

## Reporting of Energy Usage for year 2018

Permit Number: LP3731SU

Operator: BAE Systems Land Systems  
(Munitions& Ordnance) Ltd

Installation: Glascoed Munitions Factory

Form Number: Energy 1  
Form Issue Date: 03/11/2006

Energy Source	Energy Usage Quantity	Primary Energy	Specific Usage
Electricity (1)	MWh	721	0.0200 MWh/tonne of steam produced (29.83MJ/tonne of steam)
Natural Gas (2)	MJ	153,550,119	4261 MJ/tonne of steam produced
Gas Oil (boilers) (3)	MJ	716,984	19.89 MJ/tonne of steam produced
Diesel usage(Back-up generator)(4)	MJ	48,335	1.34 MJ/tonne of steam produced
<b>TOTAL</b>	<b>MJ</b>	<b>156,910,326</b>	<b>4354 MJ/tonne of steam produced</b>

### Operator's comments

- Note 1 Conversion factor for delivered electricity to primary energy (x2.4)
- Note 2 3,774,887m<sup>3</sup> of natural gas consumed, (conversion factors from Department of Energy and Climate Change - Digest of UK Energy Statistics 2011  
Natural gas = 11.3kWh/m<sup>3</sup> and 1MJ = (1kWh/0.2778))
- Note 3 18,290 litres of gas oil consumed in boilers, diesel/gas oil = 10.89kWh/litre (source: Department of Energy and Climate Change - Digest of UK Energy Statistics 2011) and 1MJ = (1kWh/0.2778)
- Note 4 1,233 litres of gas oil (generator) consumed, diesel/gas oil = 10.89kWh/litre (source: Department of Energy and Climate Change - Digest of UK Energy Statistics 2011) and 1MJ = (1kWh/0.2778)

Signed

*W Jones*

(authorised to sign as representative of Operator)

Date 29.01.2019

## Reporting of Water Usage for year 2018

Permit Number: LP3731SU

Operator: BAE Systems Land Systems  
(Munitions& Ordnance) Ltd

Installation: Glascoed Munitions Factory

Form Number: Water Usage1  
Form Issue Date: 03/11/2006

Water Source	Usage m <sup>3</sup> /year	Specific Usage
River Abstraction	674,516	
Boiler House Use	28,298	0.79 m <sup>3</sup> /tonne of steam produced

**Operator's comments**

28,298 m<sup>3</sup> of water was used in the Boiler house representing 4 % of the total water abstracted given above

Signed



Date 23.01.2019

(authorised to sign as representative of Operator)

**Releases to Air**

**PPC Reporting**

**Operational Summary for the year to December 2018**

Operator: BAE Systems Land Systems  
(Munitions & Ordnance)Ltd

Site Location: Glascoed, Usk

Form Number: Air - 8 (Discontinuous Monitoring)

Form Issue Date: 03/11/2006

Permit/Variation number: LP3731SU

Release point: A1 & A2

Measurement frequency: 12monthly

Date of sampling : A1: 8/11/2018

A2: 8/11/2018

Release Point	Flue	ELV	Measured	Sampling	Unit load	Fuel usage
		mg/m <sup>3</sup>	value	method	or	during
			mg/m <sup>3</sup>		%MCR	sampling
A1	Boiler 1	140	100.79	BS EN 14792:2017	90-100%	Natural Gas
	Boiler 2 Left	140	101.61	BS EN 14792:2017	90-100%	Natural Gas
	Boiler 2 Right	140	96.98	BS EN 14792:2017	90-100%	Natural Gas
A2	Boiler 3	140	100.21	BS EN 14792:2017	90-100%	Natural Gas
	Boiler 4 Left	140	94.88	BS EN 14792:2017	90-100%	Natural Gas
	Boiler 4 Right	140	95.80	BS EN 14792:2017	90-100%	Natural Gas

Signed on behalf of the Operator

*Jones*

Date 23.01.2019

### Reporting of other performance indicators for the period 01/01/2018 to 31/12/2018

Permit Number:	LP3731SU	Operator:	BAE Systems Land systems (Munitions& Ordnance) Ltd
Installation:	Glascoed Munitions Factory	Form Number:	Performance 1
		Form Issue Date:	03/11/2006

