

**ADMINISTRATIVE CASE NO. 385  
AN INVESTIGATION INTO FEES FOR FIRE PROTECTION SERVICES**

**FINAL STAFF REPORT ON WATER UTILITY  
RESPONSES TO COMMISSION'S INTERROGATORIES**

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## INTRODUCTION

On December 22, 2000, in response to a written request from the Kentucky Association of Fire Chiefs ("KAFC"), the Public Service Commission ("Commission") established Administrative Case No. 385<sup>1</sup> to investigate fire protection services of jurisdictional water utilities. This investigation had three stated objectives: (1) the collection of information about fire protection services of jurisdictional water utilities; (2) a detailed examination and analysis of this information to identify deficiencies or problems with the provision of such services; and (3) the development of uniform standards, if necessary, to correct these deficiencies. The Commission's ultimate goal was "to ensure that utility practices are not discouraging or preventing reasonable, cost effective means of fire protection services."<sup>2</sup>

When establishing this administrative proceeding, the Commission directed the 163 water utilities under its jurisdiction to provide certain information regarding their water systems, their fire protection services, and their position on key issues concerning the provision of such services. As of October 1, 2001, 120 water utilities, or approximately 75 percent of all jurisdictional water utilities, have responded.<sup>3</sup> Based upon the size of the response and the diversity of the responding water utilities,

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<sup>1</sup> Administrative Case No. 385, An Investigation Into Fees For Fire Protection Services (Ky.PSC. Dec. 22, 2000).

<sup>2</sup> Order of December 22, 2000 at 2.

<sup>3</sup> The names of these utilities are appended to this report. Two water utilities submitted responses but failed to identify themselves. The Attorney General also responded, where appropriate, to the Commission's Interrogatories. His responses are included in this survey. By its Order of December 22, 2000, the Commission also directed KAFC to respond to certain questions. As these questions differed from those posed to jurisdictional water utilities, KAFC's responses are not reflected in this survey.

Commission Staff is of the opinion that an accurate and complete view of fire protection services provided by jurisdictional water utilities has been obtained.

A survey of the responses to the Commission's interrogatories follows. Because some utilities did not respond to all interrogatories or gave multiple responses, the totals for each response may vary. Similar responses have been grouped together (e.g., "unsure," "don't know" and "no opinion") have been listed under one heading. Where feasible, the utility's complete response is shown. In some instances where the responding party provided a lengthy response, the response has been summarized. In some instances, a copy of the response in its entirety has been appended to this survey. While Commission Staff has sought to accurately summarize the responses, this survey is not intended to substitute for a review of each response.

#### **SUMMARY**

Of the 120 responding water utilities, 72 utilities provide fire protection service,<sup>4</sup> 33 utilities do not provide such service, and 15 utilities limit their fire protection service to permitting the use of their facilities by fire departments to fill fire trucks.<sup>5</sup> The percentage of respondents not providing fire protection service, approximately 26 percent, is less than the percentage of water utilities who disclaim in their filed rate schedules any ability to provide fire protection service or fire flows.<sup>6</sup> Approximately 28

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<sup>4</sup> In its Order, the Commission defined "fire protection service" to include "permitting the installation of public or private fire hydrants or permitting local fire fighting entities to withdraw water from the water distribution system at no cost or at a reduced cost."

<sup>5</sup> Response to Order of December 22, 2000. Appendix B, Commission Interrogatory 1.

<sup>6</sup> Of the 160 water utility tariffs that Commission Staff reviewed, approximately 70 utilities, or 45 percent of all water utilities, disclaimed any ability to provide fire protection flows.

percent of all responding utilities stated that they no longer install fire hydrants because they are unable to meet the required water flow requirements.<sup>7</sup>

As to the amount of water attributed for fire protection purposes,<sup>8</sup> 40 utilities reported providing in excess of 100,000 gallons of water annually for fire protection for the period from 1995 through 1999. Twelve utilities reported providing in excess of one million gallons annually for that period. Thirty-three utilities reported that during the same period they provided less than 100,000 gallons of water annually for fire protection purposes. Twenty-six utilities were unable to provide the necessary information. Several utilities complained of their inability to obtain accurate or timely usage information from local fire departments.<sup>9</sup>

As to the cost of this water, 45 utilities reported that the average annual expense was \$500 or less to provide fire protection for the 1995 through 1999 period. Twenty-six utilities reported their average annual expense for water used for fire protection purposes was between \$1,000 and \$10,000. One water utility reported an annual expense for water for fire protection purposes in excess of \$50,000.

