

Summary Report for Burner Efficiency Testing including faults and Repairs 2018
(Permit Ref EPR/BV5386IX Variation V004, Tables S3.5 & S4.1)

Emission point A35 Factory No.1 Hydro setting oven lane 1 - Copy of report provided.

Combustion fan cleaned. Heater showing signs of rust and will be monitored.

Burner efficiency satisfactory. **Complete.**

Emission point A36 Factory No.1 Hydro setting oven lane 2 - Copy of report provided.

Combustion fan cleaned and new control box fitted. Heater showing signs of rust and will be monitored.

Burner efficiency satisfactory. **Complete.**

Emission point A38 Factory No.2 Pellet Caster, Gas Burner Stack No.1 - Copy of report provided.

Gas and air set and high flue temperature noted, therefore, the thermal bricks have been replaced.

Burner efficiency satisfactory. **Complete.**

Emission point A39 Factory No.2 Pellet Caster, Gas Burner Stack No.2 - Copy of report provided.

No action required. Burner efficiency satisfactory. **Complete.**

Emission point A46 Factory No.1 Gas Drying Oven No.1 Burner - Copy of report provided.

No action required. Burner efficiency satisfactory. **Complete.**

Emission point A48 Factory No.1 Gas Drying Oven No.2 Burner - Copy of report provided.

No action required. Burner efficiency satisfactory. **Complete.**

Emission point A50 Factory No.1 Gas Drying Oven No.3 Burner - Copy of report provided.

No action required. Burner efficiency satisfactory. **Complete.**

Emission point A52 Factory No.1 Gas Drying Oven No.9 Burner - Copy of report provided.

No action required. Burner efficiency satisfactory. **Complete.**

Emission point A54 Factory No.1 Gas Drying Oven No.10 Burner - Copy of report provided.

Two ¼" Teknigas valves require replacing which have been ordered.

Burner efficiency satisfactory. **See Action Plan**

Emission point A57 Factory No.3 South East, Combat Heater No.2 - Copy of report provided.

No action required. Burner efficiency satisfactory. **Complete.**

Emission point A62 Factory No.1 Hydro setting oven lanes 3 and 4 - Copy of Report provided.

No action required. Burner efficiency satisfactory. **Complete.**

Emission point A63 Factory No.2 Combat Heater No.5 - Copy of Report provided.

The combustion air pressure switch and fittings are missing and the UV is damaged so requires replacing. Burner efficiency satisfactory. **See Action Plan**

Note:

Due to the characteristics of the equipment listed below, conventional combustion analysers are not suited to the application and have been excluded from the new permit.

These are:-

Emission points A10 Factory No.1 Grid Casting Aging Oven No. 1.

Emission points A21 Factory No.1 Grid Casting Aging Oven No. 2.

Emission point A44 Factory No.1 Flash Drying Oven No.2.

Emission point A45 Factory No.1 Flash Drying Oven No.3.

Emission point A61 Factory No.1 Dross Recycling Burner.

The following have been decommissioned therefore, they are not subject to annual testing:-

Emission point A56 Factory No.3 South West, Combat Heater No.1, - Removed and disposed of.

Emission point A58 Factory No.3 North East Combat Heater No.3 - Removed and disposed of.

Emission point A59 Factory No.2 0.85MW_{th} Steam Boiler - No report provided. Removed and disposed of.

Emission point A60 Factory No.2 1.75MW_{th} Steam Boiler - No report provided. Removed and disposed of.

Emission point A64 Factory No.1 Previously Combat Heater No.5 - Removed and disposed of.

BS Burner Services Ltd

Combustion Design, Engineering, Installation & Refractory

Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No: 4309

Client: GS Yuasa Battery (UK) Ltd

Address: Unit 22 Rassau Industrial Estate
Rassau
Ebbw Vale
NP23 5SD

Site Contact: Mike O'Keefe

Task Set: Gas Burner Maintenance Schedule

Service ✓

Inspection Date: 21st August 2018

Plant Location: Curing Oven 1 (A35)

Burner Type & Reference: NVS30/D/1/MOD

Model Make: Powrmatic

Serial No: N3011L199

Burner Heat Input Rating: 30kw

Gas Soundness Test:	Pass	✓	Fail
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Flame Failure Device:	Flame Rod	Pass	✓	Fail
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Combustion Air Switch:	Setting: 0.7mb	Pass	✓	Fail
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Spark Electrode:	Inspected and cleaned	Yes	✓	No
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Main Burner:	Internal Inspection	Yes	✓	No
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HT Lead:	Inspected and cleaned	Yes	✓	No
	Replaced	Yes		No ✓

Spark Plug Cap:	Inspected	Yes	✓	No
	Needs replacing	Yes		No ✓

Gas Ball Valves:	Inspected	Yes	✓	No
	Greased	Yes		No ✓

Sight Glasses:	Inspected	Yes	✓	No
	Replaced	Yes		No ✓

Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Panel Terminals:	Checked:	Yes	✓	No

Gas Valve

Make: Honeywell
 Type: VR4605A-B1027L
 P max:
 Serial No:
 Voltage: 240v

Control Box

Make: Pactrol Microgas
 Type: P25F1.FTL
 Serial No:
 Voltage: 240v

Readings

- Incoming Gas Pressure: 41.2mb
- Gas at Burner: 10.8mb
- Working Temperature: 35°C

Analyzer Readings

O2: 13.5%
 CO PPM: 29
 CO²: 4.24%
 Flue Gas Temp: 44.9°C
 Ambient Temp: 27.7°C

Only the equipment serviced or installed by BS Burner Services Limited under the scope of this report meets the requirements of the Gas Safety Regulations and the manufacturer.

Yes ✓ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

- 1: We removed the combustion air fan and found it to be very dirty. This was cleaned and reinstalled.
- 2: We tested the internal tubes to test their integrity. All OK.

3: The exterior of the Powrmatic heater is showing signs of rust and holes in the body of the heater.

Signed by BSL Engineer.....*Stewart Jeavons*.....

Date ...21st August 2018.....

