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April 4, 2011

VIA HAND DELIVERY

Mr. E. Curtis Gassert
Director, Water/Sewer Division
Indiana Utility Regulatory Commission
PNC Center
101 West Washington Street, Suite 1500 East
Indianapolis, Indiana 46204

Re: 30-Day Filing for Indianapolis Department of Waterworks Proposing to Amend its Rules Regarding Residual Pressure for Fire Protection Service

Dear Mr. Gassert:

Pursuant to 170 IAC 1-6-3(3) and (7), and as ordered by the Indiana Utility Regulatory Commission (the "Commission") in its Final Order in Cause No. 43645 issued on February 2, 2011 (the "Order"), the Indianapolis Department of Waterworks (the "Department") hereby submits a 30-Day filing to amend its Rules and Regulations for Water Service (the "Rules") that are approved and on file with the Commission.

The purpose of this proposed amendment to the Rules is to accurately reflect the Department's currently required residual pressure of thirty (30) pounds per square inch ("psi") for, among other reasons, the delivery of fire protection services as set forth in its main extension agreements. Rule 12(C) of the Rules currently states,

> Unless otherwise specifically provided for in the main extension agreement, the main extension will be designed to deliver domestic water service at a rate sufficient to serve the number of parcels abutting the main extension and public fire protection service at a minimum rate of 1,000 gallons per minute at 20 pounds per square inch residual pressure.

The fire protection standards set forth in the Indiana Administrative Code (327 IAC 8-3.2-11) and in the 10 States Standards (8.2.1) provide for 20 psi minimum residual pressure. Notwithstanding these standards, some entities overseeing water utilities are beginning to promulgate regulations that exceed these standards. For example, the State of Washington Department of Health has promulgated rules providing that,

> New public water systems or additions to existing systems shall be designed with the capacity to deliver the design peak hourly demand (PHD) quantity of water at 30 psi under PHD flow conditions measured at all existing and proposed service

water meters or along property lines if no meter exists, and under the condition where all equalizing storage has been depleted.

Washington Administrative Code 246-290-230(5).
The City of Olympia, Washington, proposes to exceed the requirements of WAC 246-290-230(5). In its 2009-2014 Capital Facilities Plan, the City of Olympia divides its water system by level of service ("LOS") based on water pressure. LOS I is defined as meeting minimal standards for water pressure at 30 psi, while LOS II goes beyond system maintenance, existing regulatory needs, and LOS I pressure requirements and strives to improve the minimum pressure to 45 psi. The City of Olympia's pressure requirements are designed to provide the most cost-effective approach to anticipating and meeting system growth needs and strives to eventually eliminate areas within the system that do not meet Uniform Fire Code fire flow criteria.

The Department further notes that some manufacturers are marketing products requiring minimum pressures greater than the 20 psi minimum. For example, the emergency shower and eyewash unit (S19-310TW) developed by Bradley Corporation complying with ANSI Z358.1 standard requires an uninterruptible supply of flushing fluid at a minimum 30 psi flowing pressure. Also, several lawn irrigation sprinklers require pressures greater than the 20 psi minimum. The 500 Series Rotor Sprinkler by Rain Bird Corporation calls for a pressure of 25 to 65 psi in its specifications, and the I-20 Series Rotary Sprinkler by Hunter Industries calls for a recommended pressure range of 30 to 70 psi.

The Department places a priority on superior customer service, including providing service exceeding the IAC and 10 States Standards minimum requirements for fire protection in achieving the following:

1) Enhancing fire protection through increased flow capacity during peak periods and, at times when pumper trucks are not required for fire suppression, enabling a fire department to directly rely upon the system pressure at the hydrants. At 30 psi, the suction supply side will yield greater than 1,000 gallons per minute, whereas at 20 psi, 1,000 gallons per minute is the maximum yield; the maximum that a fire pumper truck can apply to the suction side of the pump is 20 psi, otherwise the pumper truck suction shuts down because pressures below 20 psi will damage the pump and the system);
2) Providing water service to customers at the pressure district boundaries, especially those in remote areas of the system (and in some cases at higher elevations), with higher system pressure;
3) Anticipating and meeting future customer needs by upgrading the water distribution system into a system that is capable of meeting future growth while ensuring that the water system is ready to be utilized for fire suppression at all times; and
4) Providing freedom of choice to its customers to select a wider and ever-growing range of products requiring greater than 20 psi residual pressure to function properly.

