

10 January 2014

ZERO DISCHARGE PROGRESS REPORT

Meeting Esprit's Commitment to Eliminating Hazardous Chemicals from the Apparel Supply Chain by 2020

INTRODUCTION

Esprit continues to strive toward removing hazardous chemicals from the apparel supply chain. This concern led us to join the Zero Discharge of Hazardous Chemicals (ZDHC) Group's Joint Roadmap to Zero¹. The ZDHC shares Esprit's goal of eliminating hazardous chemicals from the textile supply chain by the year 2020.

To start the process within Esprit's own supply chain, earlier in 2013 we selected a group of 30 key suppliers in China for benchmark testing. The idea was to select a representative sample of key fabric vendors, test the waste water from their mills and continue to assess the current situation, taking immediate action where needed.

METHODOLOGY

Technicians from Bureau Veritas, a testing institute, visited each factory to take samples from the in-take water, post-production untreated effluent, and the treated water before release back into the environment. These samples were tested for the 99 analytes of concern and measured in milligrams per litre mg/l.

PROGRESS TO DATE

The program started with kick-off meetings in Hong Kong and Shanghai where we invited representatives from independent testing, inspection and certification provider Bureau Veritas² and auditing & consultancy firm Sustainable Textile Solutions³ (STS) to describe the program to our assembled vendors. Bureau Veritas served as the laboratory to test water samples from each factory, while STS specializes in tracing chemicals within the supply chain to identify their source and help with elimination. We also invited Greenpeace to talk to our suppliers about the importance of clean production and the increasing awareness of pollution among consumers. Greenpeace's presence was especially important to help the suppliers understand that Zero Discharge is not merely an idea that their customers thought of, but rather is a requirement for all companies in the market.

After the kick-off meetings, the factories agreed to the testing and a schedule was set. 3 supplier factories declined to take part, and Esprit has subsequently stopped doing business with those vendors. As of September 1, 2013, sample testing had been completed in 12 factories. Testing of an additional 21 was completed at the end of December 2013.

¹ Roadmap to Zero - <http://www.roadmaptozero.com/joint-roadmap.php>

² Bureau Veritas - http://www.bureauveritas.com/wps/wcm/connect/bv_com/group

³ Sustainable Textile Solutions - <http://dystar.com/Sustainable-Textile-Solutions.cfm#.UjHOfcYvkmk>

FINDINGS SO FAR

To give context in the analysis of results, where possible we have used the legal limits of drinking water for the EU and World Health Organisation (WHO) guidelines.

In some instances, the waste water leaving the factories tested was cleaner from some chemicals than the in-take water that they started with. In other words, the factories' processes removed more pollution from the environment than they added. The detailed overview on the results can be found at our [website](#).⁴

For the most part, pollution levels in the discharged effluent water tested were found to be within legal limits of both China and the EU⁵. Although we have not found the level of chemical pollution that we were expecting, the findings so far make it clear that we have a great deal of work to do.

- 2 of the factories tested were found not to have their own waste water treatment plants, but rather they pipe effluent into municipal waste water plants to be treated. In these factories, testing of the final discharge was not possible.
- Effluent of 12 factories was found to contain APEOs. APEOs are emulsifiers used in detergents and surfactants. They are banned in Europe, but legal in China and North America. They are on Esprit's Restricted Substances List of banned chemicals. We are working with the suppliers to identify how these chemicals got into the waste stream and eliminate them.
- Phthalates: These plasticizers were found in 15 of the waste streams tested. They are banned in kidswear in the EU, and are on Esprit's Restricted Substances List. Esprit will work with the suppliers to identify the source of contamination and eliminate phthalates from production.
- Heavy metals, such as zinc, antimony and copper, were also found in the waste streams of a number of suppliers, although many within legal limit of drinking water for the EU and World Health Organisation (WHO) guidelines. These metals occur naturally in the environment, but can also be found in many fabric dyes. Elimination is difficult, since the precise dye formulations are propriety information of the dye/chemical producers, and manufacturers are hesitant to reveal them. Esprit's plan to deal with this problem is outlined below.

⁴ **Esprit Wastewater Discharge Results** - http://www.esprit.com/press/Wastewater_Discharge_Results_v2.pdf

⁵ **Heavy metals:** The standards used are for EU drinking water with the exception of zinc, where WHO drinking water guidelines are used and cobalt where Chinese Environmental Quality standards GB3838-2002 are used. **Phthalates & chlorinated solvents:** The standard used is the Chinese Environmental Quality Standard GB3838-2002 for surface water. **APEO/PFC:** These are not regulated in China and no standards exist elsewhere for allowable limits in discharge water.