Signed by Customer

Accepted ✓

Not Accepted

BS Burner Services Ltd

Combustion Design, Engineering, Installation & Refractory

Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No: 4309-1

Client: GS Yuasa Battery (UK) Ltd

Address: Unit 22 Rassau Industrial Estate
Rassau
Ebbw Vale
NP23 5SD

Site Contact: Mike O'Keefe

Task Set: Gas Burner Maintenance Schedule

Service ✓

Inspection Date: 21st August 2018

Plant Location: Curing Oven 2 (A36)

Burner Type & Reference: NVS30/D/1/MOD

Model Make: Powrmatic

Serial No: N3011L202

Burner Heat Input Rating: 30kw

Gas Soundness Test:	Pass	✓	Fail
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Flame Failure Device:	Flame Rod	Pass	✓	Fail
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Combustion Air Switch:	Setting: 0.8mb	Pass	✓	Fail
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Spark Electrode:	Inspected and cleaned	Yes	✓	No
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Main Burner:	Internal Inspection	Yes	✓	No
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HT Lead:	Inspected and cleaned	Yes	✓	No
	Replaced	Yes		No ✓

Spark Plug Cap:	Inspected	Yes	✓	No
	Needs replacing	Yes		No ✓

Gas Ball Valves:	Inspected	Yes	✓	No
	Greased	Yes		No ✓
Sight Glasses:	Inspected	Yes	✓	No
	Replaced	Yes		No ✓
Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Panel Terminals:	Checked:	Yes	✓	No

Gas Valve

Make: Honeywell
 Type: VR4605A
 P max:
 Serial No:
 Voltage: 240v

Control Box

Make: Pactrol Microgas
 Type: P25F1.FTL
 Serial No:
 Voltage: 240v

Readings

- Incoming Gas Pressure: 39.7mb
- Gas at Burner: 10.5mb
- Working Temperature: 35°C

Only the equipment serviced or installed by BS Burner Services Limited under the scope of this report meets the requirements of the Gas Safety Regulations and the manufacturer.

Yes ☒ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

- 1: We removed the combustion air fan and found it to be very dirty. This was cleaned and reinstalled.
- 2: We removed the old control box and refitted the new one that was found in the area by the heater.
- 3: We smoke tested the internal tubes to test their integrity. None were blocked and all OK.
- 4: The exterior of the Powrmatic heater is showing signs of rust and holes in the body of the heater.

Signed by BSL Engineer.....*Stewart Jeavons*..... Date ...21st August 2018.....

Signed by Customer Accepted ☒
Not Accepted

BS Burner Services Ltd

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Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No: 4324

Client: GS Yuasa Battery (UK) Ltd

Address: Unit 22 Rassau Industrial Estate
Rassau
Ebbw Vale
NP23 5SD

Site Contact: Gwyn Sullivan

Task Set: Gas Burner Maintenance Schedule

Service ✓

Inspection Date: 15th October 2018

Plant Location: Pellet Casters No 1 (A38)

Burner Type & Reference: Nuway

Model Make: FMP 15CRF+LHGTN

Serial No: P021014-002/001

Burner Heat Input Rating:

Gas Soundness Test:		Pass	✓	Fail
Flame Failure Device:	Flame Rod	Pass	✓	Fail
High Gas Switch:	Setting: 10mb	Pass	✓	Fail
Combustion Air Switch:	Setting: 2.5mb	Pass	✓	Fail
Spark Electrode:	Inspected and cleaned	Yes	✓	No
Pilot Governor:	Inspected and cleaned	Yes	✓	No
	Diaphragms changed	Yes		No ✓
Main Burner:	Internal Inspection	Yes	✓	No
HT Lead:	Inspected and cleaned	Yes	✓	No
	Replaced	Yes		No ✓
Spark Plug Cap:	Inspected	Yes	✓	No
	Needs replacing	Yes		No ✓
Gas Ball Valves:	Inspected	Yes	✓	No

	Greased	Yes		No ✓
Impulse Lines:	Inspected and cleaned	Yes	✓	No
Back loading:	Inspected and cleaned	Yes	✓	No
Sight Glasses:	Cleaned	Yes	✓	No
	Replaced	Yes		No ✓
Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Burner Quarl Inspection:	Internal Inspection	Yes	✓	No
	Removed any Dirt	Yes	✓	No
Panel Terminals:	Checked:	Yes		No ✓

Pilot Governor

Make: Jeavons
 Type: J78 ¾"
 Inlet Pressure: 350mb
 Outlet Pressure: 12-23mb

Main Solenoid Valves

Make: SKP75 / SKP15 (double block)
 Type:
 P max:
 Serial No:
 Voltage: 110v

Pilot Solenoid Valves

Make: Asco ½"
 Type:
 Serial No: MO285316
 Voltage: 110v

Ignition Transformer

Make: Satronic
 Type: ZT815
 Serial No:
 Voltage: 110v

Gas Flow Meter

Make: Kromschroder (2")
 Type: U40
 Serial No: S14002211
 Pmax: 75mb
 Reading: 620021

Modulating Air Valve

Make: Kromschroder
Type: IC20
Serial No: 74105999C
Voltage: 110v

Readings

	Low Fire	High Fire
• Incoming Gas Pressure:	28.9mb	
• Gas at Burner:	3.0mb	
• Combustion Air:	4.2mb	
• Burner Position:	High / Low	
• Over Temperature Setting:	450°C	
• Working Temperature:	420°C	

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Yes ✓ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

- 1: The gas and air were set up.
- 2: We suspect the problem with the pellet casing is due to the buildup on the opposite side to the burner which usually means you are not getting full rotation of the flame around the pot. This could be due to damaged brick work.

Signed by BSL Engineer.....*Stewart Jeavons*.....

Date ...15th October 2018.....

Signed by Customer

Accepted ✓

Not Accepted

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Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No: 4324-1

Client: GS Yuasa Battery (UK) Ltd

Address: Unit 22 Rassau Industrial Estate
Rassau
Ebbw Vale
NP23 5SD

Site Contact: Gwyn Sullivan

Task Set: Gas Burner Maintenance Schedule

Service ✓

Inspection Date: 16th October 2018

Plant Location: Pellet Casters No 2 (A39)

Burner Type & Reference: ACE Burners

Model Make: VJ15E 240v **Serial No:** 1173738

Burner Heat Input Rating: 350kW

Gas Soundness Test: Pass ✓ Fail

Flame Failure Device: Flame Rod Pass ✓ Fail

Low Gas Switch: Setting: 7.5mb Pass ✓ Fail

Combustion Air Switch: Setting: 1mb Pass ✓ Fail

Spark Electrode: Inspected and cleaned Yes ✓ No

Governor: Inspected and cleaned Yes ✓ No
Diaphragms changed Yes No ✓

Main Burner: Internal Inspection Yes ✓ No

HT Lead: Inspected and cleaned Yes ✓ No
Replaced Yes No ✓

Spark Plug Cap: Inspected Yes ✓ No
Needs replacing Yes No ✓

Gas Ball Valves: Inspected Yes ✓ No

	Greased	Yes		No ✓
Flexible:	Inspected	Yes	✓	No
	Replaced	Yes		No ✓
Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Burner Quarl Inspection:	Internal Inspection	Yes	✓	No
	Removed any Dirt	Yes		No ✓
Panel Terminals:	Checked:	Yes		No ✓

Main Governor

Make: Giuliani Anello
 Type: FSD 1½"
 Inlet Pressure: 200mb
 Outlet Pressure: 14-30mb

Main and Pilot Valve Block

Make: Honeywell
 Type: VR432AB10080000
 Orifice: 1½"
 Voltage: 240v

Control Box

Make: Honeywell
 Type: 810.1 MOD 43
 P max:
 Serial No:
 Voltage: 240v

Ignition Transformer

Make: Honeywell
 Type: ZT931 (14kV)
 Serial No:
 Voltage: 240v

Readings

- Incoming Gas Pressure: 28.6mb
- Gas at Burner: 3.2mb

- Burner Position: High Fire
- Over Temperature Setting: 460°C
- Working Temperature: 420°C

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Yes ☒ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

1: None reported during this service.