Finally, the Department, apparently relying on the historical practice of the Indianapolis Water Company, provided for 30 psi residual pressure for the delivery of fire protection services in the Management Agreement with Veolia Water Indianapolis, LLC ("Veolia"), the operator of the

Department's system. See Exhibit 2, page 8. Also, the Department has continued the Indianapolis Water Company's practice of specifying a residual pressure requirement of 30 psi in its main extension agreements. The Department apologizes as it apparently erred by failing to change the 20 psi in Rule 12(C) of the former Indianapolis Water Company's rules and regulations for water service to 30 psi at the time the Rules were submitted for approval.

While the Department cannot be certain what precipitated its use of the 30 psi residual pressure standard, the Department believes the 30 psi minimum residual pressure standard is a desirable standard that will help achieve the aforementioned goals. Moreover, the Department and Veolia agreed for the provision 30 psi residual pressure in the Management Agreement with Veolia. Through the Service Fee paid to Veolia under the Management Agreement, the Department is currently, and has been since it acquired the system, paying for 30 psi residual pressure. As discussed above, the requirement for a minimum of 30 psi in a water distribution system is present in other parts of the United States and manufacturers have designed products that require greater than 20 psi pressure in order to operate. Thus, Rule 12 should be updated to reflect a minimum residual pressure requirement of 30 psi for fire protection services, as it is reasonable and will enhance the safety and welfare of the Department's customers.

Pertaining to the cost of requiring 30 psi as contrasted with 20 psi, the Department worked with Veolia to attempt to determine the marginal costs of a 30 psi standard over a 20 psi standard. Unfortunately, the costs could not be identified with adequate certainty for inclusion in this 30-day filing. Nevertheless, the Department believes that a 30 psi residual pressure standard provides significant benefits (e.g., better system planning, greater customer choice of products, enhanced fire suppression capabilities) that outweigh the marginal cost to upgrade minimum residual pressure to 30 psi from 20 psi. As the largest single water utility in the State of Indiana, the Department aims to be a leader in the provision of water service. Its proposed 30 psi minimum residual pressure standard helps blaze a trail that other Indiana utilities can follow.

In the Order, the Commission directed the Department to file, within sixty (60) days of the Order, a 30-Day filing that supports the Department's current practice regarding required residual pressure for the delivery of fire protection services. Accordingly, this filing has been submitted on or before April 4, 2011. The following documents are attached to this filing:

1) Contact information sheet;
2) Current Rule 12 of the Department's Tariff;
3) Proposed Rule 12 for the Department's Tariff;
4) Washington Administrative Code 246-290-230(5);
5) Excerpt from City of Olympia 2009-2014 Capital Facilities Plan; and
6) Verified statement by the Department that affected customers have been notified as required under 170 IAC 1-6-6.

The Department appreciates your assistance in processing this request through the Commission's 30-Day filing procedures. Please, contact me at (317) 686-5232 with any questions regarding this matter.

Very truly yours,

David T. McGimpsey

DTM/emd
Attachments

cc: Office of the Utility Consumer Counselor
Matthew T. Klein, Esq.
Lauren R. Toppen, Esq.

ATTACHMENTS

Contact information sheet

CONTACT INFORMATION SHEET

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Current Rule 12

contract to connect to the main within nine months after the completion date of the main extension and receive service from the main extension for a period not less than three years. All main extension projects will be carried out in accordance with the Commission's Rule 170 IAC 6-1.5 and this Rule 12. They will be scheduled for construction in the order in which the Department receives the total required deposit under the main extension agreement or the executed main extension agreement if there is no required deposit.