Parameter	Units
Steam Generated	<b>36,039</b> tonnes per annum
Annual waste production	<b>1.285</b> tonnes per annum

Environmental Performance Indicators	
Electricity	<b>0.0200</b> MWh/tonne of steam produced (29.93MJ/tonne of steam)
Natural Gas	<b>4261</b> MJ/tonne of steam produced
Gas Oil (boilers)	<b>19.89</b> MJ/tonne of steam produced
Diesel usage(Back-up generator)	<b>1.34</b> MJ/tonne of steam produced
Total Energy	<b>4354</b> MJ/tonne of steam produced
Waste Production	<b>0.0356</b> kg/tonne of steam produced

<b>Operator's comments</b>
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Signed

*W Jones*

(authorised to sign as representative of Operator)

Date 29.01.2019

## Reporting of Waste Disposal for year 2018

Permit Number: LP3731SU

Operator: BAE Systems Land Systems  
(Munitions& Ordnance) Ltd

Installation: Glascoed Munitions Factory

Form Number: Waste 1  
Form Issue Date: 03/11/2006

Waste Description	Units	Quantity Disposed	Disposal Route
Refractory Waste	kg	1,250	Landfill
Boiler Soot	kg	6.7	Landfill
Boiler Sludge	kg	28.0	Landfill
<b>TOTAL</b>	<b>kg</b>	<b>1,284.7</b>	

Operator's comments

Signed

*W Jones*

(authorised to sign as representative of Operator)

Date 23.01.2019

## Reporting of Waste Disposal for Quarter 1 (Jan/Feb/Mar 2018)

Permit Number: LP3731SU

Operator: BAE Systems Land Systems  
(Munitions& Ordnance) Ltd

Installation: Glascoed Munitions Factory

Form Number: Waste Q1  
Form Issue Date: 03/11/2006

Waste Description	Quantity Disposed (kg)	Disposal Route
Refractory Waste	0	n/a
Boiler Soot	0.0	n/a
Boiler Sludge	1.9	Landfill
<b>TOTAL</b>	<b>1.9</b>	

Operator's comments

Signed

*W Jones*

(authorised to sign as representative of Operator)

Date 23.01.2019

## Reporting of Waste Disposal for Quarter 2 (Apr/May/June 2018)

Permit Number: LP3731SU

Operator: BAE Systems Land Systems  
(Munitions& Ordnance) Ltd

Installation: Glascoed Munitions Factory

Form Number: Waste Q2  
Form Issue Date: 03/11/2006

Waste Description	Quantity Disposed (kg)	Disposal Route
Refractory Waste	1,250	Landfill
Boiler Soot	0.0	n/a
Boiler Sludge/Scale	12.0	Landfill
<b>TOTAL</b>	<b>1,262.0</b>	

**Operator's comments**

Signed



(authorised to sign as representative of Operator)

Date 23.01.2019

### Reporting of Waste Disposal for Quarter 3 (Jul/Aug/Sept 2018)

Permit Number: LP3731SU

Operator: BAE Systems Land Systems  
(Munitions & Ordnance) Ltd

Installation: Glascoed Munitions Factory

Form Number: Waste Q3  
Form Issue Date: 03/11/2006

Waste Description	Quantity Disposed (kg)	Disposal Route
Refractory Waste	0	n/a
Boiler Soot	0.0	n/a
Boiler Sludge	0.0	n/a
<b>TOTAL</b>	<b>0.0</b>	

Operator's comments

Signed



(authorised to sign as representative of Operator)

Date 23.01.2019

## Reporting of Waste Disposal for Quarter 4 (Oct/Nov/Dec 2018)

Permit Number: LP3731SU

Operator: BAE Systems Land Systems  
(Munitions& Ordnance) Ltd

Installation: Glascoed Munitions Factory

Form Number: Waste Q4  
Form Issue Date: 03/11/2006

Waste Description	Quantity Disposed (kg)	Disposal Route
Refractory Waste	0	n/a
Boiler Soot	6.7	Landfill
Boiler Sludge	14.1	Landfill
<b>TOTAL</b>	<b>20.8</b>	

Operator's comments

Signed

*W Jones*

(authorised to sign as representative of Operator)

Date 23.01.2019