

POTW Operator Licenses

The following question was sent to members of the NACWA Legal Affairs Committee on May 24, 2010:

We are writing to you as a member of NACWA's Legal Affairs Committee with a request for information from a member utility, which has asked the following question:

The State of Ohio has a unique licensure process for Class IV wastewater treatment plant operators, the highest certification available. The process involves an application and a significant written document (the checklist for the document, called an "exam", is at the link below).

http://www.epa.ohio.gov/portals/28/documents/opcert/Wastewater_Class_IV_review_checklist.pdf

The process does not include any type of objective examination, which has led to concerns about the subjectivity of the process and the resulting potential for a shortage of Class IV operators in the State.

Ohio POTWs are researching the requirements for highest-level licensure/certification for wastewater treatment plant operators in other states. We would like to know the following:

1. What type of testing or other procedure does your state use to certify wastewater treatment plant operators? Is there an objective component to the test? Does the test differentiate between operators of small and large treatment plants?
2. What qualifications are required to become a Class IV (or highest level) operator? Do these qualifications differentiate based on plant size?
3. Does your state offer reciprocity to operators certified in other states?

A link to your state's certification program would be sufficient.

Responses:

- (1) Tennessee has an examination procedure – see link to the administrative rules below. I cannot verify the quality of the examination. <http://tn.gov/sos/rules/1200/1200-05/1200-05-03.20091208.pdf>
- (2) This should get you started in looking at Virginia's Wastewater Operator Licensing requirements. In VA, there is an operator's licensing test. There is a progression of license levels. Virginia DEQ determines the level of operator required based on plant size and treatment process, but the larger plants all require the highest class (Class I). No reciprocity. Here is a link to the regulations and other related information:

<http://www.townhall.state.va.us/L/viewchapter.cfm?chapterid=1142&display=chapterinfo>

- (3) This is the link for MA: <http://www.neiwpcc.org/training/mwot.asp>
- (4) This is the SWRCB web site for California's Wastewater Treatment Plant Operator Licensing program: http://www.waterboards.ca.gov/water_issues/programs/operator_certification/
- (5) The TCEQ link below should answer all the questions:
http://www.tceq.state.tx.us/compliance/compliance_support/licensing/ww_lic.html
- (6) Rhode Island:
<http://www.dem.ri.gov/programs/benviron/water/licenses/wwoper/faq.htm>
- (7) The State of Wisconsin's requirements for operator certification can be found at <http://www.dnr.state.wi.us/org/es/science/opcert/water.htm>. I will try to answer your questions below.

The Department of Natural Resources has developed exams for subclasses of treatment processes. For instance there is a primary treatment subclass, an activated sludge subclass, a disinfection subclass, etc. There are exams for each subclass. Treatment plants are assigned a class code of 1 to 4 with 4 being the highest level. The class code assigned to a plant depends on its size, number of types of treatment processes, treatment limits, and types of industries discharging to the plant. Each plant must have an operator in charge who has been certified in each of the subclasses for that plant at the class level for the plant. Each subclass has a test at the introductory level and a test at the advanced level. To be certified at the grade 3 or 4 level, an operator has to pass the advanced test for a specific subgrade and have three or four years of experience, respectively. Grade 1 and 2 operators must pass the introductory tests and have one or two years of experience, respectively. The questions on the tests are objective. The DNR may exercise some subjectivity in reviewing a candidates experience records.

To become a Grade 4 operator, an operator has to pass the advanced exam for each of the subclasses at the plant. He/She also needs to provide to the Department of Natural Resources documentation of at least four years of experience in the operation of the subclasses.

The State does offer reciprocity, but you would have to contact someone at the Department of Natural Resources to learn how they do this.

- (8) The District of Columbia Water and Sewer Authority does not administer a certification program for wastewater system operators. The Authority has mandatory certification requirements for wastewater treatment operators at its Blue Plains Advanced Wastewater Treatment Plant, and accepts certification administered by the Association of Boards of Certification (ABC) or equivalent certification from the Maryland Board of Waterworks and Waste Systems Operators, or the Virginia Board for Waterworks and Wastewater Works Operators and On-site Sewage System Professionals. Information on the certification programs can be obtained from each of the above certification agencies.
- (9) Here is link to Missouri Dept. of Natural Resources:
<http://www.dnr.mo.gov/forms/index.html#WaterPollution>
- (10) This is Minnesota's: <http://www.pca.state.mn.us/index.php/water/water-types-and-programs/wastewater/wastewater.html>
- (11) New York State's Wastewater Operator Certification Program:
<http://www.dec.ny.gov/chemical/8464.html>
- (12) Here is the link to the Colorado Operator Certification Program:
<http://www.cdphe.state.co.us/op/ocb/index.html>
- (13) Here is the link to the CA program website. If you would like to discuss this with someone who knows a lot about the program, CASA's rep on the Operator Certification Advisory Committee is Stan Dean from Sacramento Regional San District,
deans@sacsewer.com

http://www.swrcb.ca.gov/water_issues/programs/operator_certification/pub.shtml
- (14) New Orleans Sewerage and Water Board follows State of Louisiana's guidelines as it relates to proper certification for its operator. Our Waste Treatment Plant is currently operated by private contractor. Regardless, Waste Treatment Plant Operator IV is the highest level and all operators must have that, especially those in supervisory capacity. In order to become Operator IV in any discipline, there are numerous classroom training and testing. All must be done based on state requirements. These rules have gotten very tough within the past 10 years or so. The link to our state web site is given below:
<http://www.dhh.louisiana.gov/offices/?ID=236>

- (15) Link is WWW.swrcb.ca.gov/cwphome/opcert/
e-mail is opcertprogram@waterboards.ca.gov

Office of Operator Certification Division of Financial Assistance
State Water Resources Control Board
PO Box 944212
Sacramento, California 94244 – 2120
Telephone (916) 341 – 5819

Verified by Chief Plant Operator, written application listing experience and job scope.
Qualifying candidate for Exam.

Written Exam including technical questions, calculations and Essay Questions of varying complexity to match the classification or grade of certification sought (Grades 1 – 5).
Objective. There is no distinction made or differences for examination for large or small plant sizes, but one must acquire sufficient experience and education and/or training to qualify for higher graded certifications based on the classification of the plant employed by based on processes, complexity and flow. Please refer to linked Wastewater Operator Certification Information. Reciprocity is offered to operators of most other states based on exam and application standards.

- (16) California's certification process. The attached link(s) will provide more information and if you have any questions please feel free to call me at 707-428-9106. The link :

http://www.swrcb.ca.gov/water_issues/programs/operator_certification/cert.shtml

Summary:

Reciprocity only to the Grade II level and must have tested within the last three years.

Requirements, please go to this

link: http://www.swrcb.ca.gov/water_issues/programs/operator_certification/docs/req_by_grade_cert102009.pdf

Testing does NOT differentiate between small and large treatment plants.

Testing for Grade IV & V is a series of True/False, Multiple Choice, essays, and math questions. This link takes you to

examples: http://www.swrcb.ca.gov/water_issues/programs/operator_certification/samples.shtml

- (17) Oregon operator certification regulations can be found at www.deq.state.or.us

Oregon does have education and experience requirements to take the exam, and reciprocity is given for some states but not all.

- (18) The link to TCEQ's (Texas Commission on Environmental Quality) licensing requirement for Wastewater Operators:

http://www.tceq.com/compliance/compliance_support/licensing/ww_lic.html

- (19) The Missouri Department of Natural Resources (MoDNR) certifies wastewater treatment plant operators at four levels—D (lowest) through A (highest). Certification is based on attaining an increasing level of experience and/or equivalent education and on successfully completing an examination at each level. I have attached copies of MoDNR's informational brochure for wastewater treatment plant operator certification and of the state statute (10 CSR 20-9). The examinations are multiple choice instruments. Each requires the applicant to answer 70% of the questions correctly. I have attached descriptions of the tests for each level. I do not have copies of the actual examinations. The tests do not differentiate between operators of small and large treatment plants. However, smaller treatment plants can be operated by individuals with lower-level certifications. The requirements are set forth in Section 9.020, paragraph (2) of 10 CSR 20-9. Missouri does offer reciprocity. The requirements and restrictions are described in Section 9.030, paragraph (7) of 10 CSR 20-9. A copy of the application for reciprocity is attached. All of the information provided above is available on or through the MoDNR website. Here is a link to the primary page:

<http://www.dnr.mo.gov/env/wpp/opcert/oprtrain.htm>.

My contact at MoDNR is Mark Klaus. Mark has always been very helpful in clarifying requirements and responding to various inquiries. His contact information is:

E-mail: mark.klaus@dnr.mo.gov

Phone: (800) 361-4827 or (314) 416-2960

- (20) State of Iowa Operator Certification Link:

<http://www.iowadnr.gov/water/opcert.html>

- (21) Please see below for the answers to the specific questions.

We conduct Wastewater Treatment Plant (WWTP) Operator Examinations twice a year (April and October) for each Grade of Certification. The California WWTP Examination was developed in-house, we do not use the ABC Examination. In addition to taking and passing the WWTP Operator Examination, the applicant must meet the qualifying experience required for any particular Grade of Operator, coinciding with which path the operator is taking. Please see our "Requirements" in the Examination portion of our website at

http://www.waterboards.ca.gov/water_issues/programs/operator_certification/exams.shtml

AND requirements under the Certification portion of our website at

http://www.waterboards.ca.gov/water_issues/programs/operator_certification/cert.shtml.

California has five (5) Grades of WWTP Operators, Grade I being the lowest and Grade V being the highest.

The California WWTP Examination for Grades I-II consists of true/false, multiple choice, and math questions. Grades III-V consist of true/false, multiple choice, math, and essay questions.

California grants reciprocity up to a Grade II only to all states EXCEPT: Nevada, Washington, Florida, and Michigan. Reciprocity information can be found in our regulations and under the certification area under "Reciprocity" at our website. Also, please refer to our regulations and information on certifications and examinations at our website

at: http://www.waterboards.ca.gov/water_issues/programs/operator_certification/

- (21) In Pennsylvania, there is an objective test given for certifying operators. I've attached a file which shows the Classes based on size and technology. There are years of service required for certification which may supplement years of education for actual operating years. You may also take and pass the test prior to having the proper amount of years and then get your license when you have accumulated the time.

http://www.portal.state.pa.us/portal/server.pt/community/documents_forms/10529/operator_certification_documents_forms/553674

- (22) Tennessee offers 14 types of certifications for Water, Wastewater, Collection System and Distribution System. Each certification possesses specific work experience and education requirements, as well as achieving a score of 70% or higher on an examination. Each certification is renewed annually. An application must be submitted to the Board of Water and Wastewater Operator Certification, located at the Fleming Training Center in Murfreesboro, Tennessee (web site <http://www.state.tn.us/environment/fleming/certification.shtml>). Upon Board review and approval of the application, an applicant may sit for the exam if all criteria are met under the Rules of Tennessee Department of Environment and Conservation, Chapter 1200-05-03-Rules Governing Water and Wastewater Operator Certification. All documents are available through the website. The application requires the candidate to list job history, training courses and actual on-the-job training related to the license being sought. Credit is also given for higher education and work-related experience. The application must be verified by a Certified Operator or, if not available, a person in authority in the system and sworn and notarized by the applicant. Reciprocity is also available with a number of other states. The examination must be taken without the assistance of course text materials, student notes, computer-stored materials or other materials. The exam may contain one or more of the following types of questions: matching, multiple choice, True-False, discussion, short answer, and problems. The applicant must score at least seventy percent (70%) on the written examination and, if otherwise eligible based on meeting all established criteria, shall receive a Certificate of Competency. In Tennessee, wastewater treatment plants are classified by the Board into one of five groups,

designated either as Biological-Natural (BNS), Grade I, II, III or IV. Classifications are made in accordance with a total number of points assigned to the facility, taking into account the design flow of the plant, its type of unit processes, its character, and the volume of wastewater it treats. A Grade IV classification is considered the highest level of classification.

(23) For the State of Louisiana (Louisiana Revised Statutes Title 40, Sections 1141 through 1151) which proscribe a system of certification for wastewater operators. Waste Treatment Operator IV is the highest level and all operators must possess the certification. In order to become a Class IV certified operator, the individual must participate in classroom training and pass a written certification test. Our Chief of Operations has stated that the rules have become very tough in this area over the last ten years. Additional information may be obtained by visiting our State website at the following link: <http://www.dhh.louisiana.gov/offices/?ID=236>.

(24) Here is the Wisconsin link: <http://dnr.wi.gov/org/es/science/opcert/water.htm>

(25) In Texas the wastewater treatment operator licensing levels are A, B, C, D with A as the highest level. For operators involved only in the collection system, separate Collection System licensing is available with Class I, II, and III. Class III is the highest level. Operators with a Wastewater Treatment license can operate collection systems as well, but the Collection System license is specific only to collection system functions. The size of the treatment facility dictates what level of operator licensing is required by the regulatory authority Texas Commission on Environmental Quality (TCEQ). Testing is required for all licensing levels. Tests are currently 100% objective with the exception of the A level test which is 80% objective and 20% essay. However, TCEQ is currently converting the A level test to 100% objective to allow for computer grading and faster turnaround for licensing documentation. There is currently no distinction between small and large system operator licensing though there has been some discussion about creating a special small systems license by the TCEQ Licensing Advisory Committee. With the exception of the D (lowest level) license, all operators must have actual hands on experience in a wastewater treatment facility to obtain a license. Education can be substituted for some of the experience requirements but not all. Texas does have a reciprocity procedure for comparable licensing programs. A link to more detailed information about wastewater licensing in Texas is: http://www.tceq.state.tx.us/compliance/compliance_support/licensing/ww_lic.html

(26) Here is the link to the Hawaii certification process:
http://hawaii.gov/wastewater/wtc_cert.html#ABC

(27) DCWASA's Response:

We do not self certify. We use a national organization, the Association of Boards of Certification (ABC), out of Ames, Iowa. Contact: Suzanne DeLaCruz 515-233-3623

Our highest level class IV requires a high school diploma or GED with 180 CEUs of post high school education in the environmental control field, engineering or related science. Four years of acceptable experience in a class III or higher utility in two years of direct responsible charge (active day to day technical direction and supervision or active accountability and/or Authority for process control decisions of a facility or major segment of a facility that directly impacts public health or environment.

To my knowledge, ABC certifications are based on plant size.

We accept reciprocity for outlying jurisdictions (MD and VA) and all states that have reciprocity with ABC