



# Full Task list for PP30-Cogen CS

## Gasifier Tasks

<b>Gasifier Prestart Duties</b>				
Filtration	Gasifier Prestart Duties	Empty cyclone particulate catch can	Operator	24
Gasifier	Gasifier Prestart Duties	Empty Ash collection vessel	Operator	24
Gasifier	Gasifier Prestart Duties	Check air inlet check valve for free movement	Operator	24
Gasifier	Gasifier Prestart Duties	Walk-around double check bungs latches gas connections and bolts	Operator	24
Gasifier	Gasifier Prestart Duties	Perform leak down test	Operator	24
Gasifier	Gasifier Prestart Duties	Fill out service record form	Operator	24
<b>Filtration Clean &amp; Check</b>				
Filtration	Filtration Maintenance	Remove and clean filter bags	Operator	140
Filtration	Filtration Maintenance	Clean PG HX	Operator	140
Filtration	Filtration Maintenance	Clean cyclone insides from base with scraping bar	Operator	140
Filtration	Filtration Maintenance	Clean CYC to PG Hx corrugated tube	Operator	140
<b>Gasifier Clean &amp; Check</b>				
Gasifier	Gasifier Clean & Check	Burn out soot from airlines	Operator	140
Gasifier	Gasifier Clean & Check	Gasifier grate basket clinker purge and inspection	Operator	140
Gasifier	Gasifier Clean & Check	Check / Replace: GRAPHITE PASTE (PYR > COW)	Operator	140



Gasifier	Gasifier Clean & Check	Fill Ash Auger Tube with Grease	Operator	140
Gasifier	Gasifier Clean & Check	Fill Grate Shake Tube with Grease	Operator	140
Gasifier	Gasifier Clean & Check	Tighten nut on gear shafts bolts on collars	Operator	140
Gasifier	Gasifier Clean & Check	Tighten shaft collar and hardware on fuel auger assembly	Operator	140
Gasifier	Gasifier Clean & Check	Tighten grate and auger gears	Operator	140
Gasifier	Gasifier Clean & Check	Calibrate Pressure Sensors	Operator	140
<b>Gasifier Tune up</b>				
Gasifier	Gasifier Tune up	Replace: Cyclone Collection Can Gasket GSK-PTFE-SANI 4"	Operator	550
Gasifier	Gasifier Tune up	Check / Replace: GSK-PTFE-SANI 4 (ACV Lid Sani Gasket)	Operator	550
Gasifier	Gasifier Tune up	Check / Replace: GSK-ROPE-GPH-0.1875 (Grate Door)	Operator	550
Gasifier	Gasifier Tune up	Clean Air Intake Check Valve (PLB-SWC-1.5-BRS)	Operator	550
Gasifier	Gasifier Tune up	Replace: PTFE Gasket for Sanitary Tube Fitting for 2" Tube OD (ash can)	Operator	550
Gasifier	Gasifier Tune up	Replace: GSK-ROPE-GPH-0.1875 (cyclone outlet)	Operator	550
Gasifier	Gasifier Tune up	Replace: PP-HOP-HPL_A-HOPPER LID GASKET	Operator	550
Flare	Flare Maintenance	Inspect / Clean gas blowers with solvent	Operator	550
<b>Filtration Tune up</b>				
Filtration	Filtration Maintenance	Replace: Filter bags	Operator	550
Filtration	Filtration Maintenance	Replace: Filter O-ring Gaskets	Operator	550
Filtration	Filtration Maintenance	Replace: PTFE Gasket for Sanitary Tube Fitting for 2" Tube OD (Gas Filter>flare)	Operator	550
Filtration	Filtration Maintenance	Replace: PTFE Gasket for Sanitary Tube Fitting for 6"OD (HX>gas filter)	Operator	550



Filtration	Filtration Maintenance	Replace: SANI-GSKT-2'-PTFE (Filter outlet>engine gas line)	Operator	550
Filtration	Filtration Maintenance	Replace: PTFE Gasket for Sanitary Tube Fitting for 2" OD (DB>HX)	Operator	550
Filtration	Filtration Maintenance	Replace: PTFE Gasket for Sanitary Tube Fitting for 2" Tube OD (Governor)	Operator	550
<b>Pyroreactor Overhaul/Replacement</b>				
Gasifier	Pyroreactor Overhaul	Repair/Replace: PP-GSF-PYROREACTOR ASSY	Technician	1750
Gasifier	Pyroreactor Overhaul	Check / Replace: PP-GSF-DBK-AUG-AUGER (standalone fuel auger spiral)	Technician	1750
Gasifier	Pyroreactor Overhaul	Check / Replace: Roll of 1/2 W Teflon Tape 50' L	Technician	1750
Gasifier	Pyroreactor Overhaul	Replace: 1/16" - 24" L Thermocouple Kit (Tred)	Technician	1750
Gasifier	Pyroreactor Overhaul	Replace: 1/16" - 24" L Thermocouple Kit (Trst)	Technician	1750
Gasifier	Pyroreactor Overhaul	Replace: PP-GSF-PYR_A-FLEX SWITCH ASSY	Technician	1750
Gasifier	Pyroreactor Overhaul	Replace: Hopper to Drying Bucket Gasket	Technician	1750
Gasifier	Pyroreactor Overhaul	Check / Replace: GRAPHITE PASTE (PYR > CYC)	Technician	1750
Gasifier	Pyroreactor Overhaul	Check / Replace: PLB-VBD-CLP-2-SS304 (V-Band Clamp-Exhaust In)	Technician	1750
Gasifier	Pyroreactor Overhaul	Replace: PLB-VBD-CLP-2-SS304 (V-Band Clamp-Exhaust Out)	Technician	1750
Gasifier	Pyroreactor Overhaul	Check / Replace: GSK-ROPE-GPH-0.1875 (PYR > CYC)	Technician	1750
Gasifier	Pyroreactor Overhaul	Check / Replace: GSK-ROPE-GPH-0.1875 (PYR > DRK)	Technician	1750
Gasifier	Pyroreactor Overhaul	Replace DB Bottom Plate Gasket (PP-GSF-DBP-GASKET w/PSA)	Technician	1750
Fuel Feed	Hopper Maintenance	Replace: PP-HOP-HPV_A-PUFF LID GASKET	Technician	1750
<b>Flare Maintenance</b>				



