

Via Electronic Mail

July 31, 2012

Charles R. Hoppin, Chair, and Members
State Water Resources Control Board
P.O. Box 100, Sacramento, CA 95812-2000



ATTN: Jeanine Townsend, commentletters@waterboards.ca.gov

SUBJECT: Comment Letter: PROPOSED OPERATOR CERTIFICATION REGULATIONS

Dear Chairman Hoppin and Members of the Board:

My name is **Hugh Logan** and I appreciate the opportunity to submit comments concerning the Operator Certification Regulations. While I have several areas of concern, I am pleased with the overall package and know first-hand the effort of OOC Staff to facilitate collaboration with a host of stakeholders over the past several years. This effort is noteworthy and has helped unify the wastewater community around our common purpose of advancing the protection of public health.

I am a Grade V Wastewater Treatment Plant Operator (V-8277) and a T2 Water Treatment Operator (33406), am registered as a Wastewater Contract Operator (CO-0167), and am a certified Project Management Professional (PMP 1509548). I have 21 years of experience in the operation, maintenance, management, and project management of wastewater and recycled water treatment facilities. My technical roles have included field Operator, Shift Supervisor, and Supervisor. My management roles have included Operations Supervisor, Assistant Plant Manager, and Capital Improvement Program Manager at a Class V treatment plant.

I am a representative on the SWRCB Office of Operator Certification Advisory Committee since 2002, nominated from the California Water Environment Association. As a member of the Advisory Committee, I have participated with ad-hoc groups for Title 23 Regulations Update, Certification Exam Review, and Exam Validation.

Currently, I serve on the Board of Directors for the California Water Environment Association. I also serve on the Water Environment Federation House of Delegates and am co-chair of Operator Outreach subgroup, working to improve the training of Operators nationwide. I am a credentialed instructor for wastewater operations with the Tri-Valley Regional Occupational Program (ROP) and have provided numerous presentations concerning Title 23 Regulations and Operator Ethics to wastewater professionals throughout the state.

INTRODUCTION

California has an excellent track record in the safe and effective operations of wastewater treatment plants. The existing certification program has produced competent Operators to implement requirements of the Clean Water Act and has helped ensure continued permit compliance as many new initiatives were implemented since.

Certification is based on three pillars: Experience, Education, and Examination. Each of these pillars is necessary to ensure the minimum competency of Operators throughout the state as they operate complex treatment systems. Maintaining the certification standard ensures that all

Operators possess the knowledge, skills, and abilities necessary to protect the public health and the environment and ensure the public's confidence.

We have worked hard over the years to develop a strong certification program that enjoys the public confidence. Now is not the time for the SWRCB to relax standards for certifying Operators. Rather, it's time to improve the program by enhancing the minimum requirements. With ever-increasing water quality demands, and as the need for wastewater infrastructure investment reaches to the billions of dollars, Operators are on the front line of protecting these critical assets and in utilizing the assets in a cost-effective manner. It is important that changes to the Certification Program do not have unintended consequences that reduce the public's confidence that took years to establish.

I will address five (5) particular areas of the proposed regulations: Experience Requirement, Education Requirement, Examination Requirement, Fees Required for Operators/Contract Operators, and Enforcement. Recommendations for changes are listed at the end of each area.

EXPERIENCE REQUIREMENT

The OOC should maintain the minimum standard of competency demonstrated through actual hands-on experience in plant operations. I agree with the proposed regulations to maintain the minimum requirement for 1 year of hands-on experience at a wastewater plant, regardless of education, while certified with the OOC. While the State is allowing increased participation in the Certification program from individuals with somewhat related experiences, there simply is no substitute for real world experience at a wastewater treatment plant to become an effective Operator.

The skill that an existing Operator has gained was earned while under the obligation to comply with the agency's permit and the SWRCB OOC regulations. This is not theoretical operation, but very practical experience that an existing Operator demonstrates *while performing the job* to achieve permit compliance in the real world. This methodology has worked well for decades and the State is well served by it.

When we speak of gaining initial Operator experience, most folks in the wastewater community understand this to be physical performance of day-to-day activities of monitoring and control at an actual treatment plant. Even with today's technology and remote operations made possible through automation, Operators must be experienced to operate the plant when automatic systems are out of service. It is not a book exercise. It takes time in the field to become expert in a wastewater facility and learn the ropes. While advanced education is laudable and helps shave some of the learning curve, there simply is no shortcut around the need for hands-on training, under real world conditions at a functioning wastewater treatment plant.