(C) Design of Main Extension. All main extensions installed to provide domestic water service shall also provide fire protection service. Unless otherwise specifically provided for in the main extension agreement, the main extension will be designed to deliver domestic water service at a rate sufficient to serve the number of parcels abutting the main extension and public fire protection service at a minimum rate of 1,000 gallons per minute at 20 pounds per square inch residual pressure. In addition to the above, the Department will determine the size of main reasonably necessary to serve the applicant without degrading the integrity of the Department's distribution system.

(D) Determination of Cost of Main Extension.

(1) General. The cost of a main extension may be either (a) the actual cost of a developer-installed extension; or (b) the estimated cost of the extension. The estimated cost of the main extension to satisfy the design characteristics set forth in Rule 12(C) or such other design characteristics as are specifically requested by the prospective customer or customers will be based on the length of the main and unit cost for installing the appropriately sized main. All such costs will be determined annually by the Department, based on the Department's actual average cost to install mains during the previous calendar year, adjusted for known increases or decreases in materials, equipment, special construction, overhead and labor costs. The total of such estimated costs shall be the cost of the main extension for all purposes under the main extension agreement. If, however, one or more of the prospective customers requests special service, such as higher flow or pressure, which the Department determines requires the installation of a main larger than that which would otherwise be necessary to serve the domestic and fire protection requirements of the prospective customers generally, the Department will compute the cost of an alternative main extension which would meet the needs of the prospective customer or customers assuming no one of them required any special service, which cost will be used to determine the deposit required from each of the original depositors other than those requesting the special service and the subsequent connector's fees.

The applicant shall be required to pay the cost of the main extension and the full gross-up state and federal taxes associated with the cost of the extension, and the applicant shall receive refunds as provided in this Rule 12.

(2) Length and Location of Main Extension.

(a) Extension of Main to Intersection or Parcel Adjacent to Parcel Having Available Service. The main extension shall run to the end of the lot or frontage of the most remote original applicant to be served. However, if such lot [illegible]

Proposed Rule 12

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Supporting Documentation

WAC 246-290-230
Distribution systems.

(1) The purveyor shall size and evaluate new, or expansions to existing, distribution systems using a hydraulic analysis acceptable to the department.

(2) The minimum diameter of all distribution mains shall be six inches (150 mm) unless smaller mains can be justified by hydraulic analysis.

(3) Systems designed to provide fire flows shall have a minimum distribution main size of six inches (150 mm).

(4) Installation of new standard fire hydrants shall not be allowed on mains less than six inches (150 mm) in diameter. Existing fire hydrants on currently active mains less than six inches (150 mm) in diameter shall be allowed to remain provided:

(a) The existing distribution system consists of mains at least four inches (101.6 mm) in diameter, and the fire flow available from existing four-inch (101.6 mm) mains within the proximity of the fire hydrant exceeds the minimum fire flow standard adopted by the local fire protection authority; and

(b) The location and installation of the fire hydrants on the four-inch (101.6 mm) main have received approval by the local fire protection authority.

(5) New public water systems or additions to existing systems shall be designed with the capacity to deliver the design PHD quantity of water at 30 psi (210 kPa) under PHD flow conditions measured at all existing and proposed service water meters or along property lines adjacent to mains if no meter exists, and under the condition where all equalizing storage has been depleted.

(6) If fire flow is to be provided, the distribution system shall also provide maximum day demand (MDD) plus the required fire flow at a pressure of at least 20 psi (140 kPa) at all points throughout the distribution system, and under the condition where the designed volume of fire suppression and equalizing storage has been depleted.

(7) Booster pumps shall be designed in accordance with good engineering criteria and practices as listed in WAC 246-290-200.

