

Grown...to meet challenges
Instrumentation

3+ years in Process Control

HGG SCANNER INSTALLATION AND COMMISSIONING WORK

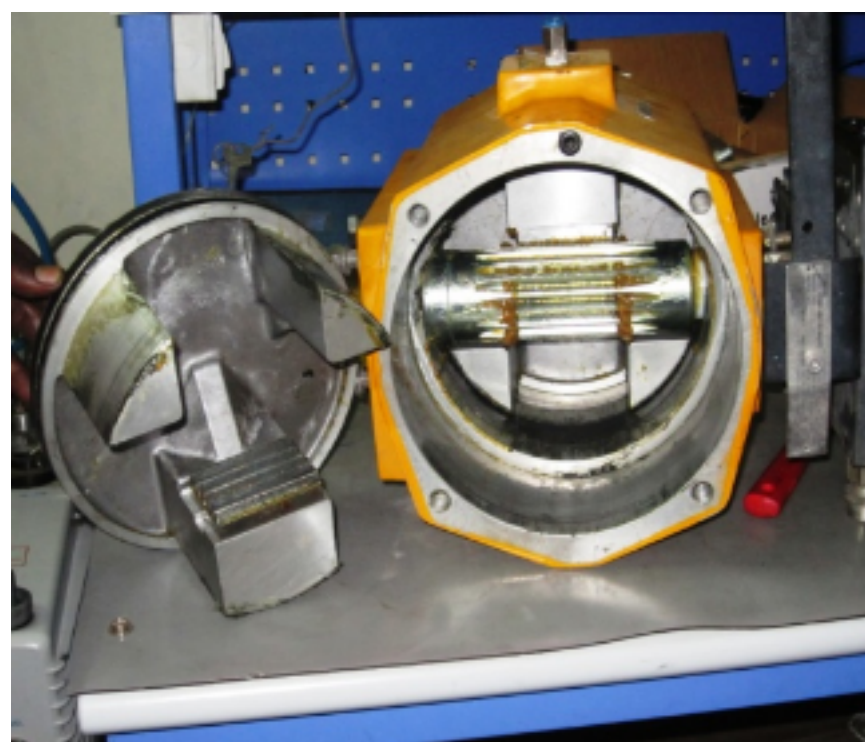
- ☒ New scanner installed (3nos)
- ☒ Programming done
- ☒ Checking of flame sensing done

HGG (Hot Gas Generator)

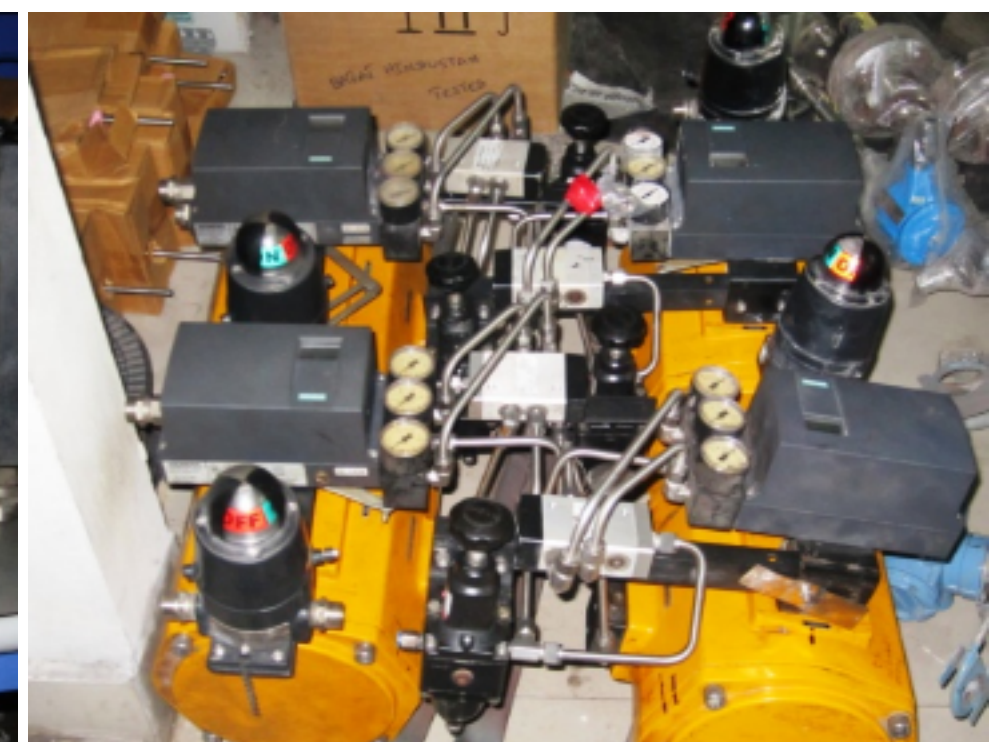
- ☒ Inspection of all pneumatic Actuators done.
- ☒ Dismantling of all pneumatic Actuators (06 nos.) done
- ☒ Overhauling of all pneumatic Actuators done.
- ☒ Changing of seal done with repair seal kit.
- ☒ Calibration of all pneumatic Actuators done.
- ☒ Trail taken off all pneumatic Actuators in Instrument lab.
- ☒ Installation done.



