ZDHC Wastewater Guidelines Frequently Asked Questions (FAQ)

Ø ZDHC
The Zero Discharge of Hazardous Chemicals Programme
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1. What is the purpose of the Wastewater Guidelines?

The ZDHC Wastewater Guidelines set a unified expectation on wastewater quality for the textile and footwear industry – including reporting limits for traditional and hazardous chemical parameters, and the frequency for sampling and reporting. By doing so, the Wastewater Guidelines aim to reduce the workload and cost faced by suppliers to satisfy multiple brand-specific testing requirements.

2. Are the Wastewater Guidelines only for use by ZDHC Contributors?

The ZDHC Wastewater Guidelines are freely available from the ZDHC website and every actor within the textile and footwear value chain is welcome to use it free of charge. To enable widespread industry adoption, ZDHC encourages its contributors to adopt the Wastewater Guidelines within their organisations.

ZDHC is also currently in discussion with the Sustainable Apparel Coalition, the China National Textile & Apparel Coalition, the Institute of Public & Environmental Affairs, the American Apparel and Footwear Association (AAFA), as well as other brand consortia and environmental organisations to adopt it.

3. What is the impact of the ZDHC Wastewater Guidelines for:

   a. Brands?

As a result of having one harmonised set of wastewater parameters, limit values and test methods, brands and suppliers will be working to the same set of expectations. This means brands can become more productive from an environmental sustainability perspective by sharing the workload to manage shared suppliers and by spending more time on environmental performance improvements.

   b. Factories?

An aligned standard by brands for wastewater means that suppliers can use one guidance document. The ZDHC Wastewater Guidelines eliminate the need for overlapping requirements and reduces the need for multiple tests for various brands.

Following the three-level foundational, progressive, aspirational limits approach, suppliers will also be able to demonstrate progress over time. By aligning the ZDHC Wastewater Guidelines to the ZDHC Manufacturing Restricted Substances List (MRSL), the tests will inform the status of the
elimination of hazardous substances in input chemistry and manufacturing process.

c. The Chemical Industry?

The chemical industry will be challenged to supply process chemicals which are free from ZDHC MRSL chemicals in order to meet the ambitious limit values of the Wastewater Guidelines.

4. Why has leather been excluded from the scope of the Wastewater Guidelines?

The processing of leather requires different chemicals than the processing of other materials used in the textile and footwear industry. Therefore, ZDHC will be working with the leather industry on a leather specific version of these guidelines.

5. Why has the production of raw materials been excluded from the scope of the Wastewater Guidelines?

The processes and chemicals used for the production of raw materials (for example polyester) varies widely depending on the raw material type. To include a diverse set of raw materials would have resulted in a very broad and complex set of guidelines.

The intent of the ZDHC Wastewater Guidelines was to focus on parts of the value chain that have the most immediate need for improvement. ZDHC may consider issuing raw material specific guidance materials at a later stage.

6. Are there any legal implications from the Wastewater Guidelines?

The Wastewater Guidelines do not replace or supersede legislation. It is each suppliers’ responsibility to ensure full compliance with local legislation. Instead, the Wastewater Guidelines go beyond legal requirements, especially as they pertain to the hazardous chemical section.

ZDHC will not inform any regulatory authority on failures. However, as the facilities are always expected to be in legal compliance, if data is reported that doesn’t meet these requirements, each facility should take action to correct the problem and inform the relevant authorities.
7. Some of the limit values are comparable to drinking water standards. Why is ZDHC asking suppliers to treat their wastewater to such high standards?

ZDHC was founded on the mission to eliminate the use of hazardous chemicals from the manufacturing processes within the textile and footwear industry.

Even though low limits of those chemicals may be acceptable in wastewater locally, many of those chemicals are persistent in the environment and consequently build up over time. This building up of background concentration may have a negative effect on the surrounding environment and even human health. Therefore, ZDHC aims to replace those chemicals with safer alternatives.

8. Which experts has ZDHC contacted to ensure the Wastewater Guidelines are implementable?

The Wastewater Guidelines were developed by ZDHC in conjunction with external experts from the International Finance Corporation (IFC); bluesign technologies; Dongua University Shanghai; Intertek Testing Services; Carollo Engineers; and MWH Global.

As part of a public consultation period, over 300 comments were received from organisations ranging from NGOs to industry associations to international test-houses. These comments are available to view on the ZDHC website.

9. How did ZDHC determine the limit values for:

a. Conventional Parameters

The limits for conventional wastewater parameters were mainly determined by evaluating over 1000 wastewater test reports from the textile and footwear industry. Foundational limit values were met by 90% of those test reports, progressive limits by 50% of these test reports and aspirational limits by 20%.

