



**State Water Resources Control Board**  
**JUL 30 2015**

Mr. Kevin Ryan  
Operator Certification Program Coordinator  
U.S. EPA, Region 9, WTR-3-1  
75 Hawthorne Street  
San Francisco, CA 94105

RE: CALIFORNIA STATE WATER RESOURCES CONTROL BOARD DRINKING WATER  
OPERATOR CERTIFICATION ANNUAL REPORT FOR STATE FISCAL YEAR (SFY)  
2014-2015

Dear Mr. Ryan:

Enclosed is the California State Water Resources Control Board Annual Drinking Water  
Operator Certification Annual Report for SFY 2014/2015 (Report).

Please contact Ms. Annette Caraway at (916) 449-5620, or  
[annette.caraway@waterboards.ca.gov](mailto:annette.caraway@waterboards.ca.gov) if you have any questions concerning the Report.

Sincerely,

A handwritten signature in blue ink, appearing to read "Cindy Forbes".

Cindy Forbes, Deputy Director  
Division of Drinking Water

A handwritten signature in blue ink, appearing to read "Darrin Polhemus".

Darrin Polhemus, Deputy Director  
Division of Financial Assistance

Enclosure



EDMUND G. BROWN JR.  
GOVERNOR

MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

---

State Water Resources Control Board

---

# California State Water Resources Control Board

## Operator Certification Program 2014 Annual Report

### State Fiscal Year 2014 - 2015 (July 1, 2014 - June 30, 2015)

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

---

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, Ca 95812-0100 | [www.waterboards.ca.gov](http://www.waterboards.ca.gov)

# TABLE OF CONTENTS

## Baseline Standards

Introduction .....	1
Authorization .....	1
Classification of Systems, Facilities, and Operators .....	2
Operator Qualifications .....	2
Enforcement.....	4
Certification Renewal .....	7
Resources Needed to Implement the Program .....	8
Recertification .....	8
Stakeholder Involvement .....	9
Program Review.....	10
Conclusion .....	10

# California Drinking Water Operator Certification Program Annual Report (July 1, 2014 – June 30, 2015)

## Baseline Standards

### 1. Introduction

This is the California Drinking Water Operator Certification (Operator Certification) Program's Annual Report for the State Fiscal Year (SFY) 2014-2015 (July 1, 2014 to June 30, 2015). The goal of the Operator Certification Program is to ensure that skilled professionals are overseeing the treatment and distribution of safe drinking water. Operator certification is an important step in promoting compliance with the Safe Drinking Water Act (SDWA).

### 2. Authorization

Authorization for the California Department of Public Health (CDPH) Operator Certification Program was established in 2001. CDPH operator certification regulations (Title 22, California Code of Regulations {CCR} Sections 63750.10 through 63850) were developed to meet federal guidelines and requirements as well as California Health and Safety Code (H&SC) Sections 106875. Prior to 2001, California had a program to certify water treatment operators for public water systems. The program did not include certification of distribution system operators. In 2001, the certification program was broadened to include certification of operators of public water distribution systems. In addition, the regulations contain provisions to ensure that all treatment facilities and distribution systems are classified consistent with federal guidance.

Effective July 1, 2014, the responsibility for California's Operator Certification Program for operators of public water systems was transferred from the CDPH to the State Water Resources Control Board (State Water Board). The transfer was accomplished by means of the addition of new Section 116271 to the Health and Safety Code. However, no changes were made to the Operator Certification Program statutes or regulations.

### **3. Classification of Systems, Facilities, and Operators (Title 22, CCR Sections 64412 – 64413.7)**

There are 7,658 public water systems in California. Of these, 2,975 are considered community systems; 3,204 are transient, non-community systems; and 1,479 are non-transient, non-community systems. In accordance with current regulations, the State Water Board's Drinking Water District Offices have classified water distribution systems and treatment facilities statewide.

The State Water Board uses a five level classification system, established in regulations for distribution systems, treatment facilities, and operators. Distribution systems are classified into categories D1 through D5 according to population served and the complexity of the distribution system. Treatment facilities are classified into categories T1 through T5 based on a calculation of points assigned based upon source water characteristics, maximum capacity, and treatment techniques utilized. Operators are required to be certified for the specific classification of distribution system or treatment facility for which they are employed. The State Water Board has issued a total of 33,340 valid certificates. There are 13,822 valid water treatment certificates and 19,518 valid water distribution operator certificates. The certificates are held by 22,163 water operators. Of the operators, 11,237 individuals hold both treatment and distribution certifications. There are 8,341 operators that hold only a distribution certificate and 2,585 operators that hold only a treatment certificate.

