Dear IWSFG Group;

On behalf of INDA, the Association of the Nonwoven Fabrics Industry, I would like to submit comments for the "***IWSFG Standard 1:2017***" for flushable products. If any of the explanations are unclear please let me know and I will do my best to clarify. Although INDA has chosen to respond via this public comment process, it in no way endorses the overall conclusions, methods, or pass/fail criteria chosen by the IWSFG.

While I have provided detailed comments on each individual document provided by the IWSFG, there are a number of overarching thoughts, outlined below, that must be considered:

- The documents released by the IWSFG clearly invoke copyright protection, however, some of the published information is owned by others including INDA. Although there are representative citations within several of the bibliographies, these citations are incomplete and are not an appropriate substitute for permission to use information verbatim from another source. Some of the passages used within these methods have been copied directly from the INDA/EDANA ***Guidelines for Assessing the Flushability of Disposable Nonwoven Products***, Third Edition, ©2013. To the best of our knowledge, this information was used without permissions from the copyright holders, INDA and EDANA, and subject this document to possible copyright infringement challenges. We trust you will correct this situation prior to publication of any further documents.

- In much of the information supplied by the IWSFG related to these test methods, the acronym PAS (Publicly Available Standard) is used. The acronym is defined by the IWSFG, however, it has another meaning as defined by two standards body organizations – the British Standards Institute (BSI) and the International Standards Organization (ISO). In the case of BSI and ISO, the PAS acronym stands for Publicly Available ***Specification*** and denotes a very specific document that follows a clear process defined by these organizations. References are supplied below:
    - https://www.iso.org/deliverables-all.html?type=pas
    - https://www.bsigroup.com/en-GB/our-services/developing-new-standards/Develop-your-own-fast-track-standardization-document/?_ga=2.58436067.89679266.1501525113-1375165505.150039352

  Of concern to INDA is the potential for inadvertent misrepresentation of the IWSFG documents as having been vetted through a process involving a national standards body like BSI or ISO, the latter of which includes a "public comment" provision where comments are visible to all. Clearly this is not the case, and although the IWSFG references a group of renowned global wastewater experts, other pertinent stakeholder groups are not represented in the development of these methods. In addition, these documents are referenced throughout as "standards", when in reality they are at present guidelines, much as other flushability guidance documents currently available (for example, the INDA/EDANA 3rd edition guidance document and the UK "SNAP" protocol – both referenced within the text of your methods).

- INDA would like to understand why, after more than a year of negotiations and discussions, the 2nd edition (2017) of the "*Code of Practice: Communicating Appropriate Disposal Pathways for Nonwoven Wipes to Protect Wastewater Systems*" (CoP) was not adopted by the IWSFG. Industry in North America and Europe as well as the major wastewater associations from the US and Canada have accepted these labeling guidelines. To reinvent these labeling practices after the work done to develop them seems a bit short-sighted by the IWSFG. Of major concern is the potential confusion created for manufacturers and retailers who have already adopted the CoP.

- In development of "standards", validation and verification data is required to insure the methods under development are of a quality required to become a standard. There are a variety of procedures referenced within ISO and Six Sigma which describe validation methods such as gage repeatability and reproducibility as well as determination of accuracy and precision. In order for the public to assess the quality of these methods as precursors for standards, it is necessary to provide validation testing results. We believe that CWWA (the Canadian Water and Wastewater Association) understands this, which is apparently why they are trying to raise money to convert these IWSFG methods into Canadian standards (please note the "Immediate (Short Term) Expenses" in the following letter - http://www.cwwa.ca/pdf_files/MESUG_support%20letter.pdf). We would kindly request that the IWSFG share any data that might shed light on these validation attributes. Data such as this should have been generated and shared during the public comment period, not after.

- Although we acknowledge that these tests are, for the most part, useful for the analysis of sheet, or sheet-like materials (like some tissue and paper products, and wipe-like materials made from woven or nonwoven substrates), they are not designed for a broader array of materials. For each method proposed by the IWSFG, there are pass/fail criteria which are purported to define characteristics of a "flushable" product – these characteristics are, in essence, linked to the types of products described above. It would be wise for the IWSFG to limit the scope of their methods rather than attempt to capture a universe of materials and products.

- Over a period of many years, conversations with experts in the water services group have led us to believe that a majority of issues and concerns in wastewater systems revolve around pumps. INDA is concerned that there are no methods defined within the IWSFG guidelines which focus on pump performance. Although tests using pumps are difficult to run, INDA members believe it is critical to include this pathway in the testing scheme to directly investigate interactions of "flushable" materials with pumps (see FG503 and FG507 in the 3rd edition industry guidelines). A direct test method to investigate a physical property is almost always more desirable than an indirect method that requires correlations to be developed.

- In analyzing the pass/fail criteria and testing parameters for each of these methods, we are left somewhat at a loss to understand why these particular values were chosen. Could the IWSFG highlight the linkage to wastewater systems and provide a more in-depth explanation as to why? It would appear that the pass/fail criteria presented are based more on supposition than derivation from direct experimentation and data. Would it not be possible to use existing infrastructure to develop and run experiments to help identify what the critical parameters are to create a truly compatible material. Interestingly, interlab testing using these IWSFG methods shows failure of some toilet paper samples. Is toilet paper incompatible with wastewater infrastructure? It would seem reasonable for water services experts to want to determine the real cause of impacts to their systems, and not create a set of test methods and pass/fail criteria that are so stringent even toilet paper is defined as incompatible.

- In reading through these documents, it was surprising to see a large number of simple mistakes and errors, not only in inconsistent content, but also in language and formatting. If there is a second draft made available of the IWSFG guidelines, it would behoove your organization to adequately proofread the documents before publication. Because of the poor presentation and organization of these documents, the credibility of the IWSFG is brought into question.

Finally, INDA and its member companies view the issues faced by public utilities seriously. Our position is very simple – wipes passing GD3 and marketed as "flushable" are not the cause of the issues experienced by wastewater. Materials that are flushed that were never designed to be flushed are the primary cause of clogs and problems faced within wastewater infrastructure. Our hope is that someday in the very near future, water experts from organizations around the world will realize more can be done working together than apart. The focus of the IWSFG should be redirected to dealing with the problems faced by municipalities rather than taking aim at materials that have not been shown to be problematic.

Regards,

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: IWSFG Standard 1: 2017 – Criteria for recognition as a flushable product. (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	16	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has neither the expertise nor the authority to define what is meant by "socially responsible" and "environmentally sustainable". At best, this can be stated as an opinion of the IWSFG.	Remove statement or reword to reflect this is an opinion of the IWSFG.	
	107–110			TE	In fact, many natural cellulose based products cause issues in treatment systems. Facial tissues, paper towels, cotton rags – all are natural cellulose based and all are incompatible with treatment systems. In addition you have an entire document, PAS 1 that calls to question "chemicals" included in these products but here you imply they are acceptable.	Remove lines 107-110.	
	114-116			ED	Setting down the criteria for the quality and characteristics of products is not what these test methods do. The purpose of these test methods, based on reading the methods, is to define product attributes that result in wastewater infrastructure compatibility.	Remove these lines.	
	117-118			ED	Including words describing what these guidelines are not is inappropriate. Stick to the specific definition about infrastructure compatibility.	Rewrite.	
	127	Section 3		GE	The scope of this document is unusually broad. There are many products that are designed to be flushed that are in no way appropriate for these guidelines. Examples include disinfecting and cleaning products (liquids and gels). A	Refine the scope to include only those material systems that can actually be tested using these methodologies.	

