

## OPERATOR INTERVIEW TOOL

WATER OPERATOR HIRING AND CONTRACTING GUIDE

## **Operator Interview Tool**

It is important to make sure that the operator you hire is a good match for your public water system, and that he/she has the knowledge and ability to ensure that safe drinking water is provided to your customers. The Operator Interview Tool can help you as you interview and select an operator for your public water system. It can be used when you are interested in hiring an operator as a permanent employee or on a contract basis. It includes a list of recommended interview questions, as well as Yes/No checkboxes and spaces to write answers during the interview. You should review the Tool prior to performing the interview to ensure that you have a complete understanding of the questions. Beneath some questions is information that explains the intent of the question and can help guide your interview. Additionally, questions specific to operators hired on a permanent basis are denoted by "This question applies to permanent operators only," and questions specific to operators hired on a contractual basis are denoted by "This question applies to contract operators only."

### Part I – Operator License/Certification

	subclass is the candidate licensed/certified? When does the license/certification expire?
☐ Yes ☐ No	■ The potential operator must possess the required level of licensure/certification for your particular water system class and should have experience operating similar types of treatment processes and distribution systems.
Class and subc	lass of license/certification:
Expiration date	e of license/certification:
Notes:	
	Does he/she meet qualifications?   Yes  No
2. Did the c	andidate provide you with a photocopy of his/her current license/certification?
☐ Yes	■ The candidate should provide you with a photocopy of his/her current license/certification. If you have questions
	regarding the level or type (treatment, distribution or both) of license/certification required for your particular system, go to the www.healthy.arkansas.gov/eng to view the current system classifications, or contact your drinking water program staff at (501) 661-2623.  If you are unsure whether an operator's license/certification is current, go to https://www.ark.org/health/eng/autoupdates/operlist.htm for a list of current licenses/certifications, or contact your drinking water program staff at (501)-661-2623.
Notes:	system, go to the www.healthy.arkansas.gov/eng to view the current system classifications, or contact your drinking water program staff at (501) 661-2623.  • If you are unsure whether an operator's license/certification is current, go to https://www.ark.org/health/eng/autoupdates/operlist.htm for a list of current licenses/certifications,

3. Does the	candidate intend to obtain a higher level of licensure/certification?
☐ Yes	■ These questions apply to <b>permanent operators</b> only. The public water system would be concerned with the long-term goals of a permanent operator, but likely not the long-terms goals of a contract operator.
□ NO	This could be useful information if you are planning to expand your system or add new treatment processes that could potentially require a higher level of licensure/certification. Discuss with the operator whether you plan to defray the cost of any education and/or exams needed to achieve a higher level of licensure/certification.
	You should also discuss with the candidate whether you plan to defray the cost of continuing education units needed to renew the operator's current license/certification.
Does the car	ndidate meet any of the qualifications for a higher license/certification?
□ Yes □	No
Notes:	
	Does he/she meet qualifications? ☐ Yes ☐ No
Part II – C	Operator Experience
	candidate have experience operating your type and size of system (treatment
compone	ents)?
☐ Yes ☐ No	An operator may possess the correct level of licensure/certification, but not possess experience compatible with your particular type of system. For instance, the operator may be experienced with ground water systems but not surface water systems, or vice versa.
Notes:	

5. Has the candidate received the required safety and security training?		
☐ Yes ☐ No		
Will the candidate ensure that safety and security are priorities? How?		
□ Yes □ No		
Notes:		
Does he/she meet qualifications?	☐ Yes	□ No
6. How many years of operating experience does the candidate possess?		
Number of years:		
Notes:		

