Toilets are not a bin!

Wet wipes and personal care products are not flushable materials



Rue du Luxembourg 47-51, B-1050 Brussels, Belgium Tel: +32 (0)2 706 40 80 Fax: +32 (0) 2 706 40 81 BE 0416.415.357 secretariat@eureau.org www.eureau.org

1. Context

Waste water operators are facing increasing operating problems and added costs resulting from the presence of personal care products in sewers. This is not new, as personal care products (such as cotton buds, sanitary towels, pads, make-up and baby wipes, ...) are regularly found in drains, sewer systems and screenings at waste water treatment plants. Until recently, the problem of personal care products in screenings has been manageable, but this has changed as wet wipes declared by manufacturers as "flushable" and sold as such, are marketed to replace toilet paper, not to talk about others wet wipes sold to easily clean sanitary ware, kitchen, soils, glasses, etc.

Wet wipes are increasingly found in the sewer networks across Europe and cause many problems in the management of waste water For example, wet wipes in sewers severely disrupt the operation of facilities for collection, pumping and treatment of urban waste water, significantly increase the number and cost of maintenance of these facilities and have a negative impact on compliance with various EU directives.

Current voluntary producer industry standards for flushability are not considered strict enough for the wastewater utilities.

2. Technical impacts and implications for the water environment and the compliance with EU directives

Wet wipes are usually made of long-fibre non-woven cellulose and/or plastics. Therefore, they do not completely disintegrate (or do not disintegrate in enough short time) in the waste water that passes through sewers (unlike conventional toilet paper). Wet wipes and other personal care products cling to any bend, junction or obstacle in the sewer and there coalesce to form highly resistant solid compact masses.

The consequences of a build-up of wet wipes in the sewer include: barriers to flow making the sewer choke; clogging the screens of pumping stations, even with large meshes, clogging pumps and inhibit electronic sensors and when pumping stations fail to operate effectively there may be impacts when untreated sewage spills (see illustrations below). Clogged domestic pipes are also reported.

These various disturbances increase the frequency of maintenance of facilities, require the frequent, and often unexpected, recall of the maintenance teams and lead to bypass

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works, which on the one hand, prevents the transport of the entire the pollution load to the site of treatment, the wastewater treatment plant (**Directive 91/271 - Obligation to collect and treat urban waste water**) and, on the other hand, leads to the release of non-treated effluent in receiving environment (**Directive 2000/60/EC - Obligation to achieve good status for all water bodies**) which ultimately can affect the quality of bathing water (**Directive 2006/7/EC - Obligation to protect bathing water**).

Since a waste water treatment process cannot have an 100% efficiency, even if clogging in the system and at the treatment plants doesn't occur, a part of the fibres is transferred to the environment, causing water pollution.

During storm events, the phenomenon is accentuated. Overflow in combined sewers is then discharged into waterways. During these overflows and the cleaning of pipes resulting from high flows of rainwater, wipes and other solid waste in sewage are discharged into rivers and sees and can affect the good status of those waters (Water Framework directive and Directive 2008/56 - Establishment of a Community strategy for the marine environment).

Solutions as grinding waste before screening and pumping are tested by some waste water operators but the question of the fate of these crushed wastes in the water bodies is still open. In addition, some of the ground waste will be settled in the sludge, main result of waste water treatment, and will jeopardize the sustainability of the use of sludge in agriculture as this way requires a "product" free of these residues (**Directive 2008/98** - **In hierarchy of sludge use, agricultural use is to promote**). Part of the ground waste is not treated by the sewerage works, is still present in the treated water and finally discharged in the seas and oceans (**Directive 2008/56** - **Establishment of a**Community strategy for the marine environment), jeopardising marine litter policies approved recently.

Finally, the use of wet wipes in the households does not fit the European policy on waste whose purpose is to gradually reduce the amount of waste and give an hierarchy of waste management, in order (scale Lansink): prevention, re-use recycling, recovery, disposal (Directive 2008/98 - Reduction of waste at source).

For all of the above reasons, EurEau believes that the disposal of wet wipes and personal care products to the sewer inhibits compliance with European directives and Europe's aspirations for a clean water environment.

