

Valentino Fashion Group
SUPPLY CHAIN
REPORTING AND MONITORING
NOVEMBER 2014

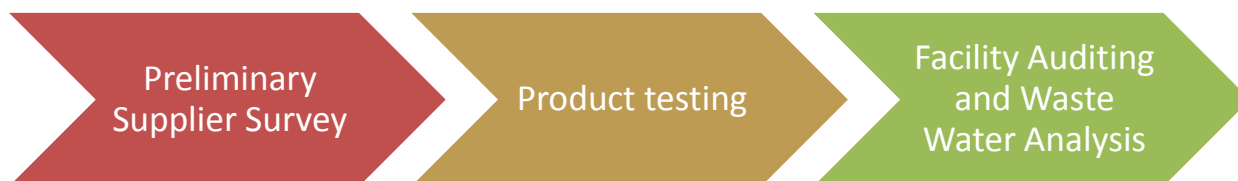
Further to VALENTINO FASHION GROUP's (VFG) Detox Commitment of 6 February 2013, and in line with the public's "right to know", this document discloses the actions undertaken by VFG in the supervision of its global supply chain up to November 2014, on the road towards zero emissions of hazardous chemical substances by 2020.

The 11 priority hazardous chemical groups, which are focused by VFG, are:

1. **Azo dyes**
Azo dyes are one of the types of dye used by industry. Some of these, can release hazardous aromatic amines.
2. **Chlorinated solvents**
Chlorinated solvents are normally used to dissolve other substances during textile manufacturing and for cleaning fabrics.
3. **Phthalates**
Phthalates are a group of compounds used mainly as plasticisers in the plastics industry. Key applications include the production of soft polyvinyl chloride (PVC) articles, plastisol prints and high pressure polyester dyeing
4. **Brominated and Chlorinated flame retardants**
Brominated and Chlorinated Flame Retardants are used as fireproof in a wide variety of materials, including textiles.
5. **Organic Tin Compounds**
Organic Tin Compounds are used in biocides and antifungal chemical products.
6. **Chlorophenols**
Chlorophenols are a group of chemicals used as biocides and preservatives.
7. **Short Chain Chlorinated Paraffins (SCCPs)**
SCCPs are used as flame retardants in textile and finishing agents in leather manufacturing.
8. **Heavy Metals**
Heavy metals (such as cadmium, lead and mercury) are often used in dyes and pigments processes for textile and leather; chromium VI could be used in leather tanning process or it can form during tanning process.
9. **Alkylphenols & their ethoxylates (APEO)**
APEOs are particularly effective as dispersing agents, detergents and emulsifiers in textile industry wet processes.
10. **Perfluorinated Chemicals (PFCs)**
The most common PFCs are PFOS and PFOA and its salts. Long chain PFCs are used extensively in numerous industry sectors; in the textile industry, they are found commonly in oil, water and stain repellent treatments.
11. **Chlorinated Benzenes**
Chlorinated Benzenes are used in manufacture of dyes and in chemical intermediates as solvents and biocides.

For further details of specific initiatives relating to the elimination of PHTHALATES, PFCs and APEOs from VFG's supply chain, please see:
APEOs investigation, PHTHALATES investigation, PFC's investigation

The supervision actions were implemented in three successive stages, the aim being to arrive at a complete and conscious vision of VFG's global supply chain.



PRELIMINARY SUPPLIER SURVEY

The objective in the first stage was to systematically gather preliminary data on chemical management and use at production facilities, by means of a self-assessment questionnaire completed by suppliers.

Despite a number of partial responses, once collated, the data provided an initial overview of the chemical risks inherent in VFG's global supply chain and served to guide and inform the later stages of product screening and facility auditing - waste water analysis.

PRODUCT TESTING

Screening for hazardous substances in finished products is conducted on a regular basis within the scope of VFG's product safety procedure.

In conjunction with VFG's Detox Commitment, routine screening activities were reassessed; in November 2013 more stringent detection limits for the 11 priority chemical groups were introduced through the updated restricted substances list (RSL). Communication with suppliers was enhanced to raise awareness of VFG's new goals, and sourcing of raw materials and suppliers became a focus at the product design stage.

