Witness: Kevin N. Rogers

- 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 electric 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.

Response:

Water delivered to our distribution system is comprised of water that is produced and metered at each of our plants and all water that is metered and purchased from our suppliers. Water volumes that are sold are calculated in our Customer Information System (SAP) based on metered usage that is billed to all of our customers each month and is summarized by customer class. This is considered "Sales". "Other Water Used" consists of volumes of water from information received from a variety of sources both internally and externally, including city and fire departments regarding the amount used for fighting fires, internal field services personnel regarding the volume used for flushing of hydrants, estimates of usage for internal chlorine analyzers, and internal estimates used for meter testing, etc. The combination of Sales and Other Water Used is subtracted from the total water delivered to our system to calculate the total Water Loss.

- a. KAW utilizes system reports that show water delivered, sales, and non-revenue water as well as manual forms for tracking the different components used in calculating water loss.
- b. Please refer to KAW_R_PSCDR1_NUM001_Attachment 1.xls.
- c. The attachment to this response has three reports on different tabs. The "BIRS Revenue Analysis" tab is a generated report from the KAWC Customer Information System. The "Sys Del Sales NRW" tab is an ongoing report repository for the monthly data provided by the BIRS Revenue Analysis. The "NRW Detail" tab is a spreadsheet report of reported Other Water Used components. The information on the form identifies the source of the information.

Witness: Kevin N. Rogers

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.

Response:

Water Produced, Purchased and Distributed consists of all water delivered to our distribution system and is comprised of water that is produced and metered at each of our plants and all water that is metered and purchased from our suppliers.

Water Sales represents all metered usage that is billed to our customers and summarized by customer class.

Other Water Used

Utility/water treatment plant consists of water used for chlorine analyzers, metered plant usage for the treatment process where the piping occurs after the plant meters, drained storage, meter testing, and office usage.

Wastewater plant consists of water used at our wastewater plants.

System flushing consists of water used for system flushing, hydrant inspections and water quality flushing.

Fire department consists of water used for firefighting purposes and is reported to KAW by the various fire departments in our service area.

Other consists of water used by cities for street cleaning, sewer flushing, and other municipal uses as well as theft of service.

Water Loss

Tank Overflows consist of water lost due to tank overflows.

Line Breaks consists of water identified from repaired leaks.

Line Leaks consists of water that is primarily not identified but makes up the remainder of water that is not accounted for in the other categories above.

Water Loss Percentage is the total Water Loss categories divided by the total Water Produced, Purchased and Distributed.

Witness: Kevin N. Rogers

3. State any questions you have regarding how to use the updated Commission Form described and attached as Appendix A to this Order.

Response:

KAW has no questions regarding the use of the form.

Witness: Kevin N. Rogers

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

Response:

KAW would suggest that the Excavation Damages and Theft categories only include water lost that was not billed. Under KAW's billing system, the water for these categories that was billed will show up in Water Sales.

KAW would also suggest that the label for row 35 be revised to read "Monthly Water Loss Percentage" rather than "Water Loss Percentage for Ratemaking Purposes". The Company would suggest that only a twelve month rolling, annual, or multi-year water loss percentage would be appropriate for ratemaking purposes. This is because these longer periods normalize one-time events and timing anomalies that exist within a monthly percentage. One-time events include water losses from multiple main break events in a cold winter month. Timing anomalies exist because while "Water Produced" statistics represent the current calendar month, "Water Use" statistics do not, due to billing lag. This phenomenon can make the water loss percentage appear unusually high in the late spring when production is ramping up but the sales are not yet billed (e.g. May), and unusually low in the early fall when production is ramping down but billed sales are still high (September).

Witness: Kevin N. Rogers

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.

Response:

The proposed form in Appendix A has more categories under Water Loss than the current PSC Annual Report's Water Statistics page. Will the Annual Report form be updated to match the proposed form in Appendix A?

Witness: Kevin N. Rogers

6. State any concerns you have regarding the use of the updated Commission Form described and attached as Appendix A to this Order.

Response:

KAW has no concerns regarding the use of the proposed form in Appendix A, other than those noted in response to questions four and five.

Witness: Kevin N. Rogers

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.

Response:

KAW believes it is reasonable, proper, and appropriate for the Commission to require the use of the proposed form in Appendix A. KAW respects the Commission's authority to regulate the service provided by utilities in its jurisdiction and willingly adheres to the rules for performance of service that are in place. Tracking water loss allows utilities to understand how much each type of loss is costing the utility and can help strategically focus initiatives to reduce the amount of water lost.