3. Financial Impacts

Monitoring, maintenance and cleaning requirements have increased with the increase in wet wipes in sewers. Much of this cleaning is manual labour. Facilities clogged with wet wipes lead to operational constraints and significant additional operating costs, primarily in terms of labour, waste disposal and premature replacement of equipment such as pumps and equipment parts, which are increasing the cost of waste water treatment which is paid for by European citizens or water consumers.

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All operators of waste water systems emphasize that the exact additional cost of the presence of wipes sewerage is difficult to assess precisely. However, EurEau collected some information about the additional costs associated with the presence of wipes in the sewer networks, pumping station and treatment plants.

The total cost in Europe, including waste disposal, can be assessed to 500-1,000 millions of euros per year, supported by municipalities and waste water companies to handle this increasing problem (based on current usage and disposal patters of wet wipes and personal care products. If usage increases and behaviour does not change to divert waste to the bin, then these costs will increase).

Similar problems and costs are identified in Canada and USA. These costs are significant and represent funds that are being diverted from other investment in order to maintain the operation of the sewerage networks across Europe. It is clear that wet wipes in sewer networks induce annual additional cost that can be avoid by appropriate legislation.

4. Social impacts

Beyond the technical, environmental and financial problems, there is a high risk of evolution of public's behaviour to consider toilets as an easy way to get rid of its waste. It is necessary for citizens to keep in mind that these products are a solid waste and that sewers are not a final solution for solid waste. This is all the more worrying that some intimate hygiene wipes aimed directly at young children and that some packaging fosters kids to flush wet wipes in the toilets after use.

One must also mention some initiatives from water operators to raise public awareness on problems related to the flush of these products in the sewers (see list below).

Inappropriate disposal of wet wipes and personal care products down the toilet may also result in some terrible consequences for water consumers as private pipes and drains within properties can become choked, causing untreated waste water to flow back into peoples' homes. When this happens, the impact on homes and possessions may cause much distress. The costs of these impacts are separate from the costs noted above and fall to individuals.

Changing behaviour of citizens across Europe to ensure that personal care products and wet wipes do not enter the waste water system is a vital part of the process to ensure that costs of waste water treatment do not go up and that citizens are protected from the impacts of chokes on the sewer network.

5. Conclusions and EurEau position

Wet wipes and personal care products are a solid waste and toilets are not a bin. Managing problems caused by wet wipes in sewers has a cost, finally supported by the drinking water consumer through its water bill. Water being essential for human life and health, water operators are committed to ensure the best protection of the water

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environment but also to maintain this cost as affordable as possible. Avoiding unnecessary costs by preventing solid waste in sewer participates to these goals.

EUREAU fully supports all initiatives from national or European authorities for any kind of legislation, regulation or technical norms to prohibit the sale of wet wipes, personal care or sanitary products that are presented as "flushable" as this is an inappropriate disposal route for solid waste products.

We would support all initiatives from national or European authorities for campaigns to educate consumers and change behaviour, so that disposal of wet wipes and personal care products is via the bin (not the toilet) is fully socialized and normalized.

Some examples of websites about non-flushable products in sewers and treatment plants:

www.scottishwater.co.uk/cycle

http://www.nietinhetriool.nl/?nieuws=wat-doe-je-met-vezeldoekjes-nagebruik

http://www.riool.net/thema-s/communicatie/vochtige-doekjes

www.klobal.at/ooe

www.doodpadu.cz

www.bvk.cz/zakaznikum/odpovedi-faq/co-do-kanalizace-nepatri

http://www.svensktvatten.se/Mitt-Vatten/VAD-KAN-DU-GORA/

http://www.wessexwater.co.uk/customers/threecol.aspx?id=718

http://www.pytty.fi/pytty/aineistot

https://www.youtube.com/watch?v=X-FB46km7bo&feature=youtu.be

http://news.wef.org/maine-wins-epa-award-for-wipes-campaign/

About EurEau

EurEau is the voice of Europe's water sector. With a direct employment of around 500,000 people, the European water sector makes a significant contribution to the European economy.

EurEau represents drinking water and waste water service providers from 27 countries in Europe, from both the private and the public sector. Our members are the national associations of water services in Europe.

At EurEau we bring national water professionals together to agree European water industry positions regarding the management of water quality, resource efficiency and access to water for Europe's citizens and businesses.



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