Signed by BSL Engineer.....*Stewart Jeavons*.....

Date ...16th October 2018.....

Signed by Customer

Accepted ☒

Not Accepted

BS Burner Services Ltd

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Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No:	4337			
Client:	GS Yuasa Battery (UK) Ltd			
Address:	Unit 22 Rassau Industrial Estate Rassau Ebbw Vale NP23 5SD			
Site Contact:	Mike O'Keefe			
Task Set:	Gas Burner Maintenance Schedule			
		Service	✓	
Inspection Date:	15 th November 2018			
Plant Location:	Drying Oven No 1 (A46)			
Burner Type & Reference:	Package Burner			
Model Make:	Whirlwind	Serial No:	No plate	
Burner Heat Input Rating:				
Gas Soundness Test:		Pass	✓	Fail
Flame Failure Device:	UV Scanner	Pass	✓	Fail
Low Gas Switch:	Setting: 10mb	Pass	✓	Fail
Spark Electrode:	Inspected and cleaned	Yes	✓	No
Pilot Governor:	Inspected and cleaned	Yes	✓	No
	Diaphragms changed	Yes		No ✓
Main Burner:	Internal Inspection	Yes	✓	No
HT Lead:	Inspected and cleaned	Yes	✓	No
	Replaced	Yes		No ✓
Spark Plug Cap:	Inspected	Yes	✓	No
	Needs replacing	Yes		No ✓
Gas Ball Valves:	Inspected	Yes	✓	No
	Greased	Yes		No ✓

Sight Glasses:	Cleaned Replaced	Yes Yes	✓ 	No No ✓
Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Burner Quarl Inspection:	Internal Inspection Removed any Dirt	Yes Yes	✓ ✓	No No
Panel Terminals:	Checked:	Yes	✓	No

Pilot Governor

Make: Jeavons
Type: 60DJ ¼"
P max:
Serial No:
Voltage:

Control Box

Make: Honeywell
Type: 810.1 MOD43
Serial No:
Voltage: 240v

Main Solenoid Valves

Make: Dungs 1"
Type: MB-DLE407B01
P max: 260mb
Serial No:
Voltage: 240v

Pilot Solenoid Valves

Make: Asco
Type: ¼"
Serial No:
Voltage: 240v

Ignition Transformer

Make:
Type: 8.5kW
Serial No:
Voltage: 240v

Readings

- Incoming Gas Pressure: 41.3mb
- Gas at Burner: 5mb
- Burner Position: High Fire
- Over Temperature Setting: 150°C
- Working Temperature: 135°C

Analyzer Readings

O2: 5.8%
CO PPM: 0
NO PPM:
NOx PPM:
O²: 8.63%
Flue Gas Temp: 221.2°C

Only the equipment serviced or installed by BS Burner Services Limited under the scope of this report meets the requirements of the Gas Safety Regulations and the manufacturer.

Yes ☒ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

1: None reported during this service.

Signed by BSL Engineer.....*Stewart Jeavons*.....

Date ...15th November 2018.....

Signed by Customer

Accepted ☒

Not Accepted

BS Burner Services Ltd

Combustion Design, Engineering, Installation & Refractory

Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No:	4337-1			
Client:	GS Yuasa Battery (UK) Ltd			
Address:	Unit 22 Rassau Industrial Estate Rassau Ebbw Vale NP23 5SD			
Site Contact:	Mike O'Keefe			
Task Set:	Gas Burner Maintenance Schedule			
		Service	✓	
Inspection Date:	14 th November 2018			
Plant Location:	Drying Oven No 2 (A48)			
Burner Type & Reference:	Whirlwind			
Model Make:	P5 / 6HT SPM	Serial No:	10052	
Burner Heat Input Rating:	175BTU			
Gas Soundness Test:		Pass	✓	Fail
Flame Failure Device:	UV Scanner	Pass	✓	Fail
Low Gas Switch:	Setting: 10mb	Pass	✓	Fail
Spark Electrode:	Inspected and cleaned	Yes	✓	No
Pilot Governor:	Inspected and cleaned Diaphragms changed	Yes Yes	✓	No No ✓
Main Burner:	Internal Inspection	Yes	✓	No
HT Lead:	Inspected and cleaned Replaced	Yes Yes	✓	No No ✓
Spark Plug Cap:	Inspected Needs replacing	Yes Yes	✓	No No ✓
Gas Ball Valves:	Inspected Greased	Yes Yes	✓	No No ✓

Sight Glasses:	Cleaned Replaced	Yes Yes	✓ 	No No ✓
Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Burner Quarl Inspection:	Internal Inspection Removed any Dirt	Yes Yes	✓ ✓	No No
Panel Terminals:	Checked:	Yes	✓	No

Main Block Valve

Make: Dungs 1"
 Type: MB-DLE407B01
 P max: 260mb
 Serial No:
 Voltage: 240v

Pilot Governor

Make: Jeavons
 Type: 60DJ ¼"
 P max:
 Serial No:
 Voltage:

Control Box

Make: Honeywell
 Type: 810.1 MOD43
 Serial No:
 Voltage: 240v

Pilot Solenoid Valves

Make: Asco
 Type: ¼"
 Serial No:
 Voltage: 240v

Ignition Transformer

Make:
 Type: 8.5kW
 Serial No:
 Voltage: 240v

Readings

- Incoming Gas Pressure: 40.3mb
- Gas at Burner: 15.4mb
- Burner Position: High Fire
- Over Temperature Setting: 155°C
- Working Temperature: 135°C

Analyzer Readings

O2: 7.6%
CO PPM: 4
NO PPM:
NOx PPM:
CO²: 7.6%
Flue Gas Temp: 219.9°C

Only the equipment serviced or installed by BS Burner Services Limited under the scope of this report meets the requirements of the Gas Safety Regulations and the manufacturer.

Yes ✓ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

1: None reported during this service.

Signed by BSL Engineer.....*Stewart Jeavons*.....

Date ...14th November 2018.....

