

ZDHC seeks unified wastewater guidelines

The ZDHC has issued a new report: *Textile Industry Wastewater Discharge Quality Standards: Literature Review* which has found wide discrepancies in how brands, retailers and other environmental stakeholders report and advise on textile industry wastewater quality.

A newly published review of current wastewater discharge guidance in the textile industry by the Zero Discharge of Hazardous Chemicals (ZDHC) Group has found a wide range in discharge regulations and measuring methods that differ by nation, between guidelines published by brands and amongst multi-brand consortia.

Country	Obtained a wastewater regulation with effluent values
1 Bangladesh	Yes (T)
2 Brazil	Yes
3 Cambodia	Yes
4 China	Yes (T)
5 Honduras	*
6 India	Yes (T)
7 Indonesia	Yes (T)
8 Malaysia	Yes (T)
9 South Korea	Yes
10 Taiwan	Yes (T)
11 Thailand	Yes (T)
12 Turkey	Yes (T)
13 Vietnam	Yes (T)
14 Sri Lanka	Yes (T)

Notes: (T) = Has values specific to the textile industry. * Does not have national regulation regarding industrial wastewater discharge. Source: ZDHC Group.

The new research included locating and reviewing literature from 7 multi-brand consortia, 18 brands and 20 countries.

As part of its findings, the ZDHC has called for a drive towards establishing global guidelines for wastewater discharge and standardised analytical testing to establish an industry-wide baseline.

National guidelines

The 84 page document shows a wide range in terms of national discharge regulations and measuring methods, as well as differences in guidelines published by brands, and also differences amongst multi-brand consortia such as the AAFA, AFIRM and the SAC.

"Despite efforts devoted to developing wastewater discharge regulation, there is no single guideline that covers all discharge criteria," says the report. "The ZDHC programme has identified 11 priority chemical groups that they believe should be targeted for zero discharge: APEOs/NPEs; azo dyes; brominated and chlorinated flame retardants; chlorobenzenes; chlorophenols; chlorinated solvents; heavy metals; organotin compounds; perfluorinated chemicals; phthalates and short-chained chlorinated paraffins.

"Few of these priority chemical groups are specifically listed in existing guidelines. This also is true for other wastewater discharge criteria. National standards and industry guidelines also vary in their standard analytical

methods/techniques for measuring wastewater constituents. The textile industry supply chain could benefit greatly from a single, unified discharge guideline and the development of standardised analytical methods for monitoring wastewater quality."

The report adds: "Though a few multi-brand consortia have worked towards developing industry wastewater guidelines, in recent years this engagement appears to have lost energy. In fact, guidelines developed in the past are now lagging behind current government regulations. This offers a unique opportunity to reinvigorate the topic."

The ZDHC says that developing this unified discharge guideline would help to drive momentum towards meeting the ZDHC programme's goal of zero discharge. It adds this review is also a preliminary step towards establishing a global industry-wide baseline.

"To support industry-wide wastewater treatment guidance, the ZDHC programme has added the development of a unified wastewater discharge quality guideline as a new area of focus," said executive director Frank Michel. "Whilst working towards zero discharge of hazardous chemicals in wastewater will require continued collaboration between all parts of the global textile supply chain, a unified approach can further align the industry's shared commitment to improve human health and the environment."

Keeping the goal of zero discharge



ZDHC wants global guidelines for textile wastewater discharge and testing.

firmly in mind, the ZDHC says it will now work with key collaborators to formulate a discharge guideline that will update widely used wastewater quality guidelines.

These new wastewater quality guidelines will focus on ZDHC MRSL-listed chemical substances and conventional wastewater parameters equally to reduce or eliminate the risk of releasing MRSL-banned substances.

Stepwise approach

Added the organisation: "A stepwise approach begins with adoption of the ZDHC MRSL to control chemical input. The ZDHC Environmental Audit is an important second step to ensure processes are controlled properly, followed by effluent discharge controls to ensure our desired goal of zero discharge."

In terms of individual brand work on wastewater guidelines, the ZDHC's research found that seven of the 18 brands examined – all ZDHC members – either publish their own wastewater effluent guidelines or reference the consortia guidelines to which their supply chain must comply.

Specifically, H&M, C&A and New Balance include statements in their wastewater-related public documents that note alignment with BSR guidelines.

It was also found that the majority of brand-specific wastewater discharge requirements include the common wastewater parameters of pH, BOD, COD, total suspended solids (TSS) and temperature. In addition to these common constituents, colour, coliform (bacteria), foam (qualitative assessment) and metals such as cadmium, chromium, copper and mercury also have limits noted in the guidelines. Two of the seven brand guidelines include a list of test methods for these parameters and one guideline that does not list limit values does list test methods.

Stefan Seidel of Puma has been the area lead for the ZDHC's work in this area. Asked by *Ecotextile News* how many of the brands with effluent standards have got full traceability of suppliers, he told us: "The ZDHC wastewater focus area was only introduced last year. Despite this, there are already a number of ZDHC member brands which have been tracing the performances of their suppliers' effluent treatment systems by checking waste water discharge reports."

"This can be done in various ways, for example as part of onsite compliance or environmental audits, through the regular collection of broader environmental data or by regularly requesting effluent analysis

reports. Some brands also encourage their key suppliers to publish their discharge reports directly or indirectly."

Further development

Asked about evidence of compliance or failure to meet those standards, he told us: "Similar to the situation in the social compliance field, the majority of suppliers are upholding good standards.

However, some do need further development to be able to comply with even basic international standards for conventional waste water parameters."

In terms of action plans to ensure that non-compliant factories meet the published standards, Seidel said: "So far, follow-up visits after corrective action plans had been set up, were done by the brand individually. Many suppliers with significant wet processing facilities are also part of industry initiatives such as bluesign, Oeko-tex or the Leather Working Group.

These initiatives do follow up on corrective actions as well as part of their certification programmes.

"Going forward, the ZDHC wastewater focus area aims to combine the reporting and corrective action follow ups of ZDHC member brands and therefore wants to avoid confusion at supplier level though different brand requests." ■