(8) On existing systems, or for additions to existing systems, that are unable to meet the pressure requirements of this section, booster pumps for individual services may be used in the interim until system improvements are made to resolve pressure deficiencies. In this situation, the individual booster pumps shall be under the management and control of the purveyor.

(9) Transmission lines as defined in WAC 246-290-010 shall be designed to maintain greater than or equal to five psi (35 kPa) during normal operations, except when directly adjacent to storage tanks, and shall be sized according to a hydraulic analysis. Transmission mains designed to operate at velocities greater than ten feet per second shall include a hydraulic transient (water hammer) analysis in conjunction with the hydraulic analysis.

[Statutory Authority: RCW 43.02.050 [43.20.050]. 99-07-021, § 246-290-230, filed 3/9/99, effective 4/9/99. Statutory Authority: RCW 43.20.050. 94-14-001, § 246-290-230, filed 6/22/94, effective 7/23/94; 93-08-011 (Order 352B), § 246-290-230, filed 3/25/93, effective 4/25/93; 91-02-051 (Order 124B), recodified as § 246-290-230, filed 12/27/90, effective 1/31/91. Statutory Authority: RCW 34.04.045. 88-05-057 (Order 307), § 248-54-135, filed 2/17/88. Statutory Authority: RCW 43.20.050. 83-19-002 (Order 266), § 248-54-135, filed 9/8/83.]

Drinking Water

The mission of the Drinking Water Utility is to ensure a safe and sustainable supply of drinking water for the community. Four key influencing factors drive the development of the eleven water capital project programs identified in the Capital Facilities Plan (CFP):

1. **Regulation/Compliance**: the Federal Safe Drinking Water Act (SDWA), Washington State Department of Health (DOH) regulations, and the Uniform Fire Code (UFC) fireflow criteria.
2. **Adopted Sustainability Philosophy**: to manage the water in sustainable ways and develop integrated solutions that solve more than one problem at a time.
3. **Growth**: accommodating growth defined by Olympia's Comprehensive Plan and continuing to provide service to existing customers.
4. **Operational and System Delivery Strategies**: to manage water as a limited resource, meet water regulation objectives using approaches that limit human influence on the naturally good quality of water Olympia now has, and implement system changes for cost-effective delivery.

Drinking Water capital facilities are designed and built to provide citizens with safe and sustainable drinking water. Drinking Water capital program activities recognize managing the water as a limited, precious resource that needs to be protected, conserved, and managed responsibly. It is important to ensure accuracy in metering of water. Staff is evaluating a study to replace existing meters with improved technology. A plan for financing the replacement is included in this CFP and the proposed 2009 Water System Plan.

Old Culvert in Watershed Park. Photo courtesy of resident Brian Kacynik.

Level of Service Determinations

Level of Service I

This first Level of Service (LOS) involves maintaining the current system as is and addressing the need to remain in regulatory compliance for water quality and quantity requirements.

- Meet minimal standards for water pressure (30 psi) and UFC fireflow criteria for a majority of system customers.
- No consideration given for growth-related projects or projects anticipating future regulatory compliance.
- An automatic system deficit when growth has occurred, or new regulations for water delivery take effect.

Level of Service II

The second LOS goes beyond system maintenance and existing regulatory needs.

- Anticipates future water quality regulations and develops facilities that will accommodate the increased requirements prior to the system becoming deficient.
- Goes beyond the required minimum of 30 psi average water pressure for residents and strives to improve the minimum to 45 psi. The higher standard is the most cost-effective approach to anticipating and meeting system growth needs. LOS II also strives to eventually eliminate areas within the system that do not meet UFC fireflow criteria.

Level of Service III

The final LOS recognizes Olympia's commitment to sustainability and to the approach of managing water as a limited resource. LOS III projects and programs address DOH regulations to a further extent, with the underlying driver to be a responsible water steward and purveyor.