Signed by Customer

Accepted ✓

Not Accepted

BS Burner Services Ltd

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Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No: 4337-2

Client: GS Yuasa Battery (UK) Ltd

Address: Unit 22 Rassau Industrial Estate
Rassau
Ebbw Vale
NP23 5SD

Site Contact: Mike O'Keefe

Task Set: Gas Burner Maintenance Schedule

Service v

Inspection Date: 15th November 2018

Plant Location: Drying Oven No 3 (A50)

Burner Type & Reference: Whirlwind

Model Make: P5 / SPM16 **Serial No:** 10109

Burner Heat Input Rating: 175kW

Gas Soundness Test: Pass v Fail

Flame Failure Device: UV Scanner Pass v Fail

Low Gas Switch: Setting: 10mb Pass v Fail

Spark Electrode: Inspected and cleaned Yes v No

Pilot Governor: Inspected and cleaned Yes v No
Diaphragms changed Yes No v

Main Burner: Internal Inspection Yes v No

HT Lead: Inspected and cleaned Yes v No
Replaced Yes No v

Spark Plug Cap: Inspected Yes v No
Needs replacing Yes No v

Gas Ball Valves: Inspected Yes v No
Greased Yes No v

Sight Glasses:	Cleaned Replaced	Yes Yes	✓ 	No No ✓
Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Burner Quarl Inspection:	Internal Inspection Removed any Dirt	Yes Yes	✓ ✓	No No
Panel Terminals:	Checked:	Yes	✓	No

Main Block Valve

Make: Dungs 1"
 Type: MB-DLE407B01
 P max: 260mb
 Serial No:
 Voltage: 240v

Pilot Governor

Make: Jeavons
 Type: 60DJ ¼"
 P max:
 Serial No:
 Voltage:

Control Box

Make: Honeywell
 Type: 810.1 MOD43
 Serial No:
 Voltage: 240v

Pilot Solenoid Valves

Make: Asco
 Type: ¼"
 Serial No:
 Voltage: 240v

Ignition Transformer

Make:
 Type: 8.5kW
 Serial No:
 Voltage: 240v

Readings

- Incoming Gas Pressure: 41.2mb
- Gas at Burner: 5.2mb
- Burner Position: High Fire
- Over Temperature Setting: 155°C
- Working Temperature: 135°C

Analyzer Readings

O2: 5.8%
CO PPM: 0
NO PPM:
NOx PPM:
CO²: 8.61%
Flue Gas Temp: 167.4°C

Only the equipment serviced or installed by BS Burner Services Limited under the scope of this report meets the requirements of the Gas Safety Regulations and the manufacturer.

Yes ☒ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

1: None reported during this service.

Signed by BSL Engineer.....*Stewart Jeavons*.....

Date ...15th November 2018.....

Signed by Customer

Accepted ☒

Not Accepted

BS Burner Services Ltd

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Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
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West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No: 4337-3

Client: GS Yuasa Battery (UK) Ltd

Address: Unit 22 Rassau Industrial Estate
Rassau
Ebbw Vale
NP23 5SD

Site Contact: Mike O'Keefe

Task Set: Gas Burner Maintenance Schedule

Service v

Inspection Date: 15th November 2018

Plant Location: Drying Oven No 9 (ASZ)

Burner Type & Reference: Whirlwind

Model Make: P5 / SPM / 6 **Serial No:** 10103

Burner Heat Input Rating: 17.5kW

Gas Soundness Test:		Pass	v	Fail
Flame Failure Device:	UV Scanner	Pass	v	Fail
Low Gas Switch:	Setting: 10mb	Pass	v	Fail
Spark Electrode:	Inspected and cleaned	Yes	v	No
Pilot Governor:	Inspected and cleaned	Yes	v	No
	Diaphragms changed	Yes		No v
Main Burner:	Internal Inspection	Yes	v	No
HT Lead:	Inspected and cleaned	Yes	v	No
	Replaced	Yes		No v
Spark Plug Cap:	Inspected	Yes	v	No
	Needs replacing	Yes		No v
Gas Ball Valves:	Inspected	Yes	v	No
	Greased	Yes		No v

Sight Glasses:	Cleaned Replaced	Yes Yes	✓ 	No No ✓
Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Burner Quarl Inspection:	Internal Inspection Removed any Dirt	Yes Yes	✓ ✓	No No
Panel Terminals:	Checked:	Yes	✓	No

Main Block Valve

Make: Dungs 1"
 Type: MB-DLE407B01
 P max: 260mb
 Serial No:
 Voltage: 240v

Pilot Governor

Make: Jeavons
 Type: 60DJ ¼"
 P max:
 Serial No:
 Voltage:

Control Box

Make: Honeywell
 Type: 810.1 MOD43
 Serial No:
 Voltage: 240v

Pilot Solenoid Valves

Make: Black Teknigas
 Type: ¼"
 Serial No:
 Voltage: 240v

Ignition Transformer

Make:
 Type: 8.5kW
 Serial No:
 Voltage: 240v

Readings

- Incoming Gas Pressure: 41.5mb
- Gas at Burner: 3.9mb
- Burner Position:
- Over Temperature Setting: 145°C
- Working Temperature: 135°C

Analyzer Readings

O2: 3.7%
CO PPM: 0
CO²: 9.78%
Flue Gas Temp: 196.5°C

Only the equipment serviced or installed by BS Burner Services Limited under the scope of this report meets the requirements of the Gas Safety Regulations and the manufacturer.

Yes ☒ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

1: None reported during this service.

Signed by BSL Engineer.....*Stewart Jeavons*.....

Date ...15th November 2018.....

Signed by Customer

Accepted ☒

Not Accepted

BS Burner Services Ltd

Combustion Design, Engineering, Installation & Refractory

Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No:	4337-4			
Client:	GS Yuasa Battery (UK) Ltd			
Address:	Unit 22 Rassau Industrial Estate Rassau Ebbw Vale NP23 5SD			
Site Contact:	Mike O'Keefe			
Task Set:	Gas Burner Maintenance Schedule			
			Service	✓
Inspection Date:	15 th November 2018			
Plant Location:	Drying Oven 10 (ASA)			
Burner Type & Reference:	Whirlwind			
Model Make:	Whirlwind		Serial No:	3682
Burner Heat Input Rating:	205kw			
Gas Soundness Test:		Pass	✓	Fail
Flame Failure Device:	Flame Rod	Pass	✓	Fail
Combustion Air Switch:	Setting:	Pass	✓	Fail
Spark Electrode:	Inspected and cleaned	Yes	✓	No
Main Burner:	Internal Inspection	Yes	✓	No
HT Lead:	Inspected and cleaned Replaced	Yes Yes	✓	No No ✓
Spark Plug Cap:	Inspected Needs replacing	Yes Yes	✓	No No ✓
Gas Ball Valves:	Inspected Greased	Yes Yes	✓	No No ✓
Sight Glasses:	Inspected Replaced	Yes Yes	✓	No No ✓

Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Panel Terminals:	Checked:	Yes	✓	No

Gas Valve

Make: Honeywell
 Type: VR425AB
 P max:
 Serial No:
 Voltage: 240v

Control Box

Make: Satronic
 Type: MMG810
 Serial No:
 Voltage: 240v

Readings

- Incoming Gas Pressure: 41.6mb
- Gas at Burner: 3.8mb
- Working Temperature: 135°C

Analyzer Readings

O2: 7.1%
 CO PPM: 0
 CO²: 7.87%
 Flue Gas Temp: 211.1°C
 Ambient Temp: 22.2°C

Only the equipment serviced or installed by BS Burner Services Limited under the scope of this report meets the requirements of the Gas Safety Regulations and the manufacturer.

