
(3) Subclassification 3 - treatment ponds and lagoons
(4) Subclassification 4 - single entity collection systems (See Class E - Wastewater Collection System below)

Other stand alone examinations include:

- Class Dc Examination
- Class Dn Examination
- Class E Water Distribution Systems Examination
- Class E Wastewater Satellite Collection System Examination - Wastewater Subclassification 4 will take this examination

There are a total of 23 examinations, eighteen (18) Water Examinations and five (5) Wastewater Examinations.

The examination booklets and answer sheets are color-coded.
Blue examination booklets include:

- Water Part I
- Class E Distribution Systems
- Dc (Small Water Systems w/ Disinfection)
- Dn (Small Water Systems w/out Treatment)
- Wastewater Part I and Subclassifications 1-3
- Class E Collection Systems

Purple examination booklets include:

- Water Subclassifications 1 through 6

Green examination booklets include:

- Water Subclassifications 7 through 10

Red examination booklets include:

- Water Subclassifications 11through 14

When an examinee is working in a blue book, he or she will use a blue answer sheet with the type of examination typed across the top. Likewise, when an examinee is working in a green book, the answer sheet will have green lettering and in a purple book, the answer sheet will have purple lettering. All
candidates for initial certification will have a blue answer sheet for their first examination. This will not necessarily be the case for examinees upgrading their certification. The cover of the examination booklet will tell the examinee the starting question number. If examination booklet doesn't identify a starting question, the examinee will start with question one.

## THE EXAMINATION PROCESS

A comprehensive flow chart of the entire process is included in Appendix AB-1. The Department-DEP or an Approved Examination Provider (AEP) shall process requests for examination.

Cut-off date for registering to take an examination may be determined by the Department-DEP or the AEP. Deadlines for registering to take an examination shall be advertised. The DepartmentDEP recommends a minimum of 45 days.

The Department-DEP or AEP shall complete an administrative review of each examination registration form. Forms shall be complete and separated according to requested examination site. The Department DEP shall provide an AEP the appropriate Excel Spread sheet to compile examination registrations. The Department-DEP is responsible for entering all examination data into eFACTS. All AEPs must designate a single individual as a contact for the Department-DEP for this process. The Department DEP or AEP shall send a notification letter to each applicant. The letter shall indicate the name of the applicant, address, examination site, time of arrival and a contact number. The AEP shall provide the Department-DEP a copy of the Excel spreadsheet and each registration form no later than 14 days before the scheduled examination date.

Once the registration deadline has passed, and all examination registrations are processed, the Department-DEP shall determine the final applicant tallies. A roster in electronic format and a copy of each registration form shall be compiled.

## Printing the Examinations

The Department's-DEP's print shop shall print the required number of examinations. Each Department DEP lead proctor shall have five extra copies of each examination and corresponding answer sheets. These extra copies shall be available if there is a printing error or registration error. These extra examinations shall be maintained in the Examination Box provided to each Department DEP lead proctor.

## Pre-examination Site Visit

A Department-DEP proctor shall make a site visit prior to the examination day. This requirement may be modified after initial site visits have verified the suitability of the examination site. All examination sites shall be pre-approved prior to scheduling any examinations using the facility requirements contained in Appendix BB-2.

## Examination Operations

A designated area for examinees to store personal belongings while the examination is in progress shall be provided. Examinees should be advised:

- There should be no disruptive noise during the examination.
- No food or drink is permitted during the examination.
- No use of tobacco or smoking is permitted during the examination.
- Cell phones need to be left in the examinee's vehicle.


## Assigning Seating

The Department-DEP shall assign seats to the applicants and print the check-in and check-out rosters for the examination sites. Two lists shall be sorted alphabetically by name. These lists are to be used for check-in and check-out. All examination seating shall be facing the same direction. The proctors should be seated so they have an unobstructed view of the examinees at all times.

## Collating the Examination Packets

Water examination packets are sealed in blue folders. Wastewater examination packets are sealed in yellow folders. The Demographic Questionnaire and the Question Evaluation Form are inserted in the left inside pocket if the examination session is being used for the purpose of BETA testing a newly written examination. If not, only the Formulas and Conversion Tables is inserted in the left inside pocket and the examination booklets and answer sheets in the right inside pocket.

Staff in the Bureau of Water Standards and Facility Regulation shall collate all examination packets. Each examination packet shall have an identification label stating the applicant's name, examinations and seat number assigned to the applicant. Each examination booklet will be numbered, recorded and assigned to each applicant. The examination packets will then be sealed.

Staff in the Bureau of Water Standards and Facility Regulation shall insure that all materials required for examination are in each "Examinations in a Box" for each examination site and session. Each box will then be given to the lead Department-DEP proctor.

## Administering the Examination

Proctor teams will consist of a lead Department-DEP proctor and the required number of OAPP personnel. The Department-DEP proctor, upon receiving the "Examinations In A Box", will immediately inventory its contents. The Department DEP proctor shall check the roster against the number of examination packets and check the other examination supplies to insure it is complete.

The Department-DEP proctors shall arrive at the pre-qualified examination site at least two hours before the examination. The proctor shall ensure the examination site meets all facility requirements. The lead proctor shall be responsible for assigning tasks to the OAPP personnel and insuring all materials in the "Examinations in a Box" are returned to the appropriate Bureau of Water Standards and Facility Regulation staff in Harrisburg. The Department-DEP lead proctor is responsible for insuring no examinations are misplaced, lost or stolen.

Duties to be assigned to proctors include the reading of the examination instructions, checking applicants in and out of the examination site, physically arranging the examination site, posting the signs, distributing the examinations, answering questions during the examinations and assisting in ensuring all examination materials are returned. During check-in, each applicant must supply a government issued photo ID. Once the examination has started, no applicant is allowed to leave the room until finished, except to use the restroom. The examination instructions to be read by a proctor are
included in the "Examinations In A Box" provided to each lead proctor. No examinee is allowed to leave the examination site until all their examination materials have been secured and audited.

## Examination Check In - Identification

Examinees are required to present government issued photo identification to the proctor. The proctor should make sure that the picture on the photo ID matches that of the applicant. Examinees who do not have a picture ID should not be admitted.

Examples of approved photo-bearing identification cards include any one of the following:

- Driver's License, or PennDOT ID
- Military ID
- Passport

The proctor shall match the examinee to the name on the roster sheet and verify the accuracy of the examinee's address. All examinees properly registered for the examination are listed on the admission roster.

Note, one of the most challenging aspects of administering an examination is ensuring that the individual taking the examination is properly identified. Because of the high-stakes nature of these examinations, there may be incidences of impersonation. The Department-DEP acknowledges that the identification provided will in some cases be subject to the discretion of the proctor. Do not accept identification that can be easily manipulated or altered.

## Seat Assignments

Upon check-in, the proctor should ensure the applicant knows their assigned seat. These assignments are indicated on the Check-In sheets. Proctors will have already set out seat numbers throughout the room. The examinee cannot change their seating assignment. This will ensure that friends do not automatically sit next to each other. Additionally, by assigning seats, the proctors can plan in advance for distribution of the examinations to the correct examinee.

## References

No references may be used by the examinees, except those supplied in the examination packet. Proctors should also ensure that all loose notes and papers have been removed from the examinees prior to the start of the examination.

## Admitting Late Examinees

Examinees that arrive late may be allowed to enter and take the examination. However, no examinee shall be accepted after examinees have begun the examination. An examinee who arrives late and is allowed to take the examination should be advised that no extra time will be allowed to complete the examination.

## Signing Examination Booklets

An important part of the examination process is the distribution of the examination packet. Each examinee shall be directed to sign their signature on each examination booklet. Please make sure that every examinee signs his or her examination booklet(s). In the event of a missing examination, the signatures will help you identify whose examination booklet is missing. This is in addition to the booklet numbers that have been assigned to each examinee and listed on the Check-In and Check-out rosters.

## Filling Out The Answer Sheet(s)

Ensure the examinee is using the correct answer sheet and the answer sheet information is being properly completed and filled in. Circulate throughout the room. Verify the name and Social Security number, because the scoring system will read the marks and enter this information into the database, independent of whether that information is correct or not.

## Monitoring the Examination

Proctors should circulate among the examinees during the examination. Observe examinees and be alert for any irregularities. Scan each examinee's work area to be sure that the work area is free of unauthorized materials and that examinees are not engaged in any other type of examination misconduct. Avoid making excessive noise that may disturb examinees.

