

ACTIVITY CLUSTER	STATUS UPDATE ON THE EMP PROGRAM FOR TIMELINE ENDED 30TH JUNE, 2016						
ELECTRO-MECHANICAL OVERHAUL	Activity	Impact - process sustainability	Action - future	Timeline for completion	Expected gains		
	Direct compression analysis for process and electrical energy	Statistical analysis of data clarifying the electrical and mechanical action points during the service as explained in the note	Electrical rewinding of motors	July, 2016	Process efficiency improvement - 30 %	Thermal energy improvement - 25%	Electrical energy improvements - 25%
			Cylinder surface wear correction				
			Damping the vibrations				
			Working on shaft eccentricity of the drives				
			Linking up with rectifiers for controlling harmonics in drives for both AHU and motors for the compression	August, 2016			
BOILER SERVICE JUSTIFICATION	FBD drying configuration	Optimizing parameters on the boiler and the dryer highlighted	Optimizing the steam pressure through the service of boiler	July, 2016			
			Distribution of heat in the air inside the FBD for optimized consistency of drying of the granules				
			Optimizing the velocity of air by control of enthalpy to ensure particle size consistency of the granulation process				
			Phase imbalances to be removed for the B phase				
			Reducing the harmonics in the system to <3% from existing levels of >50%				
	Sugar formation for syrup process	Highlighted the action points for improving both process and thermal energy efficiency	Boiler service - cleaning of the filters, the burner and nozzles as well as cleansing of the fuel conduits with heated car engine oil (typically heated to 85-90 degrees celsius)	July, 2016			
			Working on the condensate recovery system to optimize flow				
			Establishing pre-heating mechanism for the process optimization				
			Improving on the stirrer motor efficiency through re-winding and linkage with harmonics control				
			B-phase improvements in the line				