



Update on Flushable Wipes — Dispersible vs. Flushable

By Nick J. Arhontes and Ingrid Hellebrand, Orange County Sanitation District



Senior Mechanic Gilbert Padilla conducting clog-prevention rounds at Orange County Sanitation District's pump station

WE ORIGINALLY REPORTED to the PNCWA on the issue of "Dispersible vs. Flushable" in February 2010. Since then we've been reaching out across the nation collaborating and finding out what others are experiencing and documenting. We're sharing what we're learning in an effort to come up with sustainable solutions. Unfortunately, dealing with the problems of nondispersibles is a growing trend that other public agencies across the nation, and even in other parts of the world such as in Europe, are experiencing and speaking up about.

Here at the Orange County Sanitation District (OCSD) in Fountain Valley, California, nonwoven paper towels and the "advertised as flushable" wipes are the bulk of what is causing clogs at our pump stations and debris loading at plant headworks facilities. As one example: In 2010–2011, we conducted 971 preventative or corrective de-ragging maintenance calls on 10 of our 15 pump stations. Total labor cost: \$320,000. We continue to expend labor to avoid clogging that could lead to a sewer spill. Now our crews routinely remove nondispersibles every

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Monday and Thursday from our three hardest-hit stations.

As another example: On August 13, 2012, the equivalent of 40 large trash bags of nondispersible materials overburdened our new headworks and completely plugged three new washer compactors. It took six to eight hours and up to 10 plant employees to restore normal operations.

Our operations and maintenance costs are going up. Spending more public agency money to reengineer the problem away by installing new machinery is not a viable solution and can raise long-term operating costs. For example, installing grinders can help prevent clogging; but the remaining residue may exacerbate a settling problem in force mains or the treatment plant.

DISPERSIBLE VS. FLUSHABLE

This is what it boils down to. In 2008–09, the Association of the Nonwoven Fabrics Industry (INDA) developed and published the Flushability Assessment Guidelines. The three criteria outlined for

“flushability” are that material flushed must: 1) be able to clear toilets and properly maintained drainage systems under expected product usage conditions; 2) be compatible with existing wastewater conveyance, treatment, reuse and disposal systems; and 3) be unrecognizable in a reasonable period of time and be safe in the natural receiving environments.

It all sounds good—but here’s the catch. The three-part Assessment is a voluntary guideline. Furthermore, there has been difficulty in developing a precise standard for consistently evaluating the ambiguous attributes for what denotes “compatibility,” “unrecognizable,” and “reasonable period of time.” We advocate that these attributes be clearly defined, and standards be developed to consistently evaluate products. Then an independent third-party verification process could be used to certify compliance with the Assessment and products labeled as “Safe to Flush” or “Do Not Flush.”

In the interim, INDA unveiled a new “Non-Flushable Symbol” at the “World of

Wipes” Conference 2012 in Chicago <http://www.inda.org/issues-advocacy/flushability/>. INDA encourages its members to use the “No Flush” symbol to label products that manufacturers deem to be non-flushable. But again, these are voluntary guidelines and there are no size, color, or disposal instructions required at this time.

ATTEMPTS AT LEGISLATION

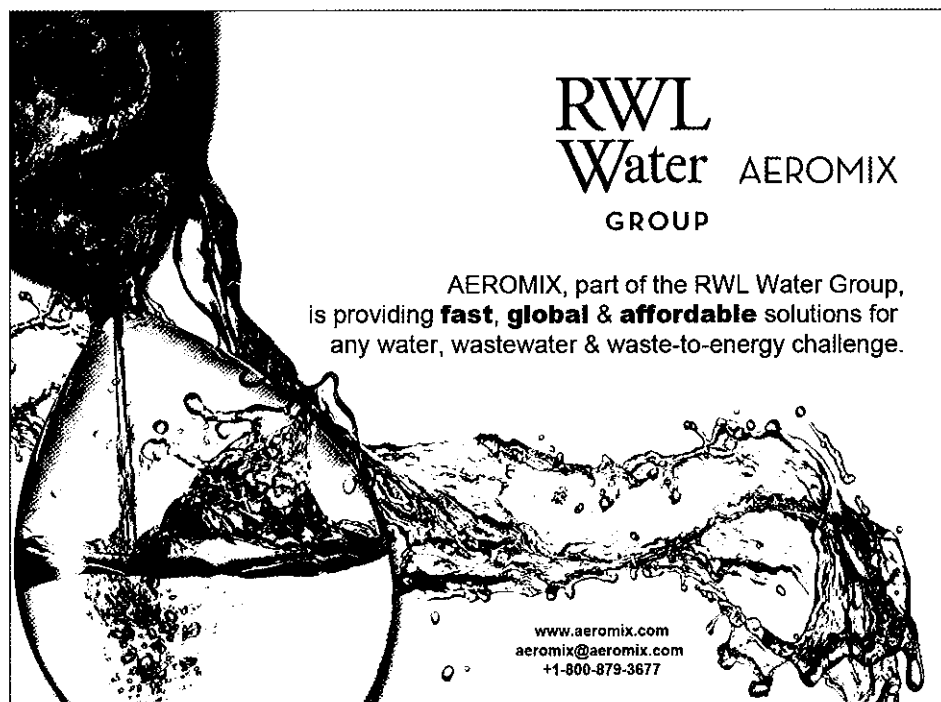
The wastewater industry’s strongest hopes and areas of advocacy are to support state legislation. In 2010, California Assembly Member Jared Huffman introduced legislation (AB 2256) to amend the state’s Health and Safety Code to require labeling and third-party verification of flushability and dispersibility, and more rapid dispersibility. The bill was placed on hold at the request of INDA. In 2011, Maine became the second state to introduce legislation (LD 781) establishing standards for consumer products advertised as flushable. This bill was also placed on hold in 2012, but has follow-up action items stipulated that are continuing into 2013.