1 Adapted from the ISO/IEC Commenting template. 2 Te = Technical, Ge = General, Ed=Editorial

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					recommendation would be to tighten the scope of this document to include only those products that would be appropriate to test using these methodologies.		
	181	Section 6.2		TE	Regarding three different disintegration tests, has the IWSFG done any comparison studies to determine if there are correlations between the three methods ? If an entity can use any of the three, then it must be assumed that there is a correlation and that each test is essentially measuring the same property.	Provide an assessment that shows a correlation between the three separate test methods. Otherwise, choose a single method and move forward with it. If it is the intent of the IWSFG to identify specific tests for different regions of the world, then that should be stated within the text along with the regions identified for each method.	
	183-219	Sections 6.3 and 6.4.		GE	The process to be used for certification, outside of the need for an ISO accredited third party laboratory to do the testing, is unclear. Please provide more details including names and addresses of accredited laboratories, specific procedures required by these guidelines and the lab, timing between certifications, indications of change management protocols, etc.	In many other certification processes, there is a detailed protocol available to the laboratory and the product holder. That is lacking in this document.	
	200-201			GE	The meaning of this statement is unclear. Please elaborate.	I am unsure what the IWSFG believes "dispersible" is a euphemism for. Please be more clear in identifying the meaning and the intent of this statement.	
		Section 6.4.2		GE	Since there is no prescriptive requirement for labeling nonconforming products, the IWSFG must be aware that industry will be required to interpret the meaning of these statements.	Recommendation would be for the IWSFG to adopt the INDA/EDANA Code of Practice Edition 2 for labeling nonflushable products. This document has already been agreed to by NACWA, WEF, CWWA, APWA, INDA and EDANA and its members and is in place in Europe and NA.	
		Section 7		ED	Comments associated with the individual criteria for each test method will be made in that particular section.	Insure that any changes made within the individual test methods are reflected within this section.	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: Comments PAS 0 – Terms and Definitions (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	13	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has neither the expertise nor the authority to define what is meant by "socially responsible" and "environmentally sustainable". At best, this can be stated as an opinion of the IWSFG.	Remove statement or reword to reflect this is an opinion of the IWSFG.	
	199			TE	The discussion of biodegradable should be removed from this document. Although there is a standard dictionary definition of biodegradable, there are also a variety of definitions based on how the term is used from a marketing and claims perspective. (See FTC language in Green Guides for example.) Since there is no additive value in this document, the NOTE should be removed.	Remove NOTE on biodegradable.	
	204–210			ED	Change text as described. Remove notes 1 and 2. The operational definition can be made within the text of the test method … it is out of context in the terms and definition section.	Change text to, " a process in which a product weakens, loses integrity, and breaks into smaller parts as a result of exposure to physical forces and/or biological activity."	
	212-214			TE	Confusing definition.	Use "A dimensionless quantity used in fluid mechanics to help predict flow patterns in different fluid flow situations, such as transitions from laminar to turbulent flow in pipes."	
	231-234			ED	Confusing wording.	Change text to, "substances used within or on the substrate, such as bonding agents or lotions, to achieve an intended purpose including improved wet strength, smoothness, disinfection, or topical treatment." Remove the added note.	
	235-238			TE	Dry Tissues. This definition is nonsensical for use to describe "dry tissues" such as toilet paper and	Please use an alternative and more appropriate	

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					facial tissues. The ISO Source mentioned describes “absolute dry timber”. I believe you are referring to articles that do not contain added moisture or lotions to differentiate from a “wet wipe” or “moist toilet tissue”.	definition.	
	240-242			TE	Semen and mucus are not considered excreta. Feces, urine, and sweat are considered excreta. Semen and mucus are not “waste products”.	Remove mention of semen and mucus in this definition.	
	244-257			GE	The definition of a “flushable product” here seems circular since it would appear that this entire document is for defining what flushable is. I would suggest this definition be removed. Alternatively, a definition of “Flushable” Product could be made whereby the term flushable can be defined as a marketing term meaning a product which is intended to be disposed of via a toilet … . This would be as opposed to a flushable material which in many media articles appears to be defined as something that can pass through a toilet.	Remove definition.	
	260-261			TE	Most materials have some level of moisture present. Where does “free of moisture” come from in defining a moist tissue ? Applied substances are defined. Remove Note.	Please use an alternative and more appropriate definition.	
	311-320			GE	Definitions such as these should be made within the test method. Individual test methods may have different definitions associated with these terms.	Remove 5.4.1 and 5.4.2. Define within the test methods.	
	334-338			ED	This is not a definition but an instruction. Should be made clear within the test method and not in the definitions section.	Remove definition. Define within the test methods.	
	340-341			TE	Improper use of terms rayon and lyocell. Rayon and Tencel are brand names. Viscose and Lyocell are processes used to make those fibers.	Use this definition adapted from Wikipedia. “Regenerated cellulose is a class of materials manufactured by the conversion of natural cellulose to a soluble cellulosic derivative and subsequent regeneration, typically forming either a	

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						fiber (via polymer spinning) or a film (via polymer casting). Processes include the viscose process and the lyocell process." There may be better definitions included in comments from the manufacturers of these fibers like Lenzing and Kelheim.	
	345-346			ED	There is no reason to cite an ISO reference for a definition of "specification", especially when the citation is for windows and doors.	Remove line 346.	
	348-354			ED	There is no definition currently in the text. Put the specific unit size requirements within each test method.	Use, for example, "A unit size is a predetermined size of material used within a test method. Different materials each have different unit sizes."	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 1 – Environmental Health and Safety Requirements (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	**Line number** (e.g. 17)	**Clause/ Subclause** (e.g. 3.1)	**Paragraph/ Figure/ Table/** (e.g. Table 1)	**Type of comment[2]**	**Comments**	**Proposed change**	**Observations of the secretariat**
		Entire Document		GE	Numerous arguments are made throughout this comment sheet related to the inappropriate nature of this section of the IWSFG Guidelines. Although INDA is certain that the IWSFG makes many of these requirements with the best intentions, they are either regulated by others, outside of the areas of expertise of IWSFG members, based on unsound or incomplete science, or able to be dealt with in performance tests in one of the other documents.	Remove PAS 1 from the suite of IWSFG test methods.	
	14	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has neither the expertise nor the authority to define what is meant by "socially responsible" and "environmentally sustainable". At best, this can be stated as an opinion of the IWSFG.	Remove statement or reword to reflect this is an opinion of the IWSFG.	
	63, 86	Purpose, Principles		TE	There are several issues with the stated purpose of this document. First and foremost, the IWSFG has neither the authority nor the expertise to define what characteristics are harmful to the environment and public health. There are a significant number of people in several federal agencies who spend their careers defining these parameters and manufacturers of products that fall within the scope of this document are subject to their requirements. Second, by assuming the responsibility inherent in this statement, the IWSFG and any 3rd party certifiers who sign up for this put themselves at legal risk – if a product is knowingly using a prohibited substance and causes some level of harm, and this standard/certifier doesn't capture it –	The purpose of this document should be reexamined in totality. Using this as a passive mechanism to insure products meet regulatory requirements in states or countries where they are subjected is the most an organization like the IWSFG can do. These requirements should be removed from the certification process.	

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					that could result in a significant legal problem.		
	68	Section 3		GE	The scope of this document is unusually broad. There are many products that are designed to be flushed that are in no way appropriate for these guidelines. Examples include disinfecting and cleaning products (liquids and gels). A recommendation would be to tighten the scope of this document to include only those products that would be appropriate to test using these methodologies.	Refine the scope to include only those material systems that can actually be tested using these methodologies.	
	92	7.1		GE	It seems nonsensical to include a section that prohibits banned substances from products. By definition they are ***banned***. If a substance is banned in a particular country where a product is being sold, then by definition that substance is not allowed to be in that product. This falls well outside the purview of the IWSFG and these guidelines. The processes companies go through to verify and validate the health and safety aspects of their products far exceeds the nature of the requirements set forth by the IWSFG. The IWSFG has neither the expertise, experience, nor the authority to mandate these requirements.	Section 7.1 should be removed.	
	97-98			TE	Per Annex 1, the list of regulated chemicals across the world would fill volumes and falls well outside the expertise of many laboratories to test for all of them. Government agencies do a good job of regulating this – TSCA, FDA, REACH, DSL, etc.		
	101-102	7.2.1		TE	The term plastic in this context is improper. Per IUPAC (International Union of Pure and Applied Chemistry), the definition is: "Generic term used in the case of polymeric material that may contain other substances to improve performance and/or reduce costs. ***Note 1: The use of this term instead of***	A definition like: Plastic = "a man-made polymeric material that is wholly derived from petroleum based chemicals, or that is incapable of biodegrading in a suitable test like PAS 5A or 5B"	

