James Neave Principal Planner

Please respond to James Neave

Tel: 0330 2225 571

email: james.neave@westsussex.gov.uk

www.westsussex.gov.uk

County Planning

County Hall Chichester West Sussex PO19 1RH



Tel: 01243 777 100

Camilla Fisher RPS Group Plc.

17 November 2022

By email only

Dear Ms. Fisher,

Application Ref: WSCC/015/18/NH (APP/P3800/W/18/3218965)

Proposal: Recycling, Recovery and Renewable Energy Facility and Ancillary

Infrastructure

Address: Former Wealden Brickworks (Site HB), Langhurstwood Road,

Horsham, West Sussex, RH12 4QD

Condition(s):

Thank you for your recent submission regarding the above. The Council has considered the information and I am now able to inform you that:

Condition 24 - R1 Status (Stage 1)

The submitted details for condition 24 (ref: Environment Agency Letter dated 16th November 2022 – EA/EPR/CB3308TD/V002, Environment Agency Assessment Spreadsheet – Doc No 438_13 Version 1 - 16/11/22, Proforma for Determining Energy Efficiency Using R1 – EPR Permit Ref EPR/CB33008TD, Sankey Diagram for Wealden Works 3Rs Facility) are acceptable, and the <u>pre-commencement element</u> of condition 24 is now **discharged**.

Yours sincerely

James Neave

Britaniacrest Recycling Limited 26 Reigate Road Hookwood

Horley

Surrey Date: 16th November 2022

RH6 0HJ

Dear Sir or Madam

Classification as a recovery operation using the R1 Energy Efficiency Formula

Application reference: EPR/CB3308TD/V002 Operator: Britaniacrest Recycling Limited

Facility: Wealden Works 3Rs Facility, Former Wealden Brickworks, Langhurstwood

Our ref: EA/EPR/CB3308TD/V002

Road, Horsham, West Sussex, RH12 4QD

Thank you for your R1 application concerning the Britaniacrest Recycling Limited incinerator at Wealdon Works 3Rs Facility. Based on the information that you provided and presented in the attached spreadsheet, we have concluded it is capable of having an R1 energy efficiency factor equal to or above 0.65. This letter therefore preliminarily certifies that it is an R1 recovery operation under Annex II of Directive 2008/98/EC on Waste based on design data. We will indicate this status on our website. It will need to be validated when plant acceptance data is available.

We remind you:

- to contact us if the data used in the assessment changes which may reduce it below 0.65, eg as a result of plant modifications or arrangements to take the energy.
- to confirm the design data when plant acceptance data is available

If you have any questions please contact us at enquiries@environment-agency.gov.uk Yours sincerely

Principal Permitting Officer National Permitting Centre Environment Agency

Encl: Final version of the spreadsheet

Name of Applicant:	Britaniacrest Recycling Limited		
Name of Installation:	Wealdon Works 3Rs		
Application Ref No.:	EA/EPR/CB3308TD/V002		
Applicant's R1 Factor:	0.88		

Date of Environment Agency Decision: 16/11/2022					
In Scope	Yes				
R1 factor:	0.88				
Name of officer	Principal Permitting Officer				

Environment Agency Assessment

Ref:	Criteria	Guidance	Comments	Decision
1	Is the proposed plant in scope?	 The following should be considered under this item: The plant must be an incineration plant not a coincineration plant (see guidance on web page for incineration applicants) The R1 formula applies to those plants dedicated to the incineration of MSW, i.e. waste from households, as well as other waste which, because of its nature or composition, is similar to waste from households Plants processing a mixture of MSW and other wastes are within the scope of the formula provided that the plant is principally designed to process MSW. Where the proportion of other wastes is significant the applicant will need to demonstrate that the plant is not dedicated to incinerating non-MSW and is technically capable of incinerating MSW. Plants processing only Solid Recovered Fuel (SRF), Refuse Derived Fuel (RDF) or similar pre-processed wastes will be considered within the scope of the formula when at least 50% of the waste being processed in the incineration plant is derived from MSW and the incineration plant is technically capable of incinerating mixed MSW. The formula is only valid for plants using the steam or Rankin cycle. Advice should be taken from the OTS 	In scope – MSW incinerator	Meets criteria

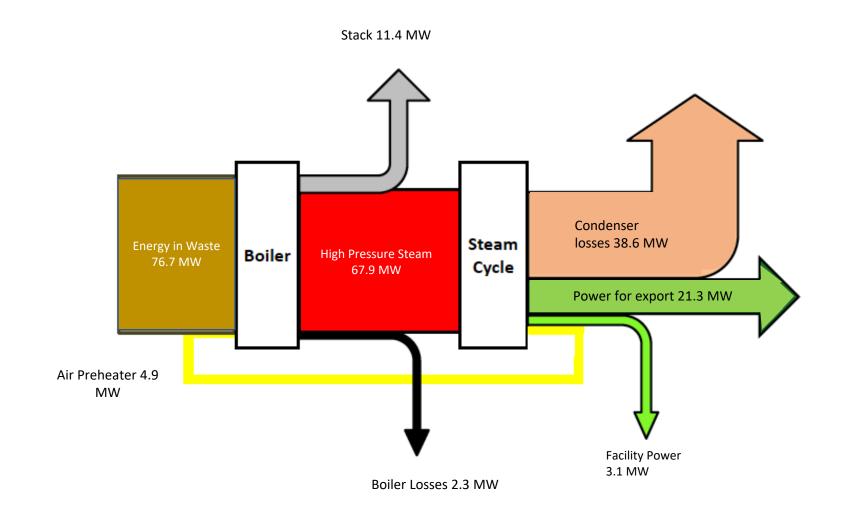
		lead for incineration for plants operating with gas engines or gas turbines.		
2	Have all the appropriate sections of the application spreadsheet been completed and is there sufficient supporting information provided with the application?	 a Sankey diagram, heat and mass balance or equivalent that identifies the boundary of the installation used for R1 determination on which the data provided on the application form can be identified. References for the physical properties presented on the application form 	Yes	Meets criteria
3	Is the boundary of the installation proposed for the calculation consistent with the European Guidance and is it clear whether the application is for an individual line or the plant as a whole?	See section 2.3 of the commission guidance document http://ec.europa.eu/environment/waste/framework/pdf/guidance.pdf	Yes	Meets criteria
4	within the R1 application consistent with the information on energy use provided within a permit application, IF there is one?	It will be necessary to go back to the operator for clarification regarding inconsistencies, particularly if they will make a material difference to the R1 factor i.e. reduce the R1 factor to 0.65 or below	Yes	Meets criteria
5	Are all the proposed internal steam usages acceptable in terms of Annex 3a of the commission guidance?	If any new steam uses are included in the yellow boxes on the template then please discuss their suitability with the operational technical advisor. For example, claims can be made for boiler water de- aeration, steam soot blowing and steam atomisation for SNCR. But not for boiler blowdown.	None proposed	

6	Are the properties used	A number of default parameters have been entered into the	Yes similar to other plants	Meets design
	for the various inputs	spreadsheet, if the operator changes these outside of a	1 co similar to other plants	criteria
	appropriate?	known range the value will turn red, in this case the proposed		Cilicila
	appropriate:	·		
		values need to be justified by the applicant and checked with		
		the Technical Advisor.		
		Check the physical properties from each of the following (for		
		advice on appropriate references please consult your		
		technical advisor)		
		 Primary and Secondary Combustion Air 		
		 Fuel inputs 		
		One of the heat exports		
		 Steam used for soot blowing and deaeration 		
		Steam loss through venting (xx tonnes/tonne of		
		makeup water) - check with the technical advisor		
		if you have concerns regarding the amount		
		· · · · · · · · · · · · · · · · · · ·		
		proposed).		
		Superheated steam at boiler outlet		
		Boiler feed water		
7	Where heat exports are	 See section 3.2.1 of the European Guidance, 	No heat export proposed	Not applicable
	being used in the	exported use can only be counted when		
	calculation, has the	accompanied by proof of commercial use in the		
	applicant provided	form of valid agreements or contracts		
	appropriate supporting			
	evidence?			

	Α	В	С	D	E	F	G	Н	I
1	PROFORI	MA FOR DETERMINING ENERG	GY EFFIC	IENCY US	SING R1				
2	Site name, address and grid reference	wealden works 3Rs Facility, former Wealden Brickworks, Langhurstwood Road, Horsham, West Sussey, RH12 40D, Grid	refer	Permit ence own)	EPR	/CB3308TD		l	I
3	Operator name	Britaniacrest Recycling Ltd	Applicati	on fee (£)	0 - included in permit fee		33	Envir	onment
4	Details of who to contact if we have any queries regarding this form						Envir Agend	су	
5	What data has been use	d in the application? $ ightarrow$		Desi	gn data				
6	Indicative R1 factor (subject to confirmation)	0.88	Quantity in reporting year	Units	U _c	Properties (Average over reporting year)	Units	Note which parameters that have been estimated	Reference to Supporting information
7	Climate change correction factor (optional)	1	j						
8	R1 after CCF adjustment	0.88							
9		ectricity produced at turbine)	195200					Estimated from design	
11	<i>i</i> .		170400 130	MWh MWh				Estimated from design of Estimated import	וומwing ס Sankey Dia
12 13	4. Other fuel inputs	4.1 Light fuel oil		litres		0.93			
14 15		4.2 Natural gas		Nm ³		42800 34200	kJ/kg kJ/Nm ³		
16 17 18		4.3 LPG		Nm ³			kg/Nm ³ kJ/kg	_	
19		4.4 Other fuels similar to light fuel oil	234200	litres		0.853970965			
20 21	5. Primary combustion air (as	s supplied to furnace)	599980408	m ³		42570	kJ/kg kg/Nm ³	Estimated fuel consump	Table 2-3 Supporting
22 23	jo. Trimary compaction air (ac	, cappilled to fairides)	333300400	<u>/ </u>		145	°C	_	
23 24	6. Secondary combustion air	(as supplied to furnace)	340386868	3 m ³		121.2 0.834	kJ/kg kg/Nm ³	Based on typical design	
25 26		(55 55)	01000000			150	°C		
26 27	7. Recycled flue gas (as supp	olied to furnace)		m ³		126.25	kJ/kg kg/Nm ³	Based on typical design	
28 29						0	°C kJ/kg		
30	8. Heat exported outside R1 l								
31 32		8.1 steam exported		tonnes			°C kPa	_	
32 33 34 35 36 37		condensate returned		tonnes			kJ/kg °C		
35		Condensate returned		torines			kPa		
36 37		8.2 hot water exported		tonnes			kJ/kg °C		
38 39 40		·					kPa	_	
		hot water returned		tonnes			kJ/kg °C	_	
41 42							kPa kJ/kg	_	
43 44	9. Internal steam use								
45		9.1 for soot blowing (no backflow)		tonnes			°C		
46 47							kPa kJ/kg		
48 49		9.2 for steam driven devices		tonnes			°C kPa		
50 51		L = -1.50 · · · ·		tonss			kJ/kg		
51 52 53		backflow as steam		tonnes			°C kPa	_	
53 54		9.3 for trace heating		tonnes			kJ/kg °C		
54 55 56		<u>-</u>					kPa	_	
57		backflow as condensate		tonnes			kJ/kg °C		
58 59							kPa kJ/kg	_	
60 61		9.4 for re-heating flue gas		tonnes			°C kPa		
62							kJ/kg		
62 63 64		backflow as condensate		tonnes			°C kPa	-	
65 66 67		9.5 for concentration processes		tonnes			kJ/kg °C		
67		o.o for concentration processes		WILLIES			kPa		
68 69		backflow as condensate		tonnes			kJ/kg °C		
70 71							kPa	_	
70 71 72 73 74 75 76		9.6 for building, equipment, tank heating		tonnes			kJ/kg °C	-	
73 74							kPa kJ/kg	-	
75 76		backflow as condensate		tonnes			°C		
/ Ό							kPa kJ/kg		

	Α	В	С	D	Е	F	G	Н	
78		9.7 for deaeration and demineralisation	_	tonnes			°C		
79							kPa		
80							kJ/kg		
81		backflow as condensate		tonnes			°C		
82							kPa		
83							kJ/kg		
84 85		9.8 other internal applications, in line with		tonnes			°C		
86		commission guidance, to be specified					kPa		
86		backflow as condensate		tonnoo			kJ/kg °C		
88				tonnes			kPa		
89							kJ/kg		
90		9.9 other internal applications, in line with		tonnes			°C		
91		commission guidance, to be specified		10111100			kPa		
92		g:	•				kJ/kg		
93		backflow as condensate		tonnes			°C		
94							kPa		
95							kJ/kg		
96	Use of condensing energy			GJ					
97	11. Superheated steam at boile	er outlet	733880	tonnes		429.17		_	
98						6370		_	
99						3245.7		Based on typical design	
100	12. Boiler feedwater		737568	tonnes		130			
101						7644			
102	12 Dailer Efficiency (Design)		87%		1.5%	551.393	kJ/kg	Based on typical design	
103	13. Boiler Efficiency (Design)		01%	<u>±</u>	1.5%			Estimated from design s	Drawing 6 Sankey Diag
104	Instructions for complet	ing this spreadsheet							
105	1.	Ensure that you have completed the first th	ree rows of th	e application	n form				
100		This form should be accompanied by suppo				d. Where this info	rmation is in t	he permit application, re	eference to the
106		relevant sections of the application can be	_	`	,				
		A Sankey diagram (or equivalent) reflecting	the boundarie	es of the inst	tallation used	d as well as any re	eferences to p	hysical properties is the	absolute minimum
107		that should be provided for an application b				•	•		
	3.	We have colour coded the cells in this spre	adsheet to as	sist you in co	ompleting th	is form, an explan	ation of the co	lour codes is provided	below. The colour
108		will disappear when data has been entered	<u>.</u>	-	-			·	
		Blue cells require data that is essential for t	he R1 calcula	tion, where i	nformation c	on uncertainty of th	ne data is ava	ilable it would be useful	(but not mandatory)
109		for this to be included for these parameters							
		Beige Cells indicate that any data entered v	vill be used in	the R1 calcu	ulation. The	y have been used	where there i	s a choice of inputs but	not all plants will
110		have data for all the input options.							
		Where you are entering data into beige cell	s you need to	make sure t	hat you ente	er data into all the	beige cells as	sociated with the input	as they are all
111		needed for carrying out the calculation.							
		Yellow cells have been used to provide flex					here. Suppor	rting information to expl	ain why the standard
112		fields were not appropriate or adequate will							
113		Data entered in uncoloured cells are not us	ed when calcu	ulating the F	R1 energy ef	ficiency factor but	can be compl	eted to provide a more	complete data set.
114		Data in the purple cell for the CCF factor is	optional. If us	ed the way it	t was calcula	ated must be expla	ained in suppo	orting information	
		Ensure the temperatures entered into cells	•						
115	•								J 500 /arr J 500)
116									
117	5. Densities used in cells F18 and F21 (and F24) should be at the temperatures at which the flows quoted in C18 and C21 (and C24) are reported.								
118	The spreadsheet multiplies these pairs of entries to generate a mass of air.								
	6. If you believe that any of the information that you have submitted in this application form is commercially confidential please identify the confidential								
119	information and the grounds on which you believe it to be confidential in your covering letter								
	LIT 5753	j							
120									
	EAD/0812/xls/v3								
121									

Sankey Diagram for Wealden Works 3Rs Facility



All figures for 100% MCR in power generating mode