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Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

**James Jones & Sons (Pallets and
Packaging) Limited**

**Larch House Wrexham Biomass Boiler
Larch House
Oak Road
Wrexham Industrial Estate
Wales
LL13 9RG**

Permit number
PAN-015191

Larch House Wrexham Biomass Boiler

Permit number PAN-015191

Introductory note

This introductory note does not form a part of the permit

This permit allows the operator to operate:

- One small waste incineration plant that is also a Medium Combustion Plant
- The small waste incineration plant (SWIP) is listed as an installation activity in the Environmental Permitting Regulations Schedule 1, Part 2, Chapter 5, Section 5.1 Part B(a)(v). The plant incinerates clean waste wood and virgin timber with an individual unit capacity of 1 MW thermal input or greater, (~225 kg/hr of waste wood) but less than 3 tonnes per hour (~13.33 MW thermal input). *Note: the relationship between wood input and thermal capacity is based on a calorific value of 16 KJ/kg and an 85% thermal efficiency, but actual values may be application specific.*
- This plant is also a new Medium Combustion Plant as put into operation after 20 December 2018 and therefore Schedule 25A of the EP Regulations apply.
- The details of the plant are specified in Tables S1.1. Associated emission limits and monitoring requirements are specified in Table S3.1. Permitted wood types are detailed in Table S2.1.
- This permit does not include the storage of waste. An application has not been made by the Operator for a waste operation.
- The plant does not generate electricity and therefore is not subject to the Specified Generator Regulations (Schedule 25B of the EP Regulations)

The main features of the permit are as follows:

The Permit is for one Uniconfort MOD. EOS 150, 2.11 MWth input boiler, which is fired on approximately 480 kg/hour maximum of wood - both waste and virgin timber. Fuel is chipped to improve uniformity and handling properties prior to firing. Waste wood which has been chemically treated, melamine faced wood, plywood, chipboard and fibreboard will not be used. Fuel is sourced only from the James Jones & Sons manufacturing activities, both located at the same site in Wrexham and elsewhere, and is stored dry in dedicated covered areas prior to combustion.

The combustion unit is equipped with an automatic control system, automatic de-ashing and pneumatic cleaning. It is equipped with flue gas recirculation, a cyclone, and fabric filter for control of airborne pollutants. The unit is fired on gas oil during start-up until it reaches operating temperature, and the automatic control system safely shuts down in the event of any critical fault being detected, such as a failure of the pollution control devices. Waste gases are discharged through an 18 m high emissions stack, while all

solid residues are collected and stored in covered containers and bottom ash is removed via a water cooled system.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application PAN-015191	Duly made 23/11/21	Bespoke application for Section 5.1 Part B(a)(v) SWIP-MCP
Additional information received	14/12/21	Addendum to Air Quality modelling - TVOC
Permit determined PAN-015191	04/02/22	Permit issued to James Jones & Sons (Pallets and Packaging) Limited

Other installation permits relating to this installation		
Operator	Permit number	Date of issue
James Jones & Sons (Pallets and Packaging) Limited –Local Authority “Part B” permit for pallet manufacturing activity (<i>Part 2 Section 6.6 Part B(a)(i) process</i>)	WCBC/PG6/2/JJ	2021 – Wrexham County Borough Council

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

PAN-015191

The Natural Resources Body for Wales (“Natural Resources Wales”) authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

James Jones & Sons (Pallets and Packaging) Limited (“the operator”),
whose registered office is

**Broomage Avenue
Larbert
United Kingdom
FK5 4NQ**

company registration number **SC537342**

to operate a plant that is both a small waste incineration plant and Medium Combustion Plant at:

**Larch House Wrexham Biomass Boiler
Larch House
Oak Road
Wrexham Industrial Estate
Wales
LL13 9RG**

to the extent authorised by and subject to the conditions of this permit.

Signed	Date
Holly Noble	04/02/2022

Authorised on behalf of Natural Resources Wales

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

2.2 The site

- 2.2.1 No small waste incineration plant and MCP shall be operated beyond the site of the grid reference specified for it in schedule 1, table S1.1.

2.3 Operating techniques

- 2.3.1
- (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales.
 - (b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.
- 2.3.2 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table S2.1 and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.

3 Emissions and monitoring

3.1 Emissions to air

3.1.1 There shall be no point source emissions to air except from the sources and emission points listed in Schedule 3 Table S3.1.

