INDUSTRY LEAVE-BEHIND · WOOD PELLET MANUFACTURING

Why Your Pellet Plant Pays More for Water Than It Should — and How to Fix It

Water Flow Innovations LLC
Flow Conditioning Device (FCD)
waterflowinnovations.com

Your dust suppression, emissions control, and boiler/steam systems all draw from the same municipal supply — but your meter counts more than actually flows. **Spray system cycling, wet ESP wash-down bursts, and boiler feedwater makeup draws create the conditions for gas and vapor to form inside your meter — and you're billed for all of it.** *The FCD (Flow Conditioning Device) corrects the measurement. Your plant operations don't change. Your water bill drops — and so does your sewer bill, because sewer charges are calculated from the same inflated meter reading. One device. Two bills fixed.*

WHY PELLET PLANT WATER METERS OVER-READ

The Core Problem: Pellet Plants Run Intermittent, High-Velocity Water Demand Around the Clock

Wood pellet facilities draw metered water for dust suppression, emissions control makeup and wash-down, and boiler/steam systems — all from the same supply meter, on 24/7 production schedules. Each high-velocity demand event generates gas and vapor inside the meter. That registers as water volume. You pay for it on every bill, every month, across every system running simultaneously in your facility.

THE THREE OVER-READING SOURCES UNIQUE TO PELLET PLANTS

Dust Suppression Systems

Spray and misting systems at truck dumps, log yards, chip piles, and conveyor transfer points cycle on and off around the clock — creating high-frequency demand events that generate gas and vapor at the supply meter throughout every shift.

Emissions Control Wash-Down & Makeup

Wet ESP wash-down cycles and scrubber water makeup tied to dryer exhaust and pellet cooler emissions controls create periodic high-volume demand events — compounding dust suppression over-reading during every operating hour.

Boiler Feedwater & Steam Conditioning

Boiler makeup and steam conditioning demand at the pellet presses cycles with production load and startups — adding a third compounding over-reading source on top of dust suppression and emissions control demand.

The Sewer Bill Doubles the Impact — Even for Water That Never Entered a Drain

Municipal sewer charges are calculated as a percentage of metered water consumption. Every phantom gallon your meter over-registers generates a sewer charge alongside the water charge — even though that volume was never actually delivered. At a pellet plant with dust suppression, emissions control, and boiler systems all contributing to over-reading simultaneously, the sewer multiplier compounds the cost of every over-read event across every billing cycle. The FCD corrects the water meter reading, which automatically corrects the sewer charge on the same bill.

BEFORE & AFTER THE FCD

WITHOUT FCD

- ✗ Gas and vapor counted as water volume
- ✗ Dust suppression cycling inflates meter every shift
- ✗ Wet ESP & scrubber wash-downs compound over-reading
- ✗ Sewer charge tied to inflated meter reading
- ✗ Problem persists even after meter replacement

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WITH FCD INSTALLED

- ✓ Metered volume reflects water actually delivered
- ✓ Dust suppression demand reads more accurately
- ✓ Emissions control makeup measured correctly
- ✓ Sewer charge based on real water consumption
- ✓ Mill operations, pressure & output see no practical change

Up to 30%	46%	~1 Hour	90%
Typical water & sewer bill reduction	Highest documented single-site reduction	Install time — water off about 1 hour	Of customers reach full ROI in under 12 months

How the FCD Works — Four Steps

1. Installs immediately after your water meter, ahead of the PRV — water off about one hour
2. Creates a small, controlled back-pressure that extends back through the meter
3. Holds pressure up through the meter during demand surges, so far less gas and vapor form
4. Meter records closer to the water delivered. Bill drops. Dust suppression, emissions control, and steam conditioning see no practical change.

FREE SAVINGS ESTIMATE

Models your building's 24-hour flow profile. No contact info required.
waterflowinnovations.com/water-bill-savings-calculator

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CERTIFICATIONS

IAPMO · NSF/ANSI/CAN 61 · KIWA · GMP · SQF

Patented (AquaFlow Technologies, Inc.)
316L Stainless Steel · Made in USA
Under 0.8 psi pressure loss