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<sup>7</sup> Administrative Regulation 807 KAR 5:066, Section 10(2)(b) provides:

{F}ire hydrants may be installed by a utility only if:

a. A professional engineer with a Kentucky registration has certified that the system can provide a minimum fire flow of 250 gallons per minute; and

b. The system supporting this flow has the capability of providing this flow for a period of not less than two (2) hours plus consumption at the maximum daily rate.

<sup>8</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 2.

<sup>9</sup> Among those water utilities that complained of reporting problems were: Butler County Water System, Henry County Water District No. 2, Marion County Water District, Nebo Water District, North Nelson County Water District, Oldham County Water District, Pendleton County Water District, Simpson County Water District, South Anderson County Water District, and Warren County Water District.

Where fire protection service is provided, it usually is in the form of public fire hydrants.<sup>10</sup> Seventy-one utilities reported having one or more public fire hydrants connected to their distribution systems.<sup>11</sup> Forty-five utilities, or approximately 38 percent of the responding utilities, reported having 50 or more public fire hydrants. Forty-nine utilities, or 40 percent of the responding utilities, had no public fire hydrants. In contrast, 98 utilities, or about 82 percent of the responding utilities, stated that no private hydrants were connected to their water distribution systems.<sup>12</sup> Twenty-two utilities stated that private hydrants were connected to their water distribution system. Fifty-two utilities reported that no sprinkler systems were connected to their systems. Sixty-eight utilities stated that at least one sprinkler system was connected to their systems.

Apparently few water utilities measure the quantity of water used for fire protection purposes.<sup>13</sup> Only 13 of the responding water utilities meter water usage from private hydrants. Only 34 of the respondents meter usage from private sprinkler systems.<sup>14</sup> Four respondents meter usage from public fire hydrants.<sup>15</sup> The majority of

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<sup>10</sup> In its Order of December 22, 2000, the Commission defined public fire hydrants as "fire hydrants that meet the requirements of Administrative Regulation 807 KAR 5:066, Section 10(2)(b), and are maintained and operated at no cost by the water utility, or whose maintenance and operation costs are assumed and paid by a governmental entity (e.g., municipality, fire district, county government)."

<sup>11</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 5a.

<sup>12</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 5b.

<sup>13</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 6.

<sup>14</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 7a.

<sup>15</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 6c.

water used for public fire hydrants is unmetered and based on estimates from local fire departments.<sup>16</sup>

Of the utilities responding to the Commission's interrogatories, most do not assess a charge for water provided to public or private hydrants.<sup>17</sup> Of the 18 utilities that assess a fee for water service to public hydrants, seven assess a monthly or annual fee. Four of the water utilities charge only for water usage that exceeds four hours. Thirty utilities assess an annual or monthly charge per private fire hydrant. Ten of these utilities assess a minimum monthly charge for private fire hydrants based upon the meter size.

Of the 68 utilities that responded to the Interrogatories and that have at least one private sprinkler system attached to their systems, 27 do not assess any charge. Thirty-two utilities assess the customer a minimum monthly charge based upon the size of the water meter.<sup>18</sup> Five utilities assess a flat monthly fee per fire hydrant. One utility assesses a charge based upon the size of the building in which the sprinkler system is located. Another bases its charge upon actual water usage. None of the responding utilities has a special contract to provide fire protection service.<sup>19</sup>

Of the 120 responding water utilities, only three reported fire events that required the use of unusually large amounts of water.<sup>20</sup> The most significant of these events was

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<sup>16</sup> Seventeen utilities, however, reported that they were unable to obtain estimates from fire departments and thus had no clear basis upon which to gauge water usage.

<sup>17</sup> See Order of December 22, 2000, Appendix B, Commission Interrogatory 8.

<sup>18</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 8a(3).

<sup>19</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 8b.

<sup>20</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 9.

a fire at a commercial landfill that required the use of 15,788,000 gallons of water. Neither the municipal fire department nor the property owner reimbursed the water district for the water used. As a result, the water district absorbed the loss of approximately \$19,111 in revenues.

Several utilities stated that standby costs associated with being ready and able to serve are much greater than the costs associated with hydrant installation. Forty-two respondents stated that those requesting private fire protection service should pay the total costs associated with the provision of such service. Most utilities stated that, with the exception of having additional points for water main flushing, they receive no benefit from the installation of private fire hydrants.

Because of the limited number of utilities providing private fire protection services and the wide variance in their cost of service, the responses provided no clear trend in the cost of providing such service. Several utilities expressed the fear that failing to properly allocate the cost of this service to those benefiting from the service would increase costs for all customers. Seventy-five of the responding utilities, approximately 63 percent, stated that the cost of private fire protection service should be borne solely by the party receiving that service. Only one utility suggested that ratepayers should subsidize the cost of such service.<sup>21</sup>

Seventy-four of the 120 responding utilities acknowledged that a water utility would benefit from the installation of public fire hydrants because of the additional line flushing points such hydrants would provide.<sup>22</sup> Most noted that their customers would

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<sup>21</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 16.