Yes ✓ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

- 1: There are 2 noisy ¼" Black Teknigas solenoid valves that require replacing.

Signed by BSL Engineer.....*Stewart Jeavons*.....

Date ...15th November 2018.....

Signed by Customer

Accepted ☒

Not Accepted ☐

BS Burner Services Ltd

Combustion Design, Engineering, Installation & Refractory

Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No: 4338

Client: GS Yuasa Battery (UK) Ltd

Address: Unit 22 Rassau Industrial Estate
Rassau
Ebbw Vale
NP23 5SD

Site Contact: Mike O' Keefe

Task Set: Gas Burner Maintenance Schedule

Service ✓

Inspection Date: 15th November 2018

Plant Location: Plastics

Burner Type & Reference: Combat Heater (AST)

Model Make: Combat **Serial No:** T60692

Burner Heat Input Rating: 88kW

Gas Soundness Test: Pass ✓ Fail

Flame Failure Device: UV Scanner Pass ✓ Fail

Combustion Air Switch: Setting: 0.4mb Pass ✓ Fail

Spark Electrode: Inspected and cleaned Yes ✓ No

Pilot Governor: Inspected and cleaned Yes ✓ No
Diaphragms changed Yes No ✓

Main Burner: Internal Inspection Yes ✓ No

HT Lead: Inspected and cleaned Yes ✓ No
Replaced Yes No ✓

Spark Plug Cap: Inspected Yes ✓ No
Needs replacing Yes No ✓

Gas Ball Valves: Inspected Yes ✓ No
Greased Yes No ✓

Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Burner Quarl Inspection:	Internal Inspection	Yes	✓	No
	Removed any Dirt	Yes	✓	No
Panel Terminals:	Checked:	Yes	✓	No

Pilot Governor

Make: No name plate
 Type: 3/8"
 Inlet Pressure:
 Outlet Pressure:

Main Solenoid Valves

Make: Dungs
 Type: ¾" Block valve
 P max:
 Serial No:
 Voltage: 240v

Pilot Solenoid Valves

Make: Alcon
 Type: 3/8"
 P max:
 Serial No:
 Voltage: 240v

Control Box

Make: Satronic
 Type: MMG810.1 Mod 43
 Serial No:
 Voltage: 240v

Ignition Transformer

Make: No name plate
 Type: 240v 8kv
 Serial No:
 Voltage: 240v

Readings

- Gas Pressure: 26.5mb
- Gas at Burner: 12.4mb
- Burner Position: H/F

- Working Temperature: 15°C

Analyser Readings

O2: 7.8%
CO PPM: 0
CO²: 7.49%
Flue Gas Temp: 304.1°C
Eff Net: 82%

Only the equipment serviced or installed by BS Burner Services Limited under the scope of this report meets the requirements of the Gas Safety Regulations and the manufacturer.

Yes ✓ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

1: None reported during this service.

Signed by BSL Engineer.....*Stewart Jeavons*..... Date ...15th November 2018.....

Signed by Customer Accepted ✓
Not Accepted

BS Burner Services Ltd

Combustion Design, Engineering, Installation & Refractory

Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No:	4336			
Client:	GS Yuasa Battery (UK) Ltd			
Address:	Unit 22 Rassau Industrial Estate Rassau Ebbw Vale NP23 5SD			
Site Contact:	Mike O'Keefe			
Task Set:	Gas Burner Maintenance Schedule			
			Service	✓
Inspection Date:	14 th November 2018			
Plant Location:	Curing Oven 3+4 (A62)			
Burner Type & Reference:	NVS60/F/1/MOD			
Model Make:	Powrmatic		Serial No:	N6011H071
Burner Heat Input Rating:	60kw			
Gas Soundness Test:		Pass	✓	Fail
Flame Failure Device:	Flame Rod	Pass	✓	Fail
Combustion Air Switch:	Setting: 0.7mb	Pass	✓	Fail
Spark Electrode:	Inspected and cleaned	Yes	✓	No
Main Burner:	Internal Inspection	Yes	✓	No
HT Lead:	Inspected and cleaned Replaced	Yes Yes	✓	No No ✓
Spark Plug Cap:	Inspected Needs replacing	Yes Yes	✓	No No ✓
Gas Ball Valves:	Inspected Greased	Yes Yes	✓	No No ✓
Sight Glasses:	Inspected Replaced	Yes Yes	✓	No No ✓

Over-heating around burner:	Checked	Yes	✓	No
Sign of Fuel Leakage:	Smell Gas	Yes		No ✓
Signs of corrosion on pipe & fittings:	Checked	Yes	✓	No
Panel Terminals:	Checked:	Yes	✓	No

Gas Valve

Make: Honeywell
 Type: VR4605A-B1027L
 P max:
 Serial No:
 Voltage: 240v

Control Box

Make: Pactrol Microgas
 Type: P25F1.FML
 Serial No:
 Voltage: 240v

Readings

- Incoming Gas Pressure:  39.4mb
- Gas at Burner: 1.9mb
- Working Temperature: 35°C

Analyzer Readings

O2: 16.3%
 CO PPM: 38
 CO²: 2.68%
 Flue Gas Temp: 39.4°C
 Ambient Temp: 21.9°C

Only the equipment serviced or installed by BS Burner Services Limited under the scope of this report meets the requirements of the Gas Safety Regulations and the manufacturer.

Yes ✓ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

- 1: We tested the internal tubes to test their integrity. All OK.

Signed by BSL Engineer.....*Stewart Jeavons*.....

Date ...14th November 2018.....

Signed by Customer

Accepted ☒

Not Accepted

BS Burner Services Ltd

Combustion Design, Engineering, Installation & Refractory

Unit E1 The Wallows Industrial Estate, Fens Pool Avenue
Brierley Hill,
West Midlands
DY5 1QA

Tel: 01384 571162/01384 571168, Fax: 01384 262358

SITE SERVICE REPORT

Job No: 4338-1

Client: GS Yuasa Battery (UK) Ltd

Address: Unit 22 Rassau Industrial Estate
Rassau
Ebbw Vale
NP23 5SD

Site Contact: Mike O' Keefe

Task Set: Gas Burner Maintenance Schedule

Service v

Inspection Date: 15th November 2018

Plant Location: F2 Warehouse

Burner Type & Reference: Combat Heater (A63)