Flare	Flare Maintenance	Check/ Replace: 12V BLDC Blower	Operator	1750
Flare	Flare Maintenance	Replace: PP-FLR-IGNITER ASSEMBLY	Operator	1750
<b>Gas Cowling Overhaul</b>				
Gasifier	Gasifier Overhaul	Repair/Replace: PP-GSF-GAS COWLING ASSY	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: BRG-FSB-0.5-0.75-1-BRZ (ash)	Technician	3500
Gasifier	Gasifier Overhaul	Replace: BRG-FSB-0.5-0.75-1-BRZ (grate)	Technician	3500
Gasifier	Gasifier Overhaul	Replace: BRG-SLV-0.5-0.75-1.5-BRZ (grate)	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: MTR-RGH-12VDC-6A-0.437 (Ash Auger)	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: MTR-RGH-12VDC-6A-0.437 (Grate Shaker)	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: PP_GSF-GCW-GSM-MOTOR GEAR	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: PP-GSF-GCW_A-ARS-AUGER	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: PP-GSF-GCW_A-GRATE (stainless)	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: PP-GSF-GCW_A-GSH_A-GRATE SHAKER (cam)	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: PP-GSF-GCW_A-SCROLL	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: PP-GSF-GCW-ARS-AUGER GEAR	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: PP-GSF-GCW-ARS-MOTOR GEAR	Technician	3500
Gasifier	Gasifier Overhaul	Check / Replace: PP-GSF-GCW-GSM-SHAKER GEAR	Technician	3500



## Engine Tasks

<b>Engine Prestart Duties</b>				
Engine	Engine Prestart Duties	Check engine oil level	Operator	24
Engine	Engine Prestart Duties	Check engine coolant level	Operator	24
Engine	Engine Prestart Duties	Check battery	Operator	24
<b>Engine Check</b>				
Engine	Engine Check	Check engine oil level	Operator	140
Engine	Engine Check	Check engine coolant level	Operator	140
Engine	Engine Check	Clean Governor	Operator	140
Engine	Engine Check	Engine Purge	Operator	140
<b>Engine Oil change &amp; maintenance</b>				
Engine	Engine Oil Change	Replace: Oil Filter	Operator	550
Genset	Engine Oil Change	Replace: Engine Oil	Operator	550
Engine	Engine Maintenance	Check / Clean spark plugs	Operator	550
Engine	Engine Maintenance	Replace: Governor gaskets (set)	Operator	550
Engine	Engine Maintenance	Clean battery terminals	Operator	550
<b>Engine Tune up</b>				
Engine	Engine Tune Up	Replace: Spark Plug	Operator	1750
Engine	Engine Tune Up	Replace: Wide-band O2 sensor	Operator	1750
<b>Engine Head Rebuild</b>				



Engine	Engine Head Service	Remove and reinstall head	Technician	3500
Engine	Engine Head Service	Rebuild head with core via service	Technician	3500
Engine	Engine Head Service	Replace: Valve Stem Seals	Technician	3500
Engine	Engine Head Service	Replace: Intake Valves (stainless steel)	Technician	3500
Engine	Engine Head Service	Replace: Exhaust Valves SS	Technician	3500
Engine	Engine Head Service	Install: Oil shield Valve Spring caps	Technician	3500
Engine	Engine Head Service	Replace: Valve Push Rods	Technician	3500
Engine	Engine Head Service	Replace: Thermostat with Gasket	Technician	3500
Engine	Engine Head Service	Valve cover gasket	Technician	3500
Engine	Engine Head Service	Replace: Manifold Gasket	Technician	3500
Engine	Engine Head Service	Replace Head Gasket Set	Technician	3500
Engine	Engine Tune Up	Replace: Engine Coolant	Technician	3500
<b>Engine Rebuild</b>				
Engine	Engine Overhaul	In frame rebuild. Install engine rebuild kit (liners, pistons, rings, bearings, gaskets, etc)	Technician	7000
Engine	Engine Overhaul	Replace: 12vdc Auto Battery	Technician	7000
Engine	Engine Overhaul	Check / Replace: Starter Motor	Technician	7000
Engine	Engine Overhaul	Replace: Water Pump	Technician	7000
Engine	Engine Overhaul	Check / Replace: MPU	Technician	7000



## Auxiliary Systems Tasks

<b>Air Lock Maintenance</b>			
Fuel Feed	Air Lock Maintenance	Replace: PP-HOP-CF_A-CRG-BRUSH	Operator
Fuel Feed	Air Lock Maintenance	Replace: PP-HOP-CF_A-CRG-VALVE SEAL	Operator
<b>Air Lock Overhaul</b>			
Fuel Feed	Air Lock Maintenance	Replace: PP-HOP-CF_A-CRG-ACME NUT	Operator
Fuel Feed	Air Lock Maintenance	Replace: PP-HOP-CF_A-CRG-SLIDE BUSHING	Operator
<b>Automation Maintenance</b>			
Automation	Sensor Replacement	Replace: 25' Silicone Tube Kit (Pressure Lines)	Technician
<b>CHP Maintenance</b>			
CHP		Clean Exh Hx	