

CONTRACT OPERATIONS

**2009 ANNUAL CONFERENCE
-BOARD TRAINING-**



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Topics

- ❖ **Utility Operator Certification Regulations**
 - ❖ **20.7.4 NMAC**
- ❖ **Operator Duties and Responsibilities**
- ❖ **Realistic Expectations**
- ❖ **Hiring Recommendations**
- ❖ **Typical Agreement for Professional Services**

**UTILITY OPERATOR
CERTIFICATION
REGULATIONS
20.7.4 NMAC**

20.7.4.7 Definitions (excerpted)

R. “public water supply system” means

- (1) a system for the provision through pipes or other constructed conveyances to the public of water for human consumption or domestic purposes if the system:
 - (a) has at least fifteen service connections; or**
 - (b) regularly serves an average of at least 25 individuals at least 60 days of the year;****
- (2) any water supply source and any treatment, storage and distribution facilities under control of the operator of the system;**
- (3) any collection device, including but not limited to wells, spring boxes, infiltration galleries or intake structures, and any treatment, storage, and distribution facilities under the control of the operator of such system and any collection device or pretreatment storage facilities not under such control which are used primarily in connection with such system**

Levels of Certification Required

	Population Served				
Treatment	25-500	501-5000	5001-10000	10001-20000	20000+
filtration	SWA	WS3	WS3	WS3	WS4
SWT	SWA	WS3	WS3	WS4	WS4
chem ppttn	SWA	WS3	WS2	WS4	WS4
aeration	SW	WS2	WS2	WS3	WS4
carbon tmt	SW	WS2	WS3	WS3	WS4
chem add	SW	WS2	WS3	WS3	WS4
press filt	SWA	WS2	WS3	WS3	WS4
ion X	SWA	WS2	WS3	WS3	WS4
chlorination	SW	WS2	WS2	WS3	WS4
fluoridation	SW	WS2	WS2	WS3	WS4
arsenic	SWA	WS3	WS3	WS3	WS4
rad rem	SWA	WS3	WS3	WS3	WS4
gw prod	SW	WS1	WS2	WS3	WS4

20.7.4.20 Certification General Provisions

- A. It is unlawful to operate or allow the operation of a public water supply system unless the system or facility is operated by or under the supervision of a certified operator who meets or exceeds the appropriate level of certification required to operate the system or facility.**

- B. Separate certification is required for the operation of public water supply systems and public wastewater facilities.**

- C. The name(s) of the certified operator(s) employed by a public water supply system must be on file at all times with the department. A certified operator may be replaced with another certified operator of the required level at any time. The owner shall notify the department in writing of the name of the new certified operator within thirty days after the replacement of the certified operator.**

20.7.4.21 Requirements For Application For Certification

A. Each applicant for certification as a certified operator shall:

- (1) complete an application on forms furnished by the department; applications shall be submitted to the department not later than 30 days prior to the date of the examination;**
- (2) submit evidence that the applicant has reached the age of majority;**
- (3) pay a nonrefundable examination application fee, in advance, to the department; the examination application fee for certification as a SW, SWA, SWW, SWWA, WST1, WST2 and WWLT1 shall be \$25.00; the exam application fee for certification as a WS1-4, WW1-4, WWLT2, WWLT3, CS1, CS2, DS1, DS2 and DS3 shall be \$30.00;**
- (4) successfully meet the educational, experience and training requirements stipulated in 20.7.4.22 NMAC; all training programs must be approved by the department, and the department shall assign the number of training credits for each approved training program; and**
- (5) successfully pass the written examination for the level of certification being applied for.**

20.7.4.22 Minimum Requirements For Certification

A. The minimum requirements for each level of certification are:

- (1) SW, SWA, SWW, SWWA, WS1, WW1, WWLT1, DS1 and CS1 certifications require high school graduation or GED, one year of experience and successful completion of 10 training credits;**
- (2) WS2, WW2, WWLT2, DS2 and CS2 certification requires high school graduation or GED, 2 years of experience and successful completion of 30 training credits;**
- (3) WS3, WW3, WWLT3 and DS3 certification require high school graduation or GED, 4 years of experience and successful completion of 50 training credits;**
- (4) WS4 and WW4 certification require high school graduation or GED, 1 year's experience as a WS3 or WW3 certificate holder and successful completion of 80 training credits;**
- (5) WST1 certification requires high school graduation or GED, and successful completion of 5 training credits;**
- (6) WST2 certification requires high school graduation or GED, and successful completion of 10 training credits.**

