

## 2-day Training Programme on “Environmental Friendly Techniques for Pulp & Paper Sector”

Venue: Center of Excellence, GIDC, Vapi, Gujarat  
Date: 25<sup>th</sup> and 26<sup>th</sup> November 2013

### Programme Schedule

DAY- 1; 25 <sup>th</sup> November, 2013		
10:00 – 10:30 hrs	<b>Arrival of Participants &amp; Tea</b>	
10:30 – 11:15 hrs	<b>Inaugural Session</b> <ul style="list-style-type: none"> <li>▪ Welcome address by Mr. Bharat Jain, Member Secretary, Gujarat Cleaner Production Centre</li> <li>▪ Address By Mr. Tushar Shah, Director, Damanganga Paper Mill</li> <li>▪ Address By Mr. Vijay Madnaik, President, Gujarat Paper Mills Association</li> <li>▪ Address by Ms. Brigitte Zietlow, German Federal Environmental Agency (UBA)</li> <li>▪ Address by Mr. G.H. Trivedi, Vigilance Officer, Surat, Gujarat Pollution Control Board</li> <li>▪ Self-introduction by participants</li> <li>▪ Vote of Thanks by GIZ.</li> </ul>	
11:15 – 11:30 hrs	The concept of <b>Best Available Techniques (BAT)</b> according to the European Industrial Emissions Directive (IED)	Almut Reichart, UBA
11:30 – 11:45 hrs	<b>BAT in the Paper Sector in Europe – an Overview</b>	Almut Reichart, UBA
<b>11:45 – 12:00 hrs TEA BREAK</b>		
12:00 – 13:00 hrs	<b>Visit of a recovered paper processing mill</b> (Damanganga Paper Mill) with recycling of process water	All
<b>13:00 – 14:00 hrs LUNCH BREAK</b>		
14:00 – 14:15 hrs	<b>Networks</b> in the German Paper Industry	Almut Reichart, UBA
14:15 – 14:30 hrs.	<b>Financial incentives</b> for environmental abatement as initiated by the State of Gujarat with special reference to the paper sector	GCPC
14:30– 14:45 hrs	<b>Process of setting minimum requirements for waste water</b> discharge on national level and enforcement of emission limit values in Germany (Waste Water Ordinance)	Almut Reichart/ Brigitte Zietlow, UBA
14:45 – 15:00 hrs	<b>Overview of the Pulp &amp; Paper</b> industry in Gujarat – structure of the industry, main environmental issues	Debajit Das, IGEP GIZ
15:00 – 15:20 hrs	<b>Water circuits and water balances</b> in recycled fibres processing mills	Almut Reichart, UBA
<b>15:20 – 15:40 hrs TEA BREAK</b>		
15:40 – 16:00	Examples of reduction of water consumption and <b>process water recycling in Indian reference plants</b>	Tushar Shah (Dir) Damanganga Paper Mills Pvt. Ltd.

16:00 – 17:30 hrs	<p><b>Discussions:</b></p> <ul style="list-style-type: none"> <li>• What are the objectives and aspirations of the Indian Pulp &amp; Paper industry concerning environmental performance?</li> <li>• How can the European experience help to improve the environmental performance of the Indian paper sector?</li> <li>• How to organize an exchange of Information on environmental friendly, effective, high quality techniques with special regard to SMEs?</li> <li>• Appropriate environmental management system taking learning's from European experience</li> <li>• How the BAT reference documents should be read by the textile industries</li> <li>• Which stakeholders should be involved (Current status of various stakeholders and capacity needs)?</li> <li>• How can interrelation between environmental friendly techniques, cost and quality lead to a win-win situation for industries?</li> <li>• Barriers of adaptation of EFT in Indian paper industries special focus on management and financial aspects</li> </ul> <p>... to be continued on Day 2...</p>	All
<b>DAY- 2; 26<sup>th</sup> November, 2013</b>		
<b>10:00 – 10:30 hrs</b>	<b>Arrival of Participants &amp; Tea</b>	
10:30 – 10:50 hrs	<b>Examples of a process water recycling in Indian reference plants.</b>	Suresh Desai (G.M.) Vaibhav Paper Mill
10:50 – 11:10 hrs	Techniques for waste water treatment for different paper mills – <b>removal of colour, COD, AOX, TSS</b>	Almut Reichart, UBA
11:10 – 11:30 hrs	Review of some of the <b>Emerging Technologies/techniques</b> in the Indian context	N. K. Kuttiappan Consultant, GIZ
<b>11:30 – 11:40 hrs</b>	<b>TEA BREAK</b>	
11:40 – 12:00 hrs	<b>Fibre recovery</b> from paper machine effluents	Almut Reichart, UBA
12:20 – 12:40 hrs.	<b>Control of AOX</b> by primary measures e.g. improved delignification in pulping, modern ECF or TCF bleaching, choice of chemicals	Almut Reichart, UBA
12:40 – 13:40 hrs	<b>LUNCH BREAK</b>	
13:40 – 14:00 hrs	Examples of <b>improved pulping, bleaching or washing technology</b> in Indian reference plants	A. K. Sharma, Rama pulp & Paper
14:00 – 14:30	<b>Energy Efficiency</b> in pulp and paper mills e.g. energy recovery, solutions for residues of waste paper processing, reutilisation of biogas from anaerobic waste water treatment	Almut Reichart, UBA
<b>14:30 – 14:50</b>	<b>TEA BREAK</b>	
14:50 – 15:10	<b>Discussion (continuation from day 1)</b>	All