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					polymer is a source of confusion and thus is not recommended. (emphasis added) Note 2: This term is used in polymer engineering for materials often compounded that can be processed by flow." ("Terminology for biorelated polymers and applications (IUPAC Recommendations 2012)" (PDF). Pure and Applied Chemistry. 84 (2): 377–410. 2012. doi:10.1351/PAC-REC-10-12-04.) Since cellulose is also a polymeric material, an alternative word or phrase should be used. (Recommend definition that was recommended in ISO TC224 WG10.)		
	103-105			TE	Use of the TAPPI/ANSI 401 om-15 method is problematic in determining quantitative analysis of regenerated cellulose in nonwoven samples. Even within the scope of the referenced test method it is stated that "this method provides a procedure for the identification of the kinds of fibers present … and their quantitative ***estimation*** … (emphasis added)." Can IWSFG provide any data or analysis to indicate the level of uncertainty in an "estimation" using this method ? It can also be gleaned that analysis must be carried out by skilled laboratory personnel who must "make frequent use of standard samples of known fiber composition". Who will be supplying those samples to laboratories and how will those samples be verified ?		
	124-125			TE	The detection of a single "synthetic fiber" being a cause for failing the sample is unreasonable and clearly shows a lack of understanding of concepts such as contamination. In a study conducted by Johns Manville in the early 90's, organic fiber detection within a testing lab were found to be at a level of 0.01 fibers/cc (ref https://www.camfil.com/FileArchive/_10_Camfil_Message_CamTab/Air%20Quality/Air%20Filtration%20	Re-evaluate the critieria associated with zero tolerance for synthetic fibers.	

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					Media%20Evaluations%20of%20Fiber%20Shedding%20Characteristics.pdf) . Although this does not sound like a high level, in a typical 1000 sq ft building with 10 ft ceilings, there can be upwards of 3 million fibers floating in the air !!! This opens up significant chances for contamination. If the intent is to move forward with a zero criteria for this analysis, then testing labs will need to work with samples in Clean Room environments (for a good reference as to how "clean" a clean room actually is, https://en.wikipedia.org/wiki/Cleanroom).		
	106-117			TE	The conclusion made in this note provides reasons in and of themselves, why putting a limit on use of regenerated cellulose in nonwoven based materials is nonsensical. Many of the polymeric fibers found in the marine environment come from laundering of textiles. There is no data given in this document or elsewhere that can link regenerated cellulose type fibers found in the marine environment to nonwoven wipe based substrates; however, there is ample data and evidence that these same fibers will decompose in biodegradation tests in wastewater sludge. In addition, the evidence cited in reference 2 (from line 174) actually points to the fact that cellulose based materials degrade readily in the gastrointestinal tract of most marine species. Cellulose is a natural chemistry that is found in all plant-based life in the ocean. Specifically in lines 108-110, the statement is made "While it is believed that many of these fibres come from washing clothes … there is apparently no reason why flushable products cannot be produced with satisfactory qualities for use and with reduced levels of this material." How can a simple statement like this be used to drive an entire industry to remove a raw material ? Another way to state this	It is strongly recommended that the IWSFG remove all references to regenerated cellulose.	

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					would be to say, we know that your raw material isn't really what we see causing the problem, but there's no reason why you shouldn't stop using it.		
	124-126				Based on this language, a single fiber defined as "synthetic" and not regenerated cellulose is enough to create a fail for the sample. What data can IWSFG provide in the ability of a laboratory to adequately differentiate between a regenerated cellulose fiber and a "plastic" fiber ? If a single "plastic" fiber can disqualify a sample then there must be complete differentiation between the two types of fiber in the analysis.	Provide references to the level of false positives provided in this analysis.	
	137	7.5			There is no basis for including this section in the document. There are numerous laws and regulations dealing with these items. Adding them to guidelines designed for flushable hygienic materials is inappropriate and outside of the purview of this group. In addition, including language like this in a document that will never be reviewed by hospitals or the like is confusing and confounding to the true nature of these guidelines. If the authors of the IWSFG guidelines wish to develop standards referring to these items, a separate document would be suggested. As examples of items that are routinely flushed that fall under this "list": Infectious waste – blood and saliva are flushed ALL the time. chemicals – hydrochloric acid, sodium hypochlorite, sodium lauryl sulfate, citric acid (all components of toilet bowl cleaners); Cr, Ni, Cd, Pb, Cu, Se, Sn, and Zn are all heavy metals that are currently found in sludge – some of these are necessary in the human diet;	Remove Section 7.5.	

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					radioactive waste – patients who undergo PET scans among other cancer treatments and analyses must urinate and in many instances the urine of those patients is radioactive … for other cases see this reference - (https://rpop.iaea.org/RPOP/RPoP/Content/InformationFor/HealthProfessionals/3_NuclearMedicine/TherapeuticNuclearMedicine/TNM_GeneralPublic.htm#TNM_GenPubFAQ05) There is no argument that sharps, bandages, old pharmaceuticals, etc., should not be flushed – however, this is not the forum to take up this issue.		

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 2A – Toilet Clearance (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	14	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has neither the expertise nor the authority to define what is meant by "socially responsible" and "environmentally sustainable". At best, this can be stated as an opinion of the IWSFG.	Remove statement or reword to reflect this is an opinion of the IWSFG.	
	85	Section 3		GE	The scope of this document is unusually broad. There are many products that are designed to be flushed that are in no way appropriate for these guidelines. Examples include disinfecting and cleaning products (liquids and gels). A recommendation would be to tighten the scope of this document to include only those products that would be appropriate to test using these methodologies.	Refine the scope to include only those material systems that can actually be tested using these methodologies.	
	100-101			ED	Confusing. Compared to Section 5.4 there seems to be some inconsistency. 5.4 requires 1 or max recommended. 5.1 requires 2 with no reference to max recommended.	Rewrite to generate consistency within the two sections.	
	102	5.2		ED	Is this for toilet paper ? It shows in the figure but not in the text.	Rewrite to clarify.	
	131-134			ED	Is this statement necessary ? Does anyone use wastewater to flush their toilet ?	Remove note.	
	153-154			GE	Unacceptable burden on test labs. Not all laboratories will have access to all materials – even those materials that are available in the market place.	Reassess the material acquisition requirements in your test methods.	
	170-171			GE	Removing samples, placing them into five stacks,	Reword to provide consistency within Section 8	

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					and then pulling individuals from all five stacks precludes materials from being tested "immediately".	Preparation.	
	180-183			ED	Redundant. Unit size is specified in section 5.3.	Remove lines 180-183, redundant.	
	184-187			GE	Inconsistent with section 8.2. It's impossible to remove all the wipes, separate them into 5 piles, remove an individual wipe from each pile – then test immediately and not leave the wipe exposed "for any length of time".	Reword to provide consistency within Section 8 Preparation.	
	197-198			ED	What is a "normal level" ? Must be prescriptive. Should the bowl be marked ? What happens if the water is not at a normal level ?	Define normal level and what to do if the bowl is not at a normal level.	
	200-202			ED	Periodically is not prescriptive enough. Each test ? Once a year ?	Define periodically.	
	206	9.1		GE	Inconsistent with lines 170 – 171. Opening a package and then storing them precludes the use of a material immediately.	The IWSFG needs to rethink the sample strategies within these documents. Alternative procedures need to be developed if all of the various options are to be consistent.	
	223	9.2		GE	Inconsistent with sections 9.1 and 8.2	See prior comments.	
	237	10.2		ED	Location of test steps (239-250) and Notes (252-268) are very confusing in this section. Referencing #'s when the notes section and main section are both separated into numbers creates confusion.	Modify notes with lettered bullets.	
			Table 1	ED	First observation and procedure columns are confusing. If the sample clears the bowl, the next step is an empty flush ? Or is it as in line 266 which calls for a repeat of steps 2 – 5 which does not call for an empty flush ?	Rewrite for consistency.	
	280-282			TE	How does a laboratory determine presence of "fiber-binding chemicals" versus lotions or other applied substances on the wipes ?	None. Need guidance from IWSFG.	
	284-287			GE	Calculation is redundant and unnecessary. If a	Remove calculation.	