3.1.2 The limits given in Schedule 3 shall not be exceeded.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3.3 Monitoring

3.3.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring specified in the following tables in Schedule 3 to this permit: or at a greater frequency if notified in writing by Natural Resources Wales:

- (a) point source emissions specified in tables S3.1;

3.3.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.3.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by Natural Resources Wales.

3.3.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 table S3.1 unless otherwise agreed in writing by Natural Resources Wales.

3.3.5 Monitoring shall not take place during periods of start up or shut down.

3.3.6 The first monitoring measurements shall be carried out within four months of the issue date of the permit or the date when the MCP is first put into operation, whichever is later.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by Natural Resources Wales, for at least 6 years from the date when the records were made,
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by Natural Resources Wales.
- 4.1.3 The operator shall maintain a record of the type and quantity of waste incinerated and the total annual hours of operation for each MCP and/or Specified Generator.
- 4.1.4 The operator shall maintain a record of any events of non-compliance and the measures taken to ensure compliance is restored in the shortest possible time.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.
- 4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by Natural Resources Wales, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in Schedule 4 Table S4.1;
 - (b) for the reporting periods specified in Schedule 4 Table S4.1 and using the forms specified in Schedule 4 Table S4.2 ; and
 - (c) giving the information from such results as required by the forms specified in those tables.

4.3 Notifications

- 4.3.1 In the event:
- (a) of a breach of any of the permit conditions the operator must immediately—
 - (i) inform Natural Resources Wales, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (b) of a breach of any of the permit conditions which causes a significant degradation of local air quality, the operator must immediately suspend the operation of the activities or the relevant part of them until compliance with the conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.

4.3.4 Natural Resources Wales shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately" in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities

Activity reference and emission point	Activity listed in the EP Regulations	Description of Medium Combustion Plant and/or Specified Generator	Fuel	Limits of specified activity
A1 NGR: 339376, 349347	Schedule 1, Part 2, Chapter 5, Section 5.1, Part B (a)(v) (SWIP) and Schedule 25A Medium Combustion Plant	1 x 2.11 MW thermal input biomass boiler plant as detailed in Schedule 8	Virgin timber and untreated waste wood listed in Schedule 2 No chemically treated, melamine faced wood, plywood, chipboard and fibreboard to be used as fuel Gas oil (diesel) during boiler start-up only	From entry of fuel to combustion system feed to collection of ash and discharge of waste gases via 18m high stack after treatment with abatement system including fabric filter for particulate control Gas oil <0.1% sulphur content, burned only until ignition temperature is reached (approx. 10 minutes) Operating hours not restricted

Table S1.2 Operating techniques for Schedule 1 Part 2 Chapter 5 Section 5.1 Part B (Small Waste Incineration Plant) and Medium Combustion Plant

(a) Unless otherwise agreed in writing, the small waste incineration plant must comply with the requirements of Environmental Permitting Technical Note 5/1(18), Final Draft, dated 15/08/18 which will serve as statutory guidance under Regulation 65(1) of The Environmental Permitting Regulations 2016 once finalised
(b) Each MCP must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this
(c) The operator must keep periods of start-up and shut-down of each MCP as short as possible
(d) There must be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993.
(e) The stack must be vertical and unimpeded by cowls or caps.

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Permitted waste types and quantities for the incineration of wood in Schedule 1, Part 2, Chapter 5.1 Part B and Medium Combustion Plant

Maximum quantity	The total quantity of waste accepted at the site for the above activity shall be less than 4,200 tonnes per year
Waste code	Description
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	Plant tissue waste only
02 01 07	Waste from forestry, untreated wood only
03	Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	Waste bark and cork from the processing and production of panels and furniture (no chemical treatments)
03 01 05	Sawdust, shavings, cuttings and veneer other than those mentioned in 03 01 04 (no chemical treatments and only veneer that is fixed to the board, no melamine faced woods, plywood, chipboard or fibreboard).
03 03 01	Waste bark and wood from pulp, paper and cardboard production and processing (no chemical treatments)
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 03	Wooden packaging (visibly clean wooden packaging including pallets, where no chemical treatments have been applied; no melamine faced woods, plywood, chipboard or fibreboard).
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 07	Wood other than wood containing hazardous substances (19 12 06) from waste management facilities (sources segregated visibly clean waste wood such as pallets where no chemical treatments have been applied; no melamine faced woods, plywood, chipboard or fibreboard. The post segregation of mixed wood streams from civic amenity sites or skip hire operators is not permitted).