- Low level traces of PFOA were found in the waste water of 6 facilities. Esprit also bans these chemicals, which are used in durable water repellants. As with the APEOs, Esprit will work with the supplier to identify the source of these chemicals and eliminate them.

GOING FORWARD

Our work is only beginning. The findings so far in our bench mark study show need for a range of action going forward. First, we will commission third party chemical inventory audits in factories showing higher levels of chemical detection in effluent to help determine the source. Along with the testing, we will continue to work with suppliers to address specific issues found, and to assure that pollution levels, at a minimum, do not exceed local legal requirements. If, however, we hope to meet our goal of eliminating hazardous chemicals from our supply chain by 2020, then we still have much work ahead.

- **MRSL:** Esprit has had a [Restricted Substances List](#) (RSL) for a number of years⁶. The RSL seeks to assure that hazardous chemicals, many of which are legally restricted in the markets where Esprit products are sold, are not found in our finished products. As important as the RSL is though, it is not enough. Many hazardous chemicals may be used in the production process, but washed out of the product before it is completed. In these cases, the chemicals may be released into the environment even though no trace of them remains in the actual clothes that the consumer buys. In response to this problem, Esprit has begun developing a Manufacturing Restricted Substances List (MRSL). The MRSL will include all chemicals that should not be used, or that have restrictions on their use, in the production process. These chemicals may not be detectable in the final product. The Esprit RSL already includes a number of MRSL chemicals. This list will expand over the coming months as we intensify work with our suppliers to eliminate hazardous chemicals from the supply chain.
- **Heavy Metals:** Many chemicals are used in the formulation of textile dyes and auxiliaries, including heavy metals. These formulations are proprietary information of their manufacturers, which makes it difficult to discuss their elimination. Through the ZDHC, Esprit is working closely with the chemical industry to use the MRSL to develop a program of preferred formulations. These will be supplied to mills and textile processing units as a tool for meeting industry MRSL requirements.
- **Incentivize Transparency:** When Esprit initially began to conceptualize this work, we failed to appreciate the sensitivity of our suppliers to having their names and emission data released. While moving forward with the work of identifying and eliminating hazardous chemicals, Esprit recognizes the importance of educating our supply base and drawing

⁶ RSL - Restricted Substances List - <http://www.esprit.com/press/rsl.pdf>

them into the conversation so that they become active participants. These factories are many steps removed from consumers and many have limited access to Western media. Many of them have been in business for years without ever having been asked about the chemicals used in their processes. As with the RSL when that effort began, brands need to educate suppliers and help them understand our customers' changing expectations. This is especially true for fabric mills where, although they are important suppliers to Esprit, Esprit only takes a small percentage of their overall production.

- **Working with ZDHC:** The ZDHC Program has built on the progress of our first year highlighted by the completion of a comprehensive and publicly available inventory of chemicals used in the textile industry⁷ and chemical use management and wastewater testing at facilities in Bangladesh, China, India, Taiwan, and Vietnam. In the third quarter of 2013 (Q3), we made great progress in executing against the strategy laid out in the Joint Roadmap, Version 2. As the ZDHC coalition grows, we are able to accelerate our progress and extend the impact of our work through the supply chain. Since its inception, ZDHC programme has gained momentum, evolving from nine signatory brands in January 2013 to 17 of the world's leading fashion, sports, and outdoor apparel and footwear companies. We believe that beyond the capability and commitment of any one brand, meaningful, lasting, and industry wide change requires a broad partnership of efforts. Together, ZDHC members are pooling resources to tackle the challenges toward the goal of zero discharge of hazardous chemicals—forming the most practical, scalable, and solutions-oriented initiatives within the industry to date. While there is much progress to be made and we believe this is the soundest and most sustainable way forward, ZDHC cannot achieve its goal without the collaboration of the full range of participants throughout the complex system. To keep the more than 400 stakeholders with whom ZDHC regularly engages up-to-date, we issued the Third Quarter Progress Report on 16 September 2013.⁸

Eliminating hazardous chemicals from our supply chain is an ambitious goal, and Esprit has taken the first steps toward achieving it. By working carefully and deliberately now, we believe that we can build a solid foundation that will allow rapid, sustainable progress going forward.

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⁷ ZDHC inventory of chemicals used in the textile industry -

http://www.roadmaptozero.com/df.php?file=pdf/Chem_Inventory.pdf

⁸ ZDHC Third Quarter Progress Report

http://www.roadmaptozero.com/df.php?file=pdf/ZDHC_3Q_ProgressReport_FINAL.pdf