
Wastewater Treatment Plant Operator Regulations Update

Operator Certification
Focus Group Presentation (Oakland)
March 19, 2007

Reasons for Regulation Updates

- Original regulations were written in 1970
- Last update to regulations in 1994
- The regulations do not reflect current operation or management of WWTP
- Operator profession will be undergoing major changes over the next decade
- AB 2971

Regulations Update Overview

- Recap History of Rulemaking Process
- Current Approach
- Current Schedule
- Objective of Today's Presentation

Current Schedule

- Winter 2007 – Drafting/Scoping Phase
- Spring 2007 – Review/Approval of Draft Regs
- Summer 2007 – Public Review/Comment of Draft Regs
- Fall'07/Winter '08 – Response to Comments and Preparation of Final Regs
- Spring 2008 – Regulations in Effect

Consideration of Major Changes to Regulations

1. Definitions (additions, deletions, and modifications)
2. Regulation of Privately Owned Wastewater Treatment Plants
3. Education and Experience Requirements
4. Reciprocity
5. Operators-in-Training
6. Exemption of Class 1 Plants
7. Continuing Education
8. Signature on Applications
9. Disciplinary Provisions
10. Tribal Operator Certification

Definitions

- **“Qualifying experience”** (new definition)
- Currently qualifying experience means operating a WWTP; operating a WWTP is defined as controlling processes that affect the quality of the effluent.
- Qualifying experience limited to an “up through the ranks” approach.
- Certification workgroup and others acknowledge that other experiences provide a good foundation for qualified WWTP operators.
 - Supervising plant start-up
 - Preparing operations/maintenance manuals
 - Advising/troubleshooting process control problems
 - Other experience

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Definitions

- **“Qualifying experience”** (new definition)
- A work in progress
- General definition vs. list of duties?
 - A general rule is better because it’s difficult to write an exhaustive list.
- Time spent performing duties as an operator or supervisor?
- Include? plant start up; maintenance manual preparation; maintenance duties relating to servicing, adjustment, or regulation of equipment necessary to maintain reliable operation of major treatment processes.
- Credited at eight hours per day if the operator is solely responsible for operation and all duties are performed in less than eight hours.
 - Qualifying experience for an operator-in-training also credited at eight hours per day; however, an OIT may not be solely responsible for operation and must work under direct supervision.

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Definitions (cont.)

- **“Qualifying Experience”** (cont.)
- How do we limit/define “maintenance”?
- Current regulations include the term, “day-to-day” in the definition of “maintenance.”
 - Day-to-day is vague; is there a more precise term?

Definitions (cont.)

- **“Maintenance”** (removed from definitions)
- Maintenance is now part of the new definition of “qualifying experience”

Definitions (cont.)

- **“Full time”** (new definition)
- Working an average of 40 hours per week at a WWTP fulfilling duties that meet the definition of qualifying experience.
- Part time operators meet the experience requirement by working the same number of hours as an operator who is working full time.
- Full time includes paid vacation or sick leave earned as a result of hours spent on job duties that meet the definition of qualifying experience.
- Should there be a provision for operators who work overtime and accrue their year's experience in less than one year?

Definitions (cont.)

- **“Indirectly related to wastewater treatment”** (new definition)
- College-level course or seminar approved by the OOC concerning basic science as defined in Section 3671(e), water treatment, or health and safety.
- Grades III, IV and V, “indirectly related to wastewater treatment” includes one college-level course in each of the following subjects: oral communication, technical writing, public administration, or supervision.

Definitions (cont.)

- **“Directly related to wastewater treatment”**
(new definition)
- Means a college-level course or a seminar approved by the OOC, concerning the treatment or reclamation of sewage and industrial wastes.

Definitions (cont.)

- **“Basic science courses”** (revised definition)
- College-level courses in mathematics, physics, engineering, chemistry, or biology.
- Do not include business mathematics, animal science, earth science, ecology, geology, hazardous waste remediation, health and safety, natural history, plant science, physiology, or zoology.
 - A general rule is better because it's difficult to write an exhaustive list of exclusions
- Should the regulations exclude specific courses indirectly relate to wastewater or would completion of these courses provide a good foundation for operators due to their analytical nature?

Definitions (cont.)

- **“Wastewater treatment plant”** (revised definition)
- Does not include onsite sewage treatment systems, as defined in Section 13290 of the Water Code
 - if all treatment occurs underground and the system uses only subsurface disposal?

Definitions (cont.)