FACILITY AUDITING AND WASTE WATER ANALYSIS

In 2013, in compliance with the Detox Commitment, VFG initiated a programme of factory audits and waste water sampling at production facilities where wet processes (dyeing, printing and tanning) are carried out, with abundant use of water.

The majority of audits were conducted at sites in Italy, since these account for 98% of VFG's supply chain, and the remainder at sites in China. The audits were carried out by an independent organization appointed by VFG, Intertek Group plc. .

FACILITY AUDITING

Audits at production sites were designed to assess management of 5 macro-areas of chemical risk:



In procedural terms, two inspectors verified, by means of visual inspections, verification of documents and interviews with managers and workers, numerous aspects relating to the management of chemical substances and the related environmental impacts:

- Approved chemical inventories;
- Chemical risk assessment of raw materials and components;
- Chemical use in manufacturing processes;
- Mixing formulations for materials preparation at the facility;
- Use of chemical substances in wet processes (washing, dyeing, finishing, tanning etc.) and other processes (assembly, packaging etc.);
- Disposal of solid and liquid waste and emissions into the environment;

The final outcome consists of an overall facility score, benchmarked against sector average global scores (data from Intertek Group plc. global sector database), in addition to a breakdown of individual scores for each macro-area of risk.

Upon conclusion of the facility inspection, each supplier receives a detailed assessment report highlighting strengths and weaknesses requiring further action, ranked in order of priority. A second, iterative document, the Continuous Improvement Report (CIR), requires suppliers to set a delivery date for each action. This tool encourages suppliers to work progressively to improve on initial scores.

By conveying VFG's environmental performance goals directly to those involved in the management of chemical substances, the facility audit programme has significantly enhanced chemical awareness within VFG's global supply chain.

AUDIT RESULTS

The graphs presented in the following pages summarise the key findings of facility audits conducted at production sites in Italy and in China.

Graph 1 shows the overall score (facility summary) for each of the 16 facilities in Italy, benchmarked against the national average, and followed by the individual scores for each of the five macro-risk areas.

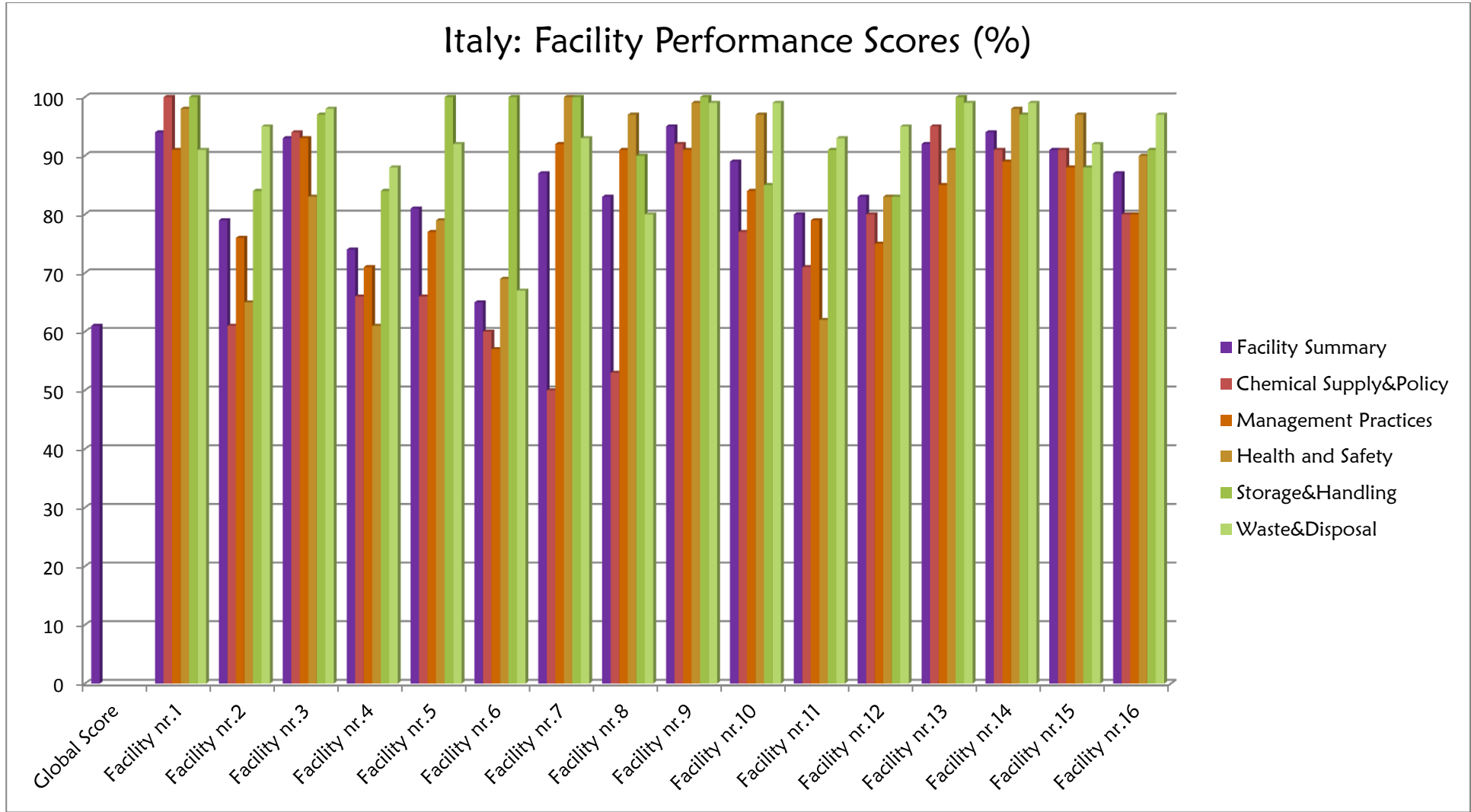
In the same way, Graph 2 presents the results of audits conducted at the 6 facilities in China.