* Ask for references, including contact information. Verify all references.  Systems Previously Worked For	7. What systems has the candidate worked for previously? Does the candidate have references?				
a.	Ask for references, including contact information	on. Verify all references.			
b.	Systems Previously Worked For	Contact Inform	ation	Referen	ce?
c.	a.	a.		☐ Yes	□ No
d.	b.	b.		☐ Yes	□ No
Previous work restrictions:    Notes:     Does he/she meet qualifications?   Yes   No   No   No   No   No   No   No   N	C.	C.		☐ Yes	□ No
Previous work restrictions:    Notes:     Does he/she meet qualifications?   Yes   No   No   No   No   No   No   No   N					П №
Notes:    Does he/she meet qualifications?   Yes   No   No   No   No   No   No   No   N		u.		п тез	
B. Has the candidate ever:  a. Installed a meter?  b. Disconnected a delinquent customer?  c. Installed a chlorinator?  d. Prepared a Consumer Confidence Report (CCR)?  e. Been in attendance for a sanitary survey?  f. Developed an Emergency Response Plan?  g. Developed a preventive maintenance plan?  h. Provided public notification?  Notes:	Previous work restrictions:				
B. Has the candidate ever:  a. Installed a meter?					
8. Has the candidate ever:  a. Installed a meter?	Notes:				
8. Has the candidate ever:  a. Installed a meter?					
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8. Has the candidate ever:  a. Installed a meter?		Do	os ha /aha maat mualifisaa	tions?	Ves 🗆 Ne
a. Installed a meter?		Do	es ne/sne meet quaimca	tions?	Yes 🗆 No
a. Installed a meter?					
b. Disconnected a delinquent customer?  c. Installed a chlorinator?  d. Prepared a Consumer Confidence Report (CCR)?  e. Been in attendance for a sanitary survey?  f. Developed an Emergency Response Plan?  g. Developed a preventive maintenance plan?  h. Provided public notification?  Notes:	8. Has the candidate ever:				
c. Installed a chlorinator?  d. Prepared a Consumer Confidence Report (CCR)?  e. Been in attendance for a sanitary survey?  f. Developed an Emergency Response Plan?  g. Developed a preventive maintenance plan?  h. Provided public notification?  Notes:	a. Installed a meter?		☐ Yes	□ No	
d. Prepared a Consumer Confidence Report (CCR)?  e. Been in attendance for a sanitary survey?  f. Developed an Emergency Response Plan?  g. Developed a preventive maintenance plan?  h. Provided public notification?  Notes:	b. Disconnected a delinquent customer	?	☐ Yes	□ No	
e. Been in attendance for a sanitary survey?  f. Developed an Emergency Response Plan?  g. Developed a preventive maintenance plan?  h. Provided public notification?  Notes:	c. Installed a chlorinator?		☐ Yes	□ No	
f. Developed an Emergency Response Plan?   Yes   No   g. Developed a preventive maintenance plan?   Yes   No   h. Provided public notification?   Yes   No   Notes:	d. Prepared a Consumer Confidence Re	oort (CCR)?	☐ Yes	□ No	
g. Developed a preventive maintenance plan?	e. Been in attendance for a sanitary sur	vey?	☐ Yes	□ No	
h. Provided public notification?	f. Developed an Emergency Response F	lan?	☐ Yes	□ No	
Notes:	g. Developed a preventive maintenance	plan?	☐ Yes	□ No	
	h. Provided public notification?		☐ Yes	□ No	
Doos ho/sho most qualifications?	Notes:				
Doos ho/sho most qualifications?					
Doos ho/sho most qualifications?					
Door halisha maat qualifications 2					
Does net sne meet qualifications?     Yes     No		Doe	s he/she meet qualificat	ions?	Yes □ No

9. Does the candidate know how to locate a suspec	ted leak?		
☐ Yes ☐ No			
Notes:			
	Deep halaha wash walifirations?		
	Does he/she meet qualifications?	☐ Yes	□ No
10. Does the candidate know how to locate an illega	I connection?		
☐ Yes ☐ No			
Notes:			
	Does he/she meet qualifications?	□ Yes	□ No
11. Ask the candidate to describe the requirements	of the Revised Total Coliform Ru	le.	
Notes:			
	Does he/she meet qualifications?	☐ Yes	□ No

12. Ask the candidate to describe the requirements of the Ground Water Rule, as applicable based on the publ			or
Notes:			
De	pes he/she meet qualifications?	□ Yes	□ No
13. Ask the candidate to describe the process for putting pressure.	g a main back into service aft	er a loss of	
Notes:			
De	oes he/she meet qualifications?	□ Yes	□ No
14. Ask the candidate to explain when there is a need to used, if applicable based on whether the public water		nd equipm	ent
Notes:			
De	pes he/she meet qualifications?	☐ Yes	□ No

15. Ask the candidate what type of reporting he/she believes is required for this system.			
Notes:			
	D	oes he/she meet qualifications?   Yes   No	0
Part III – Availa	ability		
		work for and are there any work restrictions?	
	ons and compliance status of all systems curre		
System Name	Location	Compliance Status	
Work restrictions:			
How much time doe	s the candidate spend at the other	water systems per week?	
Hours per week:			
Notes:			
		Does he/she meet qualifications? ☐ Yes ☐ No	

17. How often will the operator visit the wa	ter system?
Number of hours per visit:	<ul> <li>These questions apply to contract operators only. Permanent operators would be at the water system as the decision-maker dictates.</li> </ul>
Number of visits per week:	
Will the visits be the same day each week or	r on random days?
☐ Same day each week ☐ Random days	
Is there a backup operator that can manage	the system in his/her absence?
☐ Yes ☐ No	
How does the candidate address weekends,	holidays, vacations and illnesses?
Notes:	
	Does he∕she meet qualifications? ☐ Yes ☐ No
18. How quickly will the candidate be able t	o respond to an emergency?
Estimated response time to be physically present in an emergency:	<ul> <li>This question applies to contract operators only. Permanent operators would be at the water system as the decision-maker dictates.</li> </ul>
Notes:	
Notes.	
	Does he∕she meet qualifications? ☐ Yes ☐ No