- **“Wastewater treatment process”** (new definition)
- Means the following processes required up to the point where compliance with discharge standards issued by a Regional Water Quality Control Board is measured.
 - Processes include the use of preliminary, primary, secondary, pond, or tertiary treatment to remove suspended, colloidal, or dissolved matter from wastewater; the use of disinfection to inactivate or destroy pathogens in wastewater; and the use of solids treatment to stabilize or dewater solids removed from wastewater.

Definitions (cont.)

- **“Certifying body”** (new definition)
- Defined as a state, territory, or Indian tribe that certifies operators. The term includes entities approved by an Indian tribe to certify operators working at WWTPs owned by the Indian tribe.

Definitions (cont.)

- “Chief Plant Operator” (revised definition)
- Means a certified operator who has the ultimate responsibility for the overall proper operation of a wastewater treatment plant.

Definitions (cont.)

- **“Supervisor” and “Shift Supervisor”** (removed definitions)
- Definitions have been removed to comport with Designated Operator-in-Charge concept

Definitions (cont.)

- **“Designated operator-in-charge”** (new definition)
- When the CPO is not onsite, a designated OIC:
 - oversees the operation of a WWTP,
 - inspects the performance of other operators at the WWTP, and
 - reports to the CPO.

Definitions (cont.)

- **“Lone operator”** (new definition)
- Certified at no more than one grade level lower than that required for designated operator-in-charge.
- Is approved by the OOC to work alone at a wastewater treatment plant. Must have limited discretion and ability to contact designated operator-in-charge or CPO
- OITs may not be lone operators.

Definitions (cont.)

- **“Satellite facility”** (new definition)
- A WWTP that is physically removed from the main wastewater treatment plant, but that might affect the operation of the main plant.
- In order to qualify as a satellite facility, both the main plant and the satellite facility must be owned and operated by the same entity.
- Both facilities are classified as one plant.

Regulation of Privately Owned Wastewater Treatment Plants_(AB2971)

- Owners of private WWTPs must submit within 60 days of effective date of regulations:
 - A description of the plant's treatment processes
 - A design flow
 - An organization chart
 - Job descriptions and duty rosters
- Within 90 days:
 - Private plants must submit applications for uncertified operators
- After passing exam, applicants will be credited with one year of experience per statutory.
- All operators must hold at least Grade I certificates within 18 months
- Higher level plants/operator certificates are phased in over a 60-month period.

Education and Experience Requirements

- Requirements for all Grades are now in table format for clarity. The most significant changes/questions are:
 - Operators pursuing high school without additional education have progressively longer experience requirements: 18 months for Grade II; 3 years for Grade III; 4 years for Grade IV; 6 years for Grade V. Is this necessary?
 - All applicants for Grades II through V must have at least a high school or equivalent education. Existing regulations do not require at least H.S. diploma for all paths for all Grades. Should a High School education be required for Grade I operators?

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Education and Experience Requirements (cont.)

- The description of Grade V examinations in Section 3701 needs editing.
 - Grade V examinations contain the same components as Grade IV examinations, but with increased difficulty requiring more extensive knowledge. Any suggestions are welcome.

Reciprocity

- Should reciprocity be considered for more than Grades I and II?
 - Tends to discourage higher grade operators from immigrating to California due to loss of grade
 - If succession is an issue, then shouldn't we be encouraging operators to come to California?
- If reciprocity is allowed for all Grades, should an examination be required within a certain period of time after receiving the reciprocal certificate?
 - What if the operator does not pass the examination within the given period of time?

Operator-in-Training Period

- Currently, if a Grade I OIT has passed an examination, the two-year OIT certificate may be renewed one time for an additional two years (total of four years).
- Should OITs be allowed up to four years (the validity period for exam results) to gain the experience and educational points necessary for an operator certificate?
- Instead of increasing the number of times an OIT certificate may be renewed or the length of time it is valid, require the CPO to submit a plan to get the OIT certified if not able to get the experience within the two year extension period.

Exemptions (new section) (AB 2971)

- **Criteria for exemption**

- Must be Class I plants

- **Application for Exemption Renewal**

- Plant information, operators, WDR, design criteria, and evaluation/opinion from Professional Engineer that plant will not violate WQ standard due to operator error; \$200 fee; copy to Regional Board
- OOC grants/denies application; exemption good for four years; exemption can be renewed

- **Application for Exemption Renewal**

- How much time should an exempt plant be given to hire a certified operator if its application for exemption renewal is denied?