The facility audit results highlight the superior performance of production sites in Italy, all of which achieved overall scores above the national sector average and tend to be more closely aligned to VFG's environmental objectives than sites in China.

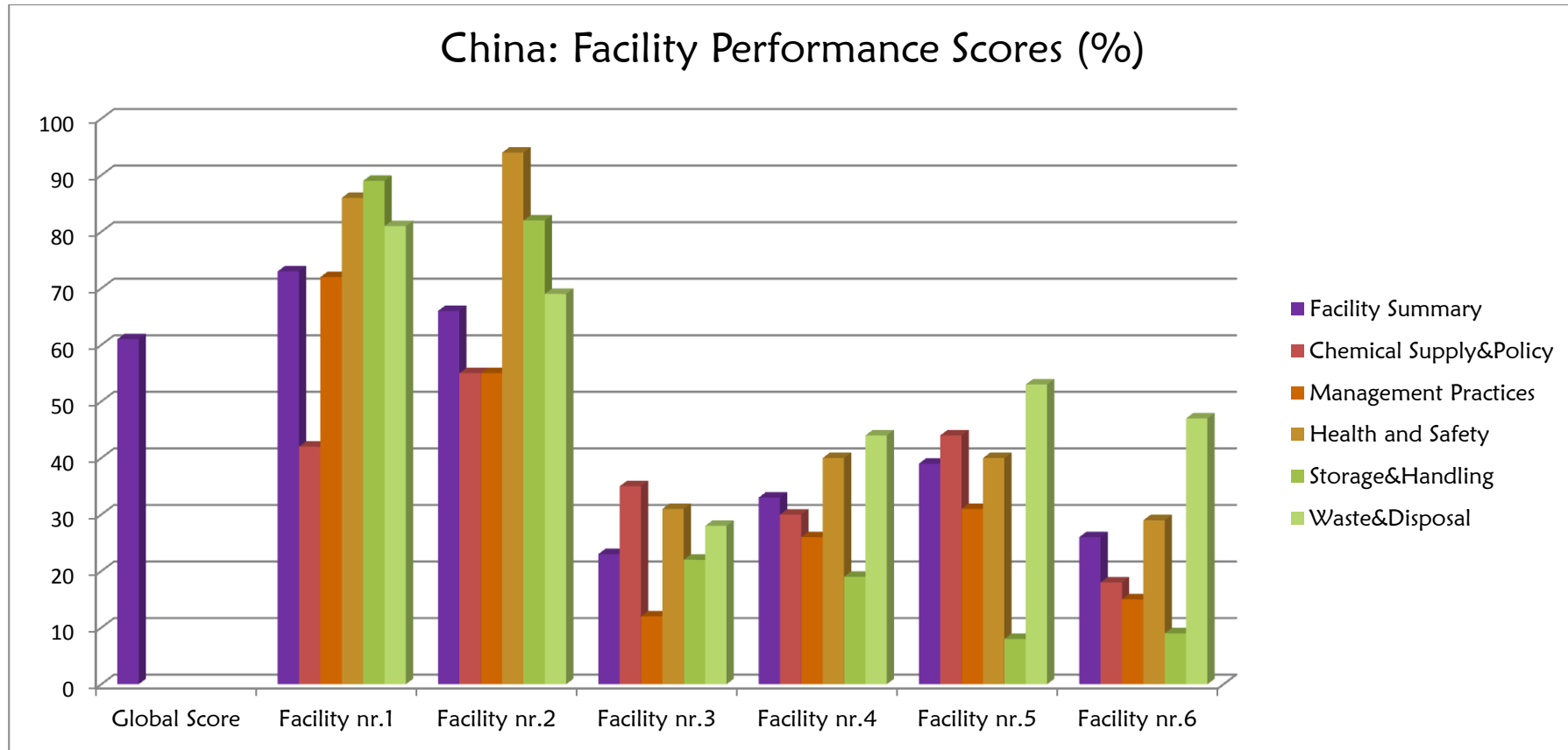
In China, only 2 out of 6 sites achieved overall scores above the national sector average.