A typical way for a new person to enter the Operator trade follows like this: A new person is recruited based on an agency's specific requirements and standards; an OIT certificate is issued, meaning a Chief Plant Operator has assumed responsibility for the training and supervision of the individual; the OIT learns the plant process from a journey-level Operator over the course of a year or so; the OIT applies for wastewater education courses and examination; after 1 year, the individual is eligible to become certified as a Grade 1 Operator. The newly certified Operator then gains more experience in real world conditions, is able to progress to Grade II and

Grade III and is considered journey-level. Advanced certification to Grade IV and V are earned with combination of further education and deepening experiences and examinations. At this point, Operators are in position of leadership, training coordination, project development, and management and can continue the program.

While there are other pathways that can work, the path I described above works every time it is tried. It's a proven method to achieve the desired result.

Suggested Changes to Proposed Regulations:

1. Section 3684 (a) (2) (A and B): Remove/Strike experience credit for Lab Procedures or Safety Procedures. This experience is nice, but is not an equivalent experience for purpose of the certification program.
2. Section 3684 (c): Individuals at private plants should be currently employed and have at least one year of experience in order to qualify for 1 year of equivalent experience with SWRCB. Otherwise, unscrupulous individuals may employ several folks for only 1 day before the regulations are in force, and then be granted full access to the Op Certification. Depending on their education levels, they could theoretically qualify for Grade V certification. This would violate the spirit of the regulation change.

EDUCATION REQUIREMENT

I support the advancement of minimum education requirements and the proposed requirement that Grade I Operators have a High School Diploma or GED equivalent.

I believe there is value in the State establishing a requirement for Continuing Education (CE) to ensure existing Operators stay current with evolving technologies and best practices. The purpose of a CE requirement is to ensure that Certified Operators remain knowledgeable of regulatory requirements, technology, and practices required in the ever-changing, and increasingly complex, field of wastewater treatment. Many states require CE for their Wastewater Treatment Plant Operators to remain certified; California does not; an unusual position for a State committed to environmental protection. Ongoing education enhances the operation, maintenance, and management skills of the certificate-holders, thereby positively influencing the quality of wastewater treatment.

Both CWEA and the California Department of Public Health (CDPH) require CE prior to the renewal of their certificates. A CE program does not have to be burdensome or labor intensive to be effective. Many Operators are in a continuous training mode already, and for the Operators who are not, a CE requirement will ensure their skills are kept current during each renewal cycle. There is a wide variety of training options for CE, and the training could come from free sources, in-plant sources, correspondence courses, vendor sources, etc.

I believe that CE is long overdue for wastewater Operators. Treatment technologies are changing, water reuse and energy recovery are topics of emerging concern in California, and the regulatory environment is rigorous. Continuing education assists Agencies in maintaining a workforce that is more adept at incorporating change and improving effectiveness of operations. Additionally, a CE requirement helps the State ensure there is a ready source of trained

Operators to step into the Grade III, IV, and V positions if the pending retirement bubble materializes.

The CDPH (potable water certification) has a few definitions in place that could be adapted for a CE requirement for Wastewater Operators as well:

Section 63750.35. Contact Hour. “Contact hour” means not less than 50 minutes of specialized training or a continuing education course.

Section 63750.40. Continuing Education Course. “Continuing education course” means a presentation that transmits information related to the operation of a treatment facility and/or distribution system.

The CDPH has some simple regulatory language that states its requirement:

(Section 63840) To be eligible for certificate renewal, certified operators possessing certificates that expire after December 31, 2003, shall have completed continuing education contact hours since the previous renewal or issuance of the certificate pursuant to Table 63840-A. No more than 25% of the contact hours shall be courses in operator safety.

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

While the CDPH requires up to 36 hours of contact hours for renewal, that renewal cycle is based on 3 years. The SWRCB standard should be 12 contact hours each year.

Suggested Changes to Proposed Regulations:

1. Section 3702: Certificate Renewal: Add CE Requirement that is consistent with CDPH language. Use the CDPH or CWEA guidelines in order to be consistent with folks holding dual certification.

EXAMINATION REQUIREMENT

California has built a strong certification program over the last 75 years, dating back to the inception by the California Water Environment Association in 1937 and thru the State’s leadership after the Clean Water Act in the early 1970’s. Improvements are needed, but this principle remains the same: The examination process is meant to ensure a consistent competency is met by all Operators of the same Grade based on the same body of knowledge. This principle is critical to ensure a well-balanced certification program.

While the Office of Operator Certification has existing discretion in accepting Experience and Education qualifications from other certifying bodies, along with Examination for Grade I and II, the Examination for Grade III, IV, and V is unique to California in that it reflects the regulatory

requirements and heightened environmental protection expectations by our public that is not necessarily shared by all other certifying bodies. In order to ensure integrity of the certification, the waiver of examination for Grade III, IV, and V allowed in Section 3689 should be based upon a true comparison of examinations with other certifying bodies. California utilizes long-form math and essay questions for these higher grades to test real-world situations. The Operators on the Advisory Committee agreed with this methodology when asked by the OOC. I urge the state to reject the proposal to allow a waiver of the examination for Grade III, IV, and V, unless an individual has taken a similar exam in the past four (4) years.