20.7.4.25 Renewal Of Certificates

- A. All initial certifications shall expire on the last day of the certificate holder's birth month following the third anniversary of certification. All renewals shall be for 3 years.**
- (1) The renewal fee for SW, SWA, SWW and SWWA shall be \$20.00.**
 - (2) The renewal fee for WS1, WS2, WW1, WW2, WST1, WST2, WWLT1, WWLT2, WWLT3, CS1, CS2, DS1 and DS2 certifications shall be \$25.00.**
 - (3) The renewal fee for WS3, WW3, WS4, WW4 and DS3 certifications shall be \$30.00.**
- C. Each certificate issued under 20.7.4.24 NMAC must be renewed at 3-year intervals.**
- D. Renewal will require that each certificate holder be credited with having obtained 30 training credits in the 3-year period preceding the date on which renewal application is due, except for renewals of WST1 certifications which require 5 hours of training credits and WST2 certifications which require 10 hours**

**CONTRACT OPERATOR
DUTIES
and
RESPONSIBILITIES**

General Duties and Responsibilities

- 1. Proper operation of the system including assurance that:**
 - a) required construction permits have been obtained prior to the start of construction**
 - b) operating permits have been obtained prior to start of operation; and**
 - c) special or required reports are filed with appropriate parties**
- 2. Sample collection is completed pursuant to NMED regulations**
- 3. Preparation and submittal of any and all operational reports (specify format - electronic or hard copy or both)**
- 4. Analyses for regulatory and operational control parameters such as chlorine residual, BOD, COD, turbidity, hardness, jar testing and other related parameters, including maintenance of operational records**

General Duties and Responsibilities (cont'd)

- 5. Preventive maintenance of pumps, pump stations, other mechanical and electrical systems and equipment as recommended by manufacturer**
- 6. Maintenance of the transport (distribution or collection) system**
- 7. Maintenance of spare parts inventories, or complete contact information for spare parts suppliers**
- 8. Maintenance of chemical supply inventories, suppliers and MSDS**
- 9. Maintenance of required operating records and reports**
- 10. Authority to secure labor and materials for corrective actions (within budget authority and procurement code guidelines)**

General Duties and Responsibilities (cont'd)

- 11. Maintenance and if necessary, implementation of an emergency operating plan**
- 12. Prompt reporting of deficiencies to the owner and if authorized, to NMED when appropriate**
- 13. Being available during an emergency to work with the all appropriate parties and agencies until the problem is resolved and the supply is returned to normal operation**
- 14. Maintain appropriate training on all treatment equipment and process and rule changes**

Source Water Protection and Treatment

- **Identify and protect source water and the system from contaminants and cross-connections**
- **Develop and implement a wellhead protection plan.**
- **Perform routine walk-through assessments of all well houses and record daily changes as they relates to operation and maintenance.**
- **Maintain a daily log of activities for operation of system which at a minimum needs to include electrical consumption, daily water usage, disinfection POE residual, solution feed and supply volume.**
- **Implement operational requirements for filter media, equipment calibration and any backwash cycles.**

Source Water Protection and Treatment (cont'd)

- Establish and maintain plans for routine compliance obligations; including a sample siting plan for Bacti/chlorine residual, Pb/Cu sampling and D/DBPs.**
- Maintain chemical feed pumps and install new equipment if necessary.**
- Check day tanks for adequate volume of chemical for treatment and maintain sufficient supply for reserve.**
- Consult on system improvements and oversee the completion of any improvements.**
- Meet with any other contractors for services and record events.**
- Establish a preventative maintenance plan, operating plan, cross-connection plan and conservation plan.**

Distribution System

- **Routinely inspect and check infrastructure components for replacement and recommended changes, including hydrants, valves, meters, tanks and booster stations**
- **Locate water lines**
- **Read water usage for billing, leak prevention; ensure meter accuracy**
- **Maintain and update system maps**
- **Maintain adequate pressures in system and address consumer's complaints and record incidents**
- **Install and remove meters when required**
- **Address delinquent account notices, shut off and new service connections**
- **Oversee facility and distribution protection and security and establish a vulnerability and ERP**

Administrative Tasks

- **Attend community meetings**
- **Assist in obtaining bids**
- **Review contractors' construction proposals**
- **Prepare monthly operating reports and help establish the operating budget**
- **Maintain test result reports and files for compliance activities**
- **Prepare and promote the CCR**

The Bottom Line

These duties and responsibilities should be considered a short list and do not include all that would be required from a certified operator – add or delete as needed for your systems specifics.