Proctors should occasionally look at answer sheets to make sure the examinees are not only properly filling in their answers, but the colored answer sheet matches the colored examination booklet. Additionally, proctors must check to ensure that the examinees have not made any stray marks on their answer sheets and that they only use a \#2 pencil.

Under no circumstances should a proctor answer any questions regarding the examination content. Should an examinee object to any questions, a proctor should advise the examinee to answer the examination question to the best of their ability. Encourage them to complete a Question Evaluation Form if they have a problem with a question.

If a defective examination is reported during the examination, the proctor should open and inspect the examination material and attach a note to the examination and include it with the completed examination materials to be returned to the DepartmentDEP. Please make a note of the incident on the proctor report. Then replace the defective material with an unused examination(s).

Proctors are to allow only one examinee at a time to use the restroom. Proctors should collect the individual's examination materials and give them back when they return from the break. No extra time is allowed for their absence.

## Early Completion

Examinees who finish the examination early are permitted to leave the examination room when they have checked out. Examinees can check-out one at a time, until the last ten minutes of the examination session. Ten minutes before the end of the examination session, all remaining examinees must remain in their seats and follow the procedures for check-out described below. Be sure to collect all examination materials from each examinee who leaves early. Have the examinee check-out with the front desk and have his name checked off on the check-out roster.

## Permanent Withdrawal

If an examinee must withdraw from the examination permanently for whatever reason, collect the examinee's examination packet. Make sure all examination materials are in the examination packet. Be sure to make note of the situation on the proctor report.

## Irregular Behavior

The proctors have the authority and the responsibility to insure the examinees that disruptive behavior will not be tolerated. Any examinee causing disruptive behavior will be required to leave the examination area. Please make note of such an incident on the proctor report.

As the end of the examination approaches, the Department-DEP proctor will tell examinees when there are 30 and 15 minutes remaining for them to complete the examination. This is a signal to be ready at the end of the examination, as some examinees will use the entire examination time available, to assist the Department-DEP Proctor in telling them to close their examination booklets, put their pencils down, $\quad$ and remain seated when the examination time is over.

## Examination Check Out

As examinees complete the examination, you must require them to stay seated until you can inspect their examination materials and verify that all materials have been returned. It is especially important at the conclusion of the examination for the examinees to stay seated during the check-out process. The proctor must maintain control over the examination site at all times. Individuals seeking to remove examination materials from the examination site may try to use confusion at the end of an examination session to hide examination materials. Confusion may result if multiple individuals stand up and leave the facility at once.

Examination materials to be collected from each examinee include:

- Examination packet
- Examination booklet(s)
- Answer sheet(s)
- Conversion chart and formulas
- Seat number and pencils
- Demographic information and question evaluation forms, if used

When collecting the examination materials, ensure that the answer sheet information has been properly completed and filled in. Please verify the name and social security number because the scoring system will read the marks and enter this information into the database, independent of whether that information is correct or not. Make sure that all the pages of the examination are present and that nothing has been removed from the examination booklet including questions, figures, diagrams, or charts. When the examinee's examination materials have been accounted for, the examinee should come to the front desk and have his or her name checked off the roster. The social security number needs to be compared with the number on the Check-Out sheet and corrections made, if needed. The examinee can then leave the examination site. No side discussions should take place with any examinee while examination materials are still distributed to examinees.

When all materials have been collected, prepare the materials for scoring and returning to the DepartmentDEP. Separate the answer sheets from the examination booklets and place them in separate piles. Examination booklets do not needed to be sorted. Answer sheets need to be separated by examination type and alphabetized by the examinee's last name. Separate completed demographic information and question evaluation forms into separate piles, if used. Put blank forms into another pile for re-use. Count the number of booklets and answer sheets and compare with the total number indicated on the Check-In/Check-Out sheet. If discrepancies exist, try to locate the missing materials. The Check-In and Check-Out roster contains the booklet numbers assigned to each examinee. Another tool to use to identify the missing materials is the signature of the examinees on the examination booklets. If you determine that something is missing, attempt to recover the materials as quickly as possible.

## Collection of Examination Materials

Upon completion of the examinations, Department DEP proctors shall immediately return all examination materials to Bureau of Water Standards and Facility Regulation staff located in Harrisburg. Any storage of examination materials shall be in a locked, and secure office location.

## Loss of Examination Material

The most damaging security breach is the removal of examination materials from the examination site. When removed, it is impossible to know if copies were made, even if the original document was returned. Therefore, it is very important to guard against the removal of examination materials. In earlier sections, the check-out process is described. However, it is important to take action to recover the missing materials as soon as they are discovered missing. If the proctor is still administering the examinations, have another proctor cover the assigned territory and leave the center to recover the materials. If the material is not recovered, then immediately report this to the Department-DEP Proctor.

## Packing Examination Materials

At the completion of the examination session, immediately return the answer sheets, formula and conversion sheets, demographic and question evaluation forms, attendance rosters, examination books and the ABC in the original box. Complete the ABC Exam Administrator Form. One form is to be completed for water examinations, and one for wastewater. Indicate the number of examinees who took water examinations, and the number who took wastewater examinations in the appropriate box. Indicate the number of examinees who took either a distribution examination or the collection system examination in addition to other examinations. Return the box to Bureau of Water Standards and Facility Regulation staff located in Harrisburg.

## Mailing to the Association of Boards for Certification (ABC)

When staff in Harrisburg receives the examination materials, the examination booklets shall be shredded. The answer sheets will be copied and locked into the file cabinet until the original score sheets are returned by ABC with the scoring results. The original answers sheets and the completed ABC Exam Administrator Reports shall be mailed to ABC for scoring. When ABC returns the original answer sheets with the score results, the copies of the answer sheets can be shredded.

## Upload Examination Scores To eFACTS, Send Pass Letter and Application Packet

Upon receipt of the examination scores from $A B C$, the Office of Information Technology will upload the scores into eFACTS. The Department DEP shall send a letter to all the operators with the results of their examination(s) within 30 days. Applicants who passed the required examinations to qualify for certification shall receive an application for certification and an invoice for the appropriate fees. The Department-DEP shall review all applications for certification and recommend the Board take action.

## PROCTOR ASSISTANTS

## -Northwest Region

Jeffery Briggs
David Brumigan
Joe Corraini

## Southwest Region

David Brown
Jerry Brown
Dan Buck
Don Depp
Northcentral Region
Willard Dixon
Wendy Melhorn
Steve Nogle

## Southcentral Region

Jim Baird
Charles Farley
Andrew Hinkle

John Marchese
Eric Schall
Thomas Weiser

Erwin Elma
Calvin Gindelsperger
Mike Henry
George Kraynick

Joe Swanderski
Joe Sulikoski

Nicholas Sahd
Sonny Smeltzer

## Northeast Region <br> Northeast Region

Don Nold

Joe Rost Doug Pike
Sam Scarfone
Ed Wisnewski

Kevin Franks Peter Orloski
George Novajosky Joe Salla

Mick Warso

Ralph Johnson
Ralph Johnson Craig Strait

Craig Strait

A proctor cannot participate in an examination session sponsored by an Approved Examination Provider where that proctor is a full-time employee, Board member or other official of that Approved Examination Provider.

All proctors must sign the Conflict of Interest Statement included in Appendix GB-3.

## CONTACTS

Any questions concerning examination material or the administration of the certification exams should be directed to:

Gary Moyer
Division of Technical and Financial Assistance
Bureau of Water Standards and Facility Regulation
P. O. Box 8467

Harrisburg, PA 17105-8467
(717) 787-0122 or (717) 705-4090

APPENDIX AB-1

## Examination Delivery Process



AEP sends Excel Spreadsheet and copy of Registration Forms by certified mail.

Program staff download spreadsheet into shared folder marked "Original Registrations." Locks disk and hard copies into file cabinet.

Check-In/Check-Out sheets are developed by assigning seats, booklets etc. Sheets are put into shared folder.


## Examination Delivery Process, cont.



## APPENDIX BB-2 <br> SITE SPECIFICATIONS

## Physical Location Requirement and Seating

The physical location for an examination site shall meet the following standards:

1. The site must be of sufficient construction to provide for a controlled environment that protects against weather related risks.
2. The site must have heating and air conditioning services necessary to maintain an ambient air temperature of 70 degrees Fahrenheit at all times during the examination. The heating, ventilation and air conditioning system shall adequately prevent the introduction of particulate matter, noxious and toxic fumes and any other foreign material that may impair or affect the air quality in the examination room.
3. The site shall have functioning drinking water and wastewater disposal facilities within a reasonable distance of the examination room and include toilet and hand washing facilities for both male and female examinees. All toilet, hand washing and drinking areas shall be maintained in a sanitary condition.
4. The site must have sufficient lighting to provide 40 to 70 foot-candles in the examination room or meets any other national illumination standard for classrooms. No lighting shall create a distraction for the examinees.
5. The site must isolate examinees from disruptive noises or other interferences during the examination.
6. Examination areas must be posted with a notice stating: DO NOT DISTURB EXAMINATION IN PROGRESS in letters no less than 1 and $1 / 2$ inch in size.
7. The site must have provisions for adequate parking for examinees.