Recognising that suppliers have the opportunity to improve the treatment efficiencies of their wastewater treatment systems by training of personnel, data collection and analysis, and possibly minor capital improvements, ZDHC believes all suppliers have the potential to meet or exceed the limits defined in the Wastewater Guidelines.

It is recommended that suppliers begin their journey toward aspirational goals by focusing on the capacity of those they hire to operate and maintain their wastewater treatment systems, and to collect the appropriate data
necessary to optimise those systems. It is expected that capital improvements are a last resort.

b. MRSL Parameters

The MRSL or hazardous chemicals parameters were taken from the ZDHC MRSL, a peer reviewed list of hazardous chemicals which can be eliminated or replaced easily by existing alternative chemistry.

The reporting limits were provided by a consortium of four global test-houses with experience in wastewater testing, namely Bureau Veritas, Intertek Testing Services, SGS, and UL.

10. The Wastewater Guidelines cover a wide range of different facilities which cannot necessarily be compared by wastewater types. Why do the Wastewater Guidelines not differentiate according to the manufacturing process?

ZDHC acknowledges that processes in the textile and footwear industry can sometimes differ and that therefore it is more difficult to meet the limit values for some types of production (for example, residual antimony from polyester production).

Nevertheless, ZDHC believes that with effective training of personnel; implementation of good operations and maintenance practices; and the proper use of commercially-available technology, all processes in scope of the Wastewater Guidelines can meet the limit values.

The limit values will be reviewed periodically to ensure practical implementation is feasible, but also with the clear aim to prevent damage to the environment and/or human health.

11. Is it possible to only use the part on conventional wastewater parameters?

Facilities who wish to start implementing the Wastewater Guidelines with conventional wastewater parameters first are welcome to do so.

12. Why has sludge been included in the scope of these Wastewater Guidelines?

Sludge is a by-product of many types of wastewater treatment systems and it was therefore determined to be an important parameter to sample and test. By including sludge in the scope of the Wastewater Guidelines, ZDHC can assist to ensure there is zero discharge of hazardous chemicals from the key pathways out of the wastewater treatment system.
In addition, as almost all facilities generating sludge from their wastewater treatment systems are currently required by law or permit to sample and test the sludge to determine if it classifies as hazardous or non-hazardous prior to disposal, testing sludge for the ZDHC MRSL chemistries is not expected to be a significant burden.

13. Why are there no limit values set for sludge testing?

Unlike wastewater testing, where ZDHC could draw from a large number of existing test reports, there are not enough test reports on MRSL parameters in sludge currently available to allow for a representative sample that could be evaluated to set limit values.

Sludge was added as a response to a process of public consultation, and therefore adequate time was not given to set appropriate limit values without further research.

14. When will sludge limit values be set?

The development of meaningful, realistic and also scientifically accurate sludge limit values will be a priority for 2017.

With the inclusion of sludge testing in the scope of the Wastewater Guideline, the focus area aims to create a representative sample of sludge test reports which can help with the setting of sludge limit values at a later stage.

15. Do factories who already test their raw wastewater also need to test sludge?

The inclusion of sludge in the scope of the Wastewater Guideline was a reaction to public comments that ZDHC MRSL restricted chemicals could be removed from the wastewater during wastewater treatment via the sludge.

ZDHC’s Technical Advisory Committee confirmed that this is indeed a likely scenario. Therefore, the ZDHC focus area has agreed on two options to avoid missing MRSL chemicals in the testing program:
   Scenario A: Testing of raw wastewater
   Scenario B: Testing of sludge

Facilities who are already testing raw wastewater will not be required to test sludge as well. However, ZDHC encourages facilities to engage in sludge testing in order to receive a complete picture of the potential discharge of hazardous chemicals via sludge and also to support the development of respective limit values for sludge.
16. What will be the cost associated with the testing of the water?

For facilities which produce materials for more than one ZDHC contributor, the ZDHC Wastewater Guidelines align the sampling and testing of all ZDHC contributors, and eliminate the need for brand-specific testing. It is expected that this will result in a net savings for these shared facilities.

17. Who will pay for the testing cost?

The facility producing the material.

18. Will other brands accept wastewater test reports done in accordance with the guidance?

It is the explicit goal and expectation of ZDHC and its contributors that they will accept the tests done in accordance with the ZDHC Wastewater Guidelines instead of asking for individual and customised sampling and testing methods, and reporting limits.

19. What happens if a facility fails to meet the minimum requirements?

The facility will have the chance to take corrective measures and apply for re-testing. If the re-testing is also failing the minimum requirements, the facility is expected to inform their customers and upload a corrective action plan to the ZDHC portal.

