Electronic Filing December 16, 2024

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, Second Floor
Harrisburg, PA 17120

Re: Matzel, Asay v Pennsylvania American Water Company
Docket: C-2023-3045163

Matzel-Asay Complainants' Post-Hearing Brief and Appendix

Dear Secretary Chiavetta:

Pursuant to Judge Dunderdale's Order, please be advised that on this date I have provided a copy of Complainants' Post-Hearing Brief and Appendix upon counsel for Pennsylvania American Water Company.

If you have any questions regarding this filing, please contact the undersigned.

Thank you,

_____ /s/_____ ____/s/____
Louis Matzel Jodi Asay

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Louis Matzel, Jodi Asay	:	
	:	
V	:	Docket: C-2023-3045163
	:	
Pennsylvania American Water Company	:	

MATZEL-ASAY COMPLAINANTS' POST-HEARING BRIEF

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Louis Matzel, Jodi Asay	:	
	:	
V	:	Docket: C-2023-3045163
	:	
Pennsylvania American Water Company	:	

MATZEL-ASAY COMPLAINANTS' POST-HEARING BRIEF

Pursuant to the October 23, 2020 Briefing Order, and in accordance with 52 Pa. Code § 5.501, Matzel-Asay Complainants hereby submit this Post-Hearing Brief.

I. INTRODUCTION

Complainants in this case are asking the Commission to intervene in a way that allows the homeowner to comply safely with International Code which is the foundation for Pennsylvania residential code. It is impossible for the homeowners to not only comply with residential code, it is also impossible to comply with PAWC's Rules and Regulations as written.

At the core of this matter Pennsylvania American Water Company (PAWC) has resisted every effort to help remedy the extremely high water pressure and wants to put the burden upon the homeowner to fix the problem they are causing.

Prior to approaching the Commission, there was no remedy. On three occasions in June and July 2022, PAWC's Supervisor Kasey White insisted neither the Complainants or licensed plumber were allowed to touch anything within the buried locked meter vault.

After contacting the Commission 2023 to present, settlement discussions commenced. PAWC's only concession would allow the Complainants to excavate the meter vault to have their own plumber install a

pressure reducing valve (PRV) 5' feet underground on the OUTLET (Customer side) of the meter which violates their own Rules and Regulations requiring the PRV be installed on the INLET of the meter which now is the company side since they moved the meter from inside the home to a locked and buried meter vault owned solely by PAWC. Additionally, the customer would be responsible for inspecting and maintaining yearly at a cost of $2000-3500 just to look at it. Again, this is the property of PAWC.

When consulting with local plumbers, this is not a service they provide due to the meter vault being PAWC property. This poor engineering design and lack of foresight has caused an unsafe situation for the homeowners service line, exterior property (driveway, fencing, landscape). In additioon, the multitude of fittings, the pressure reducing valve (PRV) are all at risk of failing inside the home. The basement, foundation, furnishings and flooring are all in jeopardy. Any flooding or even undetected minimal leaks can cause thousands of dollars of damage and a possible mold situation.

Within 1 year of moving in the Complainants had already experienced a blown hot water heater, broken new model washing machine and 2 leaking toilets. It seemed as if the home was sold because of all the faulty plumbing. After the plumber discovered the extremely high water pressure he immediately installed a PRV but advised to immediately contact PAWC with a high pressure water emergency. The homeowners were advised by the plumber of an unsafe condition that would cause failure to either the PRV, the fittings or the service line if the water pressure coming in from the curbstop wasn't reduced and further explained how the new PRV would cause additional pressure with no relief. "With 142 psi bottled from the curb stop to the PRV, either the service line or the PRV will fail".

After making several requests of PAWC to reduce the pressure with no remedy, the service line broke within months as predicted causing 125' of service line being excavated and replaced, landscape and fencing destroyed. The water usage is also extremely high causing water bills for 2 people to be $150-200 per month and zero lawn to water. All symptoms of excessively high water pressure.

This is not an anomaly. It's an epidemic throughout the community as evidenced in PAWC's own exhibits.

For this reason, we ask for the authority of the Commission to require service improvements be provided by PAWC for the ability of the Complainants to apply residential code as intended and required for the safety of the home owners, and its inhabitants.

II. CONCISE STATEMENT OF THE CASE

A. Complainants have alleged and proven that:
1) Pennsylvania American Water Company's water pressure is too high for the Complainants to remedy on their own;
2) The Complainants can not logistically, financially or legally comply with PAWC's Rules and Regulations 4.7 as written;
3) The homeowner can not comply with PA or International Residential Code with water coming in from the curb stop in excess of 100 psi even with a licensed plumber;
4) The PAWC's Rules and Regulations must be written to reflect the requirements controlling water pressure in excess of 100 psi in a locked, buried meter vault; **5)** an independent investigator must be appointed to determine whether the PAWC's high water pressure should require pressure reducing zones in low lying areas when having to pump water up hill or if individual PRV's at the curb stop or Inlet to the meters are required in the Orange, Red and Maroon zones -*see PAWC Exhibit 1;*
6) The complainants are in violation of residential code due to no fault of their own. Currently the pressure reducing valve in the basement is at a 43% reduction to save the plumbing, appliances and fixtures which is a violation of residential code. If they dial it back to 20% as recommended, the pressure would be a minimum of 105 psi or higher, also violating residential code.
7) It is the responsibility of PAWC to provide and maintain a PRV on the inlet side of the meter. They have Class E Technicians on duty 24/7/365 on duty and would not cause a financial hardship, compared to the homeowner who can't find a plumber willing to tamper with PAWC's property. If the homeowner could find a plumber willing to proceed, it would be a financial hardship.