## Seating, Writing Areas and Table Arrangements

1. All examinees must be provided a flat, smooth and dry writing surface with a minimum area of 432 square inches ( 18 " wide by 24 " long).
2. A maximum of two examinees per table are allowed. Examinee tables must be a minimum of 6 feet in length and at least 18 inches wide.
3. Writing surfaces shall not be arranged in such a manner as to put the examinee face to face with each other. Examinees may be facing a wall or other solid surface.
4. A minimum of 5 feet shall be provided between tables serving as writing surfaces from the back of the table to the front of another table with sufficient room for proctors to pass behind the examinees during the examination.
5. All seats must have a backrest and shall be of sufficient size to accommodate an average adult.
6. The approved examination provider shall make available an applicant registration table outside of the examination area.
7. A chair for a proctor shall be provided for each 20 examinees.

## -APPENDIX EB-3

## CONFLICT OF INTEREST STATEMENT

## General

It is very important to minimize and safeguard against possible "conflict of interests" in the administration of the Operator Certification Program. The program's unique framework tends to create an overlap of personnel, who are wearing different hats to carryout different activities. This framework uses personnel from the private sector, part-time state employees, Governor-appointed Board members and government. To further complicate the issue of "conflict of interest" is the limited pool of expertise that exists in the field. The demand for program services may have stretched the limited available resources beyond its ability to deliver

## Program Elements

The enactment of the amendments to the Federal Safe Drinking Water Act creates a host of new certified operator requirements. Some of those requirements include continuing education and psychometrically valid examinations. Given the limited financial resources, the Department-DEP developed a partnership program with the private sector to put this program in place. This partnership helped create the 24 different certification examinations, will provide proctors for the administration of these examinations and will also provide over 250,000 person hours of training each year. The following is a list of those participating:

## 1. Employees of the Outreach Assistance Provider Program (OAPP)

State part-time employees paid on an hourly basis by the Department-DEP to provide technical, financial and managerial assistance to water and wastewater systems at no cost to the system or customer. Employees are considered experts in their related field and may work for local government or the private sector. (Number approximately 100)

## 2. Approved Training Providers

These entities are industry and private sector organizations that meet the state training criteria for the delivery of training for certification and continuing education. Approved training providers charge a fee for their services. (Number approximately 120)

## 3. Subject Matter Experts (SMEs)

SME's are individuals from the water and wastewater industry who are recognized as having the knowledge, skills and abilities to qualify as experts in the field of water and wastewater treatment system operation. SMEs participated in the development of the certification examinations. SMEs included Department DEP staff, Board members and members of the OAPP. SMEs were not compensated for their effort unless they were staff on the OAPP. (Number approximately 40)

## 4. Approved Examination Providers (AEPs)

Industry and private sector organizations approved by the Department-DEP to, advertise examination sessions, register applicants and provide examination sites for the certification examination with the authority to charge a fee for such services. (Number approximately 15)

## 5. OAPP Examination Proctors

Specially trained part-time employees of the Outreach Assistance Provider Program who proctor certification examinations for the Department-DEP and the AEPs. Proctors are reimbursed for their travel and time in accordance with the OAPP. (Number approximately 50)

## 6. Appointed Board Members

The Governor appoints these members of the Board who make decisions to grant certification to applicants. These Board members only receive compensation for their travel, lodging and subsistence expenses. (Number 7)
7. DEP staff

These people are full-time employees of the Department-DEP who are responsible for the development and administration of the Operator Certification Program.

## What is a "conflict of interest" for the Operator Certification Program?

For the purpose of this program, the Department-DEP views "conflict of interest" criteria as:

ㄱ•when participating in certain program activities provides an individual or organization an unfair advantage that may result in a financial gain, and or
$\qquad$ when participating in certain program activity provides an individual or an organization's membership an unfair advantage to obtain operator certification.

It is important to note this statement defines the limits of program interaction to minimize "conflict of interests" and does not attempt to eliminate any possibility of a conflict of interest. _The limited number of individuals considered experts and their willingness to expend their time and resources must be considered in this statement.

## Possible "Conflict of Interests"

## 1. Subject Matter Experts

SMEs participated in the question selection and validation. They had the opportunity to view only specific examinations during the day of their development. Different groups of SMEs developed the 24 examinations. At no time did a SME have an electronic or hard copy in their possession outside of the session. No written material or notes concerning the examination or questions were permitted to leave the room during the examination development phase. SMEs did not ultimately choose the examination questions, they only validated their correctness and
applicability. The question selection model chose individual questions. SMEs providing technical input were all certified in their specific field of expertise. The subject content of each question and priority are public information and were used to develop and focus the content of modules for training developed by the DepartmentDEP. The possibility of SMEs using their role in examination development to meet the criteria for conflict of interest is minimal.
2. Board Members

Board members did not develop the examination questions or content unless they participated as a SME. As a Board member, they are responsible for reviewing the examination and scoring. Most of the Board members are required to be certified by law. The actions of the Board do not create an obvious "conflict of interest".

## 3. OAPP Proctors

OAPP Proctors have limited access to the certification examination while carrying out their duties as examination proctors. Proctors may incidentally view examinations while providing services to examinees. This can occur in three ways: policing the examinees to assure no fraudulent behavior occurs, collecting open examination booklets after the examination is completed and assuring the examination materials are all returned. At no time does an OAPP proctor have in their possession an examination outside of the examination site. A Department DEP staff person directing all examination procedures is on site to assure security. It does not appear that his limited access to an examination is extensive enough to allow the OAPP proctors to compile information on the examinations and use it for their own purposes, such as developing and delivering training for profit as a DepartmentDEP-approved training provider.
4. AEPs

AEPs primarily sponsor examination opportunities for their organizations. The sponsorship of an examination could be for profit or to promote the goals of meeting their membership's needs. There does exist the possibility that a SME or Board member may be associated with an AEP. However, since AEPs are not allowed access to the examination content, this would not provide an advantage to a specific AEP. Full-time staff members, Board member or other officials of an AEP, who are also OAPP proctors, will not be allowed to proctor an examination session hosted by the AEP.

## 5. Approved Training Providers

Department-DEP approved training providers may offer their services for profit or without compensation. A number of SME's were also approved training providers. As a SME there appears to be a possible "conflict of interest" of knowing the content of the examination and training specifically for the examination. While at first glance this appears to be a problem, there are two mitigating factors. No SME had unlimited access to any examination. The ability to memorize the content of a complete examination is remote. Furthermore, it is not necessary. All approved training providers are provided standard training modules for each technology-based examination. The Department-DEP embedded in these training module objectives that correspond to questions on the examination. In addition, the need to know criteria (knowledge, skills and abilities) used to develop and prioritize questions was also used to develop these training modules. This creates a level playing field for all approved training providers.

## 6. Department-DEP staff

In terms of "conflict of interests", all Department-DEP staff are regulated through the Governor's Code of Ethics and state ethics law.

In general, the methodology used to develop the examinations limited access to question content. As a further level of protection, any future individuals that may be involved in activities that might be construed as a possible "conflict of interest", or create an examination security risk must execute the following Statement of Confidentiality.

## Statement of Confidentiality

The Department of Environmental Protection and the State Board for Certification of Water and Wastewater Systems Operators require individuals who have had, or may in the future have, access to any of the certification examinations to sign a statement of confidentiality as a further safeguard to prevent a release of confidential information, and to prevent an actual or apparent conflict of interest.

I, $\qquad$ , on this date $\qquad$ , hereby agree that I will not:
a. tell, relate or divulge the content of any certification examination to any person;
b. use any such examination content to make a financial gain for myself or any corporation or business interest I hold; and
c. use any such examination content to further the goals and objective of any organization of which I am a member.

Furthermore, as a proctor under the DEP's Outreach Assistance Provider Program, I hereby certify and agree that I will not provide proctoring services for any Water/Wastewater Operator Certification Examination scheduled and provided by an Approved Examination Provider for whom I am an employee, officer, board member or hold a position of authority.

