

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

**ELECTRONIC INVESTIGATION )  
INTO THE MEASURING, )  
RECORDING, AND REPORTING OF ) CASE NO. 2018-00394  
WATER LOSS BY KENTUCKY'S )  
JURISDICTIONAL WATER )  
UTILITIES )**

**RESPONSE OF  
NORTHERN KENTUCKY WATER DISTRICT  
TO  
COMMISSION'S REQUEST FOR INFORMATION  
DATED DECEMBER 18, 2018**

**FILED: January 16, 2019**

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

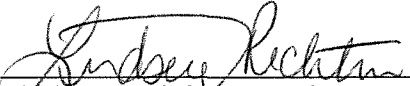
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<b>WATER LOSS BY KENTUCKY'S</b>	)	
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**CERTIFICATION OF RESPONSE OF NORTHERN KENTUCKY WATER  
DISTRICT TO  
COMMISSION'S REQUEST FOR INFORMATION**

This is to certify that I have supervised the preparation of Northern Kentucky Water District's Response to the Commission's Request for Information. The response submitted on behalf of Northern Kentucky Water District is true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

Date: 1/16/19

  
\_\_\_\_\_  
Lindsey Rechten, V.P. Finance & Support Services  
Northern Kentucky Water District

**NORTHERN KENTUCKY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission’s Request for Information**

**Question No. 1**

**Responding Witness: Lindsey Rehtin**

- Q-1. Explain in detail the manner in which you measure, calculate, and track water loss, and:
  - a. Identify whether you use any manual form (including Excel spreadsheet) or electronic or mechanized system to calculate and track water loss.
  - b. Provide a copy of any form used (including Excel spreadsheet).
  - c. Identify the source of any form or system used.
  
- A-1. The District uses an Excel spreadsheet to input information used to calculate water loss.
  - a. Personnel from multiple departments are responsible for inputting data into the spreadsheet each month. The data source for the tracking spreadsheet is pulled from multiple locations and formats as outlined in the table below:

<b>Description of Category</b>	<b>Data Source</b>
Water Produced & Purchased	SCADA and Excel spreadsheet
Water Sales	Infinity Customer Information System and Excel spreadsheet
Other Water Used	SCADA, Lucity Work Order System, Excel spreadsheet
Water Loss	Lucity Work Order System, Excel spreadsheet

- b. A copy of the updated tracking form is attached.
  
- c. The District is using an Excel spreadsheet created internally.

# NORTHERN KENTUCKY WATER DISTRICT

## CASE NO. 2018-00394

### Response to Commission's Request for Information

#### Question No. 2

#### Responding Witness: Amy Kramer

- Q-2. Explain in detail your understanding of the information to be provided in each of the categories on the Water Statistics page (reference page 30) of the annual report required of jurisdictional water utilities, accessed through the Commission's website.
- A-2. The District provides the following response to the information contained on the Water Statistics page (reference page 30) based on the Order for Case 2018-00394:

Line #	Description	Explanation of Terms as Applied by the District
1	Water Produced, Purchased, & Distributed	See response in Lines 2 and 3
2	Water Produced	This is the amount of water produced for the month.
3	Water Purchased	This is the amount of water purchased for the month.
4	Total Produced and Purchased	This is the sum of Lines 2 and 3.
6	Water Sales	This is the volume of water sold for each category listed.
7	Residential	This is the volume of water sold to residential customers.
8	Commercial	This is the volume of water sold to commercial customers.
9	Industrial	This is the volume of water sold to industrial customers.
10	Bulk Loading Stations	This is the volume of water sold at bulk water loading stations.
11	Wholesale	This is the volume of water sold to wholesale customers.
12	Public Authorities	This is the amount of water sold to public authority customers.
13	Other Sales	The District will report water volume billed to an entity for estimated water lost when a water main or service line is damaged during excavation.
14	Total Water Sales	This is the sum of Lines 7 through 13
16	Other Water Used	This is the volume of water properly used, but not sold, for each category listed.
17	Utility and/or Water Treatment Plant	This is water used in the plant and by the utility such as backwashing filters and carbon contactors, chemical batching and supply, water quality analyzers, and lubricating and cooling pumps.
18	Wastewater Plant	This category does not apply to the District.
19	System Flushing	This is the water used for system flushing through fire hydrants, blowoffs, and automated flushing devices.

<b>Line #</b>	<b>Description</b>	<b>Explanation of Terms as Applied by the District</b>
20	Fire Department	This is the volume reported by fire departments for their use.
21	Other Usage	This is the volume of metered water that does not generate revenue due to an adjustment of the bill for underground leaks as defined in the District's tariff.
22	Total Other Water Used	This is the sum of Lines 17 through 21.
24	Water Loss	This is the volume of water that is not sold and not used in the production and transmission of water.
25	Tank Overflows	This is the volume of water that is overflowed at a tank.
26	Line Breaks	This is the estimated volume of water that is lost by a break in a water distribution main or service line.
27	Line Leaks	This is the estimated volume of water that is lost by a leak in a water distribution main or service line.
28	Excavation Damage	This is the estimated volume of water lost that is caused by an entity that damaged a water main or service line and the lost water is not billed.
29	Theft	This includes water that is metered but not billed and is considered as unauthorized usage.
30	Unknown Loss	This is the volume of water loss than cannot be placed in another category.
31	Total Line Loss	This is the sum of Lines 25 through 30.
36	Line 31 divided by Line 4	This is the water loss percentage calculated by dividing Line 31 by Line 4

**NORTHERN KENTUCKY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

**Question No. 3**

**Responding Witness: Lindsey Rehtin**

- Q-3. State any questions you have regarding how to use the updated Commission Form described and attached as Appendix A to this Order.
  