Before overhauling



Overhauling under process



After overhauling

- ☒ Inspection of Oil skid (02 nos.) done.
- ☒ Dismantling of pressure switch done.
- ☒ Dismantling of Transmitters done.
- ☒ Removal of Temperature Elements done.
- ☒ Calibration of control valves (02 nos.) done.
- ☒ Removal of Gauges done.
- ☒ Calibration of Gauges done.
- ☒ Fixing of Transmitters, Gauges, and Temperature elements done.
- ☒ Cleaning and connection tightness done of BMS panel done.

TRANSMITTERS

- ⊠ Dismantling of Transmitters done.
- ⊠ Calibration done in instrument lab with pneumatic test bench.
- ⊠ Checked LRV and URV of all transmitters.
- ⊠ Fixed on its position.
- ⊠ Connection done and taken in line.



Before Calibration



After Calibration

IGV Actuators

- ⊠ Dismantling of IGV actuators (04 nos.) done.
- ⊠ Inspection of all IGV Actuators done.
- ⊠ Changing of seal done with repair seal kit.
- ⊠ Calibration of all IGV Actuators done.
- ⊠ Trail taken off all IGV Actuators in Instrument lab.
- ⊠ Connection tightness done.
- ⊠ Installation done.



Before Calibration

After Calibration

Pneumatic Actuators

- ☒ Inspection of all pneumatic Actuators done.
- ☒ Changing of seal done with repair seal kit.
- ☒ Leather bellow fitting over the shaft for safety of collar seal and shaft from high temp
- ☒ Calibration of all pneumatic Actuators done.
- ☒ Trail taken of all pneumatic Actuators in Instrument lab.
- ☒ Connection tightness done.
- ☒ Installation done.



Before Overhauling



After Overhauling

MAINTENANCE OF RTDs AND THERMOCOUPLES

- ☒ Removal of critical temperature element done.
- ☒ Calibration done through temperature bath on Zero /span basis.
- ☒ Modification done with SS plate due to very hot zone.
- ☒ Fixed them on its position.
- ☒ Connection tightness done.
- ☒ Covering with aluminium tape.



MAINTENANCE OF PRESSURE AND TEMPERATURE GAUGE

- ☒ Removal of all temperature and pressure gauge done.
- ☒ Calibration done through temperature bath and dead weight tester on Zero /span basis.
- ☒ Fixed them on its position.
- ☒ Connection tightness done.



