

# Changes in State Regulations – Important Matters for “Operators”

The State of Kansas promulgated six new regulations, amended 37 regulations, and revoked 65 regulations pertaining to the operation of public water systems in Kansas in 2018. An index list of these regulations can be found on pages 1,194 - 1,195 in the December 13, 2018, [Kansas Register](#). See associated link below.<sup>1</sup>

The new, promulgated regulations can be found on pages 493 - 499 in the May 23, 2018, [Kansas Register](#). See associated link below.<sup>2</sup>

Public Notice with a summary of the proposed regulations and with a notice of a public hearing was given in the October, 5, 2017, [Kansas Register](#). Complete copies of the proposed regulations and corresponding economic impacts were placed on the KDHE website.

These changes were written by KDHE employees. Even though KDHE employees had been working on this matter since early 2017, many cities and RWDs are uninformed and unaware of these changes since many do not read the [Kansas Register](#).

KDHE stated, “The proposed regulations will not increase or decrease cost to the general public. However, the proposed new and amended regulations have already cost regulated public water supply systems”. Also KDHE stated, “The actual costs of compliance are extremely variable depending on the current system size, age, raw water quality, and treatment capabilities”.

The screenshot shows the website for the State of Kansas Office of the Secretary of State. The main heading is "KANSAS ADMINISTRATIVE REGULATIONS (K.A.R.)". Below this, there are several bullet points: "View proposed regulations currently open for comment.", "Subscribe to receive notifications of proposed permanent regulation changes.", "View adopted regulations with a future effective date.", and "Learn more about finding regulations using the latest K.A.R. Supplement, the 2009 K.A.R. Volumes, and the Kansas Register." There is a search bar with fields for Agency, Article, and Regulation, and a "Full Text Search" field. Below the search bar, there is a table of agencies with columns for Agency Number and Agency Name. The table lists three agencies: 1. Kansas Department of Administration, 2. Municipal Accounting Board, and 3. State Treasurer.

Kansas Administrative Regulations are arranged by agency in a three-part numbering system with hyphens separating each part of the regulation number. The first part indicates the agency, the second indicates the article (subject and that last designated the specific section and regulation within the article). The Kansas Department of Health and Environment is designated by the number “28”. The link is [https://www.kssos.org/Pubs/pubs\\_kar.aspx](https://www.kssos.org/Pubs/pubs_kar.aspx)

## KRWA comments on drinking water regs . . .

KRWA advised water systems of the proposed regulations and made note of that in the December 11 edition of *E-News*, KRWA’s weekly news listing that is sent to more than 2,000 email addresses in cities and RWDs, agencies and associate members. *E-News* is also posted on the KRWA website at [www.krwa.net/enews](http://www.krwa.net/enews).

KRWA also met with KDHE staff in early December to express concerns for the proposed regulations, mainly due to the inconsistencies in wording uses in various regulations. KRWA also submitted written comments on the regulations on December 11, 2017. KRWA General Counsel Gary Hanson attended the hearing on January 11, 2018. KDHE advised that KRWA was the only organization that made comments, and no other organization or person than KRWA attended the hearing.

KRWA’s comments on the regulations are posted online under this link: <https://krwa.net/TECHNICAL-ASSISTANCE/Downloads>.

<sup>1</sup> [http://www.kssos.org/Pubs/register/2018/Vol\\_37\\_No\\_50\\_December\\_13\\_2018\\_pages-1181-1198.pdf](http://www.kssos.org/Pubs/register/2018/Vol_37_No_50_December_13_2018_pages-1181-1198.pdf)

<sup>2</sup> [http://www.kssos.org/Pubs/register/2018/Vol\\_37\\_No\\_20A\\_May\\_23\\_2018\\_pages-483-504.pdf](http://www.kssos.org/Pubs/register/2018/Vol_37_No_20A_May_23_2018_pages-483-504.pdf)

The majority of the new and amended regulations referenced the existing federal regulations that were already implemented by KDHE and EPA. Thus, there may be no significant changes for water suppliers with regard to those regulations.

### **K.A.R. 28-15-19**

There are changes in several regulations that have to do with additional, more stringent State law and not with Federal law. One example is a change in maintaining chlorine residual in the distribution system that is not required by Federal law. The Federal government does not require minimum chlorine residual in the distribution system as necessary for protecting the water quality and public health.