- A-3. The District does not have any questions regarding the use of the updated Commission Form described and attached as Appendix A to Order for Case 2018-00394.

**NORTHERN KENTUCKY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

**Question No. 4**

**Responding Witness: Lindsey Rehtin**

Q-4. State any suggestions or improvements you have for the updated Commission Form described and attached as Appendix A to this Order.

A-4. The District has the following suggestion regarding the use of the updated Commission Form described and attached as Appendix A to Order for Case 2018-00394:

Change the word "Theft" to "Unauthorized Consumption" to be consistent with American Water Works Association methodology that provides the following definition: includes water illegally withdrawn from fire hydrants, illegal connections, bypasses to customer consumption meters, or tampering with metering or meter reading equipment; as well any other ways to receive water while thwarting the water utility's ability to collect revenue for the water.

Line 31 currently states Total Line Loss. The recommendation is to change the word "Line" to "Water."

**NORTHERN KENTUCKY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

**Question No. 5**

**Responding Witness: Lindsey Rehtin**

- Q-5. State any questions you have regarding how the information in the updated Commission Form described and attached as Appendix A to this Order is to be incorporated into annual reports.
  
- A-5. The District does not have questions regarding how the updated Commission Form described and attached as Appendix A to Order for Case 2018-00394 will be incorporated into the annual report.



**NORTHERN KENTUCKY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

**Question No. 6**

**Responding Witness: Lindsey Rehtin**

- Q-6. State any concerns you have regarding the use of the updated Commission Form described and attached as Appendix A to this Order.
- A-6. The District does not have any concerns with using the updated Commission Form described and attached as Appendix A to Order for Case 2018-00394.

**NORTHERN KENTUCKY WATER DISTRICT**

**CASE NO. 2018-00394**

**Response to Commission's Request for Information**

**Question No. 7**

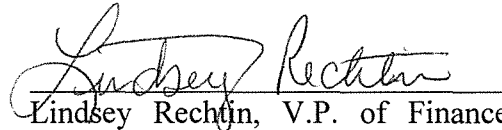
**Responding Witness: Amy Kramer**

- Q-7. State whether you believe it is reasonable, proper, and appropriate for the Commission to require jurisdictional water utilities to maintain and use the updated Commission Form described and attached as Appendix A to this Order. Fully explain your answer
- A-7. The District believes it is reasonable, proper, and appropriate for the Commission to require jurisdictional water utilities to maintain and use the updated Commission Form described and attached as Appendix A to Order for Case 2018-00394.

The District respectfully encourages the Commission to be open to future discussion with the Kentucky Division of Water and utilities regarding the use of the methodology developed by the American Water Works Association as described in American Water Works Association M36 "Manual of Water Supply Practices, Water Audits and Leak Detection".

## CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that Northern Kentucky Water District's electronic filing of this Response is a true and accurate copy of the same document being filed in paper medium; that the electronic filing was transmitted to the Public Service Commission on January 16, 2019; that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding; and that an original paper medium of this Response will be delivered to the Public Service Commission within two business days.

A handwritten signature in cursive script, reading "Lindsey Rechin", is written over a horizontal line.

Lindsey Rechin, V.P. of Finance and Support  
Services

## CERTIFICATE OF SERVICE

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Amy Kramer  
Amy Kramer, V.P. Engineering, Production &  
Distribution

Northern Kentucky Water District  
Water Loss Data  
2018

NKWD DESCRIPTION	Staff	YEAR TO DATE	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
		TOTALS	gallons	gallons	gallons	gallons	gallons	gallons	gallons	gallons	gallons	gallons	gallons	gallons
FTTP Water Produced	Matt P.	-												
TMTTP Water Produced	Matt P.	-												
MPTP Water Produced	Matt P.	-												
<b>Subtotal Water Produced</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
BFWC Water Purchased	Barry M.	-												
<b>TOTAL WATER PRODUCED &amp; PURCHASED</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
Residential Water Sales	Barb													
Commercial Water Sales	Barb													
Industrial Water Sales	Barb													
Bulk Loading Stations Water Sales	Barb													
Wholesale Water Sales	Barb													
Public Authorities Water Sales	Barb													
Other Water Sales - lost water billed excavation damages	Jason/Amber	-												
<b>TOTAL WATER SALES</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
Water Used in Plant Operations	Matt P.	-												
Water Used in Distribution Pumping/Analyzers	Jeff S.	-												
Flow Tests	Greg/Denise	-												
Draining of Water Tanks	Steve G/ Bill S	-												
Flushing of New Mains/Tie-ins	Bob H.	-												
<b>Subtotal Utility/Plant Water Used</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
Flushing to Clear Water	Jason/Amber	-												
Continuous Flow Blow-Offs	Johnathan	-												
<b>Subtotal System Flushing</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
Water Used for Fire Protection	Greg/Denise	-												
Other Usage - Adjustments to Bills	Barb	-												
<b>Subtotal Other Usage</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL OTHER WATER USED</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
Tank Overflows	Matt P.	-												
Line Breaks	Jason/Amber	-												
Line Leaks (meter setting leaks)	Barb	-												
Excavation Damages - unbilled	Jason/Amber	-												
Unauthorized/Unbillable - Move In/Move Out	Barb	-												
<b>Subtotal Known Water Loss</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
Unknown Water Loss		-												
<b>TOTAL WATER LOSS</b>		-	-	-	-	-	-	-	-	-	-	-	-	-
<b>WATER LOSS PERCENTAGE PSC METHOD</b>		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!