In both regions, facility audits have significantly contributed to mapping VFG's global supply chain. The audit reports enable VFG to support suppliers in identifying critical issues and implementing corrective action plans. Supply chain supervision represents another important step towards achieving the goal of zero emissions of hazardous substances by 2020.

GRAPH 1



GRAPH 2



WASTE WATER ANALYSIS

Following the factory audits, water sampling was conducted to detect whether the 11 groups of chemical substances were present in incoming, untreated waste water and, where on-site waste water treatment plants were available, treated waste water. The sampling process involved on-site collection of samples for laboratory analysis based on best current technology detection limits capable of identifying even trace amounts of hazardous chemicals.

Further details of substances and detection limits are available at the following link:

[Annex 1 Substance list analyzed with CAS number and Detection Limits](#)

Since the aim of water sampling was to identify all potential sources of water contamination, the operating procedure was as follows:

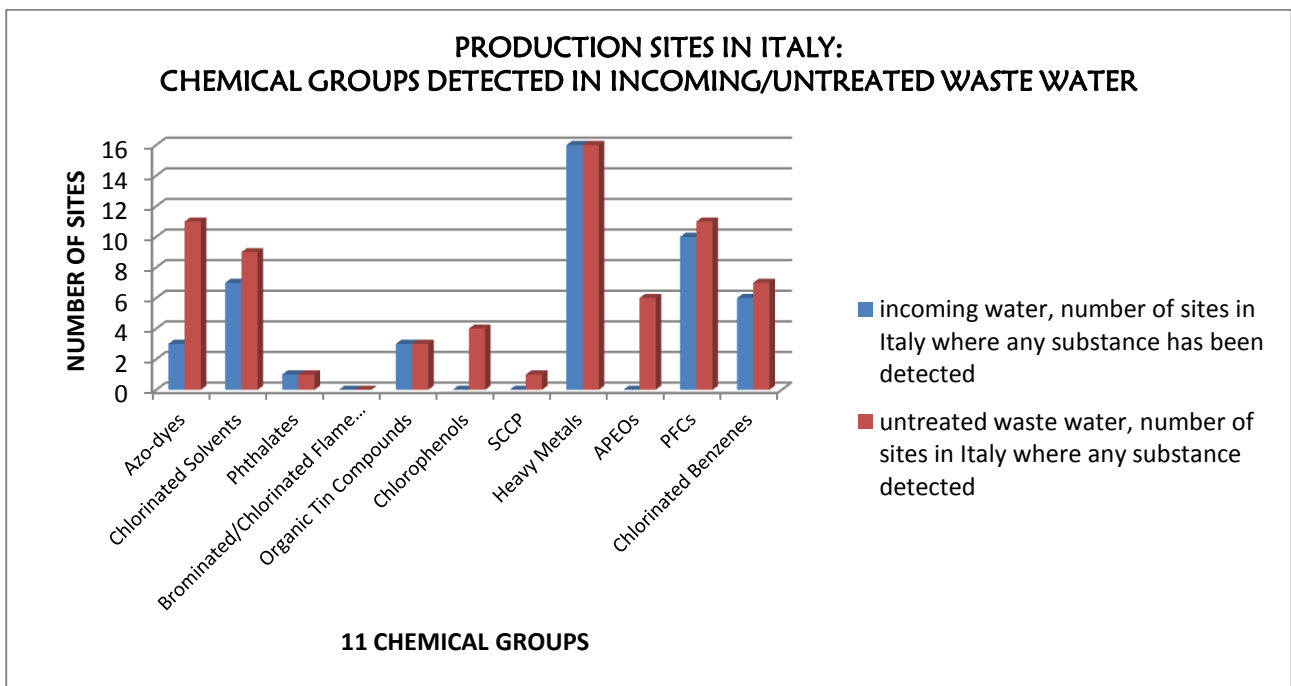
- at facilities with multiple source of incoming water, a sample was taken at each entry point;
- at facilities with on-site waste water treatment plants, samples were taken before and after on-site treatment. However, since the majority of sites discharge waste water into external, collective treatment plants, it was possible to sample treated water only in 2 China facilities.

The following sections summarize the results of water sampling activities conducted at 16 sites in Italy and 6 sites in China during September 2013 to November 2014.

RESULTS FROM SITES IN ITALY

The following graph highlights the total number of sites where each of the 11 groups of chemical substances was detected in incoming and/or untreated waste water at the 16 sites in Italy.

GRAPH 3



Further details of individual substances detected at each sites are available at the following link:

[Annex 2 Italy results more details graphic](#)