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements for plants rated a thermal input of 1 MW or more but less than 5 MW						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method ^{Note 1}
A1 NGR: 339376, 349347	SWIP and MCP	Dark Smoke	No visible dark smoke	Daily when in operation	Daily when in operation	Ringlemann Chart Shade 1 BS 2742
		Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/Nm ³	Periodic (average over one hour)	Annually	MCERTS BS EN 14792
		Carbon monoxide	225 mg/Nm ³	Periodic (average over one hour)	Annually	MCERTS BS EN 15058
		Dust	50 mg/Nm ³	Periodic (average over one hour)	Annually	MCERTS BS EN 13284-1
		TVOC	30 mg/Nm ³	Periodic (average over one hour)	Annually	MCERTS BS EN 12619

Notes:

1: Monitoring requirements are defined at a temperature of 273.15 K, a pressure of 101.3 kPa and after correction for the water vapour content of the waste gases at a standardised O₂ content of 6 % for solid fuels. Not applicable to Ringlemann monitoring.

Schedule 4 - Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.3.1.	A1	Every 12 months	1 January

Table S4.2 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form Air 1 or other form as agreed in writing by Natural Resources Wales	04/02/22

Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	PAN-015191
Name of operator	James Jones & Sons (Pallets and Packaging) Limited
Location of Facility	Larch House Wrexham Biomass Boiler
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution

To be notified within 24 hours of detection

Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit

To be notified within 24 hours of detection unless otherwise specified below

Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 - Interpretation

“accident” means an accident that may result in pollution.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“D” means a disposal operation provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“EA TGN M1” means the ‘Environment Agency Technical Guidance Note M1: Sampling Requirements for stack emissions monitoring’, published on Gov.UK.

“emissions of substances not controlled by emission limits” means emissions of substances to air, from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations. As amended by the Environmental Permitting (England and Wales) (Amendment Regulations 2018 SI 2018 No. 110

“First put into operation” means when fuel is first combusted in the MCP.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“Medium Combustion Plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants.

“Operating hours” means the time, expressed in hours, during which a combustion plant is operating and discharging emissions into the air, excluding start-up and shut-down periods.

“Small Waste Incineration Plant” or “SWIP” means plant listed as an installation activity in the EP Regulations Schedule 1, Part 2, Chapter 5, Section 5.1 Part B(a)(v). The plant incinerates clean waste wood with an individual unit capacity of 1 MW thermal input or greater, (~ 225 kg/hr of waste wood) but less than 3 tonnes per hour (~ 13.33 MW thermal input). Note: the relationship between wood input and thermal capacity is based on a calorific value of 16 KJ/kg and an 85% thermal efficiency, but actual values may be application specific.

“Specified generator” has the meaning given in paragraph 2(1) of Schedule 25B of The Environmental Permitting (England and Wales) (Amendment) Regulations 2018.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

“year” means calendar year ending 31 December.

When the following terms appear in the waste code list in Schedule 2, table S2.1, for that table they have the meaning given below:

"hazardous substance" means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008.

Schedule 7 - Site plan

No site plan is required under this schedule.

Schedule 8 – Annex 1 of MCP

1. Rated thermal input (MW) of the medium combustion plant.	2.11 MW _{th}
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Other Medium Combustion Plant
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Solid biomass >99.9% Gas Oil (Diesel) <0.02% (start-up only)
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	04/02/22 (Date of permit Issue)
5. Sector of activity of the medium combustion plant or the facility in which it is applied (NACE code).	16240 – Manufacture of wooden containers
6. Expected number of annual operating hours of the medium combustion plant and average load in use.	8760 hours at 50-100% load
7. Where the option of exemption under Article 6(3) or Article 6(8) is used, a declaration signed by the operator that the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs.	N/A
8. Name and registered office of the operator and, in the case of stationary medium combustion plants, the address where the plant is located.	Registered Company: James Jones & Sons (Pallets and Packaging) Limited Broomage Avenue Larbert United Kingdom FK5 4NQ

	Plant: Larch House Wrexham Biomass Boiler Larch House Oak Road Wrexham Industrial Estate Wales LL13 9RG
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END OF PERMIT