PTFM 6.1 accurately measures flow where other flow meters have failed.

Overview

In an aquarium, no matter the size, an awareness of the water flow is important for the marine life that live there. At an aquarium in Georgia, they needed a flow measurement solution to prove if there were any leaks or open valves downstream of existing flow meters.

Is flow being reported accurately

To support the many species of wildlife in an aquarium, that aquarium needs water at very specific conditions. Each species requires a different water temperature, amount of water, and types of water - be it fresh or salt water. To get water from one point to another, it must flow through different pipes. The water flow always needs to be consistent to ensure the animals are supported in their habitats without concern.

The Aquarium in Georgia has flow meters distributed throughout the property, but there are a few gaps in how far those flow meters reached. This was a cause for concern as there is no guarantee that the readings on their existing flow meters were accurate. The team at the aquarium wanted to be certain that there weren't any flow leaks or an open valve downstream of the existing flow meters that would cause bigger problems in the future.

There were two critical points where flow needed to be verified. The first was the measurement of flow from the main water supply to the mixing tank. This mixing tank is where salt is mixed with fresh water to create the salt-water supply for the large animals in the viewing tank. The other critical measurement location was required to confirm the flow that was leading to the freshwater animals. Inconsistencies in these locations for the animals is important to be aware of so they can resolve the issue as soon as possible.

With these concerns in mind, the Aquarium in Georgia needed to find a solution that could accurately give flow measurements of the pipes. The Aquarium reached out to Pulsar Measurement's representatives in Georgia, AWC Inc., to help find the ideal solution.

Why choose clamp-on transit-time flow meters for this application?

There are a variety of flow measurement solutions available, but at the Aquarium, they needed something that would

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Aquarium in Georgia

measure the flow of clean water while also being able to read the flow through both copper and PVC pipe. With these parameters in mind, AWC Inc's Chuck Williams recommended Pulsar Measurement's PTFM 6.1 Portable Transit-Time Flow Meter.

As the aquarium has ongoing water flow, an inline electromagnetic meter would not be ideal as it would require a system shutdown to be installed. An insertion style meter would not be the best solution either as models designed for portability in different pipes typically have a percentage of scale accuracy and having a precise measurement on each application was one of the important parameters for the Aquarium. Since accurate flow needed to be measured at different points and on different pipe materials, a portable transit-time meter, like the PTFM 6.1, is ideal as you can move the meter and transducers as needed to verify flow.

The PTFM 6.1 is simple to install within minutes and can be used on all common pipe materials, like PVC, copper, steel, stainless steel, and ductile iron just to name a few. The SE16A, SE16B, and SE16C clamp-on transducers that come with the meter are suitable for nominal pipe sizes ranging from 15 mm (0.5 in) to 1,200 mm (48 in). Accuracy is typically 1% of reading. The built-in data logger stores and date stamps flow readings from 10-second to 60-minute intervals so you can monitor flows without being present at the meter. The flow rates and volume totals are also stored in a 24-hour daily report summary that can be easily viewed on the screen as well as downloaded via a USB drive. For supporting the animals in the Aquarium, the ability to have flow rates tracked and stored for an extended period of time helps to verify if there are any inconsistencies so that they can be resolved immediately.

Transit-Time Flow Meter proves to be successful.

The choice to move forward with the PTFM 6.1 was simple as it proved the flow rates without any issues. With the PTFM 6.1 being one of the newest products in Pulsar Measurement's portfolio, there was uncertainty from the Aquarium about how well the product would perform. The installation proved them wrong! The end-user at the Aquarium said this about the results of the product, "We are really pleased with the portable Pulsar Measurement PTFM. Great product. Worked better than expected." The team was so impressed by the results of the application that they purchased two PTFM 6.1's and plan to purchase three of our wall mount transit-time flow meters, the TTFM 6.1., later in the year.

Pulsar Measurement is pleased to have been able to offer the ideal solution for the applications at the Aquarium in Georgia. Chuck Williams with AWC Inc. echoed the excitement when we said, "It was a pleasure to work with the customer on this project. To have a great product to offer the customer makes my job rewarding. The result is exactly what the customer was looking for."

More Information

PTFM 6.1: https://pulsarmeasurement.com/ptfm-6-1

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