Continuing Education

- Should continuing education be required?
 - No guidance from EPA until CWA is reauthorized
 - Will cause additional delay in amending Regulations in order to establish requirements acceptable to regulated community
 - Possibility of having to redo regulations when federal requirements are adopted

Signature on Applications

- Should the Board allow certified operators other than CPOs to sign applications for certification?
- At a minimum signer should have first hand knowledge of experience to be able to attest to accuracy and relevancy of experience

Disciplinary Provisions

- A clause has been added allowing the Board to take disciplinary action if an operator provides false or misleading information during an investigation.
- Administrative Civil Liability provisions for improper operation of a WWTP were added to statutes and must now be included in Article 7.
- Generalize duties related to enforcement and appeals to accommodate the new Office of Enforcement or some future reorganization at the Board.

Tribal Operators

Current Situation

- Under current statutes and regs, OOC cannot give credit for experience gained by operators at Tribal WWTP.
- Tribal WWTP are comparable to California regulated WWTP.
- Some operators of Tribal WWTP are certified by OOC
- Many Tribal operators have met California education and examination requirements, but cannot get credit for their experience at Tribal WWTP.

Tribal Issues

- Difficult for tribes to attract qualified operators
 - Tribal operators without State Water Board issued certificate are restricted to working at Tribal WWTP or other facilities not required to have State Water Board certified operators.
 - Operators must work for a full year at a California regulated WWTP to qualify for Grade I certification, and cannot advance to higher grades by working at Tribal WWTP because experience does not count toward State issued certificate.
 - Difficulty attracting non-tribal operators because time doesn't count.

Finding a Solution

- OOC staff has had a number of discussions with Tribal/EPA representative about giving experience credit for time worked at Tribal WWTP.
- In conjunction with the current effort to revise the regulations, the State Water Board, Tribal representatives, and EPA Region 9 Tribal Program Office have renewed efforts to resolve these issues.
 - First Workgroup meeting October 4, 2006 in Sacramento
 - Regular teleconferences since

Benefits of Finding a Solution

- Basic fairness
- Increased job flexibility for Tribal operators and California operators
- Tribal facilities will be better able to attract non-Tribal operators
- More protection of California water resources
- More certified operators for future succession
 - All parties involved will benefit; there is no significant reason not to find a solution.

Options

- Workgroup has focused on two possible approaches.
 1. Reciprocity
 2. Direct Certification

- Under both of these approaches, it is important to note that the State Water Board would not be regulating tribal facilities.

Current Reciprocity

- Education and experience requirements comparable to those of the Water Board.
- The applicant has passed written examination comparable to Water Board's within preceding four years.
- Other state program grants reciprocal privileges to operators certified by the Water Board.
- Applicant completes application for certification and meets the minimum qualifications for certification by the Water Board.
- All appropriate fees are paid.
- Refuse to issue reciprocal certificate if applicant's certificate has been revoked or suspended by another certifying body, or applicant otherwise disciplined by another certifying body.

Reciprocity with Other Than States

- State Water Board exploring reciprocity with territories and Tribes. Would require change to §3704 to allow reciprocity with certifying bodies other than states.
- State Water Board could offer reciprocity to Tribal/territorial operators certified by a program with education, examination, and experience requirements comparable to Water Board's requirements.

Potential Certifying Bodies for Reciprocity

- Inter-tribal Council of Arizona (ITCA) runs the Tribal Water Systems Program, a tribal-based water and wastewater training and assistance program.

<http://www.itcaonline.com/tws/>

- Native American Water Association (NAWA) provides tribal water and wastewater operators, managers, utility commissions and tribal leadership with continued training and technical assistance.

<http://www.nawainc.org/>

Direct Certification

- For Tribal operators directly certified by the Water Board, the Water Board wants the same monitoring and enforcement mechanism as for other operators certified by OOC.
- Is experience at Tribal WWTP comparable since Tribal WWTP are not regulated under the same system as California WWTP?
- Requires MOUs w/Tribes – Administrative load a concern.
- As possibility of direct certification is more thoroughly examined, more information will become available.

For more information on tribal certification

- Join the State Water Board email subscription list for Tribal Operator Certification:

http://www.waterboards.ca.gov/lyrisforms/swrcb_subscribe.html

- Look for future Tribal Operator Web page on the Operator Certification Web page at:

<http://www.waterboards.ca.gov/cwphome/opcert/>

Contacts

Thank you for participating in our discussion today. If you have questions or comments about the material presented here or wish to make suggestions regarding the content of the draft Regulations, please contact the following individuals with your comments by end of March:

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