8) Grant money through PENNVEST is available to water utility companies for upgrades and rehabilitation to water drinking systems.

B. Explained:

1) Pennsylvania American Water Company's water pressure is too high for the Complainants to remedy on their own. At the request of the court order, it was recorded 125 psi at the curb and 132 in the home. The water pressure is a ticking time bomb and impossible for the complainants to remedy on their own without the PAWC's cooperation.

2) *Logistically*, PAWC after settlement discussions would concede to allow the Complainants plumber to install a PRV on the Outlet side of the meter. This would require PAWC supervision of excavation, installation 5 feet underground and reassembling the vault.
Financially, though PAWC offered to pay for the $2500-3000 max labor cost, the homeowner would still be responsible for inspecting and maintaining the devise on an annual basis. In order to comply, it requires excavation, remove the vault, go 5 feet under ground, inspect and reassemble the vault costing $2500-3500 just to look at it.
Legally, the plumber is uncomfortable going into PAWC property as it has be made perfectly cleat the vault is property of PAWC and not the homeowner. In addition, the plumber would have to violate the PAWC's Rules and Regulations 4.7. According to the settlement agreement, the plumber would be allowed to install the PRV on the Outlet side (consumer side) of the meter violating the requirement of 4.7 stating the PRV must be applied to the INLET side of the meter which is now the company side since the basement meter was moved to the vault at the street. The plumber is not at all comfortable violating the terms of the PAWC's written requirements.

3) The Complainants can not comply with residential code with the water pressure above 100 psi. According to *PA DEP Public Water Supply Manual 383-2125-108 PartII Community System Design Standards VIII-DISTRIBUTION SYSTEMS (K) (1). "Plumbing; Water services and plumbing*

shall conform to relevant local plumbing codes or to the International Plumbing Code".
International Code Council- ICC Chapter 29 Water Supply and Distribution Systems P2903.3.1 "Maximum pressure: The static water pressure shall be not greater than 80 psi (551 kPa). Where the main pressure exceeds 80 psi (551 kPa), an approved pressure-reducing valve conforming to ASSE 1003 or CSA B356 ***shall be*** *installed on the domestic water branch main or riser at the connection to the water service pipe."*
However, there is a further code requirement on the amount of reduction on a residential pressure reducing device. As per IAPMO Chapter 6 Water Supply and Distribution ***608.2 (b) "****Limitations on Pressure Regulating or Reducing Valves…"By design, pressure regulating or reducing valves are modulating valves, which have a high level of flow resistance and consequent pressure drop through them even when fully open. Therefore, pipe sizing downstream of the pressure regulator must be based on "worst-case" pressure loss during a maximum demand water flow.* ***Worst-case*** *pressure loss through a listed pressure regulator is presumed to be no greater than 20 percent; therefore, the water system is sized based upon 80 percent of the pressure regulator's "set" pressure, this being a selected static pressure that is presumed not to exceed 80 psi. Therefore, all pipe size determinations downstream of the regulator must be based on 80 percent of this reduced pressure…For example, a water system has a pressure of 100 psi. A pressure regulator will be installed and set at 80 psi. For sizing purposes… the maximum pressure would be 64 psi, which is 80 percent of 80 psi."*

The Complainants highest reading has been documented in Matzel-Asay Exhibit 1-(Exhibit 1: page 6) with a gauge reading of 138 psi and a low of latest documented 132 psi, a 20% reduction would be 110 psi and 106 respectively. Both violating a maximum of 80 psi.
If the complainants reduce the pressure by forcing it down to 80 psi, then it would require a 42% or 40% reduction respectively. Both violating the 20% maximum reduction rule by more than double. Our plumber states 45-65 psi is the desirable setting.

4) Pennsylvania American Water Company Rules and Regulations 4.7 **Pressure Regulators** *(PAWC exhibit 9: p 2*) states "When the static pressure

is 100 lbs or more at the Customers premise, the customer shall be responsible for the installation and maintenance of a pressure regulator or valve, which shall be installed on the inlet side of the meter."
This regulation was written when the meters were previously located inside the home. It is questionable if the customer really is legally responsible for water pressure coming in off the main above 100 psi. Just because it says it, does not mean it is true. Making matters legally more problematic, since the meter was moved to the street, the "inlet" side of the meter is now the company side coming in from the 'main'. It is the property of PAWC in a buried locked meter vault inaccessible to the homeowner or plumber.

5) An independent investigator must be appointed to determine whether the PAWC's high water pressure should require pressure reducing zones in low lying areas when having to pump water up hill or if individual PRV's at the curb stop or Inlet to the meters are required in the Orange, Red and Maroon zones -(*see PAWC Exhibit 1; p 1-2)*. When observing PAWC's Exhibit 1, there is a color code key that indicts range of water pressure. Anyone in the Orange Red and Brown are all in a range that the homeowners are in the exact same situation as the Complainants. Customers of PAWC can not comply to code when pressures are above 100 psi.

Due to the previously mentioned "Limitation of Pressure Relief Valves, dangerously high pressures met by a PRV is unsafe. The pressure in the service pipe meets a dead stop with no relief at the pressure reducing valve in the home. The pressure is constant. Usually there would be a relief of pressure when turning on a faucet or flushing a toilet. The only relief is **after** the homes PRV, not before. The service pipe pressure never reduces while bombarding the inlet side of the PRV and its connections (fittings). This is like a ticking time bomb.