20. Will ZDHC provide training on the Wastewater Guidelines?

ZDHC is working with training providers to provide training materials to support the Wastewater Guidelines. However, those materials may not be available immediately after the release of the guidance document.

21. Who can I contact for support if I want to improve my wastewater treatment system?

There are a number of qualified service providers specialised in the improvement of wastewater treatment systems. For ZDHC contributors, we encourage them to contact their brand representative or main contact for an individual list.
22. Why is ZDHC asking for testing of conventional wastewater parameters for indirect discharge?

ZDHC acknowledges facilities that have indirect discharge will have different agreements with the receiving wastewater treatment plants or local authorities on the quality of their wastewater discharges. However, ZDHC still recognises the need for indirect dischargers to be compliant to those limit values.

23. A company is already uploading wastewater test reports on the IPE platform. Does this company have to upload now to two platforms?

ZDHC is collaborating with IPE, with the aim of a collaborative exchange of wastewater and sludge testing data going forward. Until this data collaboration is realised, a facility providing material to ZDHC contributors require reporting to IPE should continue to upload their test data on both portals. (Note: the vast majority of the parameters asked for testing are rather similar for both portals.)

24. How do the Wastewater Guidelines relate to the Higg Index of the Sustainable Apparel Coalition (SAC)?

The ZDHC Wastewater Guidelines and the SAC efforts are complementary. The ZDHC Wastewater Guidelines will be integrated into the Higg Index Environmental Facilities Module (Version 3.0) of the Sustainable Apparel Coalition. The Higg 3.0 will be a method for validating whether or not a facility has completed their testing and reporting per the ZDHC Wastewater Guidelines.

25. When will the Wastewater Guidelines next be updated?

ZDHC aims to update the Wastewater Guidelines after 12 months from the date of release.

26. What happens if a supplier does not agree to do the testing?

It will be up to individual ZDHC contributors (or even outside ZDHC) to encourage a broad coverage of their value chain to do the testing.
27. Which laboratories can be used for the testing?

There are four global laboratory testing networks that have contributed to the development of the Wastewater Guidelines and also confirmed their capability to test the listed parameters. There will likely be additional laboratory networks that are able to provide this testing. Each facility has the option to use the laboratory of their choice as long as this laboratory meets the minimum criteria listed in the guideline.

28. Will the laboratories automatically upload the test results on the ZDHC Data & Disclosure Platform?

Individual laboratories will offer an automatic upload to the platform. It will be up to the facilities to enquire prior to testing on the capability of their laboratories to do so.

29. How can I become a ZDHC accepted laboratory for the purpose of testing wastewater?

If you want to be registered as a ZDHC accepted laboratory, please contact ZDHC directly via the ZDHC website.

30. In my country/region there is no accepted laboratory. What should I do?

If you encounter difficulties finding an accepted laboratory in your region, please contact ZDHC directly via the ZDHC website.

31. Why are the reporting limits for the ZDHC MRSL parameters in the Wastewater Guideline not zero if the goal is to strive for zero discharge of hazardous chemicals?

ZDHC’s mission is to advance towards zero discharge of hazardous chemicals in the textile and footwear value chain to improve the environment and peoples’ well-being.

One of the largest challenges to achieve zero is the ability of laboratories around the world to consistently measure low limits. The reporting limits for ZDHC MRSL parameters are not zero, but are limits – developed with the help of several analytical laboratories with a global presence – that can be achieved and move the industry towards the goal of zero discharge.

The expectation is that as innovation and technology development result in more sensitive analytical methods; techniques; and equipment, the reporting limits will be revised directionally toward zero.
Furthermore, certain MRSL chemicals may be contained as unintentional impurities in process chemicals. While it is the declared target of ZDHC and its contributors to eliminate impurities, it is also not realistic to expect chemical companies to use pharmaceutical grade pure chemicals for industrial purposes.

32. Why are the limits set by ZDHC referring to concentration limits and not to the overall load of a certain pollutant? Is this not penalising facilities with high water recycling rates?

ZDHC acknowledges that facilities with high wastewater recycling rates concentrate the pollutants in the remaining wastewater stream. Therefore, ZDHC has considered adding pollution load factors rather than concentration limits into the Wastewater Guidelines.

However, the calculation of pollution loads is complex and requires good data on water consumption and material output. The ZDHC Wastewater Guidelines want to set a simple and unified wastewater quality expectation. It was therefore decided to set limits based on concentrations, while at the same time prohibiting dilution of wastewater for the purpose of lowering concentrations of a certain pollutant.

Should individual facilities believe they are unable to meet the concentration limits set due to their very efficient water recycling programs, ZDHC invites those facilities to contact their ZDHC contributing representatives for further discussion.