Before Calibration



After Calibration of TG



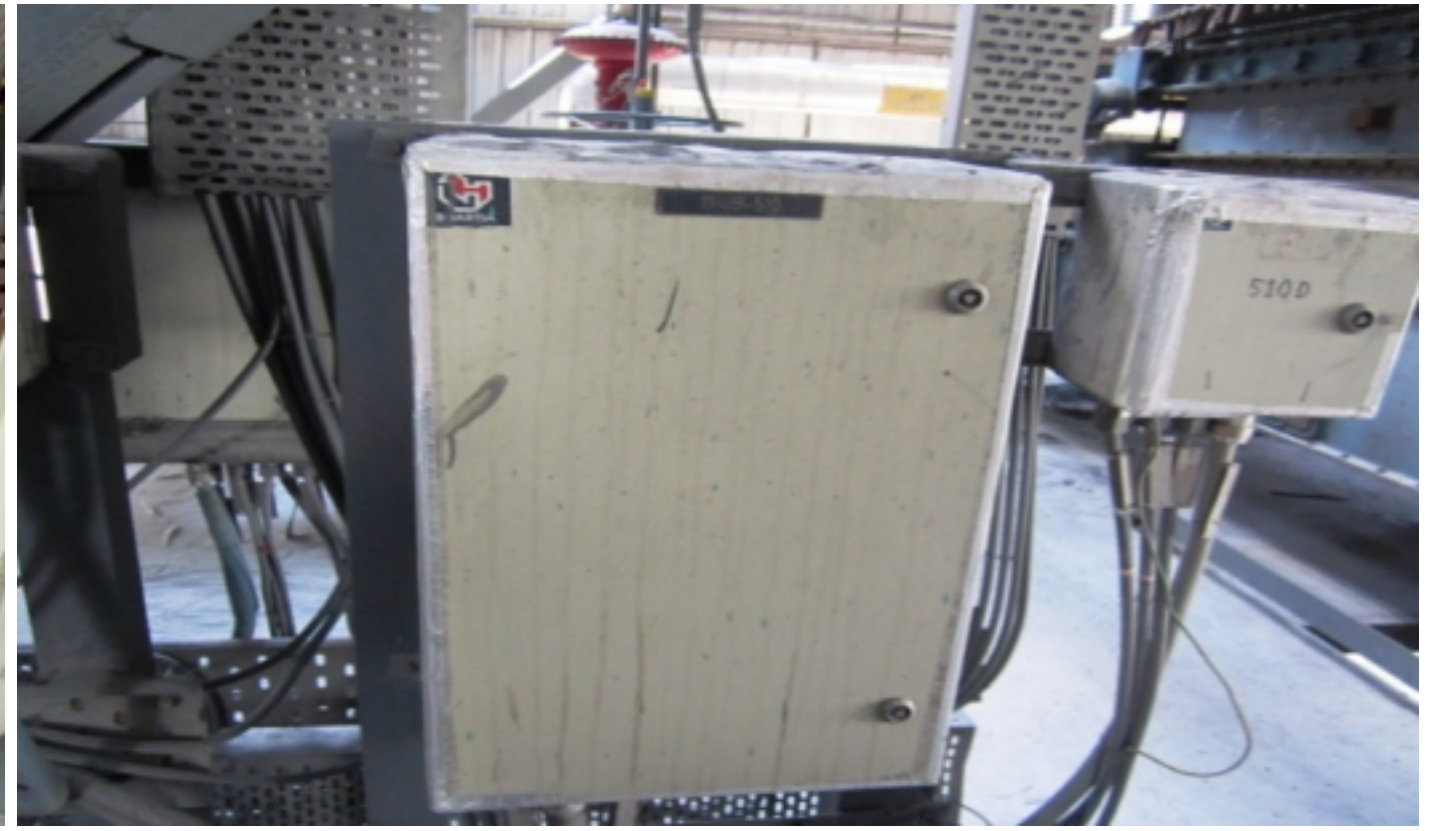
After Calibration of PG

JUNCTION BOX

- ☒ Cleaning of all junction boxes done.
- ☒ Connection tightness done.
- ☒ Covering with aluminum tape.