For the following reason the Complainants request an independent contractor to ensure honesty and integrity:
This is very profitable problem for PAWC in the high pressure zones and an identical dilemma for all of the homes in those zones. Every time there is a service line failure or an undetected leak it results in massively high water bills two to ten times higher than an average monthly bill (depending on the

problem). Homes with high water pressure are notorious for breaking fill valves on toilets where the high pressure prevents the valve from shutting off. Common undetected leak problems to broken services pipes, will greatly increase the water bills throughout the community. Because many of the homes are vacation homes and short term rentals, simple leaks to major disasters can go on undetected for weeks. Even worse, many people are retirees or financially challenged with disabilities and do not have the luxury of paying for astronomically high water bills when completely preventable.

In PAWC's defense, they do have challenges. Due to the topography in the community, with steep hills needing water pumps to boost pressure uphill and low lying valleys with steep downhill homes, the best engineering practice would be a **pressure reducing zone**. This is called for under Water Digest "Best Practices Pressure Management Systems" (*see footnote[1] for website link*) Under *Water Pressure Management* It states clearly "In the main distribution line that feeds the residential area, a pressure-reducing valve (pressure regulator) is installed and controlled by an electronically operated solenoid pilot valve. This combination will limit the outlet pressure of the control valve to a preset pressure, regardless of the flow rate and the inlet pressure….The number of pressure-reducing valves required will depend on the size of the system, how it is plumbed from the pump stations to the end points of the distribution lines, and the elevation it covers."

The next best practice would be individual PRVs being installed on the inlet side of the meter at the curb stop of the main supplied and maintained by PAWC. It is PAWC's property, their vault, their meter, maintained by Class E technicians on duty 24/7/365 and a part of their normal routine of inspecting and maintaining their equipment. This could be permanent or temporary if a pressure reducing zone at the street main is implemented.

6) The complainants are in violation of residential code due to no fault of their own. Currently the pressure reducing valve in the basement is at a 42% reduction to save the plumbing, appliances and fixtures which is a violation

[1] https://www.wwdmag.com/collection-systems/article/10938283/best-practice-pressure-management-systems

of residential code. If they dial it back to 20% as recommended, the pressure would be a minimum of 105 psi or higher, also violating residential code. The Operators Manual for the AO Smith hot water heater-Installation Instructions and Use & Care Guide *(See footnote)* states "Water pressure We recommend checking your home's water pressure with a pressure gauge (figure 4). Most codes allow a maximum incoming water pressure of 80 psi. We recommend a working pressure no higher than 50-60 psi….(highest water pressures often occur at night)." (See Footnote [2] for website link)
The Complainants and anyone residing in the (*PAWC"S exhibit 1*) Orange, Red or Maroon zones can not comply the requirements of the hot water heater installation guides based on the limitations of the 20% reduction requirement of the aforementioned "code". This causes an unsafe situation for anyone in those zone. Damage to property and or appliances within. This also causes into question the homeowners insurance coverage for not complying with all operators manuals and/or "code".

7) It is the responsibility of PAWC to provide and maintain a PRV on the inlet side (company side) of the meter. They have Class E Technicians on duty 24/7/365 on duty and would not cause a financial hardship, compared to the homeowner who can't find a plumber willing to tamper with PAWC's property. If the homeowner ***could*** find a plumber willing to proceed, it would be a financial hardship.

8) There are millions of dollars of Federal and State grants available to water utility companies for upgrades and improvements. (*see Matzel-Asay Exhibit* PENNVEST-2022 has $87 million available and in 2024 an additional $274 million. The grants "*will support drinking water projects to include rehabilitating aging systems, upgrading service capabilities"*
PAWC is a publicly traded company beholden to their shareholders. A cynical person could perceive PAWC's reluctance to reduce the water pressure could be a form of price gouging. Water pressure of 80psi has a much greater monthly volume of water used verses water pressure of 45 psi. In addition, since the meters were moved to the street, every time a service

[2] https://www.aosmithatlowes.com/media/1683/signature-100-series-standard-electric-100341465.pdf p. 7 Step 1- Water Pressure

line breaks it is now billable water averaging a years worth of water, more or less in one singular monthly billing cycle. When the meters were contained within the home, PAWC had no way to bill for the water loss. When the Claimants service line broke it was a loss of **20,800 gallons** in one month. $995.21 for 1 billing cycle. The normal usage is 22,800 for an entire year. One could question the reluctance of PAWC to install a simple Pressure Reducing deice at the curb stop.
A cynical person might believe the meters were moved to the street because service line breaks and flooding basements is additional revenue and good for PAWC's bottom line. This is not an accusation but an observation.
With grant money is available to PAWC for "*rehabilitating aging systems, upgrading service capabilities"* it should be utilized.

III. PROPOSED FINDINGS OF FACT

A. Meter Vault

1. Respondent, Pennsylvania American Water Company is a publicly traded water utility.

2. Pennsylvania American Water Company owns the pump stations, water mains, water distribution branches, meters and connections controlling the water pressure used in the transfer , distribution and billing/sale for the residential drinking water supply in the community of SawCreek Estates.

3. Saw Creek Estates is a residential community of approximately 5000 homes located in Bushkill and Lehman Township PA with steep hilltops and deep valleys.