Model Make: Combat Serial No: T60400

Burner Heat Input Rating: 88kW

Gas Soundness Test: Pass v Fail

Flame Failure Device: UV Scanner Pass v Fail

Spark Electrode: Inspected and cleaned Yes v No

Pilot Governor: Inspected and cleaned Yes v No
Diaphragms changed Yes No v

Main Burner: Internal Inspection Yes v No

HT Lead: Inspected and cleaned Yes v No
Replaced Yes No v

Spark Plug Cap: Inspected Yes v No
Needs replacing Yes No v

Gas Ball Valves: Inspected Yes v No
Greased Yes No v

Over-heating around burner: Checked

Sign of Fuel Leakage:	Smell Gas	Yes		No ☒
Signs of corrosion on pipe & fittings:	Checked	Yes	☒	No
Burner Quarl Inspection:	Internal Inspection Removed any Dirt	Yes	☒	No
		Yes	☒	No
Panel Terminals:	Checked:	Yes	☒	No

Pilot Governor

Make: No name plate
 Type: 3/8"
 Inlet Pressure:
 Outlet Pressure:

Main Solenoid Valves

Make: Dungs
 Type: 3/4" Block valve
 P max:
 Serial No:
 Voltage: 240v

Pilot Solenoid Valves

Make: Alcon
 Type: 3/8"
 P max:
 Serial No:
 Voltage: 240v

Control Box

Make: Satronic
 Type: MMG810.1 Mod 43
 Serial No:
 Voltage: 240v

Ignition Transformer

Make: No name plate
 Type: 240v 8kv
 Serial No:
 Voltage: 240v

UV Scanner

Make: Satronic
 Type: UVZ780
 Serial No:
 Voltage: 240v

Readings

- Gas Pressure:
- Gas at Burner:
- Burner Position:
- Working Temperature:

Analyser Readings

O2:
CO PPM:
CO²:
Flue Gas Temp:
Eff Net:

Only the equipment serviced or installed by BS Burner Services Limited under the scope of this report meets the requirements of the Gas Safety Regulations and the manufacturer.

Yes ✓ No

Any other equipment or installation on site is outside of the scope of this report and BS Burner Services Limited take no responsibility for the condition or usage of such plant and equipment.

List any defects found and the remedial action taken or required to be taken:

- 1: The combustion air pressure switch and fittings are missing.
- 2: The UV is damaged and requires replacing.

Signed by BSL Engineer.....*Stewart Jeavons*..... Date ...15th November 2018.....

Signed by Customer Accepted ✓
Not Accepted

dryer oven nio
A52

V1.11	testo 340	61063143/GB
Folder		
LOCATION	10:10:50	
Fuel:	Natural Gas	
O2cal.:	3.0%	
CO2max:	11.9%	
15.01.2019		
% O2	9.42	ppm CO
% CO2	31	ppm NO
% C FlueGas temp	6.56	
ppm NOx	215.5	
hPa Diff. Press. 2	28	
mbar Draught		
m/s Velocity		
kg/h Massflow CO	0	
kg/h Massflow NOx	0.0	
kg/h Massflow SO2	0	
Heat carrier temp.:		°C

dryer oven nio
A48

V1.11	testo 340	61063143/GB
Folder		
LOCATION	11:21:01	
Fuel:	Natural Gas	
O2cal.:	3.0%	
CO2max:	11.9%	
15.01.2019		
% O2	15.97	ppm CO
% CO2	17	ppm NO
% C FlueGas temp	2.85	
ppm NOx	76.5	
hPa Diff. Press. 2	15	
mbar Draught		
m/s Velocity		
kg/h Massflow CO	0	
kg/h Massflow NOx	0.0	
kg/h Massflow SO2	2	
Heat carrier temp.:		°C

dryer oven nio
A39

V1.11	testo 340	61063143/GB
Folder		
LOCATION	11:49:48	
Fuel:	Natural Gas	
O2cal.:	3.0%	
CO2max:	11.9%	
15.01.2019		
% O2	6.42	ppm CO
% CO2	14	ppm NO
% C FlueGas temp	8.26	
ppm NOx	624.5	
hPa Diff. Press. 2	42	
mbar Draught		
m/s Velocity		
kg/h Massflow CO	0	
kg/h Massflow NOx	0.0	
kg/h Massflow SO2	0	
Heat carrier temp.:		°C

dryer oven nio
A36

V1.11	testo 340	61063143/GB
Folder		
LOCATION	13:11:55	
Fuel:	Natural Gas	
O2cal.:	3.0%	
CO2max:	11.9%	
15.01.2019		
% O2	16.49	ppm CO
% CO2	40	ppm NO
% C FlueGas temp	2.55	
ppm NOx	35.0	
hPa Diff. Press. 2	11	
mbar Draught		
m/s Velocity		
kg/h Massflow CO		
kg/h Massflow NOx	0	
kg/h Massflow SO2		
Heat carrier temp.:		°C

dryer oven nio
A35

V1.11	testo 340	61063143/GB
Folder		
LOCATION	12:33:00	
Fuel:	Natural Gas	
O2cal.:	3.0%	
CO2max:	11.9%	
15.01.2019		
% O2	13.64	ppm CO
% CO2	30	ppm NO
% C FlueGas temp	4.17	
ppm NOx	41.3	
hPa Diff. Press. 2	15	
mbar Draught		
m/s Velocity		
kg/h Massflow CO	0	
kg/h Massflow NOx	0.0	
kg/h Massflow SO2	0	
Heat carrier temp.:		°C

dryer oven nio
A54

V1.11	testo 340	61063143/GB
Folder		
LOCATION	10:21:53	
Fuel:	Natural Gas	
O2cal.:	3.0%	
CO2max:	11.9%	
15.01.2019		
% O2	10.76	ppm CO
% CO2	28	ppm NO
% C FlueGas temp	5.80	
ppm NOx	257.4	
hPa Diff. Press. 2	27	
mbar Draught		
m/s Velocity		
kg/h Massflow CO	0	
kg/h Massflow NOx	0.0	
kg/h Massflow SO2	0	
Heat carrier temp.:		°C

dryer oven nio
A50

V1.11	testo 340	61063143/GB
Folder		
LOCATION	11:02:39	
Fuel:	Natural Gas	
O2cal.:	3.0%	
CO2max:	11.9%	
15.01.2019		
% O2	12.31	ppm CO
% CO2	38	ppm NO
% C FlueGas temp	4.92	
ppm NOx	122.3	
hPa Diff. Press. 2	36	
mbar Draught		
m/s Velocity		
kg/h Massflow CO	0	
kg/h Massflow NOx	0.0	
kg/h Massflow SO2	1	
Heat carrier temp.:		°C

dryer oven nio
A46

V1.11	testo 340	61063143/GB
Folder		
LOCATION	10:37:30	
Fuel:	Natural Gas	
O2cal.:	3.0%	
CO2max:	11.9%	
15.01.2019		
% O2	11.59	ppm CO
% CO2	30	ppm NO
% C FlueGas temp	5.33	
ppm NOx	207.7	
hPa Diff. Press. 2	31	
mbar Draught		
m/s Velocity		
kg/h Massflow CO	0	
kg/h Massflow NOx	0.0	
kg/h Massflow SO2	0	
Heat carrier temp.:		°C