## EXAMINATION INSTRUCTIONS TO CANDIDATES

My name is $\qquad$ and I am the proctor for this state examination. Other proctors for this examination are stationed throughout the room. Please keep in mind, the proctors are here to help you, but we can NOT help you with specific questions or wording.

Should there be an emergency during the examination session where we are required to leave the building, please pick up your driver's license and your calculator and proceed to the nearest exit. Leave all examination materials on the table. Do NOT take any of your examination materials with you outside of the room. Any questions, before we move on? (Pause)

Under the rules governing this examination, you must keep your photo ID in a visible place on top of the desk at all times. If you have not done this, please remove your photo ID, place on top of the desk and put your wallet or pocketbook away. _(Pause) If at any time you must leave your seat, please take your photo ID with you.

If you need to use the restroom, raise your hand and a proctor will provide you a restroom pass. The proctor will collect your examination booklets and answer sheets. The proctor will hold all materials until you return to the room. Only one person will be permitted to leave for the restroom at a time. You must keep the restroom pass and your ID with you at all times until you return to your seat. Any Questions? _(Pause)

At this time I would like to remind you, the use of tobacco is not permitted in the examination room. Eating food or drinking beverages is not allowed during the examination.

Cell phones and/or pagers are not permitted in the examination room. If you have a cell phone or pager, it is very important that you turn it off and give it to one of the proctors. (Pause)

Please clear your work areas except for your Admissions Letter, photo ID, your sharpened softlead No. 2 pencils, erasers and a calculator. Please also be reminded that you may NOT use calculators with word processing or printing capabilities. All other electronic devices are not permitted in the
examination room unless the State Board for Certification of Water and Wastewater Systems Operators has granted prior approval.

Proctors will now pass out the examination packets. DO NOT break the seal on the packet until you have been instructed to do so. (Pause)

Please verify the name on the examination packet is your name. If it is not, please raise your hand.

Without breaking the seal on the packet, look at the front of your packets and verify that they contain the proper examinations you requested. If they are not, please raise your hand. (Pause)

You may now open the seal on the examination packet. From the left side of the packet remove the conversion charts. The conversion charts contains information that your can use when making calculations. Please do NOT write on these charts. Use your test booklets for scratch paper.

If you have any comments to make concerning any question that is contained within this examination, please raise your hand and a proctor will bring you a Test Question Comment Form. This form must be completed immediately and promptly given back to the Proctor. Raise your hand when you have completed the Test Question Comment Form and the proctor will collect it. The State Board for Certification of Water and Wastewater Systems Operators will carefully review your comments, and make edits to the test question if appropriate. However, you will not receive a response from them.

Now, from the right side of the packet please remove the examination booklets and answer sheets. DO NOT open the examination booklets until you are instructed to do so. We have recently made changes to the procedures for the completion of these Answer Sheets. Therefore, please wait for instructions to fill in your Answer Sheets.

You will notice that the examination books are color-coded. Use the blue answer sheet with the appropriate test name typed on the side if you are taking the following examinations:

## Water Part I

Class E Distribution

Wastewater Part I
Wastewater Subclass $1-3$

Class E Collection
Dc (Small Water Systems w/ Disinfection Distribution)
Dn (Small Water Systems w/out Treatment)
All candidates that currently do not hold a certification in water or wastewater should have a blue test booklet and a blue answer sheet for their first examination. Candidates will use the purple answer sheet if you are taking water subclass 1-6, a green answer sheet if you are taking a water subclass 710_examination and a red answer sheet if you are taking a water subclass 11-14 examination.

Now, write your name on the front cover of the examination booklets (Pause).
Look at the label on the examination folder to determine which examination you are taking first. Keep that examination booklet and all the answer sheets in front of you. Place the other examination booklets back in the packet. (Pause)

Use only a soft-lead No. 2 pencil to fill out the answer sheets. Fill in each circle COMPLETELY with your pencil, making a dark, heavy mark. Be sure to fill in the entire circle. Any erasing should be done carefully and should not leave smudge marks.

Depending upon the examinations you are taking, you may use one answer sheet for more than one examination. The sections regarding date of birth, sex and education should be left blank. (Pause briefly to let candidates find those sections so they can be skipped). Under section NAME, please print your name, last name, first name, and middle initial. Leave one blank space between your last name, first name and middle initial. Do not use commas or periods. Fill in the circles below the boxes that correspond to the letters of your name. (Pause)

During this time, the proctors should spot check to make sure that all candidates are printing their names in the correct place and filling in the circles correctly. Also make sure examinees are using a pencil and are only printing one letter in each box.

Under the Section "Identification Number", print your Client ID in the correct boxes. Your Client ID is a six-digit number printed on the label on the front of your packet. This number is printed on the label just below the list of examinations you are taking. Do not put spaces, hyphens or dashes between numbers. Now fill in the corresponding circles below your printed Client ID. This information is critical to processing examination results. If this section is not filled in correctly, examination results may be delayed. (Pause)

After you have filled in this information for one answer sheet, continue to the next answer sheet until all of your answer sheets have these boxes filled in. Keep the answer sheet for your first examination and put the other answer sheets back in the right side of your packet and place the packet in the corner of your desk under your Admission Notice and Photo ID.

Be sure that as you fill in the answer on the answer sheet that the number you are filling in on the answer sheet corresponds with the question number in your examination book. Please note that if you are taking subclass examinations, you may need to skip several numbers on the answer sheet. The cover of the examination booklet will inform you which question to start with. If there is not a number on the front, you start with question one.

Read each question carefully before choosing the best answer. There is only one correct answer for each question. If you mark more than one answer, the answer will not be counted. It is to your advantage to attempt to answer each question. There is no penalty for guessing.

Please understand that all your examination booklets are the property of the Association of Boards of Certification, and their content is copyrighted. Copying, reproducing, or any action taken to reveal the content of this examination in whole or in part is unlawful. Removal of this booklet from the examination room is prohibited. At the conclusion of the examination, you are responsible for returning the numbered examination booklet that has been assigned to you.

When you have completed your first examination, raise your hand and the proctor will get you started on your next examination. If you are taking additional examinations, do not open the next
examination booklet until the proctor instructs you to do so. If you are not taking any additional examinations, your proctor will collect your examination materials and send you to check-out. After your examination packet and its contents are returned and verified at check-out, you may exit.

Are there any questions? (Pause to see if anyone raises their hand and answer their question.)
You will have four (4) hours to complete the examinations. The starting time for the first examination is $\qquad$ . You may open your first examination booklet and begin.

## Appendix C- <br> Certification Upgrade Model

## General Purpose

Upgrading allows individuals holding an operator certificate to receive (without examination) a higherclass operator certificate. -It is essential that Pennsylvania's Operator Certification Program provide this opportunity. Pennsylvania needs a continual influx of certified operators who are qualified to make process control decisions at larger and more complex treatment systems. It is important not to create administrative barriers to a progressive process of equating increased experience with increased capability in the water and wastewater field.

## Principles of Upgrading Certification

Listed below are the principles of upgrading to be used in making upgrading decisions.
A. All operators holding a wastewater B, C or D class may upgrade their certification class by one or two system classificationclass levels by meeting the additional experience requirements.
B. All certified operators holding a water B, C, D class may upgrade their certification class by one or two system classification levelsclass levels by meeting the additional experience requirements.
C. Certified operators who hold a water or wastewater class E, Dn, Dc or grandparented certificate may not upgrade their certificate.
D. All certified operators holding a B, C, D, class may upgrade their certification subclassifications by meeting certain additional testing and experience requirements.
E. Only documented experience gained while employed at a water or wastewater system shall qualify an applicant for an upgrade.
F. An applicant requesting an upgrade for class shall be granted the higher class when meeting the experience requirements for that higher class.
G. An applicant requesting an upgrade for class may use Track I or Track II (if they qualify) to meet experience requirements.
H. No applicant shall be granted an upgrade in subclassification based on only experience.

An applicant requesting an upgrade in subclassification must successfully pass the subclassification examination. -An additional year of experience may be required, depending on whether the applicant has experience in a similar technology as defined by the program. Where sufficient experience (minimum one year) can be demonstrated, no additional experience is needed.

All applicants for an upgrade shall be given the right to appeal the board's action (denied or approved) on their request for an upgrade.

## Appendix D

MIKE -- This is a little confusing; I do not think all the background is necessary. Overall there are many recommendations, and it is not really a policy statement.

Experience Credit DEP Employees Drinking Water Program

General: The Board approved the following request as experience for DEP employees in the Drinking Water Program on December 19, 2006. These activities can be used to meet the experience requirements for drinking water certification.