- Based on projections within current water rights, the City of Olympia is able to meet growth demand through the year 2015. Olympia's system currently depends on 70% of its supply from one source. Programs to seek additional sources and diversify the sources are LOS III programs.
- To comply with DOH regulations, there must be some form of conservation activity within an adopted Water Plan. The degree to which Olympia approaches a conservation program is a component of managing a limited resource.

Capital Facilities Projects by Level of Service

Level of Service I
- Asphalt Overlay Adjustments
- Distribution Valve Replacement
- Emergency Preparedness

Level of Service II
- Replace Small Diameter Water Piping
- Transmission and Distribution Projects
- Infrastructure Predesign and Planning
- Water System Planning
- Water Storage Systems

Level of Service III
- Reclaimed Water
- Water Source Development
- Wellhead Protection Land Acquisition

Level of Service Standards

Municipal utilities in the United States and elsewhere commonly use Level of Service (LOS) standards to evaluate whether the physical system or operations are functioning to an adequate level. LOS can be defined in terms of the customer's experience of utility service and/or technical standards based on professional expertise of utility staff.

These LOS standards can help guide investments in maintenance, repair and replacement; and new assets can be used to establish design criteria and prioritize needs. Using a structured decision process that incorporates LOS can help a utility achieve desired service outcomes while minimizing life-cycle costs.

Old water culvert in Watershed Park. Photo courtesy of resident Brian Kacynik.

As part of the 2009-2014 Water System Plan, the Drinking Water Utility has developed a set of formal Level of Service (LOS) standards. Utility staff used the following criteria in selecting LOS:

- Specific goal or expectation
- Focused on customer and community
- Quantifiable and measurable
- Relatively simple to understand and apply
- Constrained by available budgets for maintenance, repair and replacement

The selected LOS standards are in the following areas:

- System performance (including service interruption due to breakage, pressure, system reliability)
- Sustainability (energy efficiency)
- Customer service (response to water quality and service-related complaints)

These Level of Service standards have been incorporated in the development of this Capital Facilities Plan. Since regulatory compliance is considered a given, these LOS standards address issues of concern for customers

Verified statement by DOW

AFFIDAVIT

The undersigned affiant, Matthew T. Klein, being first duly sworn upon his oath, deposes and states:

1. I am Matthew T. Klein. I am over the age of 18 years, suffer from no disability which would render my testimony incompetent, and have personal knowledge of all matters contained in this Affidavit.

2. I am the Executive Director of the Department of Waterworks of the City of Indianapolis.

3. As Executive Director, my day to day duties include overall management of the Department and its employees, maintaining the Department's system in a reasonable and cost-effective manner, and overseeing the Department's contract-operator Veolia Water Indianapolis, LLC and various other contractors. Additionally, I regularly work on or manage regulatory matters, including all matters that would come before the Indiana Utility Regulatory Commission ("Commission").

4. I have reviewed the attached 30-day filing regarding the Department's residual pressure. Additionally, I have ensured that notice was provided for this filing as provided in 170 I.A.C. 1-6-6.

5. On April 4, 2011, the Department posted a notice in its local customer service office, and posted a notice to its website at www.indianapoliswater.com. A copy of that notice has been provided as Exhibit 1 to this affidavit.

6. Additionally, I have caused a notice of this 30-day filing to be published in the Indianapolis Star on April 5, 2011. A copy of this notice will be provided with a follow-up letter on April 5, 2011.

VERIFICATION

I affirm, under penalties for perjury, that the foregoing representations of fact are true and correct.

By: _____
Matthew T. Klein

STATE OF Indiana)
) **SS:**
COUNTY OF Hamilton)

Subscribed and sworn to before me, a Notary Public in and for said State and County, this 4th day of April, 2011.

_____
Signature

DONNA A. GUNN
Hamilton County
My Commission Expires
July 1, 2012

_____
Printed

My Commission Expires:
July 1, 2012

My County of Residence:
Hamilton