

Clean By Design

2018 Mill Overview



**Sustainable
Apparel Coalition**





About NRDC

The **Natural Resource Defense Council** (NRDC) is an international nonprofit environmental organization with more than 3 million members and online activists. Since 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment.



About SAC

The **Sustainable Apparel Coalition** (SAC) is a trade organization comprising brands, retailers, manufacturers, government, and non-governmental organizations and academic experts, representing more than a third of the global apparel and footwear market. The Coalition is working to reduce the environmental and social impacts of apparel and footwear products around the world.

In 2017, the Sustainable Apparel Coalition and its partners (Target, PVH Corp, Gap Inc and HSBC Holdings) formed the **Apparel Impact Institute** which is designed to work with brands and manufacturers to select, fund, and scale projects that dramatically improve sustainability performance of the apparel and footwear industry. Clean by Design is the first program supported by the institute.

What is CBD

Clean by Design (CBD) is a green supply chain efficiency program which calls upon multinational apparel retailers and fashion brands to improve upon environmental impacts in their factories abroad. The program, which improves industrial process efficiency, provides a comprehensive system that reduces energy, water, and chemical use in textile mills, the apparel and footwear industry's most resource intensive production segment. Since 2007, the approach has been introduced to more than 200 mills of all ages and sizes. The program has demonstrated excellent environmental and financial return on investment and could be scaled to any level given appropriate demand. The mill program has been managed by NRDC to date, but in this new phase it will be a project of the Apparel Impact Institute with guidance from the NRDC.

Achievements of CBD 2014-2017




Figure 1. Comprehensive results achieved by CBD programs in 2014—2017

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Design

NRDC's Ten Best Practices for Textile Mills to Save Money and Reduce Pollution

Authors: Linda Greer, Susan Egan Keane



NRDC
Natural Resources Defense Council
www.nrdc.org/cleanbydesign
February 2015

A PRACTICAL GUIDE FOR RESPONSIBLE SOURCING

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NRDC'S 10 BEST PRACTICES FOR TEXTILE MILLS TO SAVE MONEY AND REDUCE POLLUTION

NRDC Authors: Linda Greer, Susan Keane, Cindy Lin, James Menzies
A PRACTICAL GUIDE FOR RESPONSIBLE SOURCING
Version 2.0



NRDC
Natural Resources Defense Council
July 2012

IFC International Finance Corporation

China's Textile Dyeing and Printing Industry
Opportunity Assessment for Water-saving Technologies and Practices

Prepared by Natural Resources Defense Council

NRDC

Internal Draft - Not for Public Distribution
June 2012

NRDC

THE TEXTILE INDUSTRY LEAPS FORWARD WITH CLEAN BY DESIGN: Less Environmental Impact with Bigger Profits



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A partnership with **IFC** International Finance Corporation

NRDC Clean by Design 2016



New Approach to Mill Improvement

NRDC **IFC** International Finance Corporation Sustainable Apparel Coalition

Guidance documents and reports produced by CBD

How does Clean by Design Work?

Multinational buyers, government authorities, or industry trade associations encourage recruit mills to join the Clean by Design mill efficiency program. The cornerstone of the program is a set of Ten Best practices for textile mills that are practical, low-cost, easy to implement, and pay themselves back quickly — usually within a year. They have an established track record of success in other textile mills for saving water, fuel and electricity. One practice underpins all others and is recommended for immediate adoption upon entering the program: installing meters and measurement software to track water, steam, and electricity consumption at the process and equipment level. The Ten Best Practices are dynamic and routinely updated to reflect the program’s ever-expanding implementation experiences. For example, CBD will introduce basic practices for chemicals management to the process in 2018.

Throughout the program, participating mills complete the Higg Facilities Environmental Module as one of the criteria on evaluating their resource use and track improvement. They complete online training courses, attend workshops with resource efficiency experts, receive on-site expert visits and do “homework” between sessions that builds their capacity to identify opportunities in accordance with the Ten Best Practices.