Here below, comments on Graph nr.3:

1. Azo dyes : found in incoming water on 3 facilities; found in untreated waste water on 11 facilities.
In relation to incoming water, only aniline was detected, most probably the result of a chemical reaction.
2. Chlorinated solvents : found in incoming water on 7 facilities; found in untreated waste water on 9 facilities
3. Phthalates : found in incoming water on 1 facility; found in untreated waste water on 1 facility.
4. Brominated and Chlorinated flame retardants : never found
5. Organic Tin Compounds : found in incoming water on 3 facilities; found in untreated waste water on 3 facilities
6. Chlorophenols : never found in incoming water; found in untreated waste water on 4 facilities
7. Short Chain Chlorinated Paraffins : never found in incoming water; found in untreated waste water on 1 facility
8. Heavy Metals : found in incoming water on 16 facilities; found in untreated waste water on 16 facilities

In relation to incoming water, heavy metals are frequently detected and are partly the result of leaching from chrome plated pipes in outdated water supply systems; this specific source of contamination is difficult to eradicate

9. Alkylphenols & their ethoxylates (APEOs) : never found in incoming water; found in untreated waste water on 6 facilities
10. Perfluorinated Chemicals (PFCs) : found in incoming water on 10 facilities; found in untreated waste water on 11 facilities
11. Chlorinated Benzenes : found in incoming water on 6 facilities; found in untreated waste water on 7 facilities

The presence of certain hazardous chemicals in incoming water calls for further investigation, and makes total elimination extremely complex.

It is important to note that in certain industrial areas, water circulates within a closed circuit. Industrial waste water flows into a collective treatment plant and thereafter is fed back into the circuit as incoming water

In relation to the substances detected in untreated waste water, it is important to note that all the sites audited in Italy discharge water to a collective waste water treatment plant, none having on-site facilities.

