

R & D PROJECTS 2009-10

1. GOVERNMENT SPONSORED PROJECTS

1.1 Completed projects

- (i) Project title** : Inter-firm Comparison of Energy Usage Performance in Export Oriented Textile Mills (Sponsored by Ministry Of Textiles, Govt. of India)

Objectives:

- To provide inter-mill comparison of energy consumption (both electrical and thermal) and related parameters.
- To present targets of fuel and power consumption for individual mills and to show the scope of improvement.
- To establish energy usage benchmark for different stages of production for the benefit of textile industry.
- To develop “Best Practices Guidelines” for improvement in energy consumption.

Research outcome:

- Energy efficient technologies for textiles have been suggested for the use of different types of textile industries.

2. INDUSTRY SPONSORED PROJECTS

2.1 Completed projects

- (i) Project title** : National Project on “Survey for Energy Efficiency Improvement in Textile Sector” (Sponsored by NEDO, Japan)

Objectives:

- To know the technologies used in textile industry.

Research outcome:

- All data report submitted to NEDO for adopting the new technologies in industry.

- (ii) Project title** : Development of Smoke Visibility Test Apparatus as per UIC Code 564-2, Appendix-15.

Objective:

- To develop an apparatus to determine the deterioration of visibility due to smoke produced when materials burn in a given sealed chamber, by assessing the attenuation of a light beam passing through the chamber as per UIC Code 564-2 Appendix-15

Research outcome:

- Smoke visibility test apparatus developed

(iii) Project title : Development of Toxicity Tester as per NCD 1409.

Objective:

- The test explores the toxicity of the products of combustion in terms of small molecular species arising when a small sample of a material is completely burnt in excess air under specified conditions

Research outcome:

- Toxicity index tester developed

3. IN-HOUSE PROJECTS

3.1 Completed projects

(i) Project title : A New Approach to Colorimetric Determination of Phenol in Water and Textile Effluent

Objective:

- Development of a simple method for colorimetric determination of Phenol in water and textile effluents

Research outcome:

- The colorimetric method developed is simple and may be carried out even in a small laboratory having an spectrophotometer
- The method is applicable to both water and textile effluents having phenol in the range of 0–600 µg/ml
- The presence of various organic impurities in the textile effluents does not interfere with the results
- The results have been highlighted in 51st JTC held at PHD House, New Delhi