4. Water pumping stations are located throughout the community in an effort to get water efficiently uphill to homes where water pressure would be insufficient without the necessary pressure.

5. Meters prior to 2023 were located within the confines of the home owners premises. Meters were moved from inside the structures throughout

the year of 2022-2023, and relocated to a buried meter vault with a depth of approximately 5 feet and a width of approximately 2 feet. Contained within the vault is the connection pipe, inlet riser, stop tap, water meter, outlet riser, water shut off valve and connection to customer service pipe.

5. The meter vault and it's contents are the property of Pennsylvania American Water Company up to and including the connection to the customers service pipe.

B. Parties

6. Louis Matzel is currently a professor of Behavioral and Systems Neuroscience and is employed by Rutgers University, New Brunswick NJ from 1991 to 2024. He served as Chair of the department.

7. Jodi Asay is a retired locomotive engineer employed by NJ Transit Rail Corp from 1999 to 2019. She was the Chaplain of Local 363 for the international organization Brotherhood of Locomotive Engineers. She is the wife of Louis Matzel.

8. Both parties reside in the community of Saw Creek Estates, Bushkill, Pa 18324.

9. Roger Pignotti- President/Owner of Millennium Plumbing located in Stroudsburg PA. Roger installed the whole house filtration system, PRV and gave the estimate for labor to install an additional pressure reducing device in the Meter Vault.

10. Kirk Bontempo Owner, Allstate Plumbing of Blakeslee PA excavated the 125-35' feet of broken service line and replaced it. He also installed a water pressure gauge and 2nd (dual) PRV on the incoming service line.

C. Non- Responsive to Customers Request

9. On June 22, 2022, a 3-stage whole house water filtration system was installed by our licensed plumber. Each stage has an independent water pressure gauge as a guide to show when filters need to be changed. After the devise was installed, the water was turned on. Each stage had identical readings of 143 psi. The plumber immediately noticed an emergency high water pressure situation and told me to call the utility hotline to report it. He said the pressure needed to be reduced on the service line to 80 psi. The plumber returned the next day to install a PRV inside the home but warned it was too much pressure. Either the service line, the connections (fittings) or the PRV would eventually fail under that much stress.

10. After the plumber left, later that day on June 22, 2022 a technician showed up to inform my my service line was rated for 150 psi and there was nothing to worry about. The complainant explained was the plumber said and he basically said there was nothing needed to be done and left. On Matzel Exhibit 1; page 1 the online "Service History" report says "Service Status Closed" with no notes of the problem or resolution. Just blank.

11. The Complainant contacted the plumber to explain what the American water technician said about the service line being rated for 150 psi. The plumber told me to call them back and escalate it to have another technician come back. Explain to that the water pressure needs to be reduced coming in from the street. Ask if a pressure reducing valve can be installed in the meter pit and offer to pay for it if thats the only way to get one put on.

12. On June 23, 2022, (the next day) another technician arrived and insisted there was nothing that could be done. It was the company policy that no pressure reducing devices can be installed on the company equipment. Again, in Matzel Exhibit 1; page1 the "Service History" report says "Service Status Closed with no notes about why the call was made or resolution.

13. On July 7, 2022 a 3rd attempt was made to escalate this matter to a PAWC supervisor. When Complainant spoke to PAWC Supervisor Kasey White, the plumber was there to discuss the importance of needing to control the water pressure coming in and asked if there were any suggestions on what could be done. Supervisor White explained we could either install a vault on

the homeowners property side 5 feet from the PAWC vault, or we could dig down to the service line and bury the pressure reducing valve underground. The Complainants plumber did not feel that either of these options were safe from an engineering aspect. Burying a PRV underground exposes it to moisture, dirt and corrosion with no way to inspect or maintain. In order to install a pit, it solves nothing. The excessive water pressure would still be on the customers side doomed for failure, with the 4 additional connections which are "weak points". A likely leak or break would be billable water. It was emphasized by Supervisor White that a pressure reducing valve could NOT be installed on any portion of their equipment not even if the homeowner paid for the additional service as inquired. Again, *Matzel Exhibit 1; page 1* shows no notes or resolution yet says "Service Status Closed".

D. Service Line Breaks as Predicted

14. On Nov 17, 2023, (*PAWC Exhibit 3)* a letter was sent by mail informing the Claimant that there was an unusually high water meter reading and it could be a leak. After checking all around the house for toilets running or interior leaks, all was normal.

15. December 11, 2023 the customer service hotline was called to have a technician come out in reference to the leak. PAWC dispatched a technician to do a leak detection and pinpoint where the leak was. He arrived later that day after calling and had no leak detection equipment on the truck. He explained that so much water had already been lost underground it would be impossible to pinpoint the source. It was suggested to have the entire line replaced. The online "Service History" report for December 11, 2023 shows "Inspect For Leak, Hi-Low Usage with no notes, "Service Status Closed".

16. Allstate Plumbing arrived with an excavation crew to replace 125 feet of service line plus more to connect inside the home from through the foundation. The owner Kirk Bontempo, knowing about the high water pressure situation, put a water pressure gauge on the outlet side of the service line with a secondary PRV to relieve some pressure on the first pressure reducing valve. It was explained that the secondary PRV or the numerous connections (fittings) are also subject to failure due to the extremely high water situation. Likely if something leaks or breaks it would be in the

basement. Total cost of the replaced service line was $8,636 plus damages to landscape and demolition of fencing.