## Part IV - Tasks Performed

19. What specifically	will be checked and recorded during each visit?
This question applies to condictates.	ntract operators only. Permanent operators would be at the water system as the public water system
■ See the list of "Potential O	perator Duties" which identifies possible duties to discuss with the candidate.
Notes:	
	Does he∕she meet qualifications? ☐ Yes ☐ No
20. Is the candidate fa (O&M) requireme	amiliar with the particular water system's design and operations and maintenance nts?
☐ Yes ☐ No	
Can the candidate con calibration)?	nduct repairs and routine maintenance as needed (including equipment
☐ Yes ☐ No	
Will the candidate propriet of the equipment of the equip	ovide the necessary testing equipment and reagents, or must the water system nt?
☐ Candidate ☐ Water system	■ This question applies to contract operators only. The water system will provide all necessary equipment for use by permanent operators.
Notes:	
	Does he/she meet qualifications? ☐ Yes ☐ No

Can the candidate provide an example of an operational log sheet that he/she has completed for a similar system?    Yes	21. Does the candidate have a standard O&M strategy for each system he/she operates?
similar system?  Yes No  *This question applies to contract operators only. A public water system will likely have a form or log the permanent operator would use. Contract operators may be asked to develop one for the water system.  **Notes:**  Does he/she meet qualifications?	□ Yes □ No
No   Does he/she meet qualifications?   Yes   No   Notes:     Ves   No   Notes:	
Does he/she meet qualifications?	permanent operator would use. Contract operators may be asked to develop one for the water system.
22. Provide the candidate with a copy of the water system permit. Is he/she familiar with the state permit conditions and regulatory requirements for this system type and size?  Yes No  Notes:	Notes:
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permit conditions and regulatory requirements for this system type and size?  Yes No  Notes:	Does he/she meet qualifications? ☐ Yes ☐ No
permit conditions and regulatory requirements for this system type and size?  Yes No  Notes:	
Notes:	
	□ Yes □ No
Does he/she meet qualifications? □ Vec □ No	Notes:
Does he /she meet qualifications? □ Voc □ No	
Does he /she meet qualifications? □ Vos □ No	
Does he /she meet qualifications? □ Vos □ No	
Does he/she meet qualifications?	
Does he/she meet qualifications?	
Does ne/ site meet qualifications: Tes INO	Does he/she meet qualifications? ☐ Yes ☐ No

23. Can the candidate perform minor repairs troubleshooting?	s, required operational testing and basic system	
□ Yes □ No	<ul> <li>It is desirable for the operator to be capable of performing operational testing and routine mechanical and electrical maintenance. This may provide cost savings versus hiring additional commercial services for testing and maintenance. However, commercial services and/or consulting engineering services may be required for maintenance that is more complex or for operating problems.</li> </ul>	
Is the candidate willing to perform this work as part of the written agreement?		
□ Yes □ No		
Notes:		
	Does he/she meet qualifications? ☐ Yes ☐ No	
	red and expected duties) to be completed by the candidate. eted and the frequency each duty must be performed should be included in	
<ul> <li>See the list of "Potential Operator Duties" which identifie</li> </ul>	es possible duties to discuss with the candidate.	
	ected to be done to carry out required duties, are typically system-specific and is to a well house, storage tank or surface water system intake; vector control of electrical wiring; or insulating pressure tanks.	
Notes:		

## Part V – Other Qualifications and Information

25. Does the candidate carry adequate lial	pility insurance?	
☐ Yes	■ These questions apply to <b>contract operators</b> o	nly.
□ No	<ul> <li>This helps protect the owner from potential la contractor or a contractor's employee is injured</li> </ul>	
	The owner may want to ask the contract oper insurance company name the utility as an add	
Does the insurance cover personal injury a damage that may arise from the operation	and claims for bodily injury, death or person of the system?	nal property
☐ Yes ☐ No		
If yes, how much coverage and with which	insurance company?	
Coverage Amount:		
Insurance Company Name:		
Notes:		
	Does he/she meet qualifications?	☐ Yes ☐ No
26. Does the candidate have a tax identific	ation number?	
☐ Yes	■ This question applies to <b>contract operators</b> only.	
□ No		
Notes:		
	Does he/she meet qualifications?	☐ Yes ☐ No