Commonwealth of Pennsylvania<br>Department of Environmental Protection

DATE: Wednesday, October 18, 2006

## TO: State Board of Certification of Water and Wastewater Operators <br> 400 Market Street, P.O. Box 8454 <br> Harrisburg, PA 17105-8454

## FROM: DEP Water Supply Certification Committee (WSCC)

Brad Vanderhoof - Water Supply Program Manager (NW)
Jay Tarara - Water Supply Program Manager (SW)
Tom Schmick - Water Supply Program Manager (NC)
Rod Nesmith - Water Supply Program Manager (SC)
Dino Agustini - Water Supply Program Manager (NE)
Nancy Roncetti - Water Supply Program Manager (SE)

## Subject: Water Supply Employee's - Drinking Water Operator Certification

This memo addresses the issue of DEP employees, actively involved in monitoring and compliance activities in the Drinking Water program, obtaining operator certification. Because these employee's are frequently engaged in monitoring and compliance activities at drinking water treatment systems within their assigned field areas, obtaining certification adds to their credibility.

We believe that staff assigned duties in the following job classifications should be eligible to obtain experience credits towards operator certification.

- (Water Supply) Sanitarian (WSS)
- (Water Supply) Sanitarian Supervisor (WSSS)
- (Water Supply) Environmental Protection Compliance Specialist / (Water Supply) Sanitarian Program Specialist Supervisor (Operations Chief) (WSCS/WSOC)
- (Water Supply) Sanitary Engineer (SE)
- (Water Supply) Technical Section Services Chief (TSSC)

The following paragraphs address pertinent experience for each of the above classifications.

1. (Water Supply) Sanitarian(WSS) -- These individuals inspect and monitor drinking water treatment systems on a daily basis. All WSS's inspect "Major" drinking water treatment systems (permitted for flow greater than 5.0 MGD). Their job duties would include (but not be limited to):

- Collect and analyze chemical and biological samples related to process control and regulatory compliance.
- Complete, compile, and interpret monitoring data.
- Participate in on-site assessment or evaluation of plant processes.
- Perform calculations related to process control and compliance monitoring.
- Calibrate meters and equipment used to monitor drinking water treatment systems. (including preparation of standardizing chemical solutions).
- Assist with treatment system diagnostic evaluations (FPPE)
- Meet with plant operation staff to evaluate and discuss appropriate process control measures.
- Use equipment to monitor and measure flows in a system.
- Review operational records, monitoring reports, and all related data to determine system compliance status.
- Review and comment on Standard Operating Procedure (SOP) plans for permitted drinking water facilities experiencing permit violations where SOPs play a role in the non-compliance.
- Review and comment on Operation and Maintenance (O\&M) plans for permitted drinking water facilities.
- Review and comment on Emergency Response plans for permitted drinking water facilities.
- Recommend and/or initiate enforcement actions to protect human and environmental health.
- Create detailed inspection reports based upon on-site facility evaluations.
- Provide expert testimony regarding administrative, civil, or criminal enforcement action.

We believe the above mentioned WSS duties qualify as the "Education and experience requirements" specified on page 11 Section d, items 3,4,5,6,7,8 and 10 in Pennsylvania's Interim Program for Operator Certification" (383-2300-001). Since WSS's spend a significant amount of time on the above mentioned duties, we request the Board consider awarding 0.5 years operating experience per year of service as a WSS assigned to the Water Supply program.

Additionally, since all WSS's inspect facilities permitted for greater or equal to 1 MGD (Pennsylvania Class B), we request that they be eligible to obtain Class A certification (upon meeting all other pertinent requirements).
2. (Water Supply) Sanitarian Supervisor (WSSS) - Individuals in these positions frequently serve as WSS's prior to their advancement. WSSS's tend to spend less time in the field then the WSS's. However, they directly supervise WSSs providing significant input into much of their casework. In regard to water supply treatment systems WSSS's perform the following duties

- Supervise WSS's directly responsible for monitoring and compliance in the Water Supply program in the conduct of all related duties.
- Supervise and participate in the completion, compilation, and interpretation of monitoring data.
- Supervise and participate in on-site assessment or evaluation of plant processes.
- Perform calculations related to process control and compliance monitoring.
- Instruct WSS's in preparation of standardizing chemical and biological solutions and meter calibration of equipment used to monitor water supply treatment systems.
- Supervise and assist with treatment system diagnostic evaluations.
- Meet with plant operational and management staff to evaluate and discuss appropriate process control measures.
- Instruct WSS's in proper use and interpretation of flow monitoring equipment.
- Review operational records, monitoring reports, and all related data to determine and then manage system compliance issues.
- Review and comment on Standard Operating Procedure (SOP) plans for water supply permitted facilities experiencing permit violations where SOPs play a role in the non-compliance.
- Review and comment on Operation and Maintenance (O\&M) plans for water supply permitted facilities.
- Recommend and/or initiate and then manage certain enforcement actions to protect human and environmental health.
- Review detailed inspection reports created by WSS's based upon on-site facility evaluations.
- Provide expert testimony regarding administrative, civil, or criminal enforcement action.

We believe the above mentioned duties qualify as the "Education and experience requirements" specified on page 11 Section d, items 3,4,5,5,7.8 and 10 in "Pennsylvania's Interim Program for Operator Certification" (383-2300-001). Since WSSS's typically spend at least $25 \%$ of their time on the above mentioned duties, we request the Board consider awarding 0.25 years operating experience per year of service as a WSSS assigned to the Water Supply program.

Additionally, since the WSSS's duties include active involvement with facilities permitted for greater or equal to 1 MGD (Pennsylvania Class B), we request that they be eligible to obtain Class A certification (upon meeting all other pertinent requirements).
3. (Water Supply) Environmental Protection Compliance Specialist / (Water Supply) Sanitarian Program Specialist Supervisor-Operations Chief - (WSCS/WSOC) - Individuals in these positions often served as WSS's prior to advancement. They tend to spend less time in the field but work very closely with WSS's and WSSS's on cases involving permitted water supply treatment systems. WSCS/WSOC duties are as follows

- Take enforcement actions based upon recommendations from WSS's, WSSS's, and regional monitoring data.
- Complete, compile, and interpret monitoring data.
- Participate in on-site assessment or evaluation of plant processes.
- Reviews inspection reports, operational records, discharge monitoring reports and related data to determine and help manage system compliance issues.
- Meet with plant operational and management staff to discuss appropriate process control measures as they related to compliance issues.
- Manages enforcement actions as needed to protect human and environmental health.
- Perform calculations related to process control and compliance monitoring.
- Provide expert testimony regarding administrative, civil, and criminal enforcement action.
- In addition WSOC's supervise WSSS's and work closely on many aspects of WSSS's duties.

We believe the above mentioned duties qualify as the "Education and experience requirements" specified on page 11 Section d, items $3,4,5,5,7.8$ and 10 in "Pennsylvania's Interim Program for Operator Certification" (383-2300-001). Since WSCS's/WSOC's typically spend at least $25 \%$ of their time on the above mentioned duties, we request the Board consider awarding 0.25 years operating experience per year of service as a WSCS/WSOC assigned to the Water Supply program.

Since the WSCS's/WSOC's duties include active involvement with facilities permitted for greater or equal to 1 MGD (Pennsylvania Class B), we request that they be eligible to obtain Class A certification (upon meeting all other pertinent requirements).
4. (Water Supply) Sanitary Engineer (SE) - These individuals conduct reviews of drinking water treatment systems on a daily basis. SE's spend the majority of their time reviewing proposals for new and modified treatment facilities; however, they also spend a significant amount of time in the field. Time in the field is spent inspecting facilities, reviewing operating data and working with operators to make certain permanent and pilot facilities are optimized. The SE job duties include, but are not limited to:

- Collect and analyze chemical and biological samples related to process control and regulatory compliance.
- Complete, compile and interpret monitoring data.
- Participate in on-site assessment or evaluation of plant processes.
- Perform calculations related to process control and compliance monitoring.
- Assist with treatment system diagnostic evaluations (FPPE).
- Meet with plant operation staff to evaluate and discuss appropriate process control measures.
- Use equipment to monitor and measure flows in a system.
- Review the design of treatment facilities to determine if equipment and processes meet the standards of DEP, the standards of the industry and can be operated to consistently produce water of acceptable quantity and quality.
- Participate in the design, operation and data collection of pilot studies for innovative technologies.
- Inspect new, modified and existing treatment facilities to determine if they were properly constructed and that they are being operated to optimize the quantity and quality of the water produced.
- Provide technical assistance to operators and other engineers to resolve treatment deficiencies.
- Recommend and/or initiate enforcement actions to protect human and environmental health.
- Create detailed inspection reports based upon on-site facility evaluations.
- Provide expert testimony regarding administrative, civil or criminal enforcement action.