E. Customers Can Not Conform To PAWC Regulations

17. Upon receiving exhibits it was unknown to the Complainants of the (PAWC *Exhibit 9; P..1)*- Supplement No 40 to Tariff Water- PA PUC No. 5- "Rules and Regulations". Reading "Water 4.3 Service Pipe Limitation", it states"No fixture shall be attached to or any branch made in the service pipe between the meter and the street main." If this is true, then a PRV can NOT be attached to the service pipe in the meter vault on the inlet or outlet side. This solution is clearly a violation of 4.3 Service Line Limitations. Anyone with a similar high water pressure can not get a resolution to reduce the pressure coming into their service line. It would be a violation that no plumber even if contracted would be willing to violate

18. The complainants due to no fault of their own, can not comply with *PAWC exhibit 9; P. 2)* Rules and Regulations 4.7 Pressure Regulators which states "When the static pressure is 100 lbs or more at the Customers premise, the Customer shall be responsible for the installation and maintenance of a pressure regulator or valve which shall be installed on the inlet side of the meter." The problem is, the inlet side of the meter is the company side. No one with a meter vault at the curb stop can comply with this regulation. It would be a violation that no plumber even if contracted would be willing to violate

F. Limitations of Pressure Reducing Valve and Appliances

19. According to our understanding, PA Residential Code mimics International Code unless otherwise revised or written. **International Association of Plumbing and Mechanical Officials:**(IAPMO) Water Pressure Excessive 608.2 (***see footnote***[3]) states "Worst-case pressure loss through a listed pressure regulator is presumed to be no greater than 20 percent; therefore, the water system is sized based upon 80 percent of the pressure regulator's "set" pressure…For example, a water system has a pressure of 100 psi. A pressure regulator will be installed and set at 80 psi.

[3] https://forms.iapmo.org/email_marketing/codespotlight/2018/Jan4.htm highlighted in blue

For sizing purposes using Table 610.4, the maximum pressure would be 64 psi, which is 80 percent of 80 psi.". Due to the limitations of a residential PRV, a customer is unable to safely comply with code while water pressure is constantly far above 100 psi.

20. Due to the limitations of a PRV as aforementioned, it is also a requirement of the AO Smith water heater (see footnote 2) to have water pressure recommended at 50-60 psi but no more than 80 psi. In order to preservice the internal plumbing appliances and fixtures, the pressure reducing valve is set at a 43% reduction, more than twice the recommended ***maximum*** reduction. It is likely if the PRV doesn't fail, the connections (fittings) anywhere between the meter vault at the street to the basement could unknowably be leaking or fail completely causing flooding and additional damage to the home.

21. Moen appliances, faucets, toilets, washing machines, dishwashers come with a maximum water pressure alert. (*see footnote*[4]) "**Water Pressure Over Recommended Max** is a warning alert related to the home water system experiencing consistently high water pressure over the maximum recommended amount of 80 psi." …. further "Universal Plumbing Code states that if the water supply is over 80psi, the installation of a ***Pressure Reducing Valve*** (PRV) is required.", yet the water pressure of 132 psi coming through the service line is too high for the residential home connections (fittings) and PRV to handle.

G. Pennsylvania's Safe Drinking Water Act

22. Pennsylvania's Safe Drinking Water Act (35 PS.. §721.1 et seq.) and regulations at Title 25 Pa. Code Chapter 109 is the authority for the DEP Public Water Supply Manual 383-2125-108 PART II Community System Design Standards Commonwealth of Pennsylvania.

23. The requirements contained within are NOT intended for the homeowner but are specifically for the water utility supply company.

---

[4] https://solutions.moen.com/Smart_Water_Security_Products/Help_Center/Flo_by_Moen_app/Water_Pressure_Over_Recommended_Max ; ¶ 1

24. (*Matzel Exhibit 5; p 5*) VII. FINISHED WATER STORAGE. - D. Distribution System Storage 1) 1. **Pressures;** clearly states **"**The maximum variation between high and low levels in storage structures providing pressure to a distribution system should not exceed 30 feet. The minimum working pressure in the distribution system shall be 25 psig and a normal working pressure should be approximately 60 psig. When static pressures exceed 120 psig, pressure reducing devices should be provided on mains in the distribution system."

24. *(Matzel Exhibit 5; p 6)* VIII. DISTRIBUTION SYSTEMS- B. System Design-**1 Pressure** states "All ***water mains***, including those not designed to provide fire protection, shall be sized after a hydraulic analysis based on flow demands and pressure requirements. The pipe system and its appurtenances shall be designed ot maintain a minimum pressure of 20 psig at ground level at al points in the distribution system under al conditions of flow. The normal working pressure in the distribution system should be approximately 60 psig."

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Louis Matzel, Jodi Asay	:	
	:	
V	:	Docket: C-2023-3045163
	:	
Pennsylvania American Water Company	:	

IV. SUMMARY

In summation, the Claimants have made every effort to resolve the situation amicably with no resolution. Initially, solutions proposed by PAWC such as 1) cutting into the service line on the customer side and burying it in the dirt is not in any code we could unearth or 2) making our own PRV underground vault on the customer side of the meter 5 feet away from the meter vault is not in any residential plumbing code the plumber or Complainant could find. The

Complainants plumber said in order to install a $125 part, it could cost up to $5000 when the purchase of a vault liner is factored in. Additionally, the multitude of connections (fittings) as explained are all considered weak points subject to leaks or failure. A separate vault would require connecting pipes to the service lines and 4-6 new fittings as well as insulation.