Many of the substances detected in incoming water were found also in untreated waste water; for APEOs, Phthalates and PFCs, VFG is taking specific action with suppliers to achieve total elimination through substitution, fully aware of the need to reach out to all stakeholders, including raw materials, water authorities, final consumers and, above all, manufacturers of chemical substances.

In fact, it is important to note that at an operational level it is not always possible to identify all potential pollutants in chemical products since complete full details of chemical formulations may not be disclosed in material safety data sheets (MSDS).

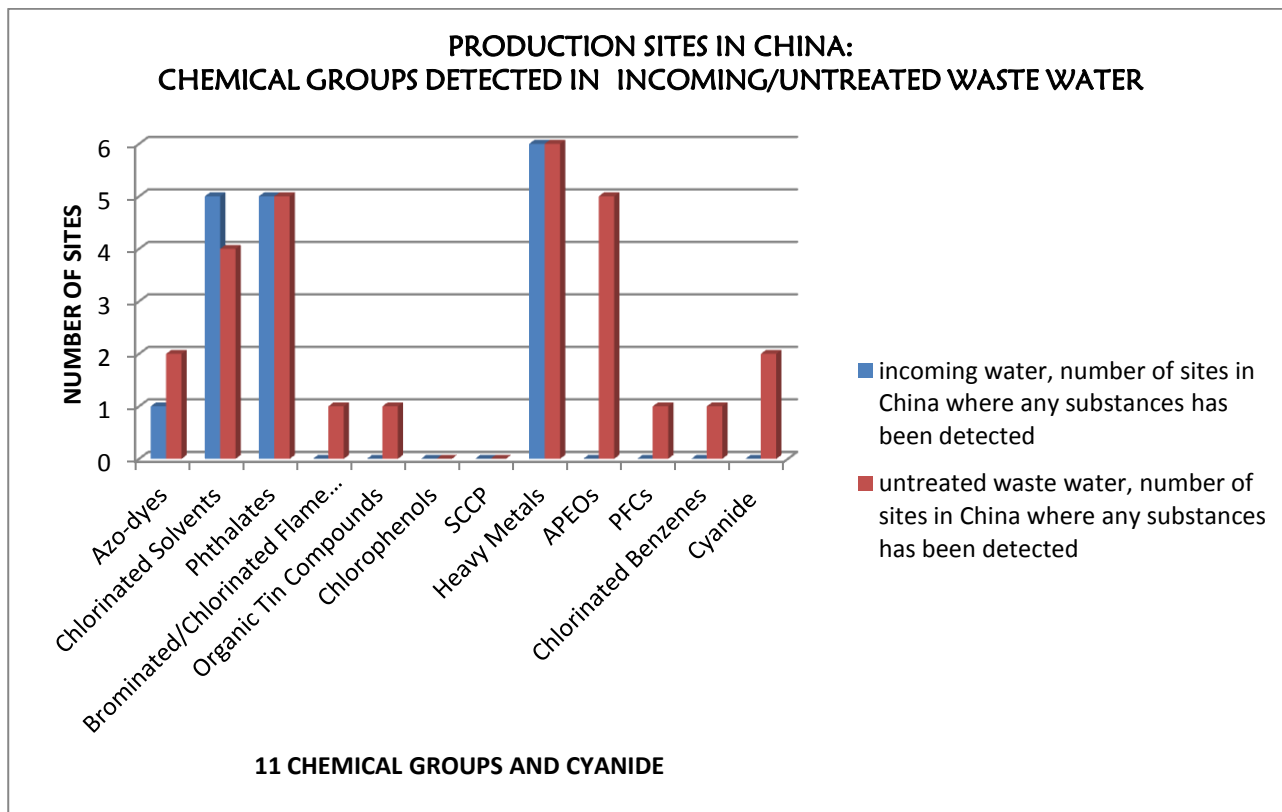
As coming out from our audit, the chemical inventory didn't provide any of 11 chemicals substances.

VFG's environmental commitment towards 2020 has the main purpose of not introducing any hazardous substance to the health of planet and consumers, therefore VFG is performing corrective actions, which are described in the conclusions.