27. Does the candidate have a valid driver's license?			
☐ Yes ☐ No			
Does the candidate have a license appropriate to th	e vehicle that they will use for th	e job?	
☐ Yes ☐ No			
Are there any license restrictions?			
☐ Yes ☐ No			
Notes:			
	Does he/she meet qualifications?	☐ Yes	□ No
	Does ne/sne meet quantications?	□ res	
28. What is the candidate's fee and what does it inc	luae?		
Fee:	■ These questions apply to <b>contract ope</b>	rators only.	
Fee: Activities included:		rators only.	
Activities		rators only.	
Activities	■ These questions apply to <b>contract ope</b>	rators only.	
Activities included:	■ These questions apply to <b>contract ope</b>	rators only.	
Activities included:  Is time charged for travel or only for time spent on s	■ These questions apply to <b>contract ope</b> stite?	rators only.	
Activities included:  Is time charged for travel or only for time spent on s  □ Time for travel and on site □ Time on site	■ These questions apply to <b>contract ope</b> stite?	rators only.	
Activities included:  Is time charged for travel or only for time spent on state  Time for travel and on site  Time on site  Is there an additional charge for after-hours or eme	■ These questions apply to <b>contract ope</b> stite?	rators only.	
Activities included:  Is time charged for travel or only for time spent on s  Time for travel and on site Time on site  Is there an additional charge for after-hours or eme	■ These questions apply to <b>contract ope</b> stite?	rators only.	
Activities included:  Is time charged for travel or only for time spent on s  Time for travel and on site Time on site  Is there an additional charge for after-hours or eme	■ These questions apply to <b>contract ope</b> stite?	rators only.	
Activities included:  Is time charged for travel or only for time spent on s  Time for travel and on site Time on site  Is there an additional charge for after-hours or eme	■ These questions apply to contract open	rators only.	
Activities included:  Is time charged for travel or only for time spent on s  Time for travel and on site Time on site  Is there an additional charge for after-hours or eme	■ These questions apply to contract open	rators only.	

29. Is the candidate part of a group (company), or is he/she an independent operator?		
☐ Group (company):	■ This question applies to <b>contract operators</b> only.	
☐ Independent		
Notes:		
Do	es he/she meet qualifications?   Yes   No	

# Topics for the Written Agreement with the Operator – Developing Terms of Employment or a Contract

It is important for decision-makers to clearly document the expectations of the operator in the form of a written agreement, such as a contract or terms of employment. This applies to both permanent employees and contract operators. This helps ensure that all legal responsibilities are met and reduces the possibility for miscommunication about water system responsibilities. Using the information in this section along with the list of "Potential Operator Duties" can help you develop a written agreement with an operator.

The written agreement should place the operator in direct responsible charge of all matters pertaining to the water system and should cover more than routine sampling. (An operator in direct responsible charge is the licensed/certified operator at the public water system who has the authority to make operational decisions that affect water quality or quantity. This can be a permanent employee or a contract operator. Contact the Licensing Program at (501) 661-2623. to learn how to designate an operator in responsible charge for your system.) The operator in direct responsible charge does not necessarily have to perform every day-to-day operating task, and he/she can have other people work under his/her supervision. However, please note that while some tasks can be delegated, the responsibility that comes with being the operator in direct responsible charge cannot be delegated. You should also note that designating an operator in direct responsible charge of your system does not transfer any of your legal responsibilities as a decision-maker for the public water system.

Once you have made the decision to hire or contract with an operator, you may want to consider including the following topics in a written agreement. Note that some topics may not be applicable to your situation. Some topics are applicable only to operators hired on a permanent basis and are denoted by [Permanent Operator]. Some topics are applicable only to operators hired on a contractual basis and are denoted by [Contract Operator].

## Topics for Written Agreement with the Operator

#### **PARTIES INVOLVED**

Name and address of operator.

Licenses/certifications held by operator.

Public water system name and address.

#### **DESCRIPTION OF THE WATER SYSTEM**

A brief description of the public water system. Indicate the number of service connections, the type of treatment present, information about the water source, etc.

#### PURPOSE OF THE WRITTEN AGREEMENT/CONTRACT

This is the reason why the written agreement/contract is needed. The purpose statement can include goals, such as delivering safe drinking water to customers, protecting public health and complying with state and federal requirements.

## Topics for Written Agreement with the Operator

Scope of work for the written agreement/contract.

#### **CONTRACT DURATION**

[Contract Operator] The effective starting date and the effective termination date of the contract.

[Contract Operator] Provisions to renew the contract.

[Contract Operator] This contract should have an agreement of termination (by either party) by advanced, written notice of a specified number of days. It should also outline some conditions for termination, such as falsification of records by the operator or enforcement action by the licensing/certification agency.

#### **COMPENSATION**

Compensation covers how much the operator will be paid for his/her services.

[Contract Operator] This may include a detailed fee structure for the contract. Depending on how the contract is structured, be aware that there may be additional fees for certain situations, such as emergency call services.

[Permanent Operator] This may include a salary and terms of employment for the operator. Depending on how the agreement is structured, the operator may be entitled to overtime pay or other compensation.

[Contract Operator] Specify a payment method. Consider things such as who will make the payments and whether or not the contractor will submit monthly invoices.

Compensation can also cover health benefits, worker's compensation and disability benefits, leave benefits (e.g., vacation, medical, holiday, personal leave and paid paternity or maternity leave) and other benefits offered by the public water system under the terms of the agreement.

#### **OPERATOR TIME**

[Contract Operator] The owner/decision-maker and operator should jointly designate the number of routine visits and the minimum number of hours spent per day, per week or per month at the public water system.