**REALISTIC
WATER BOARD
EXPECTATIONS
from a
CONTRACT OPERATOR**

Expectations

- 1. The operator should routinely inspect the entire system; the frequency dependent on system complexity.**
- 2. The operator should be on call for emergency situations; how many other systems does s/he operate & where are they located?)**
- 3. The operator should verify that routine system maintenance schedules are followed.**
- 4. The operator should have clear authority to make operational changes in the system as needed.**
- 5. The operator should inspect any records or reports to be submitted to NMED for regulatory purposes and have the responsibility and authority to discuss contents with the Board and make corrections if needed.**
- 6. The operator should have clear authority to direct the work of any non-certified staff who provide assistance.**
- 7. The contract operator must be willing to turn over all system records to the owner of the system at the time of contract termination.**

The Bottom Line

You must always remember that the system owner/management board is ultimately liable for complying with all applicable regulations, regardless of whether the operator is a full-time employee or a contractee.

RECOMMENDATIONS
for
HIRING
a
CONTRACT OPERATOR

Important Questions to Ask During an Interview

1. Does the candidate possess the required certification level?

Ask the candidate to provide you with a photocopy of their current license. If unsure call Mike Coffmann, 505.222.9575, or go to the operator database: http://nmenv-it.nmenv.state.nm.us/SWQB/certinfo/OPERATOR_V_list.php.

2. Does the candidate have experience operating your type and size of system (treatment components) and transport (distribution or collection) system?

An operator may possess the correct licensure level and not possess experience compatible with your particular type of system.

3. How many years of operating experience does the candidate possess?

Verify.

Important Questions to Ask During an Interview

4. Does the candidate have references?

Ask for and verify all references.

5. Can the candidate perform minor repairs, required operational testing and basic system troubleshooting?

This will provide cost savings by not having to hire additional commercial services for testing and maintenance. However, commercial services and/or consulting engineering services may be required for maintenance or operating problems that are more complex.

6. Does the candidate carry adequate contractors' liability insurance?

This helps protect the owner from potential suits in case the contractor or a contractor's employee is injured. It also provides protection in the event of contractor damage to the owner's equipment.

TYPICAL AGREEMENT
for
CONTRACT OPERATIONS
SERVICES

Water Systems Operator Agreement for Professional Services

- ❖ **Identify the parties of the agreement**
- ❖ **Terms of agreement and termination**
- ❖ **Purpose of agreement**
- ❖ **Direct report**
- ❖ **Services and payment**
 - **standard scope of work, hours and payment**
 - ✓ **list scope as duties and responsibilities in an exhibit**
 - **non-standard scope of work, hours and payment**
 - ✓ **list scope as duties and responsibilities in an**

Agreement for Professional Services (cont'd)

- ❖ **Reimbursable expenses**
 - **not to exceed limit**
 - **emergency provisions**
 - **include exhibit that lists approved vendors and suppliers**
- ❖ **Invoices and payment procedures**
 - **include exhibit for sample monthly invoice**
- ❖ **Reporting**
 - **specify type, contents and frequency**
- ❖ **Special provisions**
 - **24-hour contact information**
 - **liability insurance limits**
 - **operator certification requirements**

Other Considerations

- ❖ **Emergency response time**
 - **establish maximum acceptable**
 - **may vary depending on system component, type of problem**
- ❖ **Operator scope of work duties and responsibilities**
 - **use the knowledge about your system, information from this presentation, contract operator agreements for other systems, etc to list**
 - **substitute ORC when system is in operation and main ORC not available or inaccessible**

Other Considerations

- ❖ **Owner responsibilities – clearly document as exhibit**
 - **notify ORC of any emergencies and/or operational problems for which the operator is responsible that arise in the operator's absence**
 - ✓ **owner and ORC jointly determine maximum response time for this notification**
 - **maintain current contact information for ORC and substitute ORC for all appropriate people within system organization**
 - **maintain and implement list of routine operational checks to be made by the system owner, as supplied by ORC**

References

❖ **EPA Quick Reference Guide for Water System Operator Best Practices Roles and Responsibilities**

http://www.epa.gov/safewater/smallsystems/pdfs/guide_smallsystems_operator_08-25-06.pdf

❖ **EPA Quick Reference Guide for Water System Owner Best Practices Roles and Responsibilities**

http://www.epa.gov/safewater/smallsystems/pdfs/guide_smallsystems_owner_08-25-06.pdf

❖ **Idaho Dept of Environmental Quality Recommendations for Hiring a Contract Operator**

❖ **Kansas Dept of Health & Environment Guidelines for Contract Operations of Small Water Supplies & WW Treatment Facilities**

❖ **“What to Expect From a Contract Operator” by Dominick Donnarumma, NMRWA Field Specialist; Agua de Nuevo Mexico, Summer 2008**