We believe the above mentioned SE duties qualify as the "Education and experience requirements" specified on page 11, Section d, items 3,4,5,6,7,8 and 10 in Pennsylvania's Interim Program for Operator Certification" (383-2300-001). Since SE's spend at least $25 \%$ of their time on the above mentioned duties, we request the Board consider awarding 0.25 years of operating experience per year of service as a SE assigned to the Water Supply program.

Additionally, since all SE's inspect facilities permitted for greater or equal to 1 MGD (Pennsylvania Class B), we request that they be eligible to obtain Class A certification (upon meeting all other pertinent requirements).
5. (Water Supply) Technical Services Section Chief (TSSC) -- All TSSC's are Commonwealthlicensed Professional Engineers (PE's). They supervise the SE's and are professionally responsible for the engineering work conducted by non-PE's. The TSSC's conduct reviews of drinking water treatment systems on a daily basis. They spend the majority of their time making sure that the SE reviews of
proposals for new and modified treatment facilities result in systems that meet industry standards and can be operated to produce water of acceptable quality; however, they also spend time in the field. Time in the field is spent inspecting facilities, reviewing operating data and working with operators to make certain permanent and pilot facilities are optimized. The TSSC is very familiar with a wide range of treatment facilities and is considered an expert resource on their design and operation. Job duties include, but are not limited to:

- Supervise and participate in the collection and analysis of chemical and biological samples related to process control and regulatory compliance.
- Complete, compile and interpret monitoring data.
- Supervise and participate in on-site assessment or evaluation of plant processes.
- Supervise and perform calculations related to process control and compliance monitoring.
- Supervise and assist with treatment system diagnostic evaluations (FPPE).
- Meet with plant operation staff to evaluate and discuss appropriate process control measures.
- Supervise and use equipment to monitor and measure flows in a system.
- Supervise and review the design of treatment facilities to determine if equipment and processes meet the standards of DEP, the standards of the industry and can be operated to consistently produce water of acceptable quantity and quality.
- Supervise and participate in the design, operation and data collection of pilot studies for innovative technologies.
- Supervise and inspect new, modified and existing treatment facilities to determine if they were properly constructed and that they are being operated to optimize the quantity and quality of the water produced.
- Provide technical assistance to operators and other engineers to resolve treatment deficiencies.
- Recommend and/or initiate enforcement actions to protect human and environmental health.
- Supervise and create detailed inspection reports based upon on-site facility evaluations.
- Supervise and provide expert testimony regarding administrative, civil or criminal enforcement action.

We believe the above mentioned TSSC duties qualify as the "Education and experience requirements" specified on page 11, Section d, items 3,4,5,6,7,8 and 10 in Pennsylvania's Interim Program for Operator Certification" (383-2300-001). Since TSSCs spend at least $25 \%$ of their time on the above mentioned duties, we request the Board consider awarding 0.25 years of operating experience per year of service as a TSSC assigned to the Water Supply program.

Additionally, since all TSSC's duties include active involvement with facilities permitted for greater or equal to 1 MGD (Pennsylvania Class B), we request that they be eligible to obtain Class A certification (upon meeting all other pertinent requirements).

Lastly, we propose that the appropriate Regional Program Manager certify the period(s) of work experience for the requesting individual in each category mentioned via the attached form.

Commonwealth of Pennsylvania
Department of Environmental Protection
Water Supply Employee Experience Certification
Date: $\qquad$

## State Board for Certification of Water and Wastewater Systems Operators

From: (Water Supply Program Manager Name, Title)
(DEP Regional Office)

## Employee name:

$\qquad$

## Current Position Title:

$\qquad$

I hereby certify that the above named employee has experience in the Water Supply program as follows:

| Job Title | Years | * Factor | Total |
| :--- | :---: | :---: | :---: |
| Water Supply Sanitarian (WSS) |  | 0.50 |  |
| Water Supply Sanitarian Supervisor(WSSS) |  | 0.25 |  |
| WS Compliance Spec/WS Ops Chief (WSCS/WSOC) |  | 0.25 |  |
| Water Supply Sanitary Engineer (SE) |  | 0.25 |  |
| Water Supply Technical Section Services Chief (TSSC) |  | 0.25 |  |
| Previous Experience (Water Treatment Plant) |  | 1.00 |  |
| $* * * * * * * * * * * * * * * * * * * * * * * * * *$ | $* * * * * * *$ | $* * * *$ |  |

(*Note - additional sheet attached detailing operational experience from previous job(s) at drinking water treatment plant(s) if applicable)
(Signature/date WS Manager)
(Signature/date Employee)

# Experience Credit DEP Employees <br> Drinking Water Program 

## FILTER PLANT PERFORMANCE ACTIVITIES (FPPE)

General: The Certification Board approved the following activities as experience for DEP employees in the Drinking Water Program on August 31, 2004. These activities can be used to meet the experience requirements for drinking water certification.

- Based on input from all FPPE field staff, we've estimated that on average, it takes approximately 55 hours to compile an FPPE report.
- It takes approximately 20 hours of fieldwork per FPPE.
- FPPE staff dedicates a total of 75 hours per plant/ per FPPE (or about 9.5 working days).
- C-1's need 1.5 years of experience to upgrade to an A-1 (This equates to 330 days or 2550 hours).
- C-1 certified staff are required to complete 35 FPPEs to get an upgrade to an A-1.
- The average FPPE field person completes about 12 FPPE's per year. Therefore, on average, it would take approx 3 years of experience for the average FPPE person to be qualified for an A-1.
- The FPPE program will have been decentralized for 5 years in May 2004. Therefore, most FPPE staff should have the necessary experience. A few field staff that have worked "part-time" may not have the needed experience.


## Experience Credit <br> DEP Employees <br> Wastewater Program

## General: The Certification Board approved the following activities as experience for DEP

 employees in the Wastewater Program on December 19, 2005. These activities can be used to meet the experience requirements for wastewater certification.Department of Environmental Protection
DATE: Thursday, November 10, 2005

## TO: State Board for Certification of Water and Wastewater Operators <br> 400 Market Street, P.O. Box 8454 <br> Harrisburg, PA 17105-8454

FROM: DEP Monitoring and Compliance Guidance Committee (MCGC)
Christina Nagy - Regional Monitoring and Compliance Manager (NW)
Sam Harper - Regional Monitoring and Compliance Manager (SW)
Robert Hawley - Regional Monitoring and Compliance Manager (NC)
Randy King - Regional Monitoring and Compliance Manager (SC)
Alan Snelson - Regional Monitoring and Compliance Manager (NE)
Steve O'Neil - Regional Monitoring and Compliance Manager (SE)

## Subject: NPDES Water Quality Employee's - Wastewater Operator Certification

This memo addresses the issue of DEP employees, actively involved in monitoring and compliance activities in the NPDES program, obtaining operator certification. Because these employee's are frequently engaged in monitoring and compliance activities at wastewater treatment systems within their assigned field areas, obtaining certification adds to their credibility.

We believe that staff assigned NPDES duties in the following job classifications should be eligible to obtain experience credits towards operator certification.

- Water Quality Specialist (WQS)
- Water Quality Specialist Supervisor (WQSS)
- Environmental Protection and / or Water Quality Compliance Specialist (WQCS)

The following paragraphs address pertinent experience for each of the above classifications.

1. Water Quality Specialist (WQS)_These individuals inspect and monitor wastewater treatment systems on a daily basis. All WQSs inspect NPDES "Major" wastewater treatment systems (flow greater than 1.0 MGD). Their job duties would include (but not be limited to):

- Collect and analyze chemical and biological samples related to process control and regulatory compliance.
- Complete, compile, and interpret monitoring data.
- Participate in on-site assessment or evaluation of plant processes.
- Perform calculations related to process control and compliance monitoring.
- Calibrate meters and equipment used to monitor wastewater treatment systems (including preparation of standardizing chemical and biological solutions).
- Assist with treatment system diagnostic evaluations.
- Meet with plant operational staff to evaluate and discuss appropriate process control measures.
- Use equipment to monitor and measure flows in a system
- Review operational records, monitoring reports, and all related data to determine system compliance status.
- Review and comment on Standard Operating Procedure (SOP) plans for NPDES permitted facilities experiencing permit violations where SOPs play a role in the non-compliance.
- Review and comment on Operation and Maintenance (O\&M) plans for NPDES permitted facilities
- Review and comment on solids management plans for NPDES permitted facilities
- Recommend and / or initiate enforcement actions to protect human and environmental health.
- Create detailed inspection reports based upon on-site facility evaluations
- Provide expert testimony regarding administrative, civil, or criminal enforcement action

We believe the above mentioned WQS duties qualify as the "Education and experience requirements" specified on page 11 Section d, items 3,4,5,6,7,8 and 10 in "Pennsylvania's Interim Program for Operator Certification" (383-2300-001). Since, WQSs typically spend a significant majority of their time on the above mentioned duties, we request the Board consider awarding 0.5 years operating experience per year of service as a WQS assigned to the NPDES program.