[Permanent Operator] The agreement should explain expectations for the operator's work hours, such as the minimum number of hours spent per day, per week or per month at the public water system.

[Contract Operator] The owner/decision-maker and operator should also jointly determine the maximum acceptable response time when responding to an emergency or to troubleshoot operational problems. The acceptable response time may vary depending on the treatment components and distribution system of the particular water system, remoteness of system and the nature and severity of the problem. [Note that your state agency may have regulatory requirements pertaining to emergency response time and operator availability.]

## Topics for Written Agreement with the Operator

#### **OPERATOR DUTIES**

Duties and the frequency that each duty is to be performed by the operator.

Information included in the list of "Potential Operator Duties" can help you develop this section of the written agreement.

[Contract Operator] The owner/decision-maker and operator should jointly designate the extent to which the operator will provide the necessary testing, maintenance equipment, treatment supplies, and reagents.

#### **OPERATOR RESPONSIBILITIES**

As the designated operator in responsible charge, the operator is responsible for maintaining a valid license/certification that is equal to or greater than the classification of the public water system being served.

The written agreement should include a statement such as: "[Name] will be in direct responsible charge of all operations and maintenance of the public water system."

The operator should take continuing education training courses on topics relevant to the facility (e.g., based on distribution or treatment characteristics).

The operator should annually provide a photocopy of his/her renewed operator's license/certification to the owner/decision-maker of the public water system.

[Contract Operator] The operator should also send a copy upon renewal of the contract.

[Contract Operator] The operator is also responsible for providing a licensed/certified substitute operator during those times when the system is in operation and he/she is not available or is inaccessible. The substitute operator should also provide the owner/decision-maker with a current photocopy of his/her license/certification.

The operator is responsible for maintaining adequate records to document that all agreement provisions are being met and to assure that the agreed upon duties are performed. This can include a log that will document tasks accomplished. These records will be kept at the system and available to the owner/decision-maker at all times.

The operator is responsible for having telephone numbers, email addresses or other relevant means of communication on behalf of the owner/decision-maker.

The operator is responsible for informing the owner/decision-maker of any duties performed by a subcontractor at the site. They should be given prior approval by the owner/decision-maker.

The operator is responsible for providing a safe working environment.

#### OWNER/DECISION-MAKER RESPONSIBILITIES

The responsibility that will be retained by the owner/decision-maker must be clearly documented.

## Topics for Written Agreement with the Operator

[Permanent Operator] Whether the owner/decision-maker will cover the cost of continuing education units to renew the operator's license/certification.

The owner/decision-maker should also retain copies of the agreement and routinely review operations to assure the operator is performing all of the required duties.

The owner/decision-maker will provide a list of routine operational checks to be made by the operator. The owner/decision-maker will notify the operator of any unplanned operational problems, repairs or modifications that arise in the operator's absence.

[Contract Operator] The owner/decision-maker and contract operator shall jointly determine a maximum response time within which the owner/decision-maker will notify the contract operator after the owner/decision-maker or a water system user experiences or recognizes an operational problem or emergency.

[Permanent Operator] The owner/decision-maker is responsible for providing the resources required for routine operation and maintenance, repairs, and necessary capital improvements.

[Contract Operator] The owner/decision-maker and contract operator shall jointly determine the extent to which the operator will provide the resources required for routine operation and maintenance, repairs, and necessary capital improvements and the extent to which the owner/decision-maker will provide such resources.

The owner/decision-maker is responsible for having telephone numbers, email addresses or other relevant means of communication on behalf of both the designated operator in responsible charge and any substitute operators.

The owner/decision-maker is responsible for providing a safe working environment.

#### **INSURANCE**

[Contract Operator] Specify whether the contract operator will provide comprehensive general liability insurance to cover bodily injury and property damage resulting from negligent performance of the service covered in the contract. The owner/decision-maker is responsible to provide a safe working environment and should have his/her own insurance.

[Contract Operator] The contract operator should provide a copy of proof of insurance to the owner/decision-maker.

#### SIGNATURES OF ALL PARTIES INVOLVED

The agreement must be signed by all parties, including the owner/decision-maker and the operator.

[Contract Operator] In cases where the contractor is a firm or company, an official of the firm or company employing the operator must also sign the agreement.

All participants should retain a copy of the final written agreement signed by all parties.

## **Potential Operator Duties**

It is important for decision-makers to clearly document an operator's duties in the form of a written agreement, such as a contract or terms of employment. This applies to both permanent employees and contract operators. Having a written agreement helps to ensure that all legal responsibilities are met and reduces the possibility for miscommunication about water system responsibilities.

The following list of potential operator duties can be used to help you develop a written agreement with an operator. Not all of the potential duties listed below will apply to your system. You should review and modify this list to ensure that the operator duties are specific to your system. The list can be used together with the "Topics for the Written Agreement with the Operator" to help you develop a written agreement.