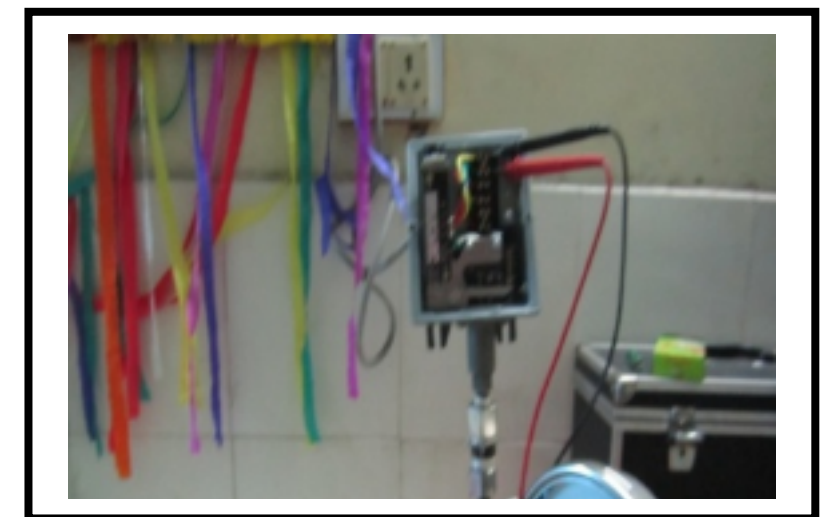
Connection Tightness Work



After Covering by Aluminum Tape

PRESSURE SWITCHES

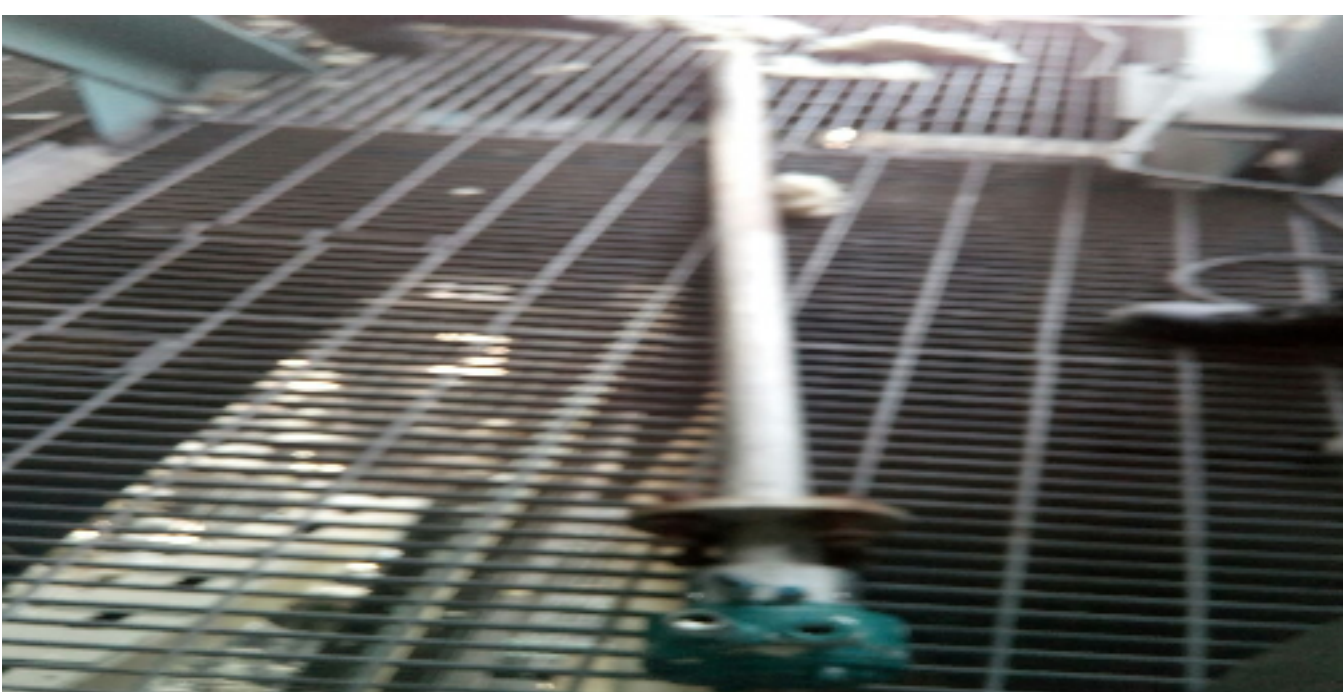
- ☒ Removal of Pressure switch done.
- ☒ Calibration done through Dead weight tester on given set point.
- ☒ Fixed them on its position.
- ☒ Connection tightness done.
- ☒ Covering with aluminum tape.