1 Adapted from the ISO/IEC Commenting template. 2 Te = Technical, Ge = General, Ed=Editorial

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					sample requires more than three flushes, it fails. What's the point of calculating a percentage if a single fail constitutes a sample fail ?		
	323			ED	As before, the term periodically is not prescriptive enough for a test method.	Define periodically.	
	353-355			ED	You mention that lumber can be found to mount the toilet, yet the images show piping.	It may help the testing organization if a set of detailed plans were made available to build a platform like this … and maybe two, one from lumber and one from pipe.	
	359			ED	There should also be an image of a bottom drain toilet.	Add appropriate image(s).	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 2B – Drain Line Settling Test (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	14	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has neither the expertise nor the authority to define what is meant by "socially responsible" and "environmentally sustainable". At best, this can be stated as an opinion of the IWSFG.	Remove statement or reword to reflect this is an opinion of the IWSFG.	
	83			GE	This appears to contradict other statements within this series of documents. Is this applicable to countries other than the UK ?	Clarification required.	
	84	Section 3		GE	The scope of this document is unusually broad. There are many products that are designed to be flushed that are in no way appropriate for these guidelines. Examples include disinfecting and cleaning products (liquids and gels). A recommendation would be to tighten the scope of this document to include only those products that would be appropriate to test using these methodologies.	Refine the scope to include only those material systems that can actually be tested using these methodologies.	
	100-101			ED	Confusing. Compared to Section 5.4 there seems to be some inconsistency. 5.4 requires 1 or max recommended. 5.1 requires 2 with no reference to max recommended.	Rewrite to generate consistency within the two sections.	
	124-127			GE	Is this statement necessary ? Does anyone use wastewater to flush their toilet ?	Remove note.	
	129	7		TE	If this test is only to be used in the UK, no comment. If this test is to be used in other areas where a bottom draining toilet is used, specifics around the set up for that system needs addressed.	More information required.	