Professional plumbers are reluctant to do any work within the meter vault area due to it being the property of PAWC. Further, any work done violates PAWC's own Rules and Regulations making them potentially liable for legal

action. For these reasons, it is impossible for the Complainants to comply with residential code safely within their home.

The goal is to have one singular PRV within the home that can safely keep the water at the industry standard of 45-60 psi. Only then can water hammer be prevented, thermal expansion manageable, protection of the premises pipes and fixtures, foundation, furnishings and so on. Without that, the Customers are responsible and liable for not complying with residential code when considering the homeowner insurance policy coverage.

Good engineering practices must be implemented by way of either a pressure reducing zone or individual PRV at the curb stop. Grant money is available through PENNVEST if needed for upgrades and improvements.

An independent contractor with expertise in water pressure management for residential communities must be employed for honesty and integrity. They must report to The Commission their findings and recommendations for remediation. PAWC's high water pressure in "level" and "low lying" areas where water is being boosted causes **billable** leaks and flooding. A very lucrative billable problem that PAWC has proven to be reluctant to fix. Any damage they cause is "not their problem", "buy their insurance". (The insurance they sell doesn't cover property damage or pay the water bill). Home owners insurance doesn't cover the service line between the street and the home or damage to driveways, fences or landscape.

There is also an environmental impact when the Claimants 20,000 gallons released underground and did **not** surface. That's enough water to fill a 5' deep 20' x 30' swimming pool. That much water is pushing its way through rock in unknown directions, with chlorinated, chemically treated water making its way to fresh water streams, through wildlife habitats, possibly washing out foundations and sub-structures near and far. The Utility has a duty to make every effort to PREVENT service lines from breaking to conserve water and protect the environment instead of moving the meters to the street so they can bill the consumers for additional revenue/profit.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Louis Matzel, Jodi Asay	:	
	:	
V	:	Docket: C-2023-3045163
	:	
Pennsylvania American Water Company	:	

V. ARGUMENTS

A. Applicable Evidentiary Standards

1. Pursuant to , as the proponents of a rule or order, the Complainants have the burden of proof in this matter. To establish a sufficient case and satisfy the burden of proof, the Complainants must show that the respondent public utility is responsible or accountable for the problem described in the Complaint. Feinstein v. Philadelphia Suburban Water Co., 50 Pa. PUC 300 (1976).

2. The Commision has the authority to impose improvements according to 66 Pa. CS.. §1501, "Every public utility shall furnish and maintain adequate, efficient, safe, and reasonable service and facilities, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or

proper for the accommodation, convenience, and safety of its patrons, employees, and the public. Such service also shall be reasonably continuous and without unreasonable interruptions or delay. Such service and facilities shall be in conformity with the regulations and orders of the commission…"

3. Title 52, Chapter 65 § 65.6. Pressures.(a) *Variations in pressure*. The utility shall maintain normal operating pressures of not less than 25 p.s.i.g. nor more than 125 p.s.i.g. at the main, except that during periods of peak seasonal loads the pressures at the time of hourly maximum demand may be not less than 20 p.s.i.g. nor more than 150 p.s.i.g. and that during periods of hourly minimum demand the pressure may be not more than 150 p.s.i.g. A utility may undertake to furnish a service which does not comply with the foregoing specifications where compliance with such specifications would prevent it from furnishing adequate service to any customer or where called for by good engineering practices. *The authority of the Commission to require service improvements incorporating standards other than those set forth in this subsection when, after investigation, it determines that such improvements are necessary is not hereby restricted*. See ***Barone v. Pennsylvania Public Utility Commission*, 485 A.2d 519 (Pa. Cmwlth. 1984).** The same application should apply to water pressure that is excessively high as water pressure that is too low.

4. PAWC maintains that the water pressure is within the normal standards as outlined in the aforementioned Title 52 § 65.6. Pressures.(a). Although this is true, it does not absolve them of their responsibility when Barone v Pennsylvania Public Utility Commision 485 A.2d 519 (Pa. Cmwlth. 1984) is considered and applied. The complainants do not contest this fact, but can demonstrate there is case law in *Barone v* ***Pennsylvania Public Utility Commission, 485 A.2d 519*** that supports the Claimants request for necessary improvements.

B. Pennsylvania American Water Company has refused to comply with good engineering practices.

5. As exhibited in *Matzel Exhibit 1; p.1,* every attempt to resolve the problem up to and including the Customer Complainants paying for a pressure reducing device to be installed at the curb stop were not only ignored, but any

documentation of customer service calls were left blank in such a way as to not put anything in writing.

6. PAWC did not use any foresight by neglecting to update their rules and regulations (specifically PAWC Exhibit 9; p.2 ¶ 4.7 Pressure Regulators), as the inlet side is no longer on the Customers property, and instead in a locked meter vault owned by PAWC. Making matters more complicated due to the fact that even if accessible by the customer, the inlet side is now on the company. side connecting to the streets water main. Making the customer responsible for the water pressure coming in off the main is **not** logistically, financially or legally an example of good engineering practices.

7. Any proposed solution violates PAWC's own Rules and Regulations as depicted in *PAWC Exhibit 9; p.2, ¶ 4.3 Service Pipe Limitations*. "No fixture shall be attached to **any branch in the service pipe** between the meter and the street main." Any solution would be violating their own rules and regulations and could cause the Customer (or Complainant) in violation of this regulation. This is not an example of good engineering practices if the water utility refuses to help a customer when there is a legitimate need.