Additionally, since all WQSs inspect facilities of a size greater than 0.1 MGD (Pennsylvania Class C), we request that they be eligible to obtain Class A certification (upon meeting all other pertinent requirements).
2. Water Quality Specialist Supervisor(WQSS) - Individuals in these positions frequently served as WQSs prior to their advancement. WQSSs tend to spend less time in the field than the WQSs. However, they directly supervise WQSs providing significant input into much of their case work. In regard to wastewater treatment systems WQSS's perform the following duties

- Supervise WQSs directly responsible for monitoring and compliance in the NPDES program in the conduct of all related duties
- Supervise and participate in the completion, compilation, and interpretation of monitoring data.
- Supervise and participate in on-site assessment or evaluation of plant processes.
- Perform calculations related to process control and compliance monitoring.
- Instruct WQSs in preparation of standardizing chemical and biological solutions and meter calibration of equipment used to monitor wastewater treatment systems
- . Supervise and assist with treatment system diagnostic evaluations.
- Meet with plant operational and management staff to evaluate and discuss appropriate process control measures.
- Instruct WQSs in proper use and interpretation of flow monitoring equipment.
- Review operational records, monitoring reports, and all related data to determine and then manage system compliance issues.
- Review and comment on Standard Operating Procedure (SOP) plans for NPDES permitted facilities experiencing permit violations where SOPs play a role in the non-compliance.
- Review and comment on Operation and Maintenance (O\&M) plans for NPDES permitted facilities
- Recommend and/or initiate and then manage certain enforcement actions to protect human and environmental health.
- Review detailed inspection reports created by WQSs based upon on-site facility evaluations
- Provide expert testimony regarding administrative, civil, or criminal enforcement action

We believe the above mentioned duties qualify as the "Education and experience requirements" specified on page 11 Section d, items 3,4,5,6,7,8 and 10 in "Pennsylvania's Interim Program for Operator Certification" (383-2300-001). Since, WQSSs typically spend at least $25 \%$ of their time on the above mentioned duties, we request the Board consider awarding 0.25 years operating experience per year of service as a WQSS assigned to the NPDES program as long as the WQSS previously spent time as a WQS or worked at a wastewater treatment plant for at least 1 year.

Additionally, since the WQSSs duties include active involvement with facilities of a size greater than 0.1 MGD (Pennsylvania Class C) including enforcement issues, we request that they be eligible to obtain Class A certification (upon meeting all other pertinent requirements).
3. Water Quality / Environmental Protection Compliance Specialist (WQCS) - Individuals in these positions often served as WQSs prior to advancement. They tend to spend less time in the field but work very closely with WQSs and WQSSs on cases involving wastewater treatment systems. WQCS duties are as follows;

- Take enforcement actions based upon recommendations from WQSs, WQSS's, regional monitoring and compliance chief positions
- Complete, compile, and interpret monitoring data.
- Participate in on-site assessment or evaluation of plant processes.
- Reviews inspection reports, operational records, discharge monitoring reports and related data to determine and help manage system compliance issues.
- Meet with plant operational and management staff to discuss appropriate process control measures as they relate to compliance issues.
- Manages enforcement actions as needed to protect human and environmental health.
- Perform calculations related to process control and compliance monitoring.
- Provide expert testimony regarding administrative, civil, and criminal enforcement action.

We believe the above mentioned duties qualify as the "Education and experience requirements" specified on page 11 Section d, items $3,4,5,6,7,8$ and 10 in "Pennsylvania's Interim Program for Operator Certification" (383-2300-001). Since, WQCSs typically spend $25 \%$ of their time on the above mentioned duties, we request the Board consider awarding 0.25 years operating experience per year of service as a WQCS assigned to the NPDES program, as long as the WQCS previously spent time as a WQS or worked at a wastewater treatment plant for at least 1 year.

Additionally, since the WQCSs duties include active participation at, and enforcement issues regarding, facilities of a size greater than 0.1 MGD (Pennsylvania Class C), we request that they be eligible to obtain Class A certification (upon meeting all other pertinent requirements).

Lastly, we propose that the appropriate Regional Monitoring and Compliance Manager (Operations Chief) certify the period(s) of work experience for the requesting individual in each category mentioned above via the attached form.

Commonwealth of Pennsylvania
Department of Environmental Protection
NPDES Employee Experience Certification
Date: $\qquad$

# State Board for Certification of Water and Wastewater Operators 

From: (Operations Chief Name, Title) (DEP Regional Office)

Employee name: $\qquad$
Current Position Title: $\qquad$
I hereby certify that the above named employee has experience in the NPDES program as follows:

| Job Title | Years | Factor | Total |
| :--- | :---: | :---: | :---: |
| Water Quality Specialist |  | 0.50 |  |
| Water Quality Specialist Supervisor |  | 0.25 |  |
| WQ / EP Compliance Specialist |  | 0.25 |  |
| Previous Experience (Wastewater Plant) |  | 1.00 |  |
| $* * * * * * * * * * * * * * * * * * * * * * * * * *$ | $* * * * * * *$ | $* * * *$ |  |

(*Note - additional sheet attached detailing operational experience from previous job at wastewater treatment plant if applicable)

APPENDIX E:

## OPERATOR CERTIFICATION PROGRAM DECISION TABLE

|  | CLB | DESIGNATED <br> AGENT - <br> Cheri Sansoni | BOARD | SEND <br> LETTER | BOARD <br> RE- <br> CONSIDER | TAO |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| GRANDPARENTING |  |  |  |  |  |  |
| Ineligible Due to <br> Missing Date for <br> Submittal | X |  | X |  |  |  |
| Return for Incomplete <br> App | X |  | X |  |  |  |
| Ineligible Because <br> Operator Is Certified | X | X | X | X |  | X |
| Ineligible for <br> Grandparenting because <br> Ineligible System (No <br> IW, TNC, or CWS) |  |  | X | X | X | X |
| Denial for CHR |  |  |  |  |  |  |

Decision Matrix - Board/Staff Actions

|  | CLB | DESIGNATED <br> AGENT - | BOARD | $\begin{gathered} \text { SEND } \\ \text { LETTER } \end{gathered}$ |  | TAO |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ineligible --Didn't meet experience requirements |  | X | X | X | X | X |
| Issue Lower Certification |  |  | X |  | X | X |
| Issue Higher Certification |  |  | X |  | X | X |
| CERTIFICATION RENEWAL |  |  |  |  |  |  |
| Return for Incomplete App | X |  |  |  |  |  |
| Denial for CHR |  |  | X | X | X | X |
| Denial for Renewal Due to Insufficient Continuing Education Contact Hours |  |  | X | X | X | X |
| RECIPROCITY |  |  |  |  |  |  |
| Return for Incomplete App | X |  |  |  |  |  |
| Denial for CHR |  |  | X | X | X | X |
| Ineligible - Didn't Meet Education Requirements |  | X | X | X | X |  |
| Ineligible - Didn't Meet Experience Requirements |  | X | X | X | X | X |
| Ineligible due to Nonvalid Certification |  | X | X | X |  |  |
| Issue Lower Certification |  |  | X |  | X | X |
| Issue Higher Certification |  |  | X |  | X | X |
| UPGRADES |  |  |  |  |  |  |
| Return for Incomplete App | X |  |  |  |  |  |
| Denial for CHR |  |  | X | X | X | X |
| Ineligible -Didn't Meet Experience Requirements |  | X | X | X | X | X |
| Ineligible -Didn't Pass the Test |  | X | X | X | X |  |
| Issue Partial Upgrade |  |  | X | X | X | X |

Incomplete Application - No CHR, No Fee, Not Notarized, No Duties Listed, No Cert Requested, No Test Location, No Supervisor Signature.

## Appendix F

## Certification Reciprocity Model

## NOTES:

Input is being solicited on the issues highlighted in red and italicized.

Established policy that may be inconsistent with existing program guidelines is in blue and underlined.

