



Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	NPS – 4		Sector - Automobile.....		
Year to be filled by BEE	VFD for Humidifier Pump for ASU 1,2 & 3		Technology		
Description of the energy conservation measure:					
ASU humidifier pumps 1, 2 and 3 were throttled by motorized valve depending on the relative humidity (RH). The throttling was eliminated by installing Variable Frequency Drives on the pumps which operates based on RH. The total energy saving of 2,14,200 kWh/Annum was achieved.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): NPS Maint Team					
Total investment, Rs.: 6.00 Lakhs			Year of implementation:2006-2007		
First year energy cost savings, Rs.: 8.57 Lakhs					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	443.7				
Energy consumption after	229.5				
Energy tariff, Rs/ kWh/ Ton/ Nm³/ kL	4.00				
Company complete address: M/S Mahindra & Mahindra 89 MIDC Satpur Nashik -422007 Maharashtra				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr. Vijay Ugale (Maintenance Manager – New Paint Shop)				Signature	
				Date	



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ID to be filled by BEE	NPS - 5	Sector - Automobile.....
Year to be filled by BEE	Delay in start up of cooling zone and exhaust fans by 45 min	Technology
Description of the energy conservation measure:		
The cooling zone and exhaust fans starting time delayed by PLC based programming eliminating manual operation. The fans starting were delayed by 45 minutes after entry of first body.		
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification	
<div style="border: 1px solid black; padding: 10px;"> <p>Before Sketch</p> <div style="text-align: center; margin: 20px 0;"> <div style="border: 1px solid black; display: inline-block; padding: 5px;">CENTRAL START ON</div> ↓ </div> <div style="border: 1px solid black; display: inline-block; padding: 5px; width: 80%;"> After approx 15 minutes, COOLING ZONE Supply & Exhaust fan start-up </div> </div>	<div style="border: 1px solid black; padding: 10px;"> <p>After Sketch</p> <div style="text-align: center; margin: 20px 0;"> <div style="border: 1px solid black; display: inline-block; padding: 5px;">CENTRAL START ON</div> ↓ </div> <div style="text-align: center; margin: 20px 0;"> <div style="border: 1px solid black; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center;"> <div style="font-size: 2em;">{</div> <div style="text-align: center;"> Has the Body shell entered the Surfacer Oven ?? </div> <div style="font-size: 2em;">}</div> </div> </div> <div style="text-align: center; margin: 20px 0;"> <div style="border: 1px solid black; display: inline-block; padding: 5px;">NO</div> → </div> <div style="text-align: center; margin: 20px 0;"> ↓ </div> <div style="border: 1px solid black; display: inline-block; padding: 5px; width: 80%;"> After approx 45 minutes from the Body Entry, COOLING ZONE Supply & Exhaust fan start-up </div> </div>	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	NPS - 6			Sector - Automobile.....	
Year to be filled by BEE	Seasonal setting of VFD of ASU 03 and 05			Technology	
Description of the energy conservation measure:					
The VFD was installed on the Air supply unit fans 03 and 05. The moisture level of the atmosphere changes according to season. The speed of the VFD is controlled based on the ambient moisture level. The energy saving of 98,000 kWh per annum was achieved.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
Constant flow of Air irrespective of RH level of ambient air.			Variable flow of Air based on RH level of ambient air.		
Agency that executed the project (with complete address and email):NPS Maint Team					
Total investment, Rs.: NIL			Year of implementation:2006-2007		
First year energy cost savings, Rs.: .3.93 Lakhs					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	490				
Energy consumption after	392				
Energy tariff, Rs/ kWh/ Ton/ Nm³/ kL	4.00				
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				Date	



Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	NPS – 1	Sector - Automobile.....			
Year to be filled by BEE	Electronic Ballast with reflectors on 200 Nos. 40W conventional FTLs of twin type	Technology			
Description of the energy conservation measure:					
In New Paint Shop, 200 nos of 40 W twin conventional ballast Florescent tube lights were replaced by electronic ballast, single Florescent tube lights & reflectors. The power savings of 0.58 lakhs kWh per annum has been achieved.					
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification				
					
Agency that executed the project (with complete address and email): NPS Maint Team					
Total investment, Rs.: 1.20 Lakhs	Year of implementation:2006-2007				
First year energy cost savings, Rs.: 2.33 Lakhs					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	102				
Energy consumption after	43.9				
Energy tariff, Rs/ kWh/ Ton/ Nm³/ kL	4.00				
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Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	NPS – 3			Sector - Automobile.....	
Year to be filled by BEE	Elimination of idle running of Sealer oven			Technology	
Description of the energy conservation measure:					
The sealer oven idle operating time is eliminated. The oven operation is reduced by 30 min per day. The power consumption is reduced by 16,000 kWh per annum.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
Agency that executed the project (with complete address and email): NPS Maint Team					
Total investment, Rs.: Nil			Year of implementation:2006-2007		
First year energy cost savings, Rs.: 27,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	5.58				
Energy consumption after	5.42				
Energy tariff, Rs/ kWh/ Ton/ Nm³/ kL	4.00				
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Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	NPS – 2	Sector - Automobile.....			
Year to be filled by BEE	Reduction in LPG consumption by Re insulation	Technology			
Description of the energy conservation measure:					
The insulation of the surface ovens is reinsulated and the thickness were increased from 100 mm to 200 mm. Surface temperature are reduced from average 80 ⁰ C to 60 ⁰ C which reduced heat losses from the surface. The LPG savings of 9.6 T per annum was achieved.					
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification				
 <p style="font-size: small; color: yellow;">Removal of old insulation from primer oven hot air duct</p>					
Agency that executed the project (with complete address and email): NPS Maint Team					
Total investment, Rs.: 6.00 Lakhs	Year of implementation:2006-2007				
First year energy cost savings, Rs.: 2.87 Lakhs					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	LPG (Tons)	Oil (kL)	Other
Energy consumption before			192		
Energy consumption after			182.4		
Energy tariff, Rs/ kWh/ kg/ Nm ³ / kL ...			30		
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