**The Federal government does not require minimum chlorine residual in the distribution system as necessary for protecting the water quality and public health.**

Kansas regulation K.A.R. 28-15-19 has been around since 1982. This regulation was amended in 1994, and was again amended in 2018 as noted. Up until most recently the regulation required disinfection of water; certain chlorine residual in the distribution system when chlorination was employed; and taking and recording residual measurements.

See the nearby sidebar that shows the “older” (2017) version of 28-15-19 and the changes that were approved by KDHE.

The Public Notice summarized the amending of this regulation as a “clarification”. Upon review the reader might conclude that “substantial change” is a better description than “clarification”.

There are two significant changes in the newer version and there is

continuing ambiguity on what is meant legally by the term “operator”.

### **Person / Permit / Requirements**

Kansas Statute 65-163 states that no person shall operate a public water supply system without a public water supply system permit from the secretary of KDHE. Kansas Statute 65-162a states that a person is an

individual, corporation, company, association, partnership, state, municipality, or federal agency. For instance, the city or the RWD is the entity that operates a public water supply system.

Kansas regulation 28-15a-2 further adds “institution, township, county, or state agency” to the definition of person.

## **Comparing the changes in K.A.R. 28-15-19**

### **“Older Version” (1994 – June 2018)**

**28-15-19. Disinfection of drinking water.** (a) All drinking water supplied to the public from a public water supply system shall be disinfected.

(b) When chlorination is employed, a sufficient amount of chlorine shall be added to the water to maintain a distribution system chlorine residual of at least 0.2 mg/l of free chlorine or 1.0 mg/l of combined chlorine.

(1). Failure to maintain a residual as specified above in more than five percent of measurements taken each month, in any two consecutive months shall be deemed a violation of this regulation.

(2). Each day the public water supply system serves water to its customers, the operator shall make a determination of the chlorine residual. The data shall be recorded in such a manner that the department can determine whether the requirements of this rule and regulation have been met. (Authorized by and implementing K.S.A. 65-171m; effective May 1, 1982; amended Sept. 26, 1994.

### **“Newer” Version” (adopted June 7, 2018)**

**28-15-19. Disinfection of drinking water.** (a) All drinking water supplied to the public from a public water supply system shall be disinfected.

(b) A sufficient amount of chlorine shall be added to the water to maintain a chlorine residual of at least 0.2 mg/l of free chlorine or 1.0 mg/l of total chlorine throughout the entire distribution system.

(1) Failure to maintain a residual as specified in this subsection in more than five percent of measurements taken each month, in any two consecutive months, shall be a violation of this regulation.

(2) Each day the public water supply system serves water to customers, the operator shall make a determination of the chlorine residual as follows:

(A) The operator shall make a daily determination to ensure that the residual levels required by this subsection are maintained. The operator shall vary sampling locations throughout the distribution system.

(B) The operator shall record and maintain data to demonstrate to the department that the public water supply system is in compliance with the requirements of this regulation.

(3) If the chlorine residual is less than the minimum level required by this subsection, the operator shall take appropriate action to increase the chlorine residual to the level specified in this subsection. (Authorized by and implementing K.S.A. 65-171m; effective May 1, 1982; amended Sept. 26, 1994; amended June 7, 2018.)

## “Operator” requirements in the revised regulation . . .

**28-15-19. Disinfection of drinking water.** (a) All drinking water supplied to the public from a public water supply system shall be disinfected.

(b) A sufficient amount of chlorine shall be added to the water to maintain a chlorine residual of at least 0.2 mg/l of free chlorine or 1.0 mg/l of total chlorine throughout the entire distribution system.

(1) Failure to maintain a residual as specified in this subsection in more than five percent of measurements taken each month, in any two consecutive months, shall be a violation of this regulation.

(2) Each day the public water supply system serves water to customers, the **operator** shall make a determination of the chlorine residual as follows:

(A) The **operator** shall make a daily determination to ensure that the residual levels required by this subsection are maintained. The **operator** shall vary sampling locations throughout the distribution system.