## General Purpose

Fully reciprocity allows individuals holding an operator certificate from another state to receive (without examination) a comparable Pennsylvania operator certificate.- It is essential that Pennsylvania's reciprocity process be broad-based and equitable. Pennsylvania's Reciprocity Model (RM) must be sufficiently flexible to deal with the variety found in other state certification programs.

The primary goals for Pennsylvania's RM is fairness and operator competency. Our RM should offer no significant advantage for out-of-state or in state certified operators. The RM adopted by the State Board for Certification of Water and Wastewater System Operators (Board) should neither penalize out-ofstate operators, nor create an administrative loophole promoting "Border Jumping" to obtain certification. -"Border Jumping" occurs when an in state operator finds it easier to be certified in another state and request reciprocity, than meet the in state requirements.

## Principles of Reciprocity Now Being Implemented

Listed below are the principles of reciprocity used in making reciprocity decisions. These principles are incorporated into a decision process to assist staff in making reciprocity decisions.
A. Whenever practical, recognize the Association of Boards of Certification (ABC) registry and nationally based examinations as valuable in measuring the knowledge, skills and abilities of prospective reciprocity candidates. The ABC registry does not automatically qualify an applicant for any certification class or subclassification. _This RM does not automatically exclude other state certification programs that use their own testing methods. Reciprocity maybe granted by the Board when other certification programs and testing clearly demonstrate equivalency to Pennsylvania's experience, testing and educational requirements.
B. Applicants for reciprocity shall not be required to take an examination for any class or subclassification certificate where he or she can demonstrate they hold the appropriate certification, have passed an equivalent examination, meet the program's educational requirements and meet the Board's-the established minimum experience requirements. _The primary licensing state must confirm in writing that their examination content covers the necessary knowledge, skills and abilities to meet Pennsylvania's examination. _This includes our specific technology subclassifications. This means that if an applicant makes a request for a specific technology, the primary licensing state indicates their examination is intended to qualify
that individual to be certified to operate a specific type(s) of treatment technology. It is important to note only half the states in the nation use ABC testing. It should not be automatically assumed a state issued certification examination covers the material associated with our technology-based subclassifications.
C. Qualifying applicants for reciprocity shall not be automatically upgraded a maximum of two classes using the reciprocity process. These applicants must meet the experience requirement for the higher classification by demonstrating experience working at the appropriate class system. Once a certified operator using reciprocity meets this in-state requirement, they may qualify for the appropriate upgrade in classification. Those reciprocity candidates holding an equivalent drinking water certification to a Dc or an equivalent wastewater certification equal to or less than 50,000 gallons/day do not qualify for upgrades to a higher class.

MIKE -- The last part of this paragraph is confusing. Once a qualified operator using reciprocity meets this instate requirement they may qualify for the appropriate upgrade in classification. What does this mean?
D. Upgrades in subclassification shall only be granted where-when a minimum of one year's experience is demonstrated for the specific treatment technologies (subclassifications). _An operator requesting reciprocity shall-may be awarded the treatment technologies (subclassifications) based on either in-state or out-of-state experience.
E. Applicants for reciprocity shall be granted the highest certification class for which they meet the minimum experience requirements required for in-state operators. - When an applicant for reciprocity fails to meet any specific class experience requirement, the Department DEP shall total the aggregate experience and award the appropriate lowest class for that level of experience.
F. Applicants shall be granted subclassifications for all technologies where the licensing state confirms examination content (see B.) and the applicant demonstrates a minimum of one year of experience for each specific technology.
G. All applicants for reciprocity shall be given the right to appeal the board's action (denied or approved) on their reciprocity request.

## Unresolved Issues Needing Further Input for Regulatory Change

It is recognized that the ability for other states to confirm equivalency of examinations is limited, especially in light of the technology subclassification examinations recently designed. In addition, there is concern that operators living in other states bordering Pennsylvania may be able to use the reciprocity process to avoid meeting examination and continuing education requirements. Therefore, the Board is soliciting input on the concept of limiting reciprocity to the General Part 1 Examination and Class level. Subclass certification related to treatment technologies would require any operator, whether certified in another state or not, to take the appropriate technology specific examinations. This input will be solicited through the public participation process for the finalization of Chapter 302. Administration of the Water and Wastewater Systems Operators' Certification Program. -If the input is positive to this concept, the change in the Board's existing policy as documented by the RM will be implemented with the finalization of these regulations.

## Establishing General Class and Subclassification

An applicant for reciprocity shall be granted a certificate based upon meeting the experience requirement working at the highest comparable Pennsylvania class system. (Note: Up to $50 \%$ experience credit for bioperable status.) It is important to advise applicants for reciprocity that they may use either Track I or Track II to qualify for certification. The qualifying experience for classification is significantly different. MIKE -- Does this mean reciprocity applicants can use education for experience (I thought they cannot)?

Technology subclassifications shall be the granted for all appropriate technologies operated for a year or more, regardless of system size. An applicant for reciprocity must demonstrate they have a minimum of one year's experience operating that specific technology.

Drinking Water System Example 1

Track I


This applicant for reciprocity is granted a Water System Class B, (highest class meeting experience) and Subclassifications $\mathbf{1 , 6 , 7 , 8 , 1 1}$ and 12 (all technologies operated meeting the one year experience requirement). The applicant is also given experience for other related treatment technologies as provided by the rules and regulations; however, must pass the technology examination for subclassification requested. This reciprocity action is based on the licensing state verifying indicating that their state examination did not contains specific examination material matching the skills, knowledge and abilities on the proper operation of each of the technology subclassification requesteds.

## Drinking Water System <br> Example 2 <br> Track I



This applicant for reciprocity is granted a Water System Class C, and Subclassifications 2, 7, 9, 10 and 12 (all technologies operated meeting the one year experience requirement). The applicant is given experience requirements for other related treatment technologies as provided by the rules and regulations; however, must pass the technology examination for subclassification requested. Experience granted includes subclassification 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11 and 12 (direct filtration).

This reciprocity action is based on the licensing state verifying that their examination contains material on the proper operation of each of the technology subelassifications.

## Drinking Water System

Example 3
Track II - Bachelor Degree
Biology


Grant Class A 2 years meets Track II requirement
Plant 3
6.5 mgd
2 yrs
experience

This applicant for reciprocity is granted a Water System Class A, (experience requirement for Track II) and Subclassifications 2, 7, 9, 10 and 12 (all technologies operated meeting the one year experience requirement). The applicant is given experience requirements for other related treatment technologies as provided by the rules and regulations; however, must pass the technology examination for subclassification requested. Experience granted includes subclassification- $1,2,3,4,5,6,7,8,9,10,11$ and 12 (direct filtration). This reciprocity action is based on the licensing state verifying that their examination contains material on the proper eperation of each of the technology subclassifications.


This applicant for reciprocity is granted a Wastewater System Class B, (meets experience requirement for Track II) and subclassifications 1 and 2 (all technologies operated meeting the one year experience requirement). The applicant is given experience requirements for other related treatment technologies as provided by the rules and regulations; however, must pass the technology examination for subclassification requested. Experience granted includes subclassification 3 (lagoon and ponds). This reciprocity action is based on the licensing state verifying that their examination contains material on the proper operation of each of the technology subelassifications.

## -Determining Reciprocity

Step 1. Education
Review applicant's submittal for reciprocity and determine based on education whether they qualify as Track I or Track II candidate.


## Step 2. _Classification

Match the experience with the largest system classification that meets Pennsylvania's minimum operating experience for that class. Award the class where the experience meets or exceeds the class requirement. Remember an educational credit under the regulations applies for experience. Experience must be based on the appropriate track.


Step 3. _Upgrade provision
Apply the upgrade provision if the reciprocity candidate has qualifying experience in Pennsylvania. -Note the limitationsthe upgrade provision does not apply to on this provision for small water and wastewater systems.

Where the minimum experience requirement for an assigned class is established, identify all the technologies operated at that system.


## -Step 5. Additional subclassification

Identify any technology subclassifications that the applicant has operated that were not awarded in Step 4. _Determine if the applicant meets the one-year experience requirement for additional subclassification.


Step 6. Identify any additional subclassifications that meet the experience requirement
Identify what additional subclassifications the applicant may obtain through testing. This is based on meeting a one-year experience requirement for that specific technology


## Applicant CLS Staff



Completes Application Submits:

Application
CHR
Experience
Education
Copies of Valid
Certificate from
Other State

| Reciprocity Applicant |
| :--- |
| Notified of Board |
| Action and given |
| appeal rights |