1 Adapted from the ISO/IEC Commenting template. 2 Te = Technical, Ge = General, Ed=Editorial

IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]	**Document reviewed: PAS 2B – Drain Line Settling Test (INDA SUBMISSION)**	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	131-136			GE	Since it is necessary to visualize the samples inside the drain line, should the use of "clear" plastic pipes be specified ? The images in the Annex do not appear to be clear, although they may just be dirty.	Clarification required.	
	134			ED	"a 20 m long PVC drain line 10 cm (4 in) constructed of joined …" makes no sense.	Is the 10 cm dimension meant to be a diameter ?	
	137			ED	There is no photo A.1.	Add photo A.1.	
	148-149			GE	Unacceptable burden on test labs. Not all laboratories will have access to all materials – even those materials that are available in the market place.	Reassess the material acquisition requirements in your test methods.	
	167-168			GE	Removing samples, placing them into five stacks, and then pulling individuals from all five stacks precludes materials from being tested just after removing them from the pack. "Specimens must also be removed just before the start of testing."	Reword to provide consistency within Section 8 Preparation.	
	177-180			ED	Redundant. Unit size is specified in section 5.3.	Remove lines 177-180, redundant.	
	181-183			GE	Inconsistent with section 8.2. It's impossible to remove all the wipes, separate them into 5 piles, remove an individual wipe from each pile – then test immediately.	Reword to provide consistency within Section 8 Preparation.	
	199-201			TE	The location of the "***start***" of the start of measurement should be prescriptive (and shown specifically in a photograph).	Please provide further clarification.	
	205-207			ED	There is no Photo A.4. There is no snagging equipment in this test.	Please provide further clarification.	
	213			GE	From time to time is not valid in a test method. Specify.	Specify time period.	
	217	9.1		GE	Inconsistent with lines 166 – 168. Opening a package and then storing them precludes the use of a sample right after removing from the package.	The IWSFG needs to rethink the sample strategies within these documents. Alternative procedures need to be developed if all of the	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
						various options are to be consistent.	
	235	9.2		ED	Running a sample through 2A is not conditioning the sample prior to the actual test. It is actually part of the test.	Remove Section 9.2.	
		10.2	Table 1	TE	After reading and rereading the procedure several times, it becomes very confusing. There are 5 samples but 10 flushes – this is more clear in Table 1 but not in 10.2. In addition, the instructions call for using 2A - "simply flush the toilet in conformity with that test". That test allows for multiple flushes for a single article to clear the bowl. Test 2B does not. How do you reconcile movement of articles down the drain line if you allow the 2A protocol to be used – which can use up to 3 flushes per article to clear a bowl without a fail. But in this method, it would appear that only a single flush is allowed to remove the sample from the bowl ?	In general, there are inconsistencies between lines 250 – 269 and Table 1. The instructions in lines 250 – 269 imply multiple samples are in the pipe at once. Table 1 implies one sample all the way through, then the next sample. Wording needs to be changed to clarify If there are to be multiple products in the drain line at one time, then the procedure for 2A, which allows for multiple flushes per sample needs reconciled with this method.	
	280-282			ED	Flasks or sieve surfaces ?	There are no flasks or sieves used in this method.	
	293-294			GE	If a single sequence where a product does not exit after five flushes is considered a fail, why is a percentage required ?	Remove.	
	323-329			TE	Periodically is unacceptable. Says gradient should be 1 degree. Earlier in the text (line 135) it indicates a 2% slope.	Define periodically. Please be consistent with terminology.	
	328-329			ED	There is no Section 6.1.		
	347			ED	You mention that lumber can be found to mount the toilet, yet the images show piping.	It may help the testing organization if a set of detailed plans were made available to build a platform like this … and maybe two, one from lumber and one from pipe.	
	350			ED	There should also be an image of a bottom drain toilet.	Add appropriate image(s).	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 2C: Drain Line Snagging (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	5	Copyright Notice		GE	As stated in the cover letter, the IWSFG has taken certain liberties to claim copyrights on materials that are already copyrighted by other organizations. In particular in this document, Annex's 4, 5, and 6 have a considerable amount of information copied verbatim from the INDA/EDANA Supplementary Guidance Documents © 2013 - sections SG001, SG002, and SG004.	The IWSFG should provide proper references and statements that show the use of copyrighted material in this document has received the proper permissions.	
	15	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has neither the expertise nor the authority to define what is meant by "socially responsible" and "environmentally sustainable". At best, this can be stated as an opinion of the IWSFG.	Remove statement or reword to reflect this is an opinion of the IWSFG.	
	105 – 108			GE	A sharp screw seems to be a bit overkill for a snag. Have other methods of determining a "snag" been investigated ? A blunt dowel, a flexible piece that resembles a root, an actual burred or uneven pipe might be interesting to test. Is there data on the number of snags and types of snags present in the wastewater systems ? Does one type of snag result in a larger number of clogs ? Has any data every been collected on the relationship between snags and clogs ?	If the IWSFG has data that compares a variety of "snag mimics", it would be advantageous to provide a reference in the Annex. If there is no data, maybe the WSFG could focus some effort on developing a series of experiments where these items are examined and compared to a screw. This is only a suggestion since this is not a mandatory testing document.	
	110	Section 3		GE	The scope of this document is unusually broad. There are many products that are designed to be	Refine the scope to include only those material	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					flushed that are in no way appropriate for these guidelines. Examples include disinfecting and cleaning products (liquids and gels). A recommendation would be to tighten the scope of this document to include only those products that would be appropriate to test using these methodologies.	systems that can actually be tested using these methodologies.	
	130-131			ED	Confusing. Compared to Section 5.4 there seems to be some inconsistency. 5.4 requires 1 or max recommended. 5.1 requires 2 with no reference to max recommended.	Rewrite to generate consistency within the two sections.	
	159-162			GE	Is this statement necessary ? Does anyone use wastewater to flush their toilet ?	Remove note.	
	169			ED	“a 20 m long PVC drain line 10 cm (4 in) constructed of joined …” makes no sense.	Is the 10 cm dimension meant to be a diameter ?	
	172			TE	In a quick review of a common “hardware and plumbing outlet” I was able to find 49 different self-tapping screws, all being at least 12mm in length, and all, most likely, considered “common”.	Please specify (thread size and length at a minimum) unless you can present data that would show there is no difference from one type to another.	
	183-184			GE	Unacceptable burden on test labs. Not all laboratories will have access to all materials – even those materials that are available in the market place.	Reassess the material acquisition requirements in your test methods.	
	201			GE	Removing samples, placing them into five stacks, and then pulling individuals from all five stacks precludes materials from being tested immediately after removing them from the pack. “Specimens must be removed immediately before testing begins.”	Reword to provide consistency within Section 8 Preparation.	
	207-210			ED	Redundant. Unit size is specified in section 5.3.	Remove lines 207-210, redundant.	
	211-213			GE	Inconsistent with section 8.2. It’s impossible to remove all the wipes, separate them into 5 piles, remove an individual wipe from each pile – then test	Reword to provide consistency within Section 8 Preparation.	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					immediately.		
	230-232			TE	The location of the "***start***" of the start of measurement should be prescriptive (and shown specifically in a photograph).	Please provide further clarification.	
	237-238			TE	There will be a certain width associated with the "flow path" based on the volume of water present at any one instant. Should the screw be in the middle of the flow path, on the edge of the flow path, does it matter ? If there are differences based on whether the snag is directly at the bottom of the pipe, or slightly on an angle, would it not be prudent to investigate different placements ?	Please clarify.	
	240-242				Statement requires location of screws at a distance from the toilet. Is this a horizontal distance, measuring from the center of the toilet, or a distance measured along the pipe length which would take into account the height of the toilet (which could result in a difference of 40 cm) ?	Please clarify.	
	255			GE	From time to time is not valid in a test method. Specify.	Specify time period.	
	257	9.1		GE	Inconsistent with line 201. Opening a package and then storing them precludes the use of a sample immediately after removing from the package.	The IWSFG needs to rethink the sample strategies within these documents. Alternative procedures need to be developed if all of the various options are to be consistent.	
	273	9.2		ED	Running a sample through 2A is not conditioning the sample prior to the actual test. It is actually part of the test.	Remove Section 9.2.	
	290-292			TE	Instruction in this step is confusing. Should the product be in the 4.5L of water, or should it be somewhere else in water (how much) and then poured into the drainline followed by the 4.5L ? Since the action of a toilet is difficult at best to mimic using a funnel and a bucket, and since this instruction is confusing, it may be easier to not	Remove 290-292 – do not allow this to be an option.	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					make this an option.		
	290-310			TE	This is very confusing as written. Points of clarification needed: 1) Step 6. Should it read repeat steps 2 to 5 ? 2) Step 8. Repeat the test sequence 10 times – which is 10 individual specimens. After five flushes for each specimen is that specimen removed ? 3) There are no requirements within these 8 steps or in the Table to actually collect anything, yet Section 10.4 requires weighing of all sample residuals. Weighing what ? Material that remains on the snag ? Material that is recovered at the end of the drainline ? Is this per sample or for all 10 samples ?	Clarify	
	325-326	10.4(a)		TE	This is in direct conflict with the acceptance criteria in 10.4(b) and in Section 11.	Clarify	
	327-332	10.4(b)		TE	If this method is all about snagging, then why is it required to look at sieve size ?	Remove sieve requirements.	
		Section 10			Instructions are very confusing in general. The instructions mention: Flush sequences. Flush actions. Test sequences. Round of testing. It is not clear what meaning is associated with each word. In 10.3 – upon termination … is a round of testing	This entire section must be rewritten to clarify the test procedures – Section 10 and Table 1 must be rewritten to actually correspond to one another. Clarify language and meaning. It is critical that a proper sequence is developed for this method. Snagging is not an issue from a single product – a single product does not result in a clog. For a clog to occur, multiple products must back up behind a snagged material. Testing of	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					all 10 samples, or one sample with the 5 flushes ? Do you clean the system between individual specimens or after all 10 have been run ? 10.2 Step 8 requires repeating the “test sequence” 10 times. Is a single test sequence a "round of testing” or are all 10 test sequences a round of testing ? Step 8 says product must be tested sequentially, but Table 1 and 10.3 indicate cleaning of residual material between specimens. If all ten samples are done in a sequence without cleaning the drainline (as implied in Step 8), then use of PAS 2A in Step 3 is problematic because it can allow up to 3 flushes for a single wipe which is or is not counted for the 5 ?.	individual products does not address this issue, nor does looking at residual materials and examining sieve sizes.	
	352	11		TE	If to be acceptable, ALL TEN SPECIMENS must clear the drain line, then how can (b) be acceptable. It cannot be both (a) and (b) as an acceptance criteria. As mentioned previously, what materials are collected ? There are no procedures outlined for collecting materials from the snag. It would appear it is necessary to remove the materials from the snag if that is what is being measured.	Clarify – develop a more simplistic set of acceptance criteria.	
	375-377	12		GE	11(b) this does not show up in the calculation section (c) there are 10 samples, if part of the sample exits and part stays snagged how is this reconciled ? (d) there are no instructions for capturing the material off the snag.	Clarify.	
	381-386			TE	Periodically is not acceptable for a standard.	If calibration is required, a known schedule is required. Monthly, weekly, before or after each test.	
	387-388			ED	10 samples are being tested, not 5.	Change from 5 to 10.	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 2C: Drain Line Snagging (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	**Line number** (e.g. 17)	**Clause/ Subclause** (e.g. 3.1)	**Paragraph/ Figure/ Table/** (e.g. Table 1)	**Type of comment**[2]	**Comments**	**Proposed change**	**Observations of the secretariat**
	409	Photo A.2		ED	Supporting a drain line on a crate and some cut pieces of wood is not very professional, or safe.	Suggest you retake this image with a setup that is more professionally done with a safer design.	