(B) The **operator** shall record and maintain data to demonstrate to the department that the public water supply system is in compliance with the requirements of this regulation.

(3) If the chlorine residual is less than the minimum level required by this subsection, the **operator** shall take appropriate action to increase the chlorine residual to the level specified in this subsection. (Authorized by and implementing K.S.A. 65-171m; effective May 1, 1982; amended Sept. 26, 1994; amended June 7, 2018.)

Most regulations concerning Kansas water supply are requirements on / of “persons”. For instance:

- 28-15-18(a) Each person that operates a public water supply system shall ensure...
- 28-15-18(b) Each person...shall immediately notify...
- 28-15-18(c) Each person that operates...shall prepare...
- 28-15-1. (i) Each person that operates...shall respond...
- 28-15a-21 Each person that operates a public water supply system shall comply with the following monitoring and analytical requirements for coliforms.

Thus, these requirements under State statutes and regulations concern a “person” to whom (which) the public water supply system permit is issued such as a city, RWD, or individual owning a trailer court.

### Ambiguity in the term “Operator”

In K.A.R. 28-15-19 (a) and (b) (1) the requirements apply to the “person” having a public water supply system permit from KDHE. However, in K.A.R. 28-15-19 (b) (2) and (b) (3) applies to an “operator”. See highlighted text in the adjacent sidebar.



**RAY LINDSEY COMPANY** DEDICATED TO A CLEAN ENVIRONMENT SINCE 1961

**IT'S ALL ABOUT CLEAN WATER!**

**Five decades of experience in clean water for:**

- Pumping Systems
- Storage Tanks
- Chemical Feed Systems
- Treatment Equipment

**Unforgettable Service:**  
We're here to help with parts and retrofit service and repair for existing water process equipment.

**Contact Ray Lindsey Company today to solve your water challenges.**

**Phone: (816) 388-7440**  
**Email: sales@raylindsey.com**

It is not clear who or what is meant by “operator” in K.A.R. 28-15-19. Does it mean the “person” that has a public water supply system permit and that “operates” a public water supply system under Kansas Statute 65-163?

Does “operator” mean the certified operator? Does “operator” mean the city employee operating the well on a particular day? Does “operator” mean the individual or employee taking or scheduled to take or supposed to take a chlorine residual? This regulation might make some employees uncertain in not knowing who is held responsible under the law.

At worse, does the ambiguity in this regulation allow regulatory authorities to seek enforcement or criminal action of an employee of a system for not complying with all that is in 28-15-19? At best, it means the “person” having a public water supply system permit as does other regulations – but it is unclear if so.

There are systems in Kansas that cannot maintain distribution system-wide chlorine residuals under certain conditions. The problem exists in systems that chlorinate and systems that do not chlorinate. The newer regulation may or will make many operators be in violation, but who are the “operators”?

There are systems where the RWD Board members take residuals and the certified operator does not. Is this in compliance if RWD directors for example, live in different parts of the district and take residuals on alternating days? If a certified operator

**At worse, does the ambiguity in this regulation allow regulatory authorities to seek enforcement or criminal action of an employee of a system for not complying with all that is in 28-15-19?**

## Other “New” Regulations of Interest . . .

**28-15a-32. Electronic reporting requirements.** (a) No later than six months after written notification from the department, each person that operates a public water supply system shall meet the following requirements:

- (1) Submit to the department a written acknowledgment of compliance with the electronic submission requirement; and
  - (2) commence the submission of all required documents, including surveys, assessments, reports, monitoring, and compliance data, by only electronic means.
- (b) Each electronic submission shall be made according to the department’s designated procedures. (Authorized by and implementing K.S.A. 65-171m; effective June 7, 2018.)

**28-15a-101. Use of bottled water.** Each person operating a public water supply system shall ensure that the system uses bottled water only in accordance with 40 C.F.R. 141.101, as in effect on July 1, 2015 and hereby adopted by reference. (Authorized by and implementing K.S.A. 65- 171m; effective Oct. 1, 2004; amended June 7, 2018.)