dryer oven nio
A38

V1.11	testo 340	61063143/GB
Folder		
LOCATION	12:00:08	
Fuel:	Natural Gas	
O2cal.:	3.0%	
CO2max:	11.9%	
15.01.2019		
% O2	11.81	ppm CO
% CO2	173	ppm NO
% C FlueGas temp	5.19	
ppm NOx	433.5	
hPa Diff. Press. 2	28	
mbar Draught		
m/s Velocity		
kg/h Massflow CO	0	
kg/h Massflow NOx	0.0	
kg/h Massflow SO2	0	
Heat carrier temp.:		°C

dryer oven nio
A36

V1.11	testo 340	61063143/GB
Folder		
LOCATION	13:13:26	
Fuel:	Natural Gas	
O2cal.:	3.0%	
CO2max:	11.9%	
15.01.2019		
% O2	16.57	ppm CO
% CO2	27	ppm NO
% C FlueGas temp	2.51	
ppm NOx	35.0	
hPa Diff. Press. 2	5	
mbar Draught		
m/s Velocity		
kg/h Massflow CO		
kg/h Massflow NOx	0	
kg/h Massflow SO2	0	
Heat carrier temp.:		°C

WATSON RETIRED

FACTORY 2 WAREHOUSE
A63

testo 340
V1.11 61063143/GB

Folder
LOCATION
15.01.2019 13:18:10
Fuel: Natural Gas
O2cal.: 3.0%
CO2max: 11.9%
15.05 % O2
0 ppm CO
22 ppm NO
3.37 % CO2
151.9 °C FlueGas temp
23 ppm NOx
hPa Diff. Press. 2
mbar Draught
m/s Velocity
m³/h Flow
kg/h Massflow CO
m³/s Flow
0 ppm SO2
kg/h Massflow NOx
kg/h Massflow SO2
Heat carrier temp.: --- °C

Injection provided
by
HATTEL

WRAPPER A57

testo 340
V1.11 61063143/GB

Folder
LOCATION
15.01.2019 13:26:56
Fuel: Natural Gas
O2cal.: 3.0%
CO2max: 11.9%
8.68 % O2
5 ppm CO
38 ppm NO
6.98 % CO2
253.1 °C FlueGas temp
40 ppm NOx
hPa Diff. Press. 2
mbar Draught
m/s Velocity
m³/h Flow
kg/h Massflow CO
m³/s Flow
0 ppm SO2
kg/h Massflow NOx
kg/h Massflow SO2
Heat carrier temp.: --- °C

Action Plan - Boiler/Burner Repairs

Updated 21/01/19

[illegible]

Lead Extraction and Current Status as at January 2019

Dept	Process Served	Stack No.	Status	Number of Emission Points	Substance Extracted	Permit ELV
Factory 2	Oxide Mill No. 4	A1	In use	1	Lead	0.5 mg m ⁻³
Factory 2	Oxide Mill No. 5	A2	In use	1	Lead	0.5 mg m ⁻³
Factory 1	Casting Off-Cut Hopper	A3	Not in use	1	Lead	0.5 mg m ⁻³
Factory 1	Casting Ladles 1 - 16	A4	In use	1	Lead	0.5 mg m ⁻³
Factory 1	Pasting Machine Mixers 2 & 3	A6	In use	1	Lead	1.0 mg m ⁻³
Factory 1	Expanded Grid Line	A7	In use	1	Lead	2.0 mg m ⁻³
Factory 1	Auto Charging	A8	Not in use	1	Acid Mist	No ELV
Factory 1	Lead Dross and Recycling	A9	In use	1	Lead	0.5 mg m ⁻³
Factory 2	Assembly Line 9A	A11	In use	1	Lead	0.5 mg m ⁻³
Factory 2	Pellet Caster / Small Parts Caster	A12	In use	1	Lead	0.5 mg m ⁻³
Factory 2	Assembly	A13	Not in use	1	Lead	2.0 mg m ⁻³
Factory 2	Assembly Lines 6 - 8 and Vacuum	A14	Not in use	1	Lead	2.0 mg m ⁻³
Factory 2	Assembly	A15	Not in use	1	Lead	0.5 mg m ⁻³
Factory 4	Assembly EN Line Vacuum Stack 1	A16	Not in use	1	Lead	0.5 mg m ⁻³
Factory 4	Assembly EN Line Vacuum Stack 2	A17	Not in use	1	Lead	0.5 mg m ⁻³
Factory 1	Cutting Machines 1 – 7 Vacuum	A18	In use	1	Lead	1.0 mg m ⁻³
Factory 1	Dross Bins 1 – 8	A19	In use	1	Lead	0.5 mg m ⁻³
Factory 2	Oxide Mill No. 6	A20	In use	1	Lead	0.5 mg m ⁻³
Factory 4	Ex New NNP Vacuum	A22	Not in use	1	Lead	2.0 mg m ⁻³
Factory 2	Oxide Mill No. 7	A23	In use	1	Lead	0.5 mg m ⁻³
Factory 2	Assembly Line 9 Extraction	A24	In use	1	Lead	0.5 mg m ⁻³
Factory 2	Assembly Line 9 Vacuum	A25	Not in use	1	Lead	0.5 mg m ⁻³
Factory 1	Casting Pots 1 - 8	A26	In use	1	Lead	0.5 mg m ⁻³
Factory 2 (New 0617)	Small Parts Casting Machine.	A27	Awaiting installation	1	Lead	1.0 mg m ⁻³