In order to help you determine which duties apply to your system, some duties are denoted as "applicable to ground water systems only," "applicable to surface water systems only" or "not applicable to systems that only purchase water and do not treat water."

#### **Personnel**

- Recommend appropriate staffing levels to the public water system decision-maker, according to the water system's standard operating procedures (SOPs) as well as observations of system operations and personnel.
- ☐ Train and supervise other public water system personnel in the performance of daily activities, such as:
  - General public water system operations and maintenance (O&M) procedures
  - Sampling
  - Safety
  - Emergency response
  - Reporting and recordkeeping

#### **Continuing Education/Professional Development**

- Maintain all valid operator licensure/certification while the agreement is in effect (treatment, distribution, wastewater, safety, etc.).
   Attend training programs/continuing education programs needed for licensure/certification renewal.
   Oversee licensure/certification and training status for public water system staff and other contract operations staff under direct supervision.
   Stay abreast of changes to EPA or state drinking water regulations and guidance/best practices.
   Hold and attend regular safety meetings for field and office staff, where appropriate. Ensure staff are properly licensed/certified for the public water system's safety procedures (CPR, competent person, confined space entry, lock-out/tag-out, etc.).
- Obtain any other necessary training/education as a result of (for example):
  - Equipment upgrades at the public water system
  - Changes in treatment processes at the public water system [not applicable to systems that only purchase water and do not treat water]
  - New regulations (e.g., related to drinking water or safety)

Writ	ten Plans, Reports and Recordkeeping
	Prepare and submit monthly operational reports and records for operational process integrity.
	Develop and/or maintain operational, maintenance and administrative records of all public water system activities according to state requirements, such as:
	- Water quality sampling plans
	- Water quality sampling reports
	- Consumer Confidence Reports (CCRs) and public notifications
	- Backflow prevention device records (location, owner, test results, etc.), if applicable
	- Water use efficiency reports, if applicable
	<ul> <li>Monthly master meter readings of source water quantity [not applicable to systems that only purchase water and do not treat water] and treated water quantity entering the distribution system</li> </ul>
	- A distribution system map
	Record results of inspections and sanitary surveys, including for example:
	- Completing any required state forms
	<ul> <li>Noting deficiencies/hazards that have the potential to jeopardize the sanitary integrity or reliability of the public water system</li> </ul>
	- Recommending appropriate corrective action
	Ensure all required state reporting forms and reports are completed properly and submitted in a timely manner.
	Answer customer complaints on water quality/quantity issues and develop and maintain a complaint log book.
	Develop or modify water system schematics and as-built drawings, as necessary.
	Supervise public water system personnel, including:
	- Providing direction for personnel to follow when the operator is not present
	- Reviewing the actions of personnel between scheduled state inspections
	- Approving work orders generated for field operators
	Maintain system information and records in centrally-located and easily-accessible system/format. For more information visit <a href="EPA's Knowledge Retention Tool">EPA's Knowledge Retention Tool</a> .
	Provide information to the owner/decision-maker in order for him/her to complete forms designating a licensed/certified operator in responsible charge.
	Provide information to the decision-maker for him/her to maintain updated public water system profile information (e.g., new service connections, sources, treatment operations, etc.).
Wat	er System Planning
	Collect and provide public water system owner/decision-maker with information on developing a budget for the public water system, for example:
	- Providing an estimate of likely capital expenditures needed during the period of service
	- Collecting field data on the condition and operational status of infrastructure assets
	<ul> <li>Identifying needed asset repair or rehabilitation projects, as well as new capital infrastructure projects, during the period of service</li> </ul>
	Develop and maintain a schedule of required sampling and a regulatory agency sanitary survey/inspection schedule.
	Review the regulatory monitoring/sampling schedule and determine cost of sample collection, sampling station maintenance/repair and laboratory analysis of water samples.

	Develop and maintain public water system plans, such as:
	<ul> <li>A distribution system map (or mapping program) showing pump stations, finished water storage reservoirs, pressure reducing valves (PRVs), pipe (date installed, diameter and material) locations, valve locations (especially pressure zone breaks), blow-offs and sampling station locations</li> </ul>
	- A cross-connection control program
	- An asset management plan or other infrastructure replacement tracking program
	- An operation and maintenance budget plan
	- An emergency response plan
	- A safety program plan
	- A wellhead protection plan [applicable to ground water systems only]
	- A source water protection program plan [applicable to surface water systems only]
	- Water quality sampling plans
	- SOPs
	Collect and provide information for necessary permits. Confirm that required approvals and permits have been obtained, including:
	- Construction permits (prior to the start of construction)
	- Operating permits (prior to start of operation)
	Manage capital improvement projects, including managing construction contractor work and contract execution.
	- Coordinate prioritization of capital improvement projects with owner/decision-maker
	Develop and maintain a public water system standard O&M manual with up-to-date state regulations, best practices/guidelines and other pertinent documents or correspondence.
	Ensure that the public water system owner/decision-maker is fully informed of modifications and repairs and maintenance.
	Identify potential solutions in case of a water shortage, such as:
	<ul> <li>Alternative water sources (e.g., new or standby emergency well) [not applicable to systems that only purchase water and do not treat water]</li> </ul>
	- Purchasing water from other public water system
	- Water restriction and conservation strategies (for both consumers and the public water system)
	Carry out duties to bring new water sources online [not applicable to systems that only purchase water and do not treat water]:
	- Including following any state requirements for monitoring of new sources
Wate	er System Operations and Water Quality Assurance
	Analyze operational data to determine changes and improvements to the public water system for more efficient operation.
	Recommend changes to SOPs or treatment [not applicable to systems that only purchase water and do not treat water] processes.