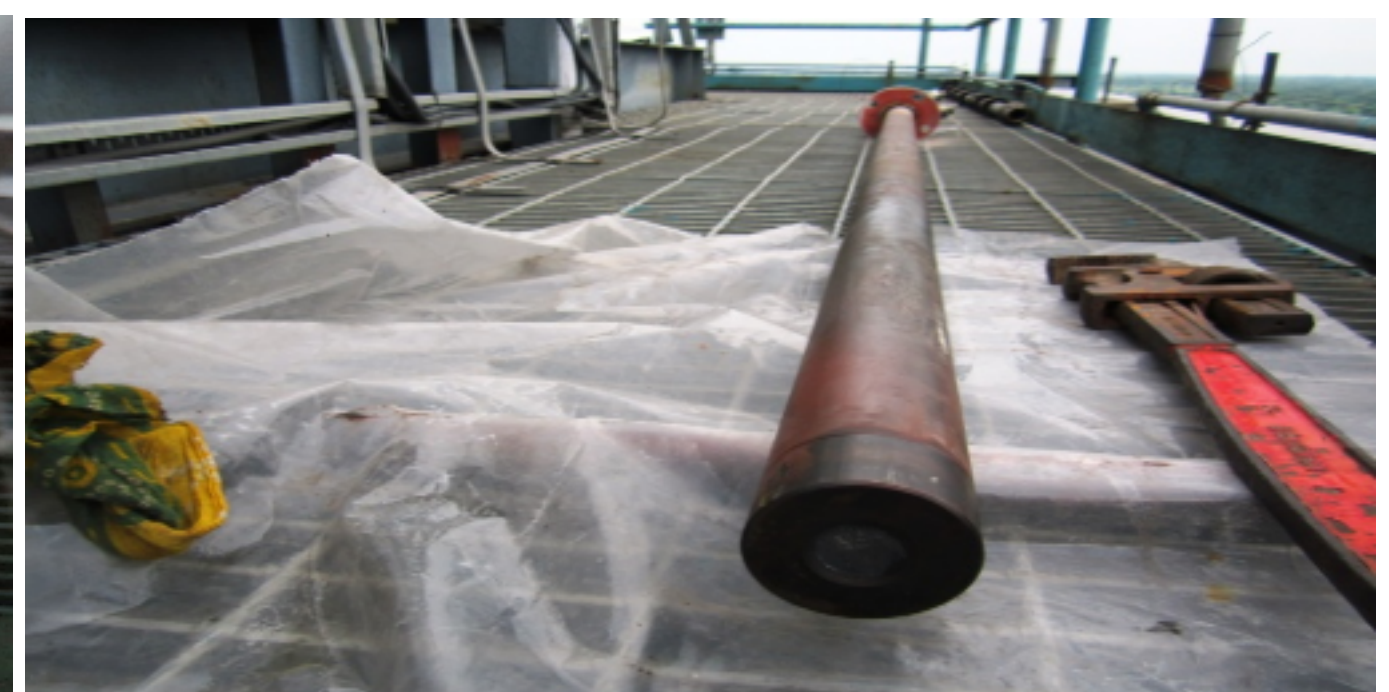
ANALYZERS

OXYGEN ANALYZER

- ☒ Dismantling of oxygen analyzer probe (02 nos.) done.
- ☒ Inspection of oxygen analyzer done.
- ☒ Cleaning of oxygen analyzer probe done.
- ☒ Calibration of oxygen analyzer done.
- ☒ Connection tightness done.
- ☒ Installation done.



Before Maintenance



After Maintenance

CO ANALYZER

- ☒ Removal of CO analyzer Filters (02 nos.) done.
- ☒ Cleaning of CO analyzer filters done.
- ☒ Installation of filters done.
- ☒ Cleaning of impulse tube done.
- ☒ Calibration of CO analyzer done.
- ☒ Connection tightness done.



Before Calibration



After Calibration

FLUE GAS ANALYZER

- ☒ Checked cooling fan operation found ok.
- ☒ Cleaning of analyzer done.
- ☒ Cleaning of impulse tube done.
- ☒ Calibration of Flue gas analyzer done.
- ☒ Connection tightness done.