**28-15a-100. Requirements for public water supply systems using point-of-entry devices or point-of-use devices.** The provisions of 40 C.F.R. 141.100, as in effect on July 1, 2015, are hereby adopted by reference with the addition of the following text:

“(f) The public water supply system shall not exceed 100 service connections. Each person that operates a public water supply system exceeding 100 service connections that wishes to install any point-of-entry devices or point-of-use devices, or both, shall submit a formal request to the department. Each person that operates a public water supply system shall not proceed with installation of these devices without written approval from the department.” (Authorized by and implementing K.S.A. 65-171m; effective Oct. 1, 2004; amended June 7, 2018.)

**28-15-18. Operation and maintenance requirements....**(c) Each person that operates a community water supply system shall prepare an emergency operations plan to safeguard the water supply for the protection of the public if natural or man-made disasters occur. Each **emergency operations plan** shall be submitted to the secretary for review and consideration for approval to ensure that the **plan is protective of public health, safety, and the environment.**

**Previously was as follows:**

(c) Each person who operates a community water supply system shall prepare an emergency operations plan to safeguard the water supply for the protection of the public if natural or man-made disasters occur. **Emergency operation plans** shall be submitted to the secretary for review and consideration for approval based on the secretary’s assessment of whether the **plan would safeguard the water supply.**

**28-15-18. Operation and maintenance requirements....**(i) Each person that operates a public water supply system **shall respond in writing no later than 30 days** after receipt of a sanitary survey report describing how and on what schedule the system will address significant deficiencies identified in the survey.

**Previously was 45 days.**

**KRWA knows that without substantial capital expenditures and increased daily operational cost, many systems will not be able to maintain chlorine residual under certain circumstances.**

is sick or out of town, can his spouse, or the mayor, or another non-“operator” person take a residual?

**Ambiguity and required action**

The older version of K.A.R. 28-15-19 required that “when chlorination is employed” that sufficient chlorine be added. Many systems that purchase disinfected water do not employ chlorination. The reason for not including “when chlorination is employed” in the new regulation is not clear.

The newer version requires that “A sufficient amount of chlorine shall be added...” but it does not require or state

who shall add the sufficient amount. The newer version also requires that “...the operator take “appropriate action” to increase” residual.

It is unknown what “appropriate action” is expected by the regulatory officials or can be taken in many situations as many systems purchase disinfected water and do not chlorinate the already disinfected water. Is this regulation requiring systems that do not chlorinate to chlorinate? Was chlorination considered correctly in KDHE’s consideration of significant, adverse economic impact of these regulations? What is the cost (“economic impact”) for your system?

KRWA knows that without substantial capital expenditures and increased daily operational cost, many systems will not be able to maintain chlorine residual under certain circumstances. In fact, some systems that purchase water and that have storage tanks may find it impossible to maintain residual without many new rechlorination stations.

And as previously stated, unfortunately there are many cities and RWDs in Kansas that purchase

disinfected water and do not have chlorination facilities. Many of these systems, and even systems that re-chlorinate, cannot maintain residual especially when nitrification occurs.

**Who is responsible?**

The issue of who is legally responsible by statute or regulation usually applies to the city or RWD that has a permit from the State of Kansas. The statues and most all regulations are set up that way. But K.A.R. 28-15-19 is about an “operator”.

KDHE holds the city or RWD responsible for monitoring for coliform and chemical quality; for submitting plans, specifications, and permit applications; for having the systems under the supervision of a certified operator; for public notices; and for many other important matters.

Thus questions arise. Why is an operator legally responsible for the distribution system residual? Who is the operator? Why was the regulation written about an operator?

KRWA’s comments on the regulations mentioned all these inconsistencies. All other comments pertaining to use of the word "person" were ignored. Also, KRWA's concern with the reduction in timeframe for written response to significant deficiencies identified during a sanitary survey from 45 to 30 days was ignored (28-15-18(i)).

And last, I nor anyone at KRWA are giving legal advice and the article is not attempting to do so. KRWA just “deals with” logic, rational thought, common sense, fairness, and what is of and in the interests of water suppliers and other professionals “in the field” of water supply in Kansas.

*Pat McCool has worked as a consultant to KRWA since January 2004. He previously worked for KDHE for 30 years. Pat has a bachelor degree in Chemical Engineering and a*



*masters degree in Environmental Engineering from the University of Kansas.*