Perform or oversee routine operational sampling, as well as repeat and confirmation sampling if triggered by routine sampling results, in accordance with state requirements or guidance, such as analyses for:	
- Total coliform/ <i>E. coli</i>	
- Lead and copper [	
- Chlorine	١
- Fluoride	)
- Turbidity and/or particle count data [applicable to surface water systems only]	
- Alkalinity	
- Hardness	
- Iron and manganese	
- Water treatment plant residuals	
Maintain a list of process control tests to be performed and prepare a monthly process control operational report.	
Monitor water turnover in finished water treatment and storage tanks.	
Perform or oversee critical, routine or periodic functions, such as:	
- Ordering and mixing chemicals [not applicable to systems that only purchase water and do not treat water	r]
- Calibrating monitoring and pumping equipment	
- Maintaining and calibrating testing water treatment plant equipment and instruments	
- Adjusting chemical dosage [not applicable to systems that only purchase water and do not treat water]	
- Exercise and locate distribution system valves	
- Water main leak detection	
- Calculating disinfection and disinfectant levels	
Oversee customer connection activities, such as:	
- Performing routine customer meter reading	
- Completing customer shut-offs/turn-ons (e.g., for nonpayment, customer vacancies, new connections)	
- Identifying and addressing illegal connections	
- Water main locate tasks for utility location requests	
Collect water quality samples in accordance with state requirements or guidance, including:	
- Collection of routine samples per the public water system sampling plan	
- Collection of repeat or confirmation samples if triggered by routine sampling results	
Confirm that appropriate sample chain of custody procedures are followed.	
Ensure that samples are analyzed by a state certified laboratory and within required timeframes.	
Respond to customer water quality and quantity (low water pressure) complaints.	
Promptly report any deficiencies to the decision-maker and take corrective action, as needed.	

- ☐ Make note of any activities that may impact water quantity or quality of the public water system operation, such as:
  - Potential sources of contamination (e.g., increased activities or new structures) within a delineated wellhead
    [applicable to ground water systems only] or source water protection zone [applicable to surface water
    systems only]
  - Low well water yield affecting ground water sources [applicable to ground water systems only] or drought conditions affecting surface water sources [applicable to surface water systems only]
  - Security breaches of the water system (e.g., intruder alarms triggered at the water treatment plant [not applicable to systems that only purchase water and do not treat water] or storage tanks)

#### Regulatory Responsibilities

- ☐ Report to EPA or state as necessary within the required timeframes, such as:
  - When a boil water order is issued
  - When a maximum contaminant level (MCL), maximum residual disinfectant level (MRDL) or lead or copper action level is exceeded
  - When a treatment technique requirement is not met
  - When an emergency occurs
- ☐ Be present for all EPA and state inspections and sanitary surveys.
  - Provide available information that will enable the regulatory agency to conduct a sanitary survey
- ☐ Carry out follow-up activities to address issues identified within the required timeframe, such as:
  - Conducting additional sampling if triggered by routine sample results
  - Performing public notification
  - Conducting emergency disinfection
  - Correcting identified significant deficiencies or sanitary defects

#### **Water System Maintenance**

- Conduct routine inspections, correct deficiencies and address areas of concern for the public water system.
- Perform or oversee ongoing and preventative maintenance activities in the *distribution system*, such as:
  - Repairing or replacing broken/non-functioning hydrants and valves that do not close properly or have broken stems
  - Maintaining cathodic protection equipment installed for transmission and distribution system pipe
  - Painting and resurfacing interior and exterior of finished water storage facilities
  - Replacing water mains where condition of the main is poor or the diameter of the pipe creates flow restrictions
  - Protecting the distribution system against cross-connection contamination
  - Ensuring the accuracy of water meters and other flow measuring devices, including maintaining and testing customer meters on a regular basis
  - Exercising all hydrants and valves on a regular basis
  - Cleaning, flushing, disinfecting and testing the distribution system and storage tanks, as needed
  - Repairing broken mains or equipment quickly and efficiently to restore the normal level of service