Ten Best Practices for textile mills to save money and reduce pollution



METERING AND LEAK DETECTION



IMPROVE BOILER EFFICIENCY



CONDENSATE COLLECTION AND RECOVERY



MAINTAIN STEAM TRAPS AND SYSTEM



COOLING WATER REUSE



IMPROVE INSULATION



PROCESS AND GREY WATER REUSE



RECOVER HEAT FROM EXHAUST GAS AND HEATING OIL



RECOVER HEAT FROM HOT WATER



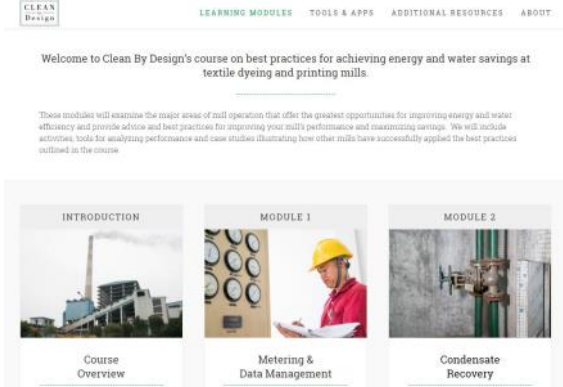
OPTIMIZE COMPRESSED AIR

CBD Recognition

Each CBD program concludes with an award ceremony that provides visibility and recognition for participating mills. The event is well-attended by prominent brands, government officials, industry leaders, organizations and media. Every mill that successfully completes the program is recognized during the event and one winning mill is selected from a group of finalists as the participant achieving the greatest savings. In addition to this opportunity for public recognition in front of industry leaders, CBD also provides certificates and prizes to qualified mills. For example, the last winner received a trip as an honorary guest to the next Sustainable Apparel Coalition meeting in Vancouver, Canada.



Program Outline

- Step 1 — **Kick-off Meeting**
- Step 2 — **Higg 3.0 Training and self-assessment completed** (unless previously completed)
- Step 3 — **E-training courses, online workshops and homework completed**

- Step 4 — **Experts visit mills to review baseline and help identify opportunities**
- Step 5 — **Mills create and share implementation plans**
- Step 6 — **Office hours sessions held for action plan support and advice**
- Step 7 — **Improvements undertaken by mills**
- Step 8 — **Mid-term meeting for progress and experience**
- Step 9 — **Experts visit mills again to verify implementation of improvements**
- Step 10 — **Mills submit final implementation report**
- Step 11 — **Post-implementation Higg Index completed and verified**
- Step 12 — **Data analysis and program summarizes by CBD**
- Step 13 — **Final award ceremony**

Clean By Design 2018

In 2018, CBD will expand in China using a new interactive e-learning platform. The program will be based in Shanghai but will accommodate facilities outside of the region as well.

What CBD will deliver

- Support for completing Higg Index in collaboration with SAC.
- Knowledge of water/energy policies, costs, risks and saving opportunities.
- Practical, proven and feasible ideas of how to reduce energy and water consumptions and costs.
- Technical and management skills training via online and in-person venues.
- A forum for retailers, brands, and mills to share experiences and ideas.
- On-going updates and opportunities to learn about industry trends and requirements.
- A mid-term and end-of-program award event to share participant progress and success and provide visibility to multinational brands and retailers, experts, government officials, and influential media attend these events.
- An award for the mill(s) with best performance during the program by CBD team.

Participation Cost

CBD offers two participation options, which differ in levels of expert engagement.

High –Touch track	Full expert support: <ul style="list-style-type: none">– Pre-program (baseline) expert assessment and final evaluation– One full day efficiency opportunity assessment for improvements at the beginning of the program– Expert support on finalizing efficiency improvement project summary– Supporting visit during the program for action plan (Optional for additional cost)– Additional expert access	Participating Charge: 35,000 RMB
Low-Touch track	Simple expert support: <ul style="list-style-type: none">– Pre-program (baseline) expert assessment and final evaluation– Brief analysis and opportunity identification– Supporting visit during the program for action plan (Optional for additional cost)– Expert consulting support via office hours and group meetings	Participating Charge: 25,000 RMB

Note: Participating charge will be collected and managed by the Impact Institute, and these funds will be used to pay for expert services to the mills.

Commitment required from Participating Mills

- Build a project committee led by an executive team member to oversee the program and an implementation task force that includes one coordinator, one or two technicians, and a project manager.
- Submit program fee to confirm participation by February 9th, 2018. Participants will be selected on a first-come basis.
- Participate in Higg training and complete Higg Facilities Environmental Module (3.0) self-assessment by the scheduled date. At the conclusion of the program, complete a new self-assessment with verification.
 - CBD will provide suggested verifying organizations. However, verifier selection, payment and completion will be managed individually by participating mills and/or brands.
- Utilize instructions and technical support for completing the Higg provided by SAC and partner organizations.
- Complete the CBD e-training course and participate in all workshops and project meetings. In doing so, provide required documents and submit homework on time according to the curriculum.
- Work collaboratively with CBD efficiency experts during trainings and workshops to understand current mill conditions, identify opportunities, and evaluate implementation projects.
- Develop and submit an action plan with at least 6 feasible implementation projects as required by CBD.
- Complete at least 6 concrete implementations from the action plan during the program with detailed documentation for both successful and unsuccessful practices. Develop and submit a final report by the end of the program as required by CBD. All results and detailed calculations should be included in the report.
- Communicate with CBD experts and brand partners to quickly resolve issues or concerns as they arise.
- Enable CBD to share general experiences, achievements and results publicly. This excludes confidential information and any content attributed specifically to my mill unless previously agreed upon.

Contact Information

- Interested mills should work with their nominating partner to discuss further details of the CBD program and benefits of participation
- Contact Kurt Kipka (kkipka@nrdc.org) or Cindy Lin (ZLin@nrdc-china.org) to begin the commitment process