### **4. Operator Qualifications**

The operator certification requirements for water treatment operators and distribution operators are specified in Title 22 CCR Section 63800 and 63805, respectively. To meet certification requirements, operators must submit an application to the State Water Board and pass an exam based on the knowledge, skill, and abilities set forth in regulation. Through the application review process, the State Water Board verifies the education requirements are met prior to acceptance to participate in an exam. Once an applicant has passed the exam, State Water Board verifies the experience requirements are met, if applicable.

The required knowledge, skills, and abilities of each certification level were developed based on job analyses conducted by Subject Matter Experts, who are typically water system operators and managers with extensive field experience. The State Water Board has an ongoing validation process to ensure that exam questions are representative of operator duties and responsibilities. The State Water Board sponsors workshops, typically attended by Subject Matter Experts, to validate existing exam questions and to write new questions.

The State Water Board held one workshop this year focused on validating the questions used for the T5 oral exam. This workshop was held November 19<sup>th</sup> in Sacramento and consisted of T5 operators and former T5 panel members from Northern California. The group reviewed, revised, and validated questions that will be used to improve future T5 exams.

The State Water Board currently is administering a job analysis survey to update the Expected Range of Knowledge from which the water treatment exams are derived. This survey is based on an update of the job analysis prepared by two groups of Subject Matter Experts during several meetings held in Northern and Southern California in June and July of 2014. The survey was published in December of 2014 and will conclude on July 15, 2015. The survey results will ensure that our water treatment exams are current and are consistent with tasks performed by certified operators in California.

With the transition of the program to the State Water Board, the Operator Certification Program has increased community participation. Participation at conferences provides the operators the opportunity to receive continuing education units, information on the program, and the ability to discuss any issues/concerns of the Operator Certification Program. Below is a list of seminars/symposiums that have been attended.

- August 2014 – American Water Works Association Conference – Southern California
- September 2014 – Clean Water Environmental Association Conference – Northern California
- January 2015 – Association of Boards of Certification Conference – Long Beach, CA

- March 2015 – American Water Works Association – Symposium
- May 2015 – Clean Water Environmental Association – Annual Conference – San Diego, CA
- May 2015 – Clean Water Environmental Association – Drought Summit – Sacramento, CA
- May 2015 – Local Primacy Agency (LPA) Annual Meeting – Sacramento, CA
- Monthly – USEPA Reenergize Operator Certification

Monthly – California – Nevada American Water Works Association  
Advanced Water Treatment (AWT)

## **5. Enforcement**

Under existing regulations and the H&SC, the State Water Board can take enforcement actions against a certified individual, if the individual has failed to meet specified requirements and has consequently endangered public health, or a public water system, if it is determined that the system does not meet operator certification requirements.

During the time period covered by this report, the State Water Boards' Special Investigations Unit (SIU) investigated twelve complaints. Three of the complaints are closed and did not reveal any fraudulent activity. The other nine complaints currently are under investigation. In the event there is fraudulent activity, the State Water Board may suspend, revoke, or refuse to grant or renew any water distribution or treatment operator certificate, or place on probation or reprimand the certificate holder. For systems that are found in violation of operator certification requirements, the Division of Drinking Water's (DDW) Field Office Branch (FOB) District office or county Local Primacy Agency(LPA) takes enforcement actions appropriate to the specifics of the situation, considering such factors as:

- Potential threat to public health;
- Type and complexity of water treatment processes;
- Water quality issues that could result from operator error; and
- Interim action that is proposed by the system to address the problem.

Typically, the enforcement actions consist of the issuance of a citation, compliance order, or corrective action letter. In most cases, the action includes a requirement for the water system to submit a plan for bringing the water system into compliance with the operator certification requirements. Most commonly, the enforcement actions are a result of a finding that the water system is utilizing noncertified operators to perform duties specified in subsection (b) of Section 63770 of the Title 22 of the California Code of Regulations.

Enforcement action often occurs in cases where the lack of a certified operator is a contributing factor to a violation or potential violation of a drinking water standard or treatment technique. In 2014, there were five violations noted against water systems resulting from not having a qualified distribution operator. In these cases, the DDW followed up with enforcement action. Two of the five water systems have returned to compliance, one system became inactive as the system no longer meets the definition of a public water system, and the other two systems are working on hiring a certified distribution operator.

Most importantly, however, FOB Districts and LPAs work with water systems on an on-going basis to address potential problems as they arise to ensure that enforcement actions are not required. These on-going interactions are not categorized as “enforcement actions” and are instead seen as preventative measures.

During the Annual Evaluation of the LPA programs, State Water Boards’ DDW reviews a select number of water system files to evaluate the compliance of these systems with operator certification requirements. In addition, DDW reviews the overall work of the LPAs in enforcing regulatory requirements including operator certification requirements. Any questions or issues related to the enforcement of the operator certification requirements are brought to the attention of the LPA.