CALL TO ACTION

It’s back to basics. In 2012, OCSD launched our new public education campaign called “What2Flush.” It’s a simple reminder; the toilet is only meant to flush the three P’s—pee, poop, and toilet paper. Everything else belongs in the trash.

Until we can get the nonwoven product manufacturing industry to come up with specific standards for testing and require consistent product labeling—approved by the wastewater industry—public education is our best defense in helping to alleviate the problem of clogged sewer lines and pump stations, and impacts on treatment plants. Reengineering substrate material so “flushable” items disperse more rapidly is also an option and occurring in Europe.

On the offense, we all need to join forces and demonstrate what’s happening on a national scale. The American Public Works Association (APWA), and the National



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Association of Clean Water Agencies (NACWA) are working with the Water Environment Federation (WEF). PNCWA CSC members are encouraged to help by:

- Conducting simple characterization studies to determine the cause and composition of clogs and identify the material responsible. The Maine Wastewater Control Association's

"Standard Operating Procedure for Evaluation of Materials in Pump Clogs and Sewer Obstructions" is a good sample of standardized methodology (*see link below*).

- Collecting and documenting all costs (labor hours, preventative/corrective maintenance events, equipment repair/replacement, debris hauling fees, sanitary overflow fines, etc.).

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TO LEARN MORE—LINKS TO IMPORTANT REFERENCE MATERIAL

National Association of Clean Water Agencies (NACWA) —2012	First to host a website where information is posted as a resource to other agencies regarding nondispersibles. Site includes: videos, studies, media coverage, educational material, presentations, and industry awareness thank you letters.	www.nacwa.org/flushables
Maine Wastewater Control Association (MWWCA) —2012	"Standard Operating Procedures for Evaluation Materials in Pump Clogs and Sewer Obstructions"	www.mwwca.org/PumpClogSOP.pdf
New England Water Environment Association (NEWEA) —2013	NEWEA published a position paper on "Management of Non-Dispersibles in Wastewater" (<i>soon to be posted</i>)	www.newea.org/Resources/GovernmentAffairs/PositionPapers/tabid/389/Default.aspx
United Kingdom Water Industry Research Limited (UKWIR) —2012	"Best Practice for National Communications—Responsible Use of Sewers" <i>Report 12/CU/02/12</i>	www.ukwir.org/ukwirlibrary/94930
	"Test Protocol to Determine the Flushability of Disposable Products" <i>Report 12/WM/07/16</i>	www.ukwir.org/ukwirlibrary/95043
Orange County Sanitation District (OCSD) —2012	OCSD launches new public education campaign called What2Flush.	www.What2Flush.com
Association of the Nonwoven Fabrics Industry (INDA)	"Flushability Guidance Document" (2 nd Edition 2008) (<i>3rd Edition is in development and due out for comments by Summer 2013</i>)	www.inda.org/wp-content/uploads/2012/02/Flushability_ES.pdf
European Disposables and Nonwovens Association (EDANA)	EDANA is the international association serving the non-wovens and related industries.	www.edana.org
TAPPI	TAPPI is the leading association for the worldwide pulp, paper, packaging, and converting industries.	www.tappi.org
Household and Personal Products Industry (HAPPI)	HAPPI is the leading media outlet in the global personal care and household product market	www.happi.com
National Sanitation Foundation International (NSF)	An internationally recognized third-party testing and certification company based in Michigan	www.nsf.org