

28th January 2022

Mrs E A Parr
PPC Compliance Assistant
Natural Resources Wales
Rivers House
St Mellons Business Park
St Mellons
CARDIFF
CF3 0EY

Our Ref: W:\Environmental\IPPC\Environment Agency Reporting\Permit Reporting\New Melt Shop\Annual\2021\TP3639BH
NRW Annual Returns 2021.docx,

Dear Mrs Parr,

RE: Melt Shop EPR Permit TP3639BH Annual Returns 2021

In accordance with CELSA Manufacturing UK Ltd Environmental Permitting Regulations (EPR) Melt Shop Permit TP3639BH, please find forms A2, E1, PI1, R1 and S1 duly completed for the annual reporting period 2021.

Should you require any further information regarding these works please do not hesitate to contact me.

Yours sincerely,


Hannah Mayled

Environmental Advisor

Permit Number: EPR/TP3639BH

Operator:

CELSA Manufacturing (UK) Limited

Facility: Tremorfa Melt Shop

Form Number:

Air 2 / 20/09/13

Reporting of emissions to air for the period from1 January 2021 to 31 December 2021

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	% Uncertainty ^[4]
A1	Particulate Matter	5 mg/m ³		1.87 mg/m ³	BS EN 13284-1:2017 & MID	18/10/2021 13:45 – 14:57	23
	Oxides of Nitrogen (as NO ₂)	25 mg/m ³		0.66 mg/m ³	BS EN 14792:2017	19/10/2021 12:30-13:30	3
	Sulphur Dioxide	25 mg/m ³		5.14 mg/m ³	CEN / TS 17021:2017	19/10/2021 12:30-13:30	3
	PCDD/F	0.1 ng/m ³		0.035 ng/m ³	BS EN 1948-1:2006 & MID	19/10/2021 08:45-15:00	20
	VOC	20 mg/m ³		0.41 mgC/m ³	BS EN 12619:2013	19/10/2021 12:30-13:30	3
	PAH	No Limit Set		128.74 ug/m ³	BE ISO 11338:2003	20/10/2021 08:40-11:55	16
	PCB	No Limit Set		0.9128 ng/m ³	BS EN; 1948–1 & 4:2010	19/10/2021 08:45-15:00	10
	Heavy Metals	No Limit Set		1.45 mg/m ³	BS EN 14385:2004 & MID	18/10/2021 10:45-12:57	9
	Hg	0.05 mg/m ³		0.027 mg/m ³	BS EN 14385:2004 & MID	18/10/2021 10:45-12:57	13
A2	Particulate Matter	10 mg/m ³		1.22 mg/m ³	BS EN 13284-1:2002	19/10/2021, 13.00-14.04	38

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

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Limited

Operator: CELSA Manufacturing (UK)

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

* Schedule 5 Notification to be submitted alongside this report that is due on the 31st January 2019. Testing for PCDD/F will be done again by the end of Q1 to assess whether or not this result is anomalous.

A handwritten signature in black ink, appearing to read 'H. Mayfield', is written over a light grey rectangular background.

Signed
(Authorised to sign as representative of Operator)

Date...28th January 2022

Permit Reference Number: TP3639BH

Operator : CELSA Manufacturing (UK) Ltd

Installation: Tremorfa New Melt Shop

Form Number: E1 [11/05/05]

Reporting of Energy Usage for the year2021.....

Energy Source	Energy Usage		CO ₂ Produced (tonnes)**
	Quantity	Primary Energy (MWh)	
Electricity *	MWh	1,083,329	
Natural Gas	MWh	49,712	8,270.83
TOTAL		1,133,041	

Trends in Energy Usage			
Year	Parameter		
	Primary Energy usage	CO ₂ produced	CO ₂ per unit output
2011	1,433,752	11,629	0.0103
2012	1,235,708	10,492	0.0095
2013	1,235,708	11,212	0.0108
2014	1,094,013	8,422	0.0087
2015	1,235,726	9,428	0.0076
2016	1,198,413	8,887	0.0074
2017	1,167,208	8,644	0.0074
2018	1,124,759	8,646	0.0077
2019	1,104,893	9,704	0.0100
2020	1,079,248	7,920	0.0092
2021	1,133,041	8,271	0.0073

* Conversion factor for delivered electricity to primary energy = 2.4

**UK ETS annual submission

Operator's comments :

Signed
(authorised to sign as representative of the Operator)

Date...28th January 2022

Permit Number: EPR/TP3639BH
Limited

Operator: CELSA Manufacturing (UK)

Permit Reference Number : TP3639BH

Operator : CELSA Manufacturing (UK) Ltd

Installation : Tremorfa New Melt Shop

Form Number : PI1 [11/05/05]

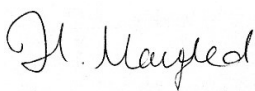
Reporting of Performance Indicators for the year2021.....

Annual Production	
Production of liquid steel	929,967 Tonnes liquid steel

Parameter	Quantity	Units
Electrical energy (delivered)	451,387,250	KWh
Particulates	17,904.66	Kg
Water	540,145	m ³

Trends in Environmental Performance			
Year	Parameter		
	Electricity consumption (KWh / t LS)	Particulates Released (g / t LS)	Towns / Commercial Water used (m ³ / t LS)
2011	490.35	30.09	0.481
2012	465.62	25.88	0.502
2013	459.94	7.78	0.521
2014	470.96	20.82	0.600
2015	460.87	54.00	0.591
2016	468.37	52.09	0.602
2017	476.15	5.83	0.797
2018	485.01	38.87	0.585
2019	475.40	35.77	0.704
2020	500.17	25.85	0.676
2021	485.38	19.25	0.581

Operator's comments:

Signed 
(authorised to sign as representative of the Operator)

Date...28th January 2022

Permit Number: EPR/TP3639BH
Limited

Operator: CELSA Manufacturing (UK)

Permit Reference Number: TP3639BH Operator: CELSA Manufacturing (UK) Ltd

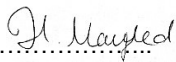
Installation: Tremorfa New Melt Shop Form Number: R1 [11/05/05]

Reporting of Waste and By-Product Generation

for the period from 01 January 2021 to 31 December 2021

Parameter (tonnes)	Tonnes sent for off-site disposal as special waste	Tonnes sent for off-site disposal as controlled waste	Tonnes sent for off-site recovery or recycling
Ferrous scrap metal			
Non-ferrous scrap metal			
Steel making slag			121801.51
Melting Shop filter dust			16974.26
Other filter dusts including shot-blasting dusts			
General waste		29.89	341.80
Antifreeze			
Contaminated Packaging			
Waste PPE 15.02.02 *			11.22
Waste oil 13.02.08*			27.02
Oil /Water			
Empty Oil Containers 15 01 10*			4.22
Metallic scale/iron oxide			2571.32
Refractory waste			
Sludge from waste water treatment 16.01.14* , 12.01.14*			36.40
Batteries			
Other wastes: DMR			4.40
Wood			205.58
Scrap screening fines		34,419.86*	
Scrap screening fines			9,843.57*
Fluorescent tubes			
WEEE			6.68
Fire Extinguishers			1.89
Hydraulic Hoses			1.20
Rubber Hoses/Belts			2.92

*Increase in tonnages from 2020 reporting due to changes to site activities following implementation of varied permit EPR/TP3639BH issued in 2020.

Signed: 

Date: 28th January 2022

(authorised to sign as representative of the Operator)

Facility: Tremorfa Melt Shop

Form Number:

Sewer 1 / 20/09/13

Reporting of emissions to air for the period from1 January 2021... to ...31 December 2021.....

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
S1 (when being discharged) ^[5]	Oil / grease	5 mg/l	Spot sample	0.60	Material soluble in 1,1,2-trichloro-trifluoroethane	Annual average of monthly sampling	
	Suspended Solids	20mg/l		6.0	The solids shall be separated and dried at 105°C	Annual average of monthly sampling	
	pH	6-10		8.7	BS 6068-2.50:1995, ISO 10523:1994	Annual average of monthly sampling	
	Nickel	0.5 mg/l		<0.0010	BS 6068-2.60:1988, BS EN ISO 11885 1998	Annual average of monthly sampling	
	Arsenic	0.01 mg/l		0.00059	BS 6068-2.60:1988, BS EN ISO 11885 1998	Annual average of monthly sampling	
	Cadmium	0.05 mg/l		0.00021	BS 6068-2.60:1988, BS EN ISO 11885 1998	Annual average of monthly sampling	
	Chromium	0.5 mg/l		0.00096	BS 6068-2.60:1988, BS EN ISO 11885 1998	Annual average of monthly sampling	
	Zinc	2 mg/l		0.036	BS 6068-2.60:1988, BS EN ISO 11885 1998	Annual average of monthly sampling	
	Mercury	0.02 mg/l		0.00002	BS 6068-2.74:2002, BS EN ISO 13506 2002	Annual average of monthly sampling	
	Iron Compounds	5 mg/l		0.556	BS 6068-2.60:1988, BS EN ISO 11885 1998	Annual average of monthly sampling	
	Flow	No Limit Set	Daily total flow	37.0 m ³ /day	Flow Meter	Daily averages from effluent meter	

Permit Number: EPR/TP3639BH
Manufacturing (UK) Limited

Operator: CELSA

S2	Oil / grease	5 mg/l	Spot Sample	0.60	Material soluble in 1,1,2-trichloro-trifluoroethane	Annual average of monthly sampling	
	Suspended Solids	20 mg/l		6.0	The solids shall be separated and dried at 105°C	Annual average of monthly sampling	
	pH	6-10		8.7	BS 6068-2.50:1995, ISO 10523:1994	Annual average of monthly sampling	
	Nickel	0.5 mg/l		<0.0010	BS 6068-2.60:1988, BS EN ISO 11885 1998	Annual average of monthly sampling	
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[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

[5] A record of the hourly flow at the time the sample of S1 is taken shall be maintained in the Plant records.

Signed *J. Mayfield*
(Authorised to sign as representative of Operator)

Date...28th January 2022

Permit Number: EPR/TP3639BH
Manufacturing (UK) Limited

Operator: CELSA