

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Karro Food Limited

Little Wratting Pork Processing Haverhill Suffolk CB9 7TD