	573			ED	Section A.4.3 does not say how to select 10 specimens.	Correct	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]	**Document reviewed: 3A – Disintegration – Accelerated bench Top Disintegration (INDA SUBMISSION)**	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	5	Copyright Notice		GE	As stated in the cover letter, the IWSFG has taken certain liberties to claim copyrights on materials that are already copyrighted by other organizations. In particular in this document, Annex's 3, 4, and 5 have a considerable amount of information copied verbatim from the INDA/EDANA Supplementary Guidance Documents © 2013 - sections SG001, SG002, and SG004.	The IWSFG should provide proper references and statements that show the use of copyrighted material in this document has received the proper permissions.	
	16	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has neither the expertise nor the authority to define what is meant by "socially responsible" and "environmentally sustainable". At best, this can be stated as an opinion of the IWSFG.	Remove statement or reword to reflect this is an opinion of the IWSFG.	
	109	Section 3		GE	The scope of this document is unusually broad. There are many products that are designed to be flushed that are in no way appropriate for these guidelines. Examples include disinfecting and cleaning products (liquids and gels). A recommendation would be to tighten the scope of this document to include only those products that would be appropriate to test using these methodologies.	Refine the scope to include only those material systems that can actually be tested using these methodologies.	
	101-102 130-132			TE	In prior criticism of industry guidelines, it was pointed out that the industry slosh box method, FG502, was not representative of conveyance	Provide rationale	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					systems. How does this test, using an 800 rpm rapid stirrer, mimic conveyance systems ?		
	104-107			TE	Then it would seem based on this Note that all toilet papers on the market today should be able to pass this test. The implication of this Note is that toilet paper performance is the acceptable benchmark for these tests. If toilet paper does not pass a test, then does that mean the test is invalid at predicting compatibility ?	Provide rationale, especially in light of the fact that independent analyses using these methods show numerous TP brands do not pass these tests.	
	148			TE	Uncertain what a “pourer spout” is. A “spout” is typically not designed to hold liquid.	Clarification needed.	
	149			TE	“tap water” – are there any requirements for the water ? hardness, temperature, pH ? Although this is an inherent variable within wastewater infrastructure, it can lead to wide variability from lab to lab for this method.	Provide at least a requirement for temperature.	
	151-152, 212			TE	There is no procedure described on how to measure the rpm of the stirrer. In addition, there is verbiage (lines 375-376) that requires the speed to be constant while in water.	Although not required, it would be prudent and helpful to identify HOW the rpm of the stirrer should be measured.	
	154-155			ED	6.3 mm sieve ? 6.3 mm diameter, radius, circumference ?	Clarify.	
	159-160			GE	Unacceptable burden on test labs. Not all laboratories will have access to all materials – even those materials that are available in the market place.	Reassess the material acquisition requirements in your test methods.	
	167-170			GE	Instructions are inconsistent. Need to clarify the number of samples required from each package and for what purpose.	The wording is confusing between the need for 5 or 10 samples and from a single or multiple packages. Please add clarifying language.	
	177-178			TE	Why would particles in the ambient air impact this test ? Separating into piles and then removing individual samples from each pile precludes	Needs clarification on particle contamination. Removing just before testing is not consistent with	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					samples from being removed just before testing starts.	preparation in Section 8.2.	
	188-189			ED	There is nothing in Section 8.2 that pertains to this statement.	Clarify.	
	191-192			ED	There is nothing in Section 8.2 that pertains to dry facial tissue.	Clarify.	
	195-197			ED	There is nothing in Sections 8.1 or 8.2 that pertains to size of a moist tissue.		
	198-200			GE	Sample preparation described in Section 8.2 is incompatible with “as soon as they are removed from the packaging”.	Removing just before testing is not consistent with preparation in Section 8.2.	
	205-206			ED	Section 8.2 only references toilet tissue and moist wipes. No “other products” are mentioned.	Clarify.	
	216	9.1		GE	Storage of samples precludes removing the samples from the (original) packages just before testing. In addition, if soft packages are cut open to remove a stack and separate it into 5 … the soft package is no longer available for storage.	The IWSFG needs to rethink the sample strategies within these documents. Alternative procedures need to be developed if all of the various options are to be consistent.	
	233			ED	Two section 9.1’s. Again … verbiage that requires “immediate” use of samples.	See previous comment.	
	253-254			TE	Verify specimen is driven under agitator – and if it hasn’t been ?	There is no procedure given if action has not occurred. Provide procedure.	
	292			ED	The test must be repeated with 5 specimens ? All at once ??	Wording choice issue ? Clarify.	
	293-294			GE	The acceptability criteria are confusing. Does a sample pass with (a) **or** (b) ? There are situations where a sample might be able to meet (a) but not (b) (example, half of the 5th sample is residual – result in a 10% solids remaining). Likewise a sample could meet (b) but not (a) (example, residuals remain for more than 1 sample).	Clarify	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: 3A – Disintegration – Accelerated bench Top Disintegration (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	**Line number** (e.g. 17)	**Clause/ Subclause** (e.g. 3.1)	**Paragraph/ Figure/ Table/** (e.g. Table 1)	**Type of comment**[2]	**Comments**	**Proposed change**	**Observations of the secretariat**
	305-306			GE	No calculations are required.	Remove.	
	318-321			GE	Need to clarify if passing is possible with (a) **or** (b).	Clarify.	
	519			ED	Photo is not representative of caption. Where is the shower head ? Regulator is not very clearly imaged.	Put a more representative photo in place.	
	553			ED	There is no section A.3.3 in that Annex. In addition, within the text of the document (footnote 1) an additional 5 samples are requested. A.5.3.2 (1) requires 10. (Line 567 is back to 5.)	Clarify – 5 or 10.	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 3B – Disintegration – Slosh Box (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	5	Copyright Notice		GE	As stated in the cover letter, the IWSFG has taken certain liberties to claim copyrights on materials that are already copyrighted by other organizations. In particular in this document, Annex's 4, 5, and 6 have a considerable amount of information copied verbatim from the INDA/EDANA Supplementary Guidance Documents © 2013 - sections SG001, SG002, and SG004. In addition, Section 5.4 is taken directly from INDA/EDANA FG502 – Slosh Box Disintegration Test with identical photos, also giving credit to an IWSFG member.	The IWSFG should provide proper references and statements that show the use of copyrighted material in this document has received the proper permissions.	
	15	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has neither the expertise nor the authority to define what is meant by "socially responsible" and "environmentally sustainable". At best, this can be stated as an opinion of the IWSFG.	Remove statement or reword to reflect this is an opinion of the IWSFG.	
	118-120			TE	The choice of a Reynolds number of 20,000 came from discussions within ISO TC224/WG10. At the time it was agreed that quiescent sewer lines could be described with this value, although a much larger range would be needed to capture the majority of flows within these systems. In what type wastewater system is this a "typical" flow condition (water flow, pipe dimensions, etc). ?	A separate Annex that shows benchmarking data on a variety of TP brands and types (blind data) would provide the details necessary to further consider these pass/fail criteria. In addition, showing the same TP materials benchmarked against all three disintegration test methods would be helpful in understanding the relationship between the methods and the chosen	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					Wastewater systems are extremely dynamic and complex. Flow conditions are not only inconsistent from place to place, they are inconsistent within the same pipe from day to day and day to night. What materials have been benchmarked under these conditions ? In many test method development programs, “good” materials and “bad” materials are used as benchmarks for testing. In PAS 3A, the following statement is made: ***“Since toilet papers historically have not caused clogging, or plugging, problems in wastewater systems, the IWSFG has benchmarked its tests for flushability to toilet paper performance, particularly in respect to its disintegration.”*** Please reference testing where toilet paper is used as a benchmark using this method. Based on the statement in 3A and the conditions chosen, all TP brands should be able to pass this test. In addition, there have been no studies or conclusions presented that are based on data to indicate what level of disintegration is necessary to define compatibility with wastewater infrastructure. The current position taken by IWSFG is based on opinion.	parameters.	
	122	Section 3		GE	The scope of this document is unusually broad. There are many products that are designed to be flushed that are in no way appropriate for these guidelines. Examples include disinfecting and cleaning products (liquids and gels). A recommendation would be to tighten the scope of this document to include only those products that would be appropriate to test using these methodologies.	Refine the scope to include only those material systems that can actually be tested using these methodologies.	
	180-181			ED	6.3 mm sieve ? 6.3 mm diameter, radius, circumference ?	Clarify.	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 3B – Disintegration – Slosh Box (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	186-187			GE	Unacceptable burden on test labs. Not all laboratories will have access to all materials – even those materials that are available in the market place.	Reassess the material acquisition requirements in your test methods.	
	193-197			GE	Instructions are inconsistent. Need to clarify the number of samples required from each package and for what purpose.	The wording is confusing between the need for 5 or 10 samples and from a single or multiple packages. Please add clarifying language.	
	221-222			GE	Sample preparation described in Section 8.2 is incompatible with “as soon as they are removed from the packaging”.	Removing just before testing is not consistent with preparation in Section 8.2.	
	229	9.1		GE	Storage of samples precludes removing the samples from the (original) packages just before testing. In addition, if soft packages are cut open to remove a stack and separate it into 5 … the soft package is no longer available for storage.	The IWSFG needs to rethink the sample strategies within these documents. Alternative procedures need to be developed if all of the various options are to be consistent.	
	269-270			TE	Hold the specimen for 15 minutes is ambiguous. Where and how should the sample be held ?	Clarify.	
	289-292			TE	Take pictures of what ? How ? What is the placement of the camera ?	Clarify. Images would be helpful.	
	293-294			TE	Estimating ¼” size in a moving box is very difficult to do reproducibly. This is a very subjective step and should be removed.	Remove.	
	295-302			TE	Confusing. If I’ve drained the slosh boxes in (a), how can I use the hand sieve in (b) ? What should be done with remaining materials in the slosh box that haven’t drained out ? Should the box be rinsed ?	Clarify.	
	325-326			ED	Shouldn’t all the residual material already be out of the box ? As with a previous comment, doesn’t the box need to be rinsed to remove any pieces that get trapped ?	Clarify.	
	333			ED	The test must be repeated with 5 specimens ? All	Clarify.	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					at once ??		
	334-341	10.5		GE	The acceptability criteria are confusing. Does a sample pass with (a) **or** (b) ? There are situations where a sample might be able to meet (a) but not (b) (example, half of the 5th sample is residual – result in a 10% solids remaining). Likewise a sample could meet (b) but not (a) (example, residuals remain for more than 1 sample).	Clarify	
	345-348				10.3.10 (a) only describes samples with no residuals left ?	Remove line 345.	
	360	Section 11			There is confusion reading this acceptance criteria and those in 10.5. As mentioned in the comment for 10.5, is OR required between (a) and (b). In Section 11 OR is there, but not 10.5. In addition, lines 370 – 373 (a) [*sic*] are different than in Section 10.5 (b). Lines 370-373 imply that only 4 of 5 samples need collected ?	Confusing between 10.5 and 11. Needs clarification and consistency between the two.	
	689		Annex 8	ED	Appears to be redundant. Already shown in Annex A.5.4 ???	Remove Annex 8.	
	651			ED	There is no section A.4.3 in that Annex. In addition, within the text of the document (footnote 1) an additional 5 samples are requested. A.6.3.1 (1) requires 10. (Line 666 is back to 5.)	Clarify – 5 or 10.	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 3C – Disintegration – Flask and Shaker Table (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	5	Copyright Notice		GE	As stated in the cover letter, the IWSFG has taken certain liberties to claim copyrights on materials that are already copyrighted by other organizations. In particular in this document, Annex's 3, 4, and 5 have a considerable amount of information copied verbatim from the INDA/EDANA Supplementary Guidance Documents © 2013 - sections SG001, SG002, and SG004.	The IWSFG should provide proper references and statements that show the use of copyrighted material in this document has received the proper permissions.	