Other Process Extraction and Current Status as at January 2018

Dept	Process Served	Stack No.	Status	Filter Type	Number of Emission Points		LEV or Process	Possible Emissions (process operating temperature)
Factory 1	Grid Casting Aging Oven No.1	A10	In use	N/A	1	200 Ø	Process	Combustion gases (Oven temp 100°C)
Factory 1	Grid Casting Aging Oven No.2	A21	In use	N/A	1	200 Ø	Process	Combustion gases (Oven temp 100°C)
Factory 2	Cast on strap Line 1	A28	Removed	Mesh filter & electrostatic	0	300 Ø	Process	Oil mist. Lead fume if temp above 500°C (490°C)
Factory 2	Cast on strap Line 2	A29	Removed	Mesh filter & electrostatic	0	300 Ø	Process	Oil mist. Lead fume if temp above 500°C (490°C)
Factory 2	Cast on strap Line 3	A30	Removed	Mesh filter & electrostatic	0	300 Ø	Process	Oil mist. Lead fume if temp above 500°C (490°C)
Factory 2	Cast on strap Line 4	A31	Removed	Mesh filter & electrostatic	0	330 Ø	Process	Oil mist. Lead fume if temp above 500°C (490°C)
Factory 2	Cast on strap Line 5	A32	Removed	Mesh filter & electrostatic	0	330 Ø	Process	Oil mist. Lead fume if temp above 500°C (490°C)
Factory 2	Cast on strap Line 6	A33	Removed	Mesh filter & electrostatic	0	330 Ø	Process	Oil mist. Lead fume if temp above 500°C (490°C)
Factory 2	Cast on strap Line 7	A34	Removed	Mesh filter & electrostatic	0	330 Ø	Process	Oil mist. Lead fume if temp above 500°C (490°C)
Factory 1	Hydro-setting oven Lane 1	A35	In use	N/A	1	200 Ø	Process	Combustion Gases (Oven temp 50°C)
Factory 1	Hydro-setting oven Lane 2	A36	In use	N/A	1	200 Ø	Process	Combustion Gases (Oven temp 50°C)
Factory 1	Pasting Machine No.2 Take-off (Steam)	A37	In use	N/A	1	400 Ø	Process	Steam
Factory 2	Pellet Caster - Gas Burner Stack No.1	A38	In use	N/A	1	300 Ø	Process	Combustion gases
Factory 2	Pellet Caster - Gas Burner Stack No.2	A39	In use	N/A	1	200 Ø	Process	Combustion gases
Factory 2	Oxide Mill No.4 Extraction	A40	In use	N/A	1	450 Ø	Process	Water/moisture
Factory 2	Oxide Mill No.5 Extraction	A41	In use	N/A	1	500 Ø	Process	Water/moisture
Factory 2	Oxide Mill No.6 Extraction	A42	In use	N/A	1	450 Ø	Process	Water/moisture
Factory 2	Oxide Mill No.7 Extraction	A43	In use	N/A	1	500 Ø	Process	Water/moisture
Factory 1	Flash drying oven No 2	A44	In use	N/A	1	600 Ø	Process	Combustion gases
Factory 1	Flash drying oven No 3	A45	In use	N/A	1	600 Ø	Process	Combustion gases
Factory 1	Gas Drying oven No.1 Burner and Steam	A46 & A47	In use	N/A	2	150/250 Ø	Process	Combustion Gases (Oven temp 120 to 130°C)
Factory 1	Gas Drying oven No.2 Burner and Steam	A48 & A49	In use	N/A	2	150/250 Ø	Process	Combustion Gases (Oven temp 120 to 130°C)
Factory 1	Gas Drying oven No.3 Burner and Steam	A50 & A51	In use	N/A	2	150/250 Ø	Process	Combustion Gases (Oven temp 120 to 130°C)
Factory 1	Gas Drying oven No.9 Burner and Steam	A52 & A53	In use	N/A	2	150/250 Ø	Process	Combustion Gases (Oven temp 120 to 130°C)
Factory 1	Gas Drying oven No.10 Burner and Steam	A54 & A55	In use	N/A	2	150/250 Ø	Process	Combustion Gases (Oven temp 120 to 130°C)
Factory 3	Combat Heater No.1 South West	A56	Removed	N/A	1			Heating combustion gases
Factory 3	Combat Heater No.2 South East	A57	In use	N/A	1			Heating combustion gases
Factory 3	Combat Heater No.3 North East	A58	Removed	N/A	1			Heating combustion gases
Factory 2	0.85 MW _{in} Boiler	A59	Removed	N/A	1			Combustion gases
Factory 2	1.75 MW _{in} Boiler	A60	Not in use	N/A	1			Combustion gases

Other Process Extraction and Current Status as at January 2018

Dept	Process Served	Stack No.	Status	Filter Type	Number of Emission Points	LEV or Process	Possible Emissions (process operating temperature)
Factory 1	Dross Recycling Burner	A61	In use	N/A	1		
Factory 1	Hydro-setting oven Lanes 3 & 4 Steam	A62	In use	N/A	1	200 Ø	Combustion Gases (Oven temp 50°C)
Factory 2	Combat Heater No.5 Warehouse No.2 North East	A63	In use	N/A	1		Heating combustion gases
Factory 1	No heater fitted.	A64	Removed	N/A	1		Heating combustion gases
Factory 2	Assembly FT and Line 9A Lid Bonding and Terminal Seal	A65	In use	N/A	1	600 Ø	VOC's
Factory 2	Assembly Line 7 Lid Bonding and Terminal Seal	A66	In use	N/A	1	600 Ø	VOC's
Factory 2	Assembly Line 8 Lid Bonding and Terminal Seal	A67	In use	N/A	1	600 Ø	VOC's
Factory 2	Assembly Line 9 Lid Bonding and Terminal Seal	A68	In use	N/A	1	600 Ø	VOC's
Factory 4	Assembly Line 10 Heat Seal (3 work stations, 1 stack)	A69	In use	Mesh Filters X 3	1	300 Ø	VOC's
Factory 4	Assembly Line 10 Terminal Seal	A70	In use	N/A	1	200 Ø	VOC's
Factory 2	Assembly Ex Lines 1, 2 and 3 Lid Bonding and Terminal Seal	A71	Not in use	N/A	1	600 Ø	VOC's
Factory 2	Assembly Charging Ex Lines 1, 2 and 3	A72	Not in use	N/A	1	600 Ø	Hydrogen Gas
Factory 2	Assembly Charging Lines 7 & 9A	A73	Not in use	N/A	1	600 Ø	Hydrogen Gas
Factory 2	Charging Line 8 Stacks 1	A74	Not in use	N/A	1	600 Ø	Hydrogen Gas
Factory 2	Charging Line 8 Stacks 2	A75	Not in use	N/A	1	600 Ø	Hydrogen Gas
Factory 2	Charging Line 8 Stacks 3	A76	Not in use	N/A	1	600 Ø	Hydrogen Gas
Factory 2	Charging Line 8 Stacks 4	A77	Not in use	N/A	1	600 Ø	Hydrogen Gas
Factory 1	Resin Decanting Room	A78	In use	Mesh Grill	1	100 Ø	VOC's
Factory 1 (Ext.)	Resin Mixing Room	A79	In use	Mesh Filters x2	1	300 Ø	VOC's
Factory 1	Laboratory Fume Cabinet	A80	In use	N/A	1	200 Ø	Chemical Vapour
Factory 1	Laboratory Work Bench	A81	In use	Mesh Grill	1	300 Ø	Chemical Vapour
Factory 1	Laboratory AA Machine	A82	In use	N/A	1	100 Ø	Chemical Vapour
Factory 1 (Ext.)	Water Treatment Plant Work Bench	A83	In use	N/A	1	250 Ø	Chemical Vapour
Factory 2	Welding Room	A84	Occasional Use	N/A	1	150 Ø	Occasional Welding fume
Factory 1	Air intake to No.2 pasting mixer	A85	In use	N/A	1	300 Ø	Fresh air intake to paste mixer.
					Total Number of Emission Points	77	

Associated with Burner Efficiencies

Action Plan - Boiler/Burner Repairs

Updated 21/12/18

[illegible]