<sup>22</sup> Response to Order of December 22, 2000, Appendix D, Commission Interrogatory 17a.

also benefit from lower fire insurance premiums, increased fire protection coverage, and better water quality due to increased line flushing.<sup>23</sup> They, however, saw few benefits accruing to them<sup>24</sup> or the general public<sup>25</sup> from the installation of private sprinkler systems.

One hundred seven respondents, or 89 percent of the responding utilities, stated that they assess no charge to fire departments for water service provided for fire protection services.<sup>26</sup> Ninety-two utilities indicated that they do not assess any charge to fire departments for the placement, operation, and maintenance of fire hydrants. Sixty-seven of the responding utilities that provide free water service to such hydrants acknowledged that they do so in violation of KRS 278.170 by failing to require the using fire department to report its usage.<sup>27</sup>

Responding utilities were equally divided on the issue of who should bear the cost for water used to provide fire protection services.<sup>28</sup> Fifty water utilities, 42 percent of the respondents, indicated that the cost should be borne by all customers. Thirty-two water utilities, 27 percent of the respondents, stated that the customer who receives the benefit of the water should pay its cost. Fifteen utilities, 13 percent of the respondents, indicated that charges should be assessed for the water if the fire department providing

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<sup>23</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 17b.

<sup>24</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 18b.

<sup>25</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 18a.

<sup>26</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 21.

<sup>27</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 20.

<sup>28</sup> Response to Order of December 22, 2000, Appendix B, Commission Interrogatory 22.



the fire protection service is financed through tax revenues or membership contributions.

### CONCLUSION

Based upon our review of the responses to the Interrogatories and the water utility tariffs on file with the Commission, we do not believe that water utility rates presently have a significant effect on the statewide use of fire protection services, especially sprinkler systems. The data suggests that most water utilities are not currently providing fire protection water service. Of 120 responding water utilities, 08 have no private hydrants and 55 do not serve fire sprinkler systems. Of the 160 water utility tariffs reviewed, 45 percent contained provisions expressly disclaiming the ability to provide fire protection water flows. Many others, while not containing a disclaimer of such service, suggest that the utility has limited abilities to provide fire flows. Only 62 water utilities had sufficient demand for hydrants to establish rules for serving such facilities. Far fewer have rules governing fire sprinkler systems. The lack of such rules suggests that most utilities have yet to provide such services.

A potential problem, however, may exist if some guidelines are not established. Of the 160 water utility tariffs reviewed, 147 contained a rate design in which the minimum bill contained a commodity component. Simply put, these minimum monthly rates covered not only fixed utility costs that all customers impose upon a utility system by having access to the utility system, but also the cost of a certain quantity of water. For fire sprinkler and fire hydrant systems, these minimum rates thus contain a charge for a commodity that is unlikely to be consumed or used. At least five water utilities currently treat these systems as normal customers despite their unusual usage

patterns. At least 17 water utilities have sought to avoid this problem by establishing a monthly fire sprinkler or hydrant fee that differs from the minimum monthly rate. For the remaining utilities, however, the potential exists that fire sprinkler and hydrant systems when eventually installed will be treated as other customers and be charged a minimum monthly rate that includes a commodity component.

Moreover, neither the responses to the Commission's interrogatories nor the filed rate schedules suggest that a clear and understandable methodology is being used to establish fire protection rates. While some rates are apparently based upon meter size, it is unclear whether the water utilities considered the unique characteristics of fire protection service when establishing the rate. Other rates have no correlation to the utility's cost of service and appear to be an arbitrary rate. A significant number of water utility tariffs provide that the rate for fire protection services will be a negotiated rate. While such rate may reflect the unique nuances of serving a customer, it also holds the potential of a rate that does not reflect cost-of-service principles.

The responses to the Commission's interrogatories and a review of water utility tariffs also indicate a significant disparity between utility pricing policies and operation practices and utility filed rate schedules. For example, many water utilities are providing free water service to fire departments for fire protection and fire protection training, but failing to reflect this practice in their filed rate schedules. They are also failing to revise their filed rate schedules to impose the reporting requirements mandated by KRS 278.170. This failure to adhere to tariff requirements increases the likelihood of discriminatory treatment of similarly situated customers.

Fire departments also are failing to comply with the reporting requirements of KRS 278.170. While many fire departments are withdrawing water from public water utility systems, few are reporting the incidents of withdrawal or estimating the amount of their usage. This failure is likely to hinder the efforts of water utilities to maintain accurate water accountability and properly determine their cost of service.