There are several needs to improve the Examination process: Faster grading, computerized testing, and validation of exam questions

For Grade I and II exams, Computer-Based-Testing (CBT) should be utilized. CWEA uses CBT to allow examination takers to select the most convenient testing location and time-- including evenings and Saturdays. CWEA certification exams are given at professional test centers throughout the State. The test centers provide a carefully controlled and comfortable testing environment, allowing candidates to take the test under peak performance conditions while maintaining strict test security. CBT allows for more efficient scoring and tracking of test performance metrics. It also minimizes scoring errors and provides quicker results to individuals, which in turn, helps Agencies assign staff more effectively. While there is an upfront cost to setup the CBT process, the ongoing benefits will be helpful to the State and to Operators that are advancing in their career.

If the State decides to update the examination and testing process for Grade I and II, the California Water Environment Association is well-equipped to assume a greater role with Operators. For example, CWEA routinely performs a job/task analysis for each certificate it offers. A job/task analysis for each grade of Operator is appropriate at this time and will serve as a basis to update the common set of Knowledge/ Skills/Abilities (KSAs) for each grade of Operator. Afterward, the existing repository of test questions should be validated to represent the newly revised KSA's. While this is not an easy task, there are resources available to assist, either through the Advisory Committee or through CWEA, to help in this area. The fees that are being paid by Operators should be utilized to cover a complete revalidation process. These updated KSAs can then be used to update the test questions for the various skill levels being tested. CWEA has the experience to offer assistance.

If using CBT, the Grade I and II should receive test results in near real-time. In the interest of improving service, the maximum turnaround time for the State OOC to provide "pass/fail" information to Grade III, IV, and V test takers should be reduced from 90 days to 45 days so that agencies and operators can more quickly adapt to changing staffing levels after retirements or organizational changes.

Suggested Changes to Proposed Regulations:

1. Article 7: Section 3701.2: Reduce grading time from 90 days to 45 days
2. Article 7: Section 3689: Waiver of examination for Grade III, IV, and V should not be allowed unless an exam of similar content (see same section, (a) (3)) was passed in the past 4 years (similar to Section 3701.2 (c)).

FEES FOR APPLICATION, CERTIFICATION and RENEWAL FOR OPERATORS AND CONTRACT OPERATORS

The State Water Board is proposing an increase of nearly 80% to Operators and 350% for contract operators. This increase is a significant burden, at a time when municipalities and individuals are hard pressed to find additional funds. Additionally, the higher fees can deter new people from entering the wastewater field. While Operators understand the program should be self-funded, I believe the fee increase is too sudden and drastic. The State should consider a gradual increase of fees over several years to allow Operators, Contract Operators, and agencies to adjust their budgets accordingly.

Operators also need to know that the fees are kept within the OOC to serve the Certification Program, and not diverted by transferring staff to other programs within the SWRCB. Transparency and accountability is important to demonstrate the fees are used for the OOC purpose. Better measurement of costs will allow the State to seek cost-saving ideas and the Advisory Committee is a useful tool for the OOC in this regard.

The OOC administers a series of three (3) fees paid by the Operator for certification: Application, Examination, and Renewal every 2 years.

It makes sense that examination fees will vary for the different grades, based on the amount of time to prepare and grade the exams. However, Grade 1 and 2 exams are similar in nature and should be priced the same. Similarly, Grade 3, 4, and 5 exams should also be priced the same. This will simplify the budgeting process for agencies.

The same holds true for application fees. I believe Grade 1 and 2 application fees should be the same and the application fees for Grade 3, 4, and 5 should be the same.

The renewal fees should be the same for all grade levels and reduced to cover the cost only. Certificate renewals do not vary significantly based on the grade level. Based on the current services provided, administering a renewal of an existing certificate is very simple and not time-consuming. I believe all renewal fees should be the same, no more than \$100, based on the level of service provided. NOTE: if Continuing Education (CE) is implemented, a higher fee above \$100 may be justified for Renewals so that Staff can perform review and random audits of the applications.

If the State is open to reducing costs, then a tri-annual renewal period would be more efficient and still provide regulatory oversight necessary to ensure compliance.

The registration fee for contract operators is increasing 350%. This fee requires annual renewal, as opposed to biannual renewal for operators. These fees are passed on to the individual wastewater treatment plants that rely on contract operators, often due to the economic hardship of hiring full-time operators. The proposed change represents a sizeable burden. I believe the renewal fee of \$350/year plus \$75/employee is unwarranted. The registration fee should be consistent with the fees imposed on a Grade V Operator in Article 10.