C. Service Line Broke Due To Age

8. PAWC claims the Claimants service pipe broke to to age however, in *Matzel Exhibit 4; p. 1-2* it demonstrates the following: "Publications andDig-up studies proving a 100+ year service life for PE pressure pipe systems… Polyethylene material developments started around 1953 with the first generations of PE40, PE50 and PE63; these materials have exceeded 50-70 years service life and are partially still in service….Many PE pipe systems have already exceeded the end of the specified design life point of 50 years, without any indication within the failure statistics maintained by the utilities of any age- related reason.' and continues, "Further examples of the longevity of PE pipes are given in this paper together with an assessment of latest generation pipe resins, showing potential for application extension to 100 years."

9. The Claimants home was built in 1983. With the aforementioned service life of 50-70 years for first generation service pipes, and in the latest generation of service pipes having a service life of 100+ years, the Claimant asserts their service

pipe was damaged by bottling a constant pressure of 125 psi and more with seasonal spikes. In addition, overnight when the majority of people are not using the water (relieving pressure throughout the day), the pressure tends to be higher.

10. A reading was taken mid-morning with documented pressure of 125 psi at the street and a reading of 132 psi inside the Claimants premises. The service pipe at the home was 3/8 inch with 150 psi maximum rating. To compare scenarios, a typical car has a rpm **maximum** rating of 8000 rpm. Normal vehicle operations are between 2500 rpm- 5000 rpm.. If a driver had the vehicle in "park" and mashed the pedal to the floor for 15 minutes straight at 7000 rpm (Not 8000 rpm max) that kind of abuse could severely limit the life of the engine. The PE service line is rated for 150 psi but only for spike situations,

VI. CONCLUSIONS AND RELIEF

A. *Conclusions*

The Pennsylvania Water Company has systemic issues throughout the community of Saw Creek Estates. As this case has worn on, the evidence has mounted in support of Matzel-Asay Complainants' claims. They alleged that the water pressure coming in from the curb stop is excessively high to the point it is unsafe. They are unable to rely on a common residential pressure reducing valve in the interior of their home and demonstrated the necessity of an independent investigation by an independent contractor to assess the systematic problem, submit written reports of pressure findings in low-lying areas and have cost effective solutions, both temporary and permanent.

The goal is to have the Complainants capable of **safely** complying with residential code requirements with one singular PRV within the home that can safely keep the water at the industry standard of 45-60 psi (no more than 80 psi). Only then can water hammer be prevented, thermal expansion manageable, protection of the premises pipes and fixtures, foundation, furnishings and so on. Without that, the Customers are responsible and liable for not complying with residential code when considering the homeowner insurance policy coverage.

A simple residential reducing valve from the hardware store does not solve the problem. The Claimants plumbers are concerned that the high water pressure's stress on the connects and PRV is to much to handle. It is unsafe to force the PRV to reduce the pressure 40-60% to meet recommended residential code requirements. The claimants assert that the PRV is making the problem worse. With an extremely high water pressure trapped between the meter at the street and the PRV in the basement with no source of relief, it is a problem in need of a solution. A very lucrative billable problem that PAWC has proven to be reluctant to fix. Any damage they cause is "not their problem" because its on the Customers side. The other solution that has been offered previous to this case was to "buy the service line insurance". (The insurance they sell only covers the service line and doesn't cover property damage or pay for the additional water billed). Home owners insurance doesn't cover damage to driveways, fences, or landscape due to a service line repair or replacement.

Due to the aforementioned, the claimants are requesting an independent contractor with expertise in water pressure management for residential communities be employed for honesty and integrity. PAWC's high water pressure in "level" and "low lying" areas where water is being boosted causing **billable** leaks and flooding. The Respondent has made every effort not to fix this lucrative problem. Because it is such a lucrative revenue producing problem, there is **no incentive** for the Respondent to remedy. In fact in is antithetical to their profit driven mission to satisfy the shareholders. Therefor, it is imperative for an independent contractor to oversee a safe and cost effective solution.

In addition, no customer of Pennsylvania Water Company can comply with their Rules and Regulations as written and require modifications and addendums.

Relief is needed and is in the Commission's hands.

B. *Relief*

(1) Pennsylvania American Water Company needs to immediately and without delay, install a pressure reducing device on the inlet side of the meter set to pressure of a recommended 60 psi or less , but no more than 80 psi at the premises of the Claimant.

(2) The Commission needs to have an independent contractor with residential water pressure expertise to:

a. be employed to review Pennsylvania American Water Company's operation of Saw Creek Estates community street water mains, curb stops and meter vault contents both externally and internally and for safety considerations from a water pressure risk point of view, taking into account the residential code requirements of the Customers premises.
b. make a written report on this review which includes a determination as to whether Pennsylvania American Water Company can safely operate the water distribution service and what remedial measures would be needed to ensure their safe operation, and

c. take effective measures to ensure water pressure at the curb stop coincides with the residential code of recommended 60 psi, no more than 80 psi. 100 psi maximum is allowable but not recommended. A 20% reduction can only reduce safely and according to exhibits produced for a common residential PRV. Recommended water pressure is 45-60 psi.
d.The Commission should oversee the independent contractor's review and retain jurisdiction through the independent contractor's review and reports.