After Maintenance &

Calibration

MOTORIZED VALVES

- ☒ Cleaning of all Control and Power module done.
- ☒ Cable tightness of all MOV's done.
- ☒ Individual over Load Fault taken in line for all MOV's.
- ☒ Calibration, Limit and torque switch setting of all MOV's done.
- ☒ Necessary modification of Critical MOV's (Start-up vent, CSDH and warm-up vent) done.
- ☒ Covering done of all MOV's done.
- ☒ Trail taken of all MOV's from DCS.
- ☒ Modification done used local control panel in place of Epac system
- ☒ All 04 no. MOV of CSDH greasing work done.
- ☒ Rerouting work of cable for Start-up vent valve done. Cable was burnt due to heat for both boiler



Before Work

After Work

CONTROL VALVES

- ☒ Cleaning of air filter regulators done.
- ☒ Cleaning done of all control valve.
- ☒ Connection tightness done of all control valves.
- ☒ Calibration done of all control valves.
- ☒ Covering done of all electronic positioner.
- ☒ Trail taken of all Control valves from DCS.



Cleaning of AFR



Calibration of Control Valve

BOP JOBS

- ☒ CW pump discharge MOV Calibration, Limit and Torque setting done. Trail taken from DCS .Kept in auto mode.
- ☒ Temperature elements tapping done in various point for cooling water line and RTD fixed on its position.
- ☒ Pressure transmitter tapping done in Booster line and taken in line.
- ☒ Removal of all temperature and pressure gauge done.
- ☒ Calibration done through temperature bath and dead weight tester on Zero /span basis.
- ☒ Fixed them on its position.
- ☒ Connection tightness done.
- ☒ Removal of temperature element done.
- ☒ Calibration done through temperature bath on Zero /span basis.
- ☒ Fixed them on its position.
- ☒ Connection tightness done.
- ☒ Cleaning of all junction boxes done.
- ☒ Connection tightness done.

- ☒ Covering with aluminum tape.
- ☒ Modification of pressure transmitters tapping in CW Line

ASH HANDLING PLANT (AHP)

- ☒ Tightness, Glanding, Cleaning & Continuity of all pneumatic JB's done.
- ☒ Dismantling of Pneumatic cylinders done.
- ☒ Inspection of all pneumatic cylinders done.
- ☒ Changing of seal done with repair seal kit.
- ☒ Trail taken of cylinders in instruments lab.
- ☒ Repair and maintenance of all SOV done.
- ☒ Repair and maintenance of all puppet valves done.
- ☒ Repair and maintenance of all pressure switches done.
- ☒ Clean all air and oil filter regulators and oil top-up in filters.
- ☒ Fixed all instruments on their position.

COAL HANDLING PLANT (CHP)

- ☒ Tightness, Glanding, Cleaning & Continuity Belt Sway Switches done.
- ☒ Tightness, Glanding, Cleaning & Continuity Chute Block switches done.
- ☒ Tightness, Glanding, Cleaning & Continuity Zero Speed switches done.
- ☒ Tightness, Glanding, Cleaning & Continuity Pull cord switches done.
- ☒ Tightness, Glanding, Cleaning & Continuity Belt Weighers done.
- ☒ Tightness, Glanding, Cleaning & Continuity Weigh bridge system done.
- ☒ Tightness, Glanding, Cleaning & redundancy checked UPS.
- ☒ Tightness, Glanding, Cleaning & Continuity Vibration monitoring system done.
- ☒ Tightness, Glanding, Cleaning & Continuity Field JB terminal tightness done.



WOODWARD GOVERNOR

- ☒ Removal of all connection from governor.

☒ We checked the following parameters of the governor:-

Monitor speed units

Monitor contact inputs(DI)

Analog Inputs(AI)

Analog Outputs(AO)

Relay contacts(DO)

Stroke test for actuator

☒ Did the all the testing of parameters

☒ From the stroke test we got the following readings:

☒ **For TG-1**

At Percent	Impulse oil Pressure
0% -0mm	2.05
50%-18mm	2.96
100% - 39mm	3.98

☒ **For TG-2**

0% -0mm	2.05
50%-18mm	2.92
100% - 40mm	4.03

☒ cleaned all "4" governor of 505 make Woodward