	14	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has neither the expertise nor the authority to define what is meant by "socially responsible" and "environmentally sustainable". At best, this can be stated as an opinion of the IWSFG.	Remove statement or reword to reflect this is an opinion of the IWSFG.	
	101-103			TE	The choice of a Reynolds number of 20,000 came from discussions within ISO TC224/WG10. At the time it was agreed that quiescent sewer lines could be described with this value, although a much larger range would be needed to capture the majority of flows within these systems. In what type wastewater system is this a "typical" flow condition (water flow, pipe dimensions, etc). ? Wastewater systems are extremely dynamic and complex. Flow conditions are not only inconsistent from place to place, they are inconsistent within the same pipe from day to day and day to night.	A separate Annex that shows benchmarking data on a variety of TP brands and types (blind data) would provide the details necessary to further consider these pass/fail criteria. In addition, showing the same TP materials benchmarked against all three disintegration test methods would be helpful in understanding the relationship between the methods and the chosen parameters.	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					What materials have been benchmarked under these conditions ? In many test method development programs, “good” materials and “bad” materials are used as benchmarks for testing. In PAS 3A, the following statement is made: ***“Since toilet papers historically have not caused clogging, or plugging, problems in wastewater systems, the IWSFG has benchmarked its tests for flushability to toilet paper performance, particularly in respect to its disintegration.”*** Please reference testing where toilet paper is used as a benchmark using this method. Based on the statement in 3A and the conditions chosen, all TP brands should be able to pass this test. In addition, there have been no studies or conclusions presented that are based on data to indicate what level of disintegration is necessary to define compatibility with wastewater infrastructure. The current position taken by IWSFG is based on opinion.		
	105	Section 3		GE	The scope of this document is unusually broad. There are many products that are designed to be flushed that are in no way appropriate for these guidelines. Examples include disinfecting and cleaning products (liquids and gels). A recommendation would be to tighten the scope of this document to include only those products that would be appropriate to test using these methodologies.	Refine the scope to include only those material systems that can actually be tested using these methodologies.	
	136			ED	8 Liter Fernbach Flasks ?	Inconsistent with other requirements. Typo ?	
	138			ED	6.3 mm sieve ? 6.3 mm diameter, radius, circumference ?	Clarify.	
	143-144			GE	Unacceptable burden on test labs. Not all laboratories will have access to all materials – even	Reassess the material acquisition requirements in your test methods.	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					those materials that are available in the market place.		
	152-155			GE	Instructions are inconsistent. Need to clarify the number of samples required from each package and for what purpose.	The wording is confusing between the need for 5 or 10 samples and from a single or multiple packages. Please add clarifying language.	
	178-180			ED	There is nothing in Sections 8.1 or 8.2 that pertains to size of a moist tissue.	Clarify.	
	183-184			GE	Sample preparation described in Section 8.2 is incompatible with “as soon as they are removed from the packaging”.	Removing just before testing is not consistent with preparation in Section 8.2.	
	189-192			TE	It makes no sense to have area requirements on dry tissue and wipes and volume/mass requirements on “other products”.	Clarify.	
	196-197			TE	Determination of “constant speed” is difficult at best. What is the procedure for determining a “constant speed” ? If the orbital speed is determined to be outside of 100 rpm, what should happen ? Is there a +/- for the shaker rpm ? If the statement in lines 364-366 is accurate, then the precision of the instrument can be used for this discussion.	Clarify.	
	201	9.1		GE	Storage of samples precludes removing the samples from the (original) packages just before testing. In addition, if soft packages are cut open to remove a stack and separate it into 5 … the soft package is no longer available for storage.	The IWSFG needs to rethink the sample strategies within these documents. Alternative procedures need to be developed if all of the various options are to be consistent.	
	219-220			GE	“Immediate” use of samples is inconsistent with wording in Section 8.2.	Clarify in all test procedures.	
	240-241			TE	Ambiguous. What does “disintegrate completely” mean ? How should photographs be taken ? Can you publish an example that would indicate how the camera should be positioned ? Do you take photographs every 30 minutes OR when the sample disintegrates completely ?	Clarify.	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
	275			ED	The test must be repeated with 5 specimens ? All at once ??	Clarify.	
	274	Section 10.4		GE	Needs an OR as in Section 11.	Model after Section 11.	
	342-343			TE	What is the range of acceptable rotation ? Line 365 indicates a precision of 1 – 2 rpm ? Is this accurate ? A required precision within the method is necessary to know the type of instrument to purchase. In addition, periodically needs to be defined.	Clarify and define periodically.	
	377-388			ED	At no place in the method did it indicate all 5 samples should be run simultaneously on the same table in 5 different flasks. Is it the intent of this method that all 5 samples must be run simultaneously ? This line implies as much.	Clarify in the method.	
	387			TE	Fernbach Flasks. Anecdotal information from work done with other methods indicate that there is enough variation between flasks that reproducibility becomes an issue. Can you provide information regarding the reproducibility of this method between flasks purchased from different suppliers ? A note to IWSFG – these flasks were not designed for this application, according to Chemglass (web) "**Flasks are designed for culturing organisms that require a large surface area to volume ratio**". This does not imply a unique need for precision in making the flasks from one supplier to another.	Reconsider flasks, or at least supply variability data on different flasks produced by different suppliers.	
	404-407			ED	Recommending different size sieves when not required by the method is unnecessary. In addition, this suggests a wire-mesh sieve which implies square holes and not round ones as specified in the method.	Remove language that recommends other size sieves. Clarify – mesh or holes ?	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 3C – Disintegration – Flask and Shaker Table (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	**Line number** (e.g. 17)	**Clause/ Subclause** (e.g. 3.1)	**Paragraph/ Figure/ Table/** (e.g. Table 1)	**Type of comment**[2]	**Comments**	**Proposed change**	**Observations of the secretariat**
	408-409			ED	Shower head for rinsing is already defined in Annex 4. This provides an area for potential confusion. Remove.	Remove.	
	486-488			ED	Makes no sense. Lost several words when this paragraph was copied from the INDA/EDANA Supplementary Guidance Document.	Copy words correctly.	
	551			ED	Photo is not representative of caption. Where is the shower head ? Regulator is not very clearly imaged.	Publish a photo that more clearly shows the intended equipment.	
	585			ED	Annex 3, Section A.3.3 does not reference how to select 10 samples. In addition, within the text of the document (footnote 1) an additional 5 samples are requested. A.5.3.2 (1) requires 10. (Line 600 is back to 5.)	Clarify. 5 or 10 ?	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 4 – Settlement Test Method (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	**Line number** (e.g. 17)	**Clause/ Subclause** (e.g. 3.1)	**Paragraph/ Figure/ Table/** (e.g. Table 1)	**Type of comment[2]**	**Comments**	**Proposed change**	**Observations of the secretariat**
	15	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has neither the expertise nor the authority to define what is meant by "socially responsible" and "environmentally sustainable". At best, this can be stated as an opinion of the IWSFG.	Remove statement or reword to reflect this is an opinion of the IWSFG.	
	89	Section 3		GE	The scope of this document is unusually broad. There are many products that are designed to be flushed that are in no way appropriate for these guidelines. Examples include disinfecting and cleaning products (liquids and gels). A recommendation would be to tighten the scope of this document to include only those products that would be appropriate to test using these methodologies.	Refine the scope to include only those material systems that can actually be tested using these methodologies.	
	87-88	2		TE	Is this also a potential test method to describe required behavior in septic systems or in other systems outside of a treatment plant ?		
	140-141			ED	Sentence is unreadable. What is being required here ?	Clarify.	
	148			ED	There are no images of the apparatus in this document. Images should be attached to prevent any misinterpretation of the requirements.	Add appropriate photo for clarification.	
	183-184			GE	Unacceptable burden on test labs. Not all laboratories will have access to all materials – even those materials that are available in the market place.	Reassess the material acquisition requirements in your test methods.	
	263-264			ED	The wording is inconsistent with the implied intent in	Clarify.	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 4 – Settlement Test Method (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	**Line number** (e.g. 17)	**Clause/ Subclause** (e.g. 3.1)	**Paragraph/ Figure/ Table/** (e.g. Table 1)	**Type of comment**[2]	**Comments**	**Proposed change**	**Observations of the secretariat**
					line 215- 217 - ***"No attempt to remove the lotion should be made and the removed moist tissue should not be left for any time, to reduce the evaporation of the moisture."***		
	302			ED	What are 10a and 10b ?	Clarify.	
	315			ED	The text states – (see 1 above) … Where is 1 ?	Clarify.	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]	**Document reviewed: PAS 5B Anaerobic Biodisintegration Test (INDA SUBMISSION)**	**Due Date:** 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
				TE	The development of a method like this is not new. The IWSFG has obviously pulled parts of this methodology from other sources referenced in the Bibliography. There are key features however, that have either been changed or omitted with no indication as to why. Two key points: 1) The incubation time required within FG506A has been changed from 28 to 21 days with no discussion as to why. Please provide some explanation why the timing has changed. 3) The sieve size has been changed from 1 mm to 0.6 mm as compared to FG506A. Please provide an explanation why a smaller sieve size was chosen. In addition, use of a 600 micron sieve can be problematic due to blinding.	Provide explanations in an Annex.	
	5	Copyright Notice		GE	As stated in the cover letter, the IWSFG has taken certain liberties to claim copyrights on materials that are already copyrighted by other organizations. In particular in this document, Annex's 2, 3, and 4 have a considerable amount of information copied verbatim from the INDA/EDANA Supplementary Guidance Documents © 2013 - sections SG001, SG002, and SG004.	The IWSFG should provide proper references and statements that show the use of copyrighted material in this document has received the proper permissions.	
	15	Forward		ED	"The group expects the manufacturers and distributers of their products to act in a socially responsible and environmentally sustainable manner by adhering to the established standards." This statement is presumptuous. The IWSFG implies that not adhering to this standard precludes the possibility of being socially responsible or environmentally sustainable. The IWSFG has	Remove statement or reword to reflect this is an opinion of the IWSFG.	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					neither the expertise nor the authority to define what is meant by “socially responsible” and “environmentally sustainable”. At best, this can be stated as an opinion of the IWSFG.		
	105	Section 3		GE	The scope of this document is unusually broad. There are many products that are designed to be flushed that are in no way appropriate for these guidelines. Examples include disinfecting and cleaning products (liquids and gels). A recommendation would be to tighten the scope of this document to include only those products that would be appropriate to test using these methodologies.	Refine the scope to include only those material systems that can actually be tested using these methodologies.	
	152-153			GE	Unacceptable burden on test labs. Not all laboratories will have access to all materials – even those materials that are available in the market place.	Reassess the material acquisition requirements in your test methods.	
	160			GE	Note 1. If in previous methods it required the use of 5 or 10 samples to obtain adequate representation of the average dry weight of the product, why does this method switch to 3 ?	Maintain consistency between methods. More samples is always better to get an average. Recommendation is 10 for all methods.	
	186	8.3.3		GE	A volume requirement for this method is unnecessary, use weight.	Remove volume requirement.	
	188	8.3.4		TE	Are these characteristics at the time of removal from the treatment plant or prior to testing ? If the parameters fall outside of these bounds, what is the procedure to be followed for the testing lab ?	Clarify and add reaction procedures if parameters fall outside of the bounds of these limits.	
	193			TE	This is remarkably different than that in the referenced method FG506A (although in the bibliography IWSFG references FG505A). The referenced method uses a sludge with 8,000 – 10,000 mg/L TSS. Why the difference ?	Either reference why such a large difference between the methods or clarify in the method.	
	192-193			TE	The interpretation of these two lines is that there is a significant difference between “total solids” and	Clarify and provide adjustment procedures if applicable.	