(3) Pennsylvania American Water Company needs to modify its own Supplement No 40 to Tariff Water- PA PUC No. 5; 4. Service Pipes "Rules and Regulations" ¶ 4.7 as follows:
a. A Regulation for "meters located inside the Customers premise";
b. A Regulation for "meters located within a meter vault at the curb stop"
c. Strike/Delete/ Remove "When the static pressure is 100 lbs or more at the Customers premise, the Customer shall be responsible for the installation and maintenance of a pressure regulator or valve…"
d. Replace with "When water pressure is found to be above 100 lbs at the Customer premise, the Customer shall contact PAWC customer service for remediation".
d. An addendum for "How to contact the proper regulating authorities" including phone number and address "if PAWC fails to remediate water pressure of 100 lbs or more for more than 30 days after being reported to PAWC."
e. An email and print campaign for customer awareness, "How to tell and what to do if my water pressure is too high" with a phone number and email to contact, should be distributed immediately thereafter.

(4) The Claimants need to be compensated by Pennsylvania American Water Company directly for all deposition fees and mailing costs associated with the filings for this case.

(5) In an effort to elevate any monetary loss to Pennsylvania American Water Company should utilize funds available with PENNVEST for necessary repairs and system upgrades.

VII. PROPOSED ORDERING PARAGRAPHS

Complainants respectfully propose that the Commission enter an order with the following paragraphs:

And now, this __ day of _____, 2025, after having listened to many days of testimony and read and considered the evidence and briefs of the parties, I have determined that Pennsylvania American Water Company has been derelict in it's duties to provide safe drinking water by moving the water meters to the street without regard to it's own Tariff's Rules and Regulations or the customers right to have reasonable water pressure distribution.
In an effort to maintain integrity and safety for the customers premises, I hereby ORDER that:
(1) Pennsylvania American Water Company
granting it the right to provide water distribution in a safe and responsible manner by immediately and without delay, install a pressure reducing device on the inlet side of the meter set to pressure of a recommended 60 psi or less , but no more than 80 psi at the premises of the Claimant.
(2) The Claimants be compensated by Pennsylvania American Water Company directly for all fees and costs associated with compliance with said order.

Pennsylvania American Water Company shall be found to be non-compliant and in violation until this submission is approved by the Commission.

Additionally, Complainants respectfully propose that the Commission enter an order with the following paragraphs:
And now, this __ day of _____, 2025, after having listened to many days of testimony and read and considered the evidence and briefs of the parties, I have determined that Pennsylvania American Water Company has violated applicable state regulations under Title 25 Pa. Code Chapter 109; DEP Public Water Supply Manual 383-2125-108 PART II Community System Design Standards Commonwealth of Pennsylvania regulations governing water pressure integrity and safety, and accordingly I hereby ORDER that:

(1) The Commission shall begin a process to identify and hire an independent contractor with residential water pressure expertise to:
a. be employed to review Pennsylvania American Water Company's operation of Saw Creek Estates community street water mains, curb stops and meter vault contents both externally and internally and for safety considerations from a water pressure risk point of view, taking into account the residential code requirements of the Customers premises.
b. make a written report on this review which includes a determination as to whether Pennsylvania American Water Company can safely operate the water distribution service and/or what remedial measures would be needed to ensure their safe operation, and
c. take effective measures to ensure water pressure at the curb stop coincides with the residential code of recommended 60 psi, no more than 80 psi.
(2) The Commission shall oversee the independent contractor's review and will retain jurisdiction through the independent contractor's review and report.

(3) The Claimants shall be compensated by Pennsylvania American Water Company directly for all fees and costs associated with compliance with said order.

Pennsylvania American Water Company shall be found to be non-compliant and in violation until this submission is approved by the Commission.

Finally, Complainants respectfully propose that the Commission enter an order with the following paragraphs:

And now, this __ day of _____, 2025, after having listened to many days of testimony and read and considered the evidence and briefs of the parties, I have determined that Pennsylvania American Water Company has violated its own Supplement No 40 to Tariff Water- PA PUC No. 5; 4. Service Pipes "Rules and Regulations" ¶ 4.7 due to the fact that Customers can not comply with rules regulations governing water pressure as written, and accordingly I hereby ORDER that:

(1) Pennsylvania American Water Company modify its own Supplement No 40 to Tariff Water- PA PUC No. 5; 4. Service Pipes "Rules and Regulations" ¶ 4.7 as follows:

a. A new Regulation for "meters located inside the Customers premise";

b. A new Regulation for "meters located within a meter vault at the curb stop"

c. Strike/Delete/ Remove in all existing regulations "When the static pressure is 100 lbs or more at the Customers premise, the Customer shall be responsible for the installation and maintenance of a pressure regulator or valve…"

d. Replace with "When water pressure is found to be above 100 lbs at the Customer premise, the Customer shall contact PAWC customer service for remediation".

d. An addendum for "How to contact the proper regulating authorities" including phone number and address "If PAWC fails to remediate water pressure of 100 lbs or more for more than 30 days after being reported to PAWC."

e. An email and print campaign for customer awareness,, "How to tell and what to do if my water pressure is too high" with a phone number and email to contact and distributed immediately.

(2) The Complainant shall be compensated by Pennsylvania American Water Company directly for all fees and costs associated with compliance with said order.

Pennsylvania American Water Company shall be found to be non-compliant and in violation until this submission is approved by the Commission.

Respectfully submitted,

_____/s/____ _____/s/____
Louis Matzel and Jodi Asay

Dated: December 16, 2024