



# The Pretreatment Times

## MISSION STATEMENT

The mission of the Industrial Waste & Backflow Compliance (IWBC) Unit is to protect the City’s freshwater resources and wastewater treatment plants by enforcing local, state, and federal regulations governing wastewater discharges to the City’s wastewater and stormwater collection system.

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## REMINDER



### SEMI-ANNUAL COMPLIANCE REPORT DUE JULY 31, 2024

- Ensure all paperwork is included to avoid incomplete reports.
- Complete all reports at least 10 days before due date to allow for mailing time. Reports **MUST BE RECEIVED** by PWD by the due date.
- Make sure you mail your report to the correct Permit Administrator (PA).
- The mailing address for your Semi-Annual Compliance Report is:

Baxter Water Treatment Plant  
9001 State Road  
Philadelphia, PA 19136

<https://water.phila.gov/pool/files/industrial-waste-semiannual-compliance-report.pdf>



## FOAMING: CAUSES AND SOLUTIONS

Per PWD regulations section 501.3 (19), "...any wastewater which, alone or in conjunction with any other discharges, causes foam anywhere in the Treatment Plant or its effluent" is considered a violation, and can incur fines or other enforcement actions

Foam reduces the efficiency and effluent quality at a Wastewater Treatment Plants, and has three main causes [1]:

- Chemical foaming, usually caused by surfactants, which reduce surface tension and allow bubbles to form
- Biological foaming occurs when large populations of certain bacteria produce filament like waste, serving as a base layer for foaming
- Solids foaming, caused by suspended solids being aerated, either by pretreatment equipment or changes to chemical balances

All three of these can cause foam in the Treatment Plant, and if any foaming is observed in your facility's discharge, you must notify PWD and take steps to correct the issue.

- ◆ Chemical foaming agents, most of which are categorized as surfactants, are common in detergent and cleaning agents [2]
- ◆ If your facility uses large volumes of these chemicals, double check your discharge for foaming, and consider defoaming agents

- ◆ Bacteria responsible for biological foaming often survive on a diet of fats, oils, and greases [2]
- ◆ Properly treating for these compounds will help to eliminate biological foaming, and keep your system cleaner at the same time

- ◆ Solids foaming is more likely a byproduct of suspended solids being aerated by pretreatment equipment [1]
- ◆ Typically, routine equipment cleaning and maintenance can solve this issue, but if you observe persistent foaming, defoaming agents or chemical balance changes could be effective

**IMPORTANT:** Any changes to your pretreatment system, including but not limited to new chemicals in the discharge, require prior approval and possibly an amended permit from PWD. Contact your permit administrator for more info

[1]Butteris, Jalen. "Types of Wastewater Foaming." Aquafix, May 8, 2023. <https://teamaquafix.com/types-of-wastewater-foaming/>.

[2]Collivignarelli, Maria Cristina, Marco Baldi, Alessandro Abbà, Francesca Maria Caccamo, Marco Carnevale Miino, Elena Cristina Rada, and Vincenzo Torretta. 2020. "Foams in Wastewater Treatment Plants: From Causes to Control Meth-

## “FLUSHABLE” WIPES

During the Covid 19 pandemic, the EPA put out a statement advising that, “Flushing anything other than toilet paper, including disinfecting wipes, can damage internal plumbing, local sewer systems and septic systems” [1]. This PSA still holds today, personal hygiene projects such as baby wipes, can create fatbergs that cause major damage to the sewer system. Even wet wipes comprised of fibers such as cotton, rayon, or wood pulp can have a similarly harmful impact on sewers and the environment [2]. Ideally, a wipe should only be considered flushable if it is made entirely of biodegradable bio-based fibers without any nondegradable components that could affect sewage infrastructure and freshwater ecosystems [2]. However, chemical additives are used in “flushable” wipes to improve strength and prevent microbial growth, leading to poor degradation and possible leaching into the surrounding environment [2].

### Federal, State, and Local Regulations

The Wastewater Infrastructure Pollution Prevention and Environmental Safety Act (WIPES Act) passed the House on 6/11. This act requires producers of “antibacterial wipes and disinfecting wipes”, “wipes intended for general purpose cleaning”, and “wipes intended for personal care use on the body” to clearly label their products with, “Do Not Flush” [3]. WIPES would be enforced by the Federal trade commission and trump any state regulations [3].

Washington, Oregon, California, Colorado, and Illinois have passed similar “Do Not Flush” label requirements. However, California requires, “wipes manufacturers to conduct a public education campaign about flushing wipes” [4]. Hawaii and Massachusetts are also in the process of passing their own laws, Massachusetts with a similar model to California, and Hawaii looking to ban the sale of wipes labeled flushable [4]. The only information available relevant to Pennsylvania is the DEP guiding against using these wipes

Discharges to city sewer system which cause obstruction to the flow in the sewer or interference is a violation of PWDR Section 501.3(b)(2) General Discharge Prohibitions: “No person shall contribute the following substances to any POTW: solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater treatment facilities...”. This regulation applies to all users regardless of their specific pretreatment regulations.

[1] Environmental Protection Agency. (2020a, March 30). *EPA Encourages Americans to Only Flush Toilet Paper*. EPA. <https://www.epa.gov/newsreleases/epa-encourages-americans-only-flush-toilet-paper>

[2] Thomas Allison, Benjamin D. Ward, Michael Harbottle, Isabelle Durance, Do flushed biodegradable wet wipes really degrade?, *Science of The Total Environment*, Volume 894, 2023, 164912, ISSN 0048-9697, <https://doi.org/10.1016/j.scitotenv.2023.164912>. (<https://www.sciencedirect.com/science/article/pii/S0048969723035350>)

[3] Text - H.R.2964 - 118th Congress (2023-2024): Wastewater Infrastructure Pollution Prevention and Environmental Safety Act. (2024, June 12). <https://www.congress.gov/bill/118th-congress/house-bill/2964/text>

[4] Three states introduce wipes bills. Default. (2023, March 1). <https://www.nacwa.org/news-publications/news-detail/2023/03/01/three-states-introduce-wipes-bills#:~:text=Washington%2C%20Oregon%2C%20California%2C%20and,%20flushed.%>