Ц	such as:
	- Regularly lubricating pumps and motors
	- Observing pump motors routinely to detect unusual noises, vibrations or excessive heat
	- Inspecting, adjusting and cleaning pump seals, packing glands and any mechanical seals when necessary
	Perform or oversee ongoing and preventative maintenance activities related to treatment facilities [not applicable to systems that only purchase water and do not treat water], such as:
	- Cleaning and resurfacing filter bays and filter vessels
	- Removing sludge from sedimentation basins
	- Cleaning sediment from clearwells
	- Cleaning chlorine injection points
	<ul> <li>Cleaning and dewatering the backwash retention pond(s) and removing and drying the sludge (water treatment plant residuals)</li> </ul>
	- Disinfect ground water wells [applicable to ground water systems only]
	Monitor activity within the wellhead protection zone [applicable to ground water systems only] and/or source water protection zone [applicable to surface water systems only], if applicable.
	Oversee and monitor repairs performed on the public water system, including:
	- Maintaining an adequate spare parts inventory (pipe, valves, hydrants, pipe restraints, small metering pumps, water meters, small meter and valve vaults with lids, etc.) and a list of supplier contact information
	- Securing labor and materials for correcting any maintenance or operational problems
	<ul> <li>Ensuring storage tanks and well pumps and pads [applicable to ground water systems only] are in good working order</li> </ul>
	Confirm that basic site work and housekeeping/maintenance activities are performed, such as:
	- Keeping interior floors free of mud, debris, trash, etc.
	<ul> <li>Maintaining and mowing grass around water system facilities, or securing a third party to perform this function</li> </ul>
	- Properly storing equipment, tools and other materials
	Conduct periodic on-site inspections according to state requirements, including routine visual inspections and minor repairs of:
	- Water sources and intakes [applicable to surface water systems only]
	- Well pits and well heads [applicable to ground water systems only]
	- Pumps
	- Finished water storage tanks
	- Chemical feed equipment [not applicable to systems that only purchase water and do not treat water]
Eme	ergency/Security
	Maintain, update (if necessary) and implement an emergency response plan.
	- Update the list of emergency contacts for the public water system, as necessary
	Maintaining emergency service contracts for after-hours water main repair, pump repair and finished water storage cleaning and repair.
	Be available for participation in table-top testing of the emergency response plan.
	After an emergency event, support short-, mid- and long-term strategies to return the public water system to normal operating status.
	- Participate in activation of an incident command center and emergency activation center, as necessary
	- Ensure that the decision-maker and regulatory agency are fully informed about any emergencies

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	Be available during all operating shifts for emergency situations, including:
	- Responding to actual emergencies
	<ul> <li>Working with federal, state and/or local agencies until the emergency is resolved and the public water system returns to normal operation</li> </ul>
	<ul> <li>If unable to respond within the required timeframe, providing for an alternate licensed/certified operator to respond to the actual emergency</li> </ul>
	Ensure the use of proper security procedures, such as:
	- Storing chemicals in locked areas with proper safety equipment [not applicable to systems that only purchase water and do not treat water]
	- Performing periodic security inspections
	<ul> <li>Ensuring that security equipment (e.g., fences, closed-circuit TV systems, intrusion alarms through supervisory control and data acquisition [SCADA] systems) is in good working condition</li> </ul>
Adn	ninistrative/Other
	Maintain a safe working environment.
	Work in coordination with customer service, engineering, water quality and finance departments of the public water system.
	Provide required notices to the owner/decision-maker and state, such as providing notice prior to terminating a contract.
	Discuss state correspondence with the decision-maker and maintain a filing system for correspondence.
	Attend public water system board meetings, if applicable, to report on work completed on the system, as well as short-term and long-term system needs.
	Respond to information requests from local officials, such as requests regarding the location of distribution mains.

## Additional State Contacts and Resources

## Need help finding information on water system issues?

Operator Licensing/Certification	
Operator Training and Technical Assistance	https://www.healthy.arkansas.gov/eng
Drinking Water Division – Regulatory information, water quality reporting	
Capacity Development Program – Asset management, long-range planning, setting rates, access to infrastructure funding, water loss, energy efficiency, water system partnerships	
Consumer Confidence Reports (CCRs)	
Public Notification	
State Revolving Loan Fund – Infrastructure funding	
Emergency Response	

[Note for states: States may add any documents to this section that may be useful for small systems. For example, states may choose to add forms used to update operator in responsible charge information to this section.]

On the next page is a form to support the development of available job listings. Fill in the necessary information for posting a job listing to a job board site or any other platform.

Date of Posting:
Employer:
Job Title:
Job Description: This is a very short description of overall system and a somewhat longer description of the required duties. A classified ad should not be the full description of all the work that needs to be done, just the major responsibilities. The full description should be sent to the applicant before an interview.
Salary/Benefits: This section is optional. The salary should be a range. Benefits can be both the obvious such as health insurance, and the not so obvious like flex hours.
Qualifications: Think about what is the minimum level of education and experience you would accept. You do not want to lose a good, trainable candidate.
To Apply: Submit (all that are checked):
cover letter resume application form
Submit by:
Submit to:
For Further Information: