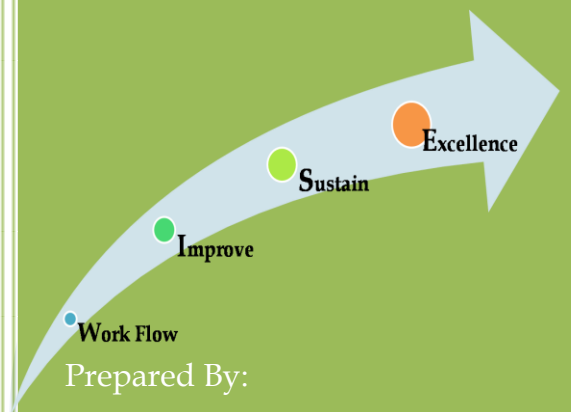


PIP -2011

Process Improvement Program – EXIM Knits Pvt Ltd (SIPCOT Perundurai)



Prepared By:

WISE MANAGEMENT SYSTEMS

wisemgmtsys@gmail.com

PIP -2011

Executive Summary:-

Our sincere thanks to Mr. Padmanabhan Director , Mr. Panner Selvam – General Manager and his team Mr. Korate (Ex - ETP In charge), Mr. Senthil and Mr. Saravanan (Ex - Maintenance Mechanical), Mr. Vijay kumar (Maintenance Electrical), Mr. Palanisamy (Ex- Human Resources) for their tireless efforts and support in realizing the goals envisioned prior to commencement of this project.

The improvement programs identified during this course of this project (from July – December 2010) only amounts to **20%**. However in terms of value the savings potential envisaged by the team tantamount to **80%** which validates the Pareto Principle.

Most of the activities will be taken forward by both WISE Management Systems and Exim Knits Private Limited in the year 2011 and beyond to realize tangible benefits to Exim Knits Private Limited.

Initiatives undertaken during the course of this PIP Project are as follows:-

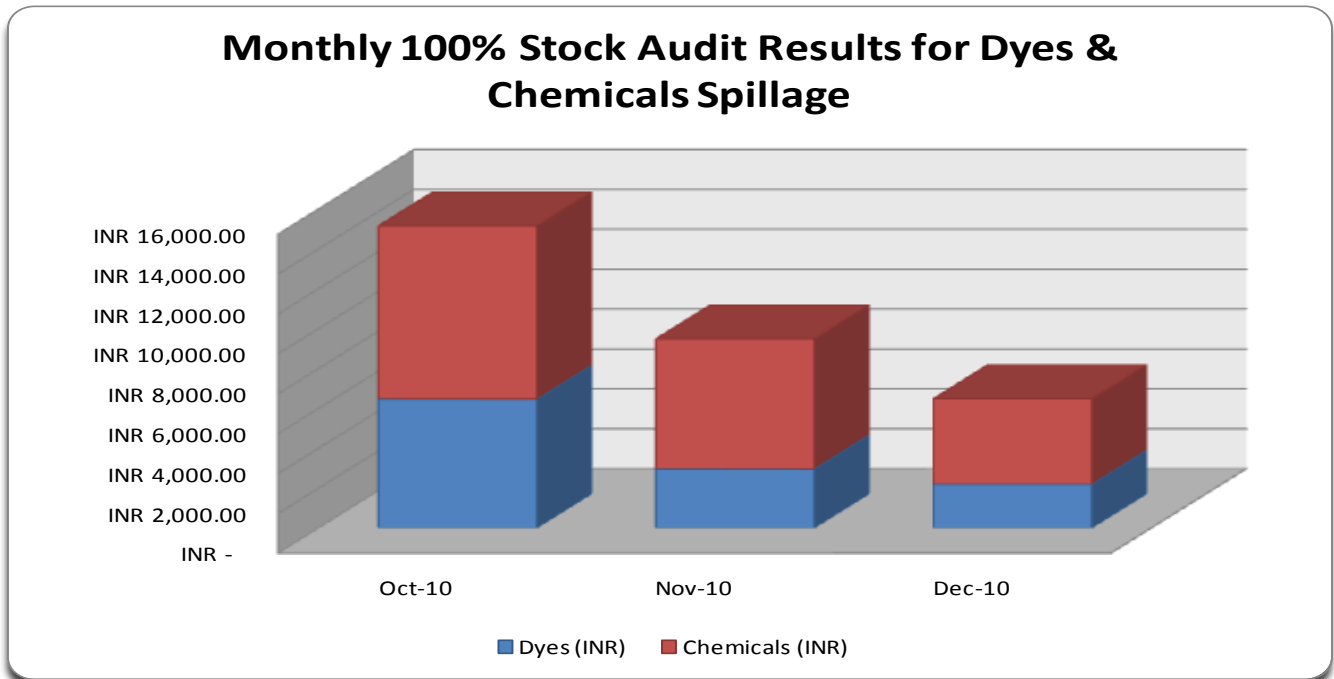
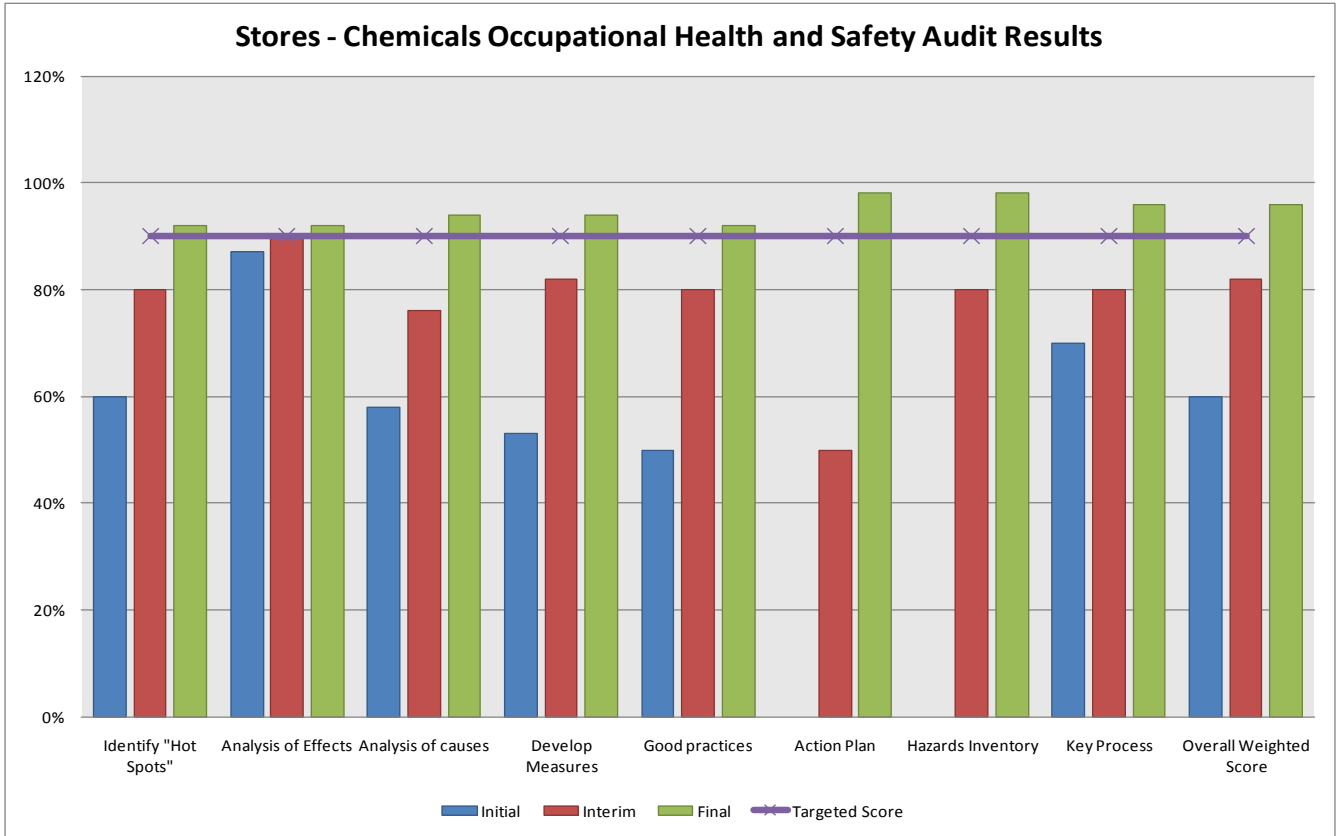
1. Minimize spillages while handling dyes and Chemicals
2. Minimize Diesel Consumption by raising the sanctioned demand quote for EB power
3. Reduce Fire Wood Consumption for Steam Boiler
4. Improving Power Quality (Distribution and Load Ends – Only ETP / RO Plant completed during the project)
5. Reducing Over Time
6. Identify opportunities for improvement based on existing MIS Reporting (daily / monthly)
 - a. Possibility of utilizing machines to the designated capacities
 - b. Maintaining Right First Time Performance for Critical Process (Dyeing, Bleaching, Washing, Drying, Compacting)
7. Significant improvement identified in materials management section – namely implementing Bin Cards, Performing regular daily and monthly stock audits, storing hazardous chemicals according to their nature, improving the housekeeping of dyes, chemicals and general stores.

Project Details Summary

s/n	Focus Areas	Remarks
1	Materials Management - Stores	100% of planned activities completed
2	Manufacturing Process	60% of planned activities completed
3	Energy Management - ETP / RO Plant - Main Panel , Shop Floor Panels - Utilities - Thermal Audit (Boiler, Compressor, Diesel Generator, Transmission Losses)	ETP / RO plant Power Quality Audit (25% Completed)
4	Introduction of Oxygen Analyzer in Boiler Chimney to monitor and regular Oxygen levels - reducing fire wood consumption Steam / Fuel Ratio - after the exit of Mr. Saravanan Maintenance Engineer - erroneous reporting (without weighing Firewood Quantity before loading into boiler) being practices (Early Oct'10 to Dec' 10) and it was identified and corrected by the Boiler Team.	Implemented - currently monitoring of performance is on-going as air leaks in ducts identified which will affect the precision of monitoring controls. Currently Steam Fuel Ratio is reported to be normal (3.4 ~ 3.6)
5	Human Resources - Management level operational review meeting (discontinued after end Sept 2010 - due to staffs resignations) - Key Performance Indicators for individual / department / Company level Performance Improvement - Overtime expenses tracking and reduction initiatives	33% of planned activities completed - overtime reduction
6	Training	<ul style="list-style-type: none"> Only ONE company wide ISO 9001:2008 training conducted. GM was briefed on data analysis

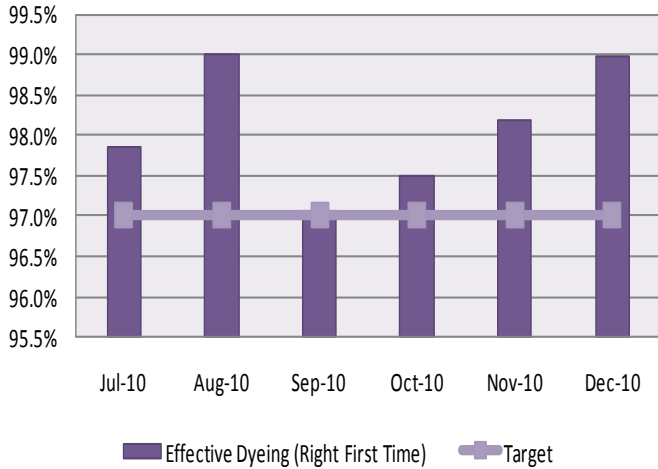
s/n	Opportunities Assessment Matrix	SCORE (1-10)	Comments
1	Leadership (Professional style of management is beyond the reach of current practices)	4	<p>Top Management focus shift to manage operational management, than long term goals and strategies to get the business to next level.</p> <p>Middle Level Management lacks competency (soft skills - communication and hard skills -coordination and getting support at all levels).</p> <p>The company is getting into line and staff mode (unity of command (power centric) mask all decision making ability and getting support at all levels which is more of traditional type hierarchy management.</p>
2	Team Work (Far from reality)	3	More of individual show than getting commitments and support at middle level management which results in personnel moving away from participating in decision making process.
3	Quality	8	Quality Consciousness is found to be good and consistent Process Quality performance observed in the past 9 months.
4	Process Control	8	Most of the process controls were established and able to demonstrate repeatable /reproducible performance consistently.
5	Information Systems	5	MS Excel is extensively used to collect data based on hard copy recording (too much manual work) but seriously lacking analysis of collected information to monitor and initiate actions based on process performance.
6	Initiatives to Implement Identified Improvement Actions	3	<p>Decision making process is slow - evident and all levels of management follows wait and watch method till the problem gets bigger. Examples</p> <ol style="list-style-type: none"> 1. Operational review identified actions implementation 2. Fixing air leakage in boiler ID fan and duct system

Please refer to annexure for graphical presentations.



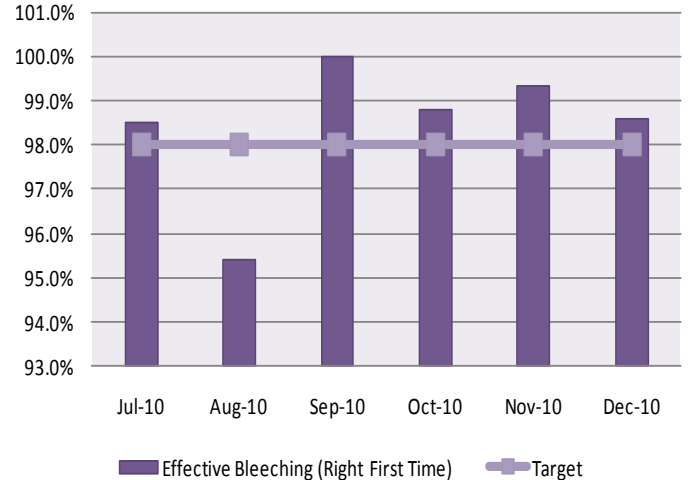
Results - Effective Dyeing

Effective Dyeing (Right First Time)



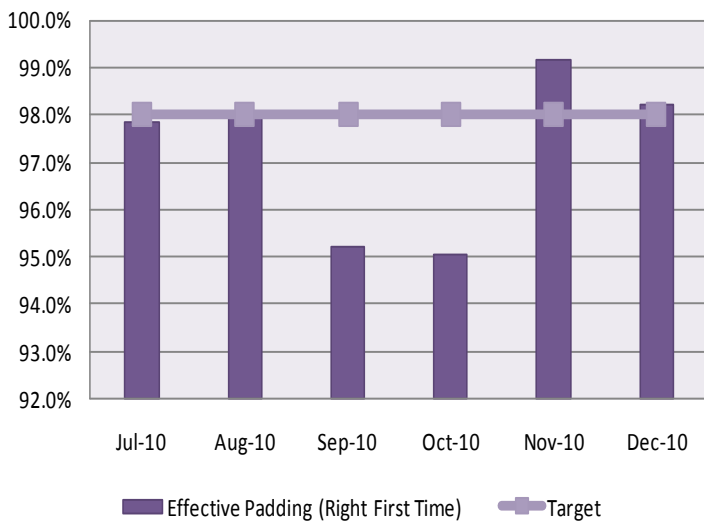
Results - Effective Bleaching

Effective Bleaching (Right First Time)



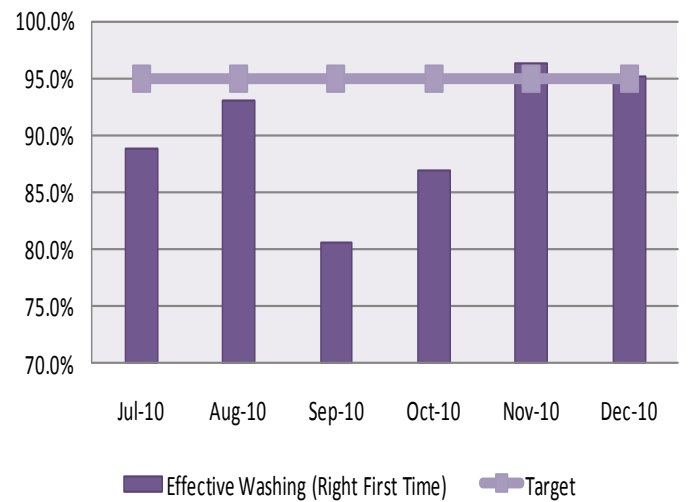
Results - Effective Padding

Effective Padding (Right First Time)



Results - Effective Washing

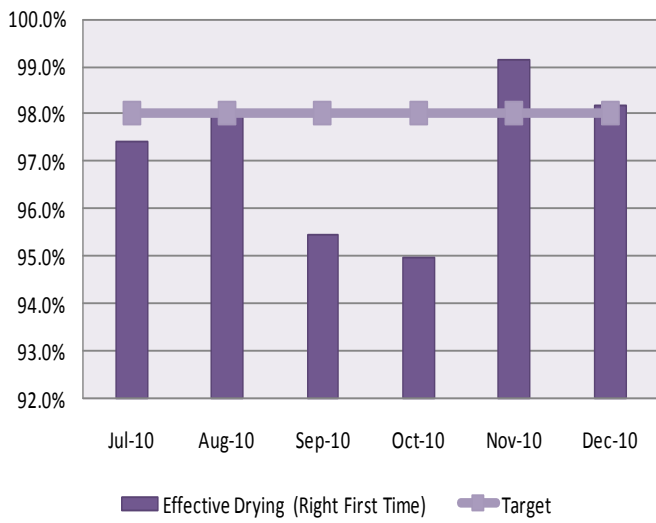
Effective Washing (Right First Time)



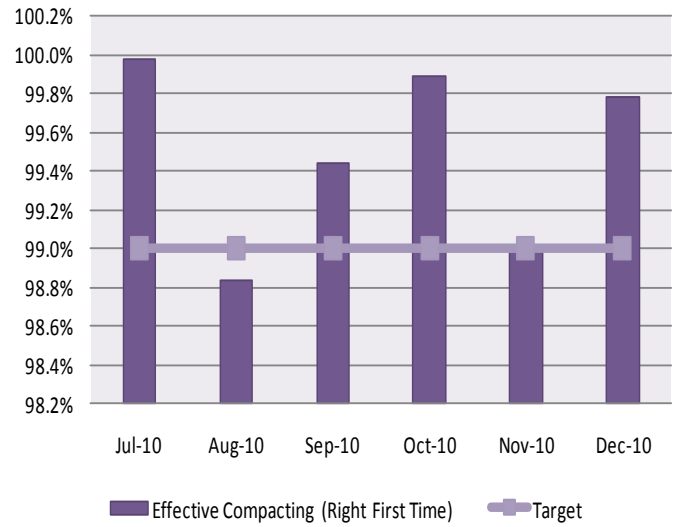
Results - Effective Drying

Results - Effective Compacting

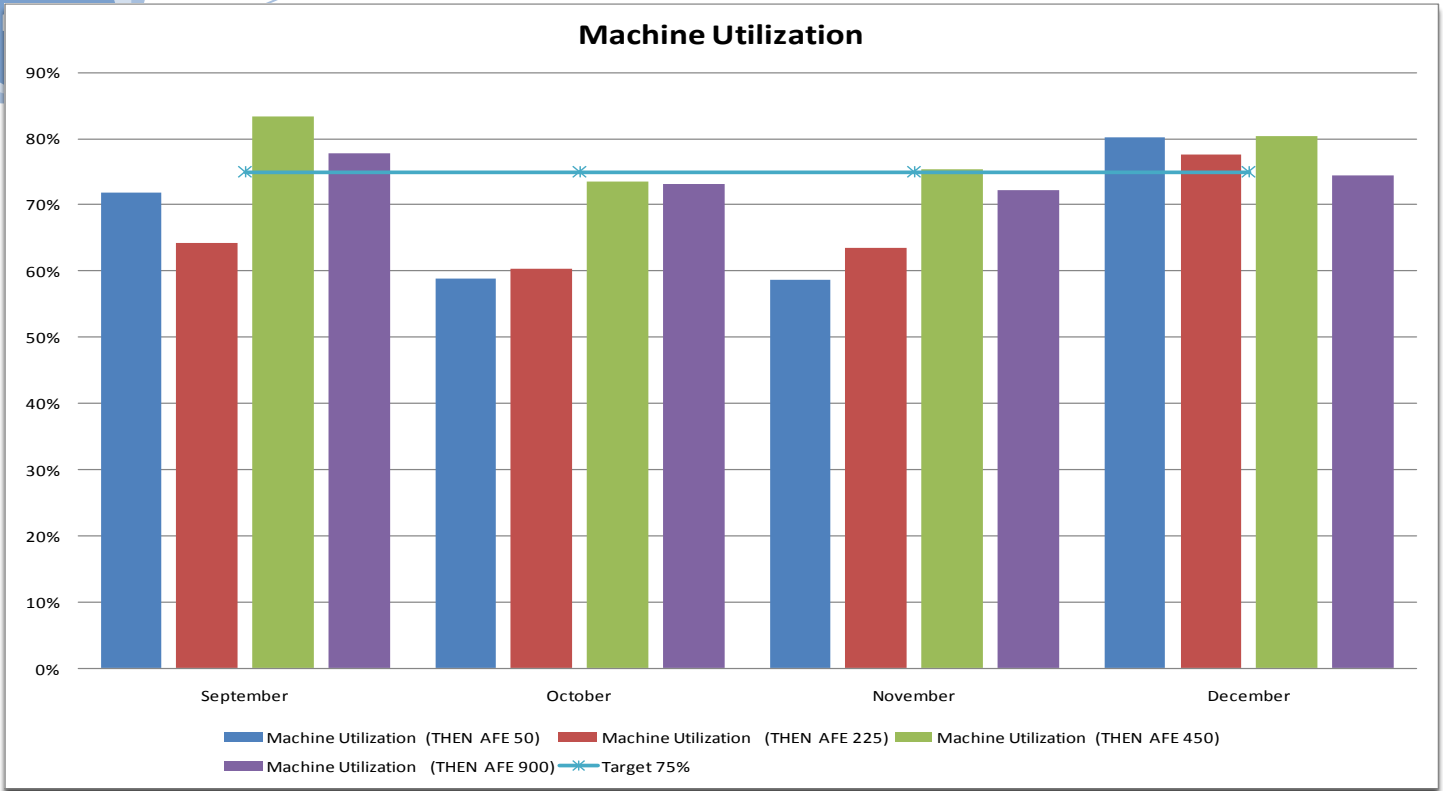
Effective Drying (Right First Time)



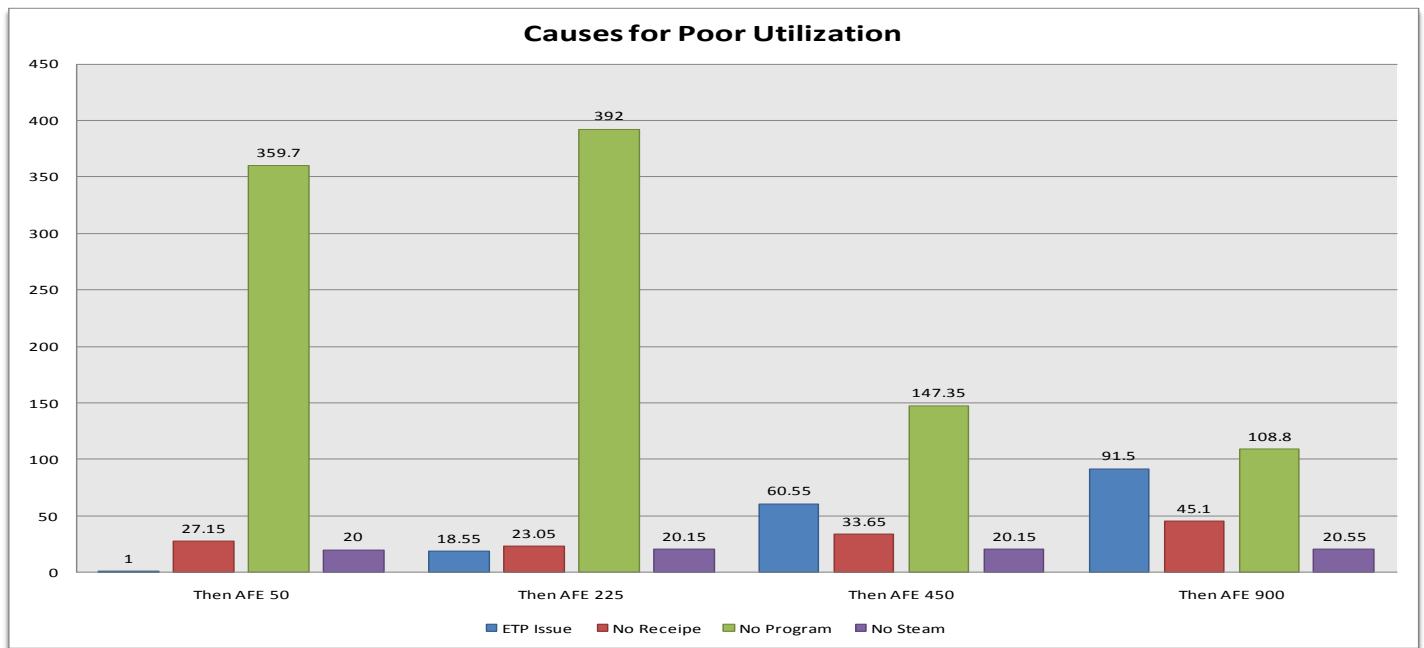
Effective Compacting (Right First Time)



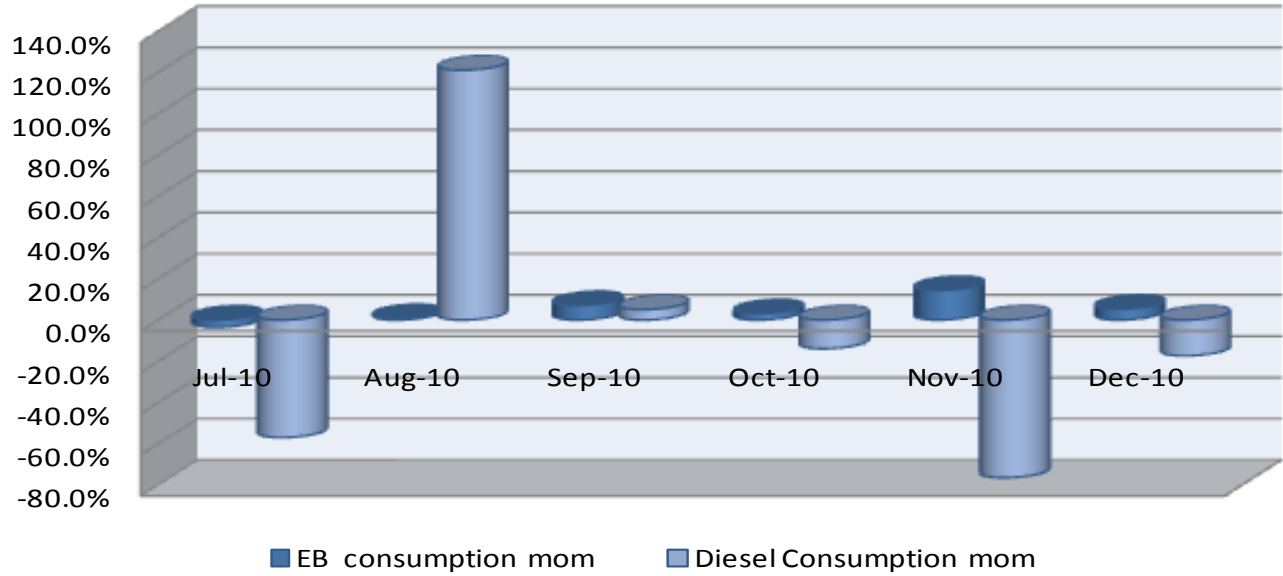
Results - Machine Utilization



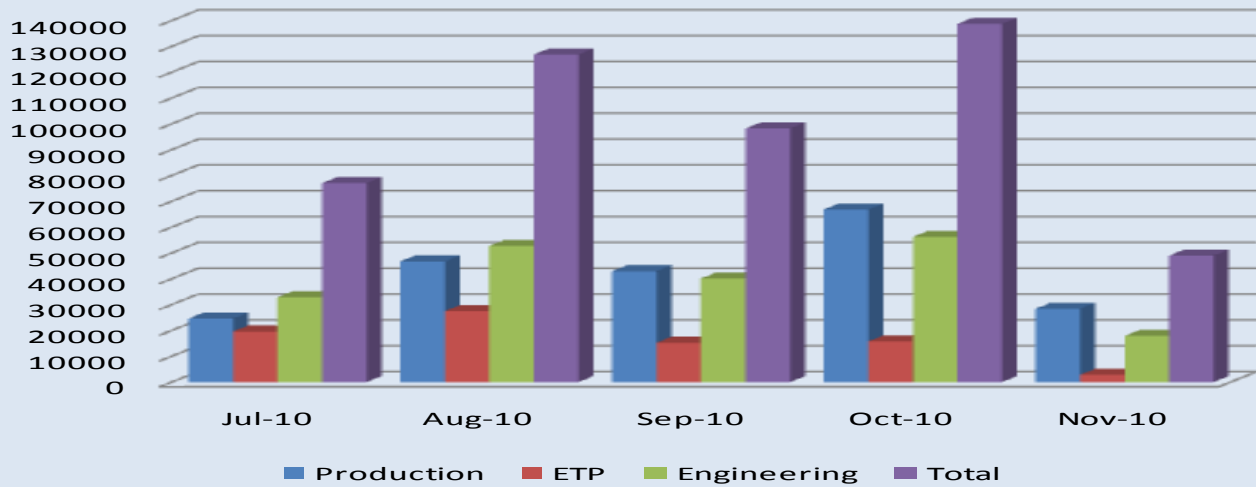
Results -Causes for Poor Machine Utilization



Electricity & Diesel Consumption month to month variance

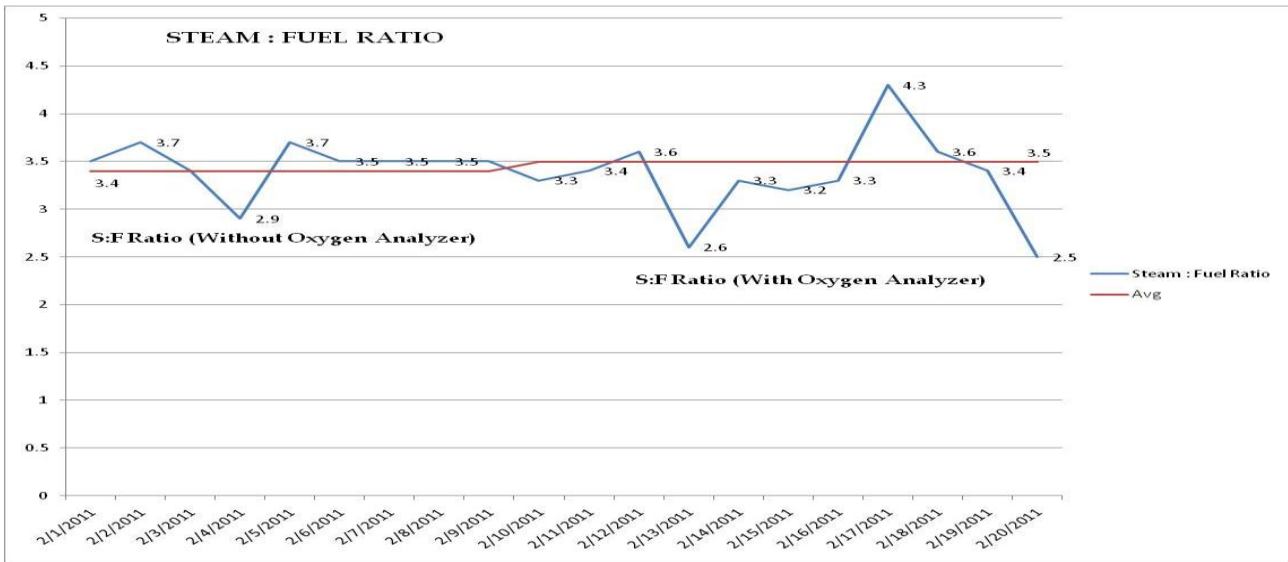
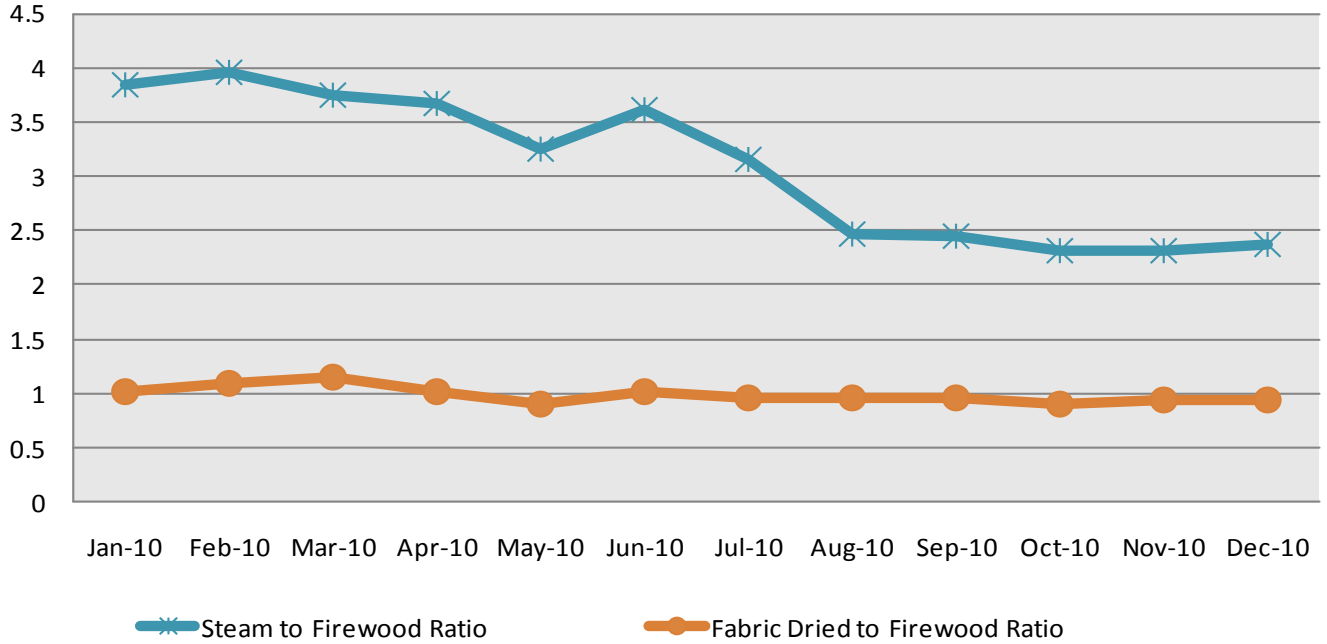


Departments Over Time Report



Feb.

Steam to Fuel Ratio



Combustion Controller Performance Snap Shot Study Report - Textile Dyeing Division (EXIM Knits)									
DATE of Study		27/12/2010				Mode: Manual running			
Time	Wood Consumption in KG	Steam Flow Meter Reading	Flow Rate (Kgs)	S:F Ratio	Pressure Value (As Measured by Op) HIGH	Pressure Value (As Measured by Op) LOW	Running Machines		
11:00:00 Hrs	471	2612470	1290	2.74	6.30	3.30	Full Load	Fire Wood Consumption- Manual Mode	Steam : Fuel Ratio
12:00:00 Hrs	463	2613760	1270	2.74	6.30	3.30			
13:00 Hrs	545	2615030	2850	5.23	6.30	3.30			
14:00 Hrs	503	2617880	1410	2.80	6.30	3.30			
15:00 Hrs	463	2619290	1600	3.46	6.30	3.30			
16:00 Hrs	515	2620890	1610	3.13	6.30	3.30			
17:00 Hrs	1092	2622500	4030	3.69	6.30	3.30			
TOTAL	4052	2626530	14060				3.5		
								Variability between the SF Ratio Values - Manual Mode	0.79
DATE of Study		28/12/2010				Mode: Combustion Controller Control running			
Time	Wood Consumption Kgs	Steam Flow Meter Reading	Flow Rate (Kgs)	S:F Ratio	Pressure Value (As Measured by Op) HIGH	Pressure Value (As Measured by Op) LOW	Running Machines		
10:00 Hrs	487	2655760	2140	4.39	6.30	3.30	Full Load	Fire Wood Consumption - Auto Mode	Steam : Fuel Ratio
11:00 Hrs	558	2657900	2180	3.91	6.30	3.30			
12:00 Hrs	471	2660080	1640	3.48	6.30	3.30			
13:00 Hrs	453	2661720	1600	3.53	6.30	3.30			
14:00 Hrs	644	2663320	1720	2.67	6.30	3.30			
15:00 Hrs	612	2665040	1330	2.17	6.30	3.30			
16:00 Hrs	404	2666370	1572	3.89	6.40	3.30			
TOTAL	3629		12182				3.4		
								Variability between the SF Ratio Values - Auto Mode	0.59
								Observed Fuel Savings in %	10%
								Saving wood for Six hours (Kgs)	423
								Savings Annualized	INR 1,424,962.98
								% of Fuel Savings	10%

Once again our sincere thanks to Mr. Padmanabhan – Director, Mr. Pannerselvam – GM and his team for the cooperation and support. Without the team involvement we would not be able to complete the project in time.

End of Report