RESULTS FROM SITES IN CHINA

Water sampling in China was conducted for the 11 chemical groups, and in addition for cyanide, in 6 sites.

GRAPH 4



Further details of individual substances detected at each sites are available at the following link:

[Annex 3 China results more details graphic](#)

Here below, comments on Graph nr.4:

1. Azo dyes : found in incoming water on 1 facility; found in untreated waste water on 2 facilities
2. Chlorinated solvents : found in incoming water on 5 facilities; found in untreated waste water on 4 facilities
3. Phthalates : found in incoming water on 5 facilities; found on untreated waste water on 5 facilities

The presence of phthalates calls for constant monitoring of both incoming and waste water. The presence of phthalates in incoming water is frequent in China, and is probably due to the use of low cost plastic piping or poor quality sealants in water supply systems. The phthalate traces detected are subject to considerable variation, and tend to diminish as water is diluted.

4. Brominated and Chlorinated flame retardants : never found in incoming water; found on untreated waste water on 1 facility
5. Organic Tin Compounds : never found in incoming water; found in untreated waste water on 1 facility
6. Chlorophenols : never found
7. Short Chain Chlorinated Paraffins : never found
8. Heavy Metals : found in incoming water on 6 facilities; found in untreated waste water on 6 facilities
9. Alkylphenols & their ethoxylates (APEOs) : never found in incoming water; found in untreated waste water on 5 facilities
10. Perfluorinated Chemicals (PFCs) : never found in incoming water; found in untreated waste water on 1 facility
11. Chlorinated Benzenes : never found in incoming water; found in untreated waste water on 1 facility
12. Cyanide : never found in incoming water; found in untreated waste water on 2 facilities

At the two sites where waste water sampling was possible after treatment, note that certain substances were not totally eliminated and consequently were discharged into the environment even after treatment.

VFG is focused on plants with the main problems but considering that said plants are a small part of its supply chain, VFG will take the proper decisions in order to achieve the Detox commitment, also considering to choose other plants.

CONCLUSIONS AND FOLLOW UP

In the pursuit of zero discharges of hazardous chemicals from products and processes in the supply chain by 2020, VFG is currently taking action in the following areas:

- monitoring completion of post-audit continuous improvement report (CIR modules) by suppliers and delivery of expected outcomes with a view to organizing the programme of follow-up audits and water sampling, thereby assessing real progress towards the achievement of objectives;
- urging suppliers to disclose chemical discharge data via the IPE¹ online platform, in line with the public's "right to know"; despite the technical difficulties in accessing and uploading data, VFG actively encourages all suppliers to cooperate in sharing data;
- urging suppliers to investigate sources of contamination detected within production processes in the light of audit and waste water sampling results, taking into consideration structural, geographical and sector-specific factors;
- ongoing screening of raw materials and finished products, on the basis of best technology detection limits;
- urging suppliers to conduct detailed analysis of all MSDS at production sites and to verify chemical substances used in the production cycle;
- ongoing communication with all actors within the supply chain to raise awareness to VFG's Detox goals, as well as identification of new sites willing to participate in the auditing programme;
- ongoing research into valid substitutes for the 3 priority chemical groups (APEOs, PHTHALATES and PFCs) and public disclosure of documentation on the state of the art;

For further details of specific initiatives relating to the elimination of phthalates, PFC and APEOs from VFG's supply chain, please see:
APEOs investigation, PHTHALATES investigation, PFCs investigation

VFG is urging suppliers to follow its pathway, and to take up the Detox Commitment, as some have already done.

VFG is fully aware that only with the active participation of the entire fashion industry it is possible to deliver the desired outcomes on a global scale; for example, the chemical industry plays a key role on elimination of hazardous chemicals from their formulations. VFG is closely monitoring initiatives undertaken by other firms within the context of the Detox Commitment, willing to take part in all collective efforts and to share its experiences with others.

¹ IPE (Institute for Public and Environmental Affairs) is a non-profit organization established in China in 2006. The main aim is to monitor firms' environmental performance and to promote public participation in environmental management. IPE promotes environmental progress by fostering the public disclosure of testing performed by certified laboratories on the basis of common and globally recognized test methods.