Exhibit No. 201

PSC – Exhibit 201
Differential Meter Test
File No. GC-2023-0143

Staff Exhibit #201

From: Johnson, Alexis
Sent: Tuesday, August 23, 2022 2:42 PM
To: Osborn, Charmion
Subject: RE: Cyril Wrabec

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon,

I requested clarification from the Large Volume Meters department and was advised the following:

"The 95.60% is not an accuracy measure. It is a percentage of the actual flow during the test as a percentage of the max flow for the meter. Meaning the test was conducted at 95.6% of the rated meter capacity. The differential test is performed at 3 different points to test the meter at different operating capacities of the meter. In this case, the meter was tested at 95.6%, 70%, and 48.93% of the meter capacity. This is done to evaluate the meter at a range of operational conditions measured as a % of the capacity of the meter.

This meter is a rotary meter., which uses machined rotors that open and close as they spin. Because they are machined surfaces that do not expand or contract, the volume that passes with each rotation cannot change. Only 3 factors can impact accuracy, debris in the rotors, damage to the rotors, or the bearings that drive the rotation deteriorate. All three of these conditions would show up as excessive difference in pressure drop during a differential test. The test results show that none of these conditions exist, which means that the meter is operating normally and by extension accurately because the volume passed during rotation does not physically change."

This is the same meter installed on 10/22/21.

Thank you!

Alexis Johnson
Community Service Partner

800 Market Street
St. Louis, MO 63101
800.887.4173 Office
314.250.4613Mobile

SpireEnergy.com.

spire

From: Osborn, Charmion <Charmion.Osborn@psc.mo.gov>
Sent: Monday, August 22, 2022 1:20 PM
To: Johnson, Alexis <Alexis.Johnson@spireenergy.com>
Subject: Cyril Wrabec

⚠ External email

Good afternoon Alexis,

According to the meter test results, if I'm looking at them correctly, the meter tested at 95.60%?

Also, is this the meter that was installed on 10/22/2021, or has this meter been replaced?

Thanks,

Charm Osborn
Lead Customer Service Representative
Missouri Public Service Commission
573-526-4572

ROMET

Meter Information (with Mechanical Module)		
Meter Size	RMT1500	(•) Mechanical Counter Module ( ) Electronic Counter Module
Badge Serial Number		
ROMET Serial Number		
Customer Name		
Installation Site		
Field Data		
Atmospheric Pressure [PSIA]	14.46	PSIA
Gas Line Gauge Pressure [PSIG]	2.00	PSIG
Differential Pressure [inWC]	**0.800**	inWC (60°F)
Gas Specific Gravity	0.600	
Uncorrected Flow Rate [Ft3/H]	1434.00	Capture Flow Rate
Index Reading at Starting		
Calculation Results		
Uncorrected Flow Rate [Ft3/H]	1434.00	ΔP Acceptance Result
Percentage of Max. Flow Rate (Recommended 15% to 100%)	95.60	**PASS - ΔP is within limit.**
Max. Allowable (ΔP) [inWC]	0.952	
Comments		
Tested By		Calculate Report Close
Date And Time	Aug-15-2022 13:20:05	

Meter Information (with Mechanical Module)		
Meter Size	RMT1500	◉ Mechanical Counter Module ○ Electronic Counter Module
Badge Serial Number		
ROMET Serial Number		
Customer Name		
Installation Site		
Field Data		
Atmospheric Pressure [PSIA]	14.46	PSIA
Gas Line Gauge Pressure [PSIG]	2.00	PSIG
Differential Pressure [inWC]	**0.500**	inWC (60°F)
Gas Specific Gravity	0.600	
Uncorrected Flow Rate [Ft3/H]	1050.00	Capture Flow Rate
Index Reading at Starting		
Calculation Results		
Uncorrected Flow Rate [Ft3/H]	1050.00	ΔP Acceptance Result
Percentage of Max. Flow Rate (Recommended 15% to 100%)	70.00	**PASS - ΔP is within limit.**
Max. Allowable (ΔP) [inWC]	0.569	
Comments		
Tested By		Calculate / Report / Close
Date And Time	Aug-15-2022 13:22:35	

ROMET

Meter Information (with Mechanical Module)

Meter Size	RMT1500	(•) Mechanical Counter Module ( ) Electronic Counter Module
Badge Serial Number		
ROMET Serial Number		
Customer Name		
Installation Site		

Field Data

Atmospheric Pressure [PSIA]	14.46	PSIA
Gas Line Gauge Pressure [PSIG]	2.00	PSIG
Differential Pressure [inWC]	**0.300**	inWC (60°F)
Gas Specific Gravity	0.600	
Uncorrected Flow Rate [Ft3/H]	734.00	Capture Flow Rate
Index Reading at Starting		

Calculation Results

Uncorrected Flow Rate [Ft3/H]	734.00	ΔP Acceptance Result
Percentage of Max. Flow Rate (Recommended 15% to 100%)	48.93	**PASS - ΔP is within limit.**
Max. Allowable (ΔP) [inWC]	0.341	
Comments		
Tested By		Calculate / Report / Close
Date And Time	Aug-15-2022 13:23:37	