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
					"total suspended solids" within anaerobic municipal sludge. This implies as much as 8,000 mg/L could be dissolved solids (for 10,000 mg/L total solids and 2,000 mg/L suspended solids). In order to adjust this system – if it is acceptable to adjust – both total solids and total suspended solids will be changed simultaneously. Is one more critical than the other ? Do both have to match up simultaneously ? If one is met but not the other is the sludge useless ?		
	237			TE	This is the first mention of a cotton control. Identify the type and grade of cotton required for the control sample.	Clarify with additional information.	
	139, 235	Sections 7 and 10.2		TE	There seems to be a missing airlock (also known as a bubbler) in this setup. If a one-holed stopper is used, there is no way to determine if gas is evolving and oxygen will be able to enter into the flask through the hole.	Correction needed to procedure.	
	253-255			TE	If there is gas being generated, but only "periodically", how does one make the decision that the sample be retested ? What is the protocol ?	Provide reaction procedure for sample retest. Does this have to do with the control ?	
	262			TE	This implies under a sink faucet. Is it the intent of this method to use the procedure outlined in Annex 3 ?	Correction needed to procedure.	
	264, 274			ED	Is it the intent of the method to have photos taken of the sieves twice ? What is the purpose of having these two steps ? Is step 15 taking a photo of all the sieves together ?	Clarify.	
	280-282			TE	It would appear to be appropriate to wash the flasks out regardless at the end of a test round.	Remove 280-282. Add clarification for proper cleaning of glassware to prevent contamination that may prevent bacteria from doing their job on a subsequent test.	
	304-305			GE	(a) is redundant if (b) is an option. Since (a) is a subset of (b), remove (a).	Remove (a).	

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IWSFG Template for Reviewer comments and IWSFG secretariat observations[1]

Document reviewed: PAS 5B Anaerobic Biodisintegration Test (INDA SUBMISSION)	**Due Date:** 2017-09-01

Initials	**Line number** (e.g. 17)	**Clause/ Subclause** (e.g. 3.1)	**Paragraph/ Figure/ Table/** (e.g. Table 1)	**Type of comment**[2]	**Comments**	**Proposed change**	**Observations of the secretariat**
	336-337			TE	In order to log in the time where gas is not generated, the samples would have to be monitored 24/7. Is it the intention of this method to have samples monitored 24/7.	Clarify.	
	337			TE	There are no procedures within this method to look at the control. A control is used to determine the validity of a method. How should the control be administered in this method ? If the control behaves out of norm for the control, is the test invalidated ? What would be the norm for the control ?	Clarify. Modify procedure.	
	343			ED	Wrong citation. Should be FG506.	Correct.	
	487			ED	Photo is not representative of caption. Where is the shower head ? Regulator is not very clearly imaged.	Publish a photo that more clearly shows the intended equipment.	
	566			ED	Annex 2 Section A.2.3 does not describe how to select specimens.	Correct.	

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