The Contract Operator should have a biannual renewal instead of annual requirement which is burdensome and not justified.

Lastly, the date of effective certification is important to the Operator. The effective date should remain the date that the Operator meets the certification requirement, not the date that the OOC gets around to the approval of the certification. This proposed change by the OOC has potential to cost individual Operators significant money in the way of delayed pay raises that are tied to certification by their Agencies or in missed promotional opportunities.

Suggested Changes to Proposed Regulations:

- Article 10: Section 3717: Application Fees for Grade 1 and 2 should be the same at \$80. Application Fees for Grade 3, 4, 5 should be the same at \$130.
- Article 10: Section 3717: Examination Fees for Grade 1 and 2 should be the same at \$80. Examination Fees for Grade 3, 4, 5 should be the same at \$250.
- Article 10: Section 3717: Renewal Fees for all Grades 1-5 should be the same at no more than \$100 for the stated service of issuing a renewed certificate.
- Article 10: 3702.2. Application for Certificate Renewal: Consider extension of renewal period to 3 years instead of 2 years.
- Article 12: 3719 Wastewater Treatment Plant Contract Operator Registration Fees capped at no more than that of a Grade V Operator in Article 10. The Renewal Fee should be no more than \$100, in keeping with our recommendation for Grade V renewals. The Renewal fee for each Operator that works for a Contract Operator should not be more than \$50/year.
- Article 12: 3719.1. Term of Contract Operator should be changed to 2 years instead of the proposed 1 year time frame.
- Article 10: Section 3717: Fees for Provisional Operators should be consistent with those of other Operators in Article 10.
- Article 8: exact Section not listed: Effective Date of Certification: keep existing practice that indicates the date the Operator qualified for the certificate and not the date the OOC approves the application.
- Article 8: Section 3702.1(d): consider extending renewal after initial certification from two (2) years to three (3) years to reduce cost and improve efficiency. This suggestion works best for implementing CE requirement as well, to balance the added burden of the renewal process.

ENFORCEMENT

Operators assume a significant responsibility as they obtain certification and operate treatment facilities. As a whole, we are conscientious about our actions and take pride in meeting the strenuous discharge requirements imposed by the Permit. Sometimes, permit compliance is difficult and requires a herculean effort from the Operator as we seek innovative solutions to immediate problems that arise during the day-to-day, 24-7 operation of complex processes. Most times, these actions go under appreciated as just a 'matter of course'. However, Operators understand it's a big deal when a plant responds well to unusual conditions and still meets the permit requirements.

Operators are also taught ethics from the beginning of their career and training. Since wastewater plants are tasked with self-monitoring and self-reporting, the Operator must develop and maintain trust with our public and with the State. This trust is earned over a period of time and Operators take this responsibility serious. The trust is well placed from the Public, as I've seen first-hand, the attention to detail provided by well-trained Operators. It is seen in the writing of SOP's, the training of new Operators, the communication with Plant Management about potential problems, the willingness to be called back to work after a long shift to correct process problems, and the ability to admit when the plant didn't perform as expected during difficult times. All in an effort to maintain permit compliance and demonstrate the highest ethics expected of our profession.

Sometimes, a plant does not perform as expected and a violation of the Permit occurs. All Operators experience this during a career. It is important for Plants and Operators to be accountable for permit compliance, but it is also important for the State to understand the totality of the situation before initiating punitive sanctions. The State has shown appreciation for this in the past, and I encourage the State Office of Enforcement to continue with wise judgment before pursuing enforcement actions against well-meaning Operators. Unless there is a pattern of misconduct or lack of compliance demonstrated over time, the default position should be to reach out and help the Agency and the Operator achieve compliance.

I have read the response from the Summit Partners concerning enforcement. I encourage the State to ensure the enforcement actions are not overly complex and are meant to deter the unethical individuals from bad behavior. Most Operators are well-meaning and are responsive to the needs of their plant, their public, and their wastewater process in order to achieve permit compliance. Punitive enforcement actions should be reserved for unscrupulous individuals, while collaborative efforts should continue to be the normal course of action by the Office of Enforcement. Any new regulations related to Enforcement should be kept simple, non-duplicative, and focused on compliance.

CLOSING

Thank you for your consideration of these ideas and I look forward to discussing further at the Public Hearing on August 7th in Sacramento. Please contact me at hlogan@loganservicescorp.com or (510) 427-5547.

Sincerely,

Hugh Logan, Grade V Wastewater Operator and Advisory Committee Member
CWEA Board Member and WEF Delegate, 2011-2014