The State Water Board estimates compliance with the operator certification regulations using information submitted by water systems on the electronic annual report as of July 2015, as follows:



- Overall, 83% of community water systems have filed an electronic annual report and over 97% of the systems report having certified treatment or distribution operators.
- 77% of small community water systems (less than 200 connections) have filed an electronic annual report and over 97% report having certified treatment and distribution operators.
- 93% of community water systems with 200 – 999 connections have filed an electronic annual report and over 99% report having certified treatment and distribution operators.
- 96% of large community water systems (more than 1,000 connections) have filed an electronic annual report and 99% report having certified treatment and distribution operators.
- Overall, (1191/1479) 80% of Non-transient, Non-Community water system have filed an electronic annual report. Over (1125/1479) 76% have reported having certified treatment or distribution operators.

<b>Community Water Systems</b>				
# of connections	<200	200 – 999	>1,000	ALL CWS
# of CWS	1,937	421	669	2,993
# filing the annual report as of July 2015	1,493	386	656	2,535
# of reporting a certified WT operator	1,084	337	646	2,067
# of reporting a certified WD operator	1,386	380	621	2,387
<b>Non-transient, Non-community systems</b>				
# of NTNC Systems		1,479		
# filing the annual report as of July 2015		1,191		
# of reporting a certified WT operator		805		
# of reporting a certified WD operator		1,079		

This report allows the State Water Boards' DDW District Office field staff to cross-check their current information on operator certification status by verifying the names against their records and the database of certified operators.

## 6. Certification Renewal

Operators are required to renew their certificates every three years. To be eligible for certificate renewal, certified operators must complete a specified number of continuing education contact hours after the previous renewal or issuance of certificate pursuant to Title 22 CCR Table 63840-A.

### Required Continuing Education Contact Hours for Certificate Renewal

Water Treatment Operators	Contact Hours Required
Grade T1	12
Grade T2	16
Grade T3	24
Grade T4	36
Grade T5	36
Distribution Operators	
Grade D1	12
Grade D2	16
Grade D3	24

Grade D4	36
Grade D5	36

In order to ensure compliance with renewal requirements, the State Water Board reviews continuing education courses for subject matter content and verifies the course was taken within the renewal period.

The State Water Board's website has a list of continuing education providers who offer acceptable courses throughout the state as well as online courses for operators in remote areas.

In 2014 – 2015, a total of 8,849 operators renewed their certifications. This includes 2,773 Treatment operators and 6,076 Distribution operators.

**7. Resources Needed to Implement the Program**

The Operator Certification Unit currently consists of eight staff members, and one manager/supervisor administering a program of approximately 33,340 certificates. The unit utilizes two FileMaker Pro databases, one for each type of certification, that work together to record operator contact information, expiration dates, dates of examination, certification, and any other relevant information. The program is fully funded from revenues generated through exam, certification, and renewal fees.

Each year, the Operator Certification Unit administers four exams two treatment operator, and two distribution operator exams. The exams are given at differing sites throughout the state. During the time period of this report, a total of 7,058 individuals were tested, with an overall pass rate of 64%. The Unit certified 3,814 new operators who achieved a higher level of certification.

**8. Recertification**

Under subdivision (c) of Section 63845, CCR, an expired certificate may be reinstated if the certificate has been expired for no more than one year.

Individuals who wish to be recertified after the one year reinstatement period must re-apply for the exam and meet all the exam and certification requirements in order to be recertified. The State Water Board reviews the applicant's education and experience to ensure all exam and certification can count toward the experience requirements for the current certificate application.

## **9. Stakeholder Involvement**

### Operator Certification Stakeholder's Group

The State Water Board's Operator Certification Stakeholder's Group meets twice each year to discuss implementation of the operator certification regulations. Membership includes California-Nevada Section of American Waterworks Association (CA-NV AWWA), Local Union 39 (representing Stationary Engineers), California Rural Water Association (CRWA), Rural Community Assistance Corporation (RCAC), water distribution and treatment instructors, and operators from large and small water systems. The group advises the State Water Board on any changes needed to regulatory requirements, such as number of continuing education contact hours needed, specialized training courses required, and the definition of "operator experience."

The State Water Board continues to discuss specific issues of interest to the stakeholders group related to the regulations and issues in the water operator industry.

### California Technical Assistance Providers Stakeholders Group

Training assistance to small systems operators is provided through a stakeholder's group called California Technical Assistance Providers (CalTAP). The group includes State Water Board personnel and representatives from CRWA, RCAC, University of California - Davis, Sacramento State University, the CA-NV AWWA, and U.S. EPA. One CALTAP-workshop was held this year in Rancho Cordova, California on March 26<sup>th</sup>, to benefit small water systems in the local area.

## **10. Program Review**

Program review is provided on an on-going basis by the Operator Certification Stakeholder's Group. The group has provided comments and suggestions on the State Water Board Operator Certification Program and has proposed changes to the regulations.

## **11. Conclusion**

California's Operator Certification Program is increasing efforts with community outreach and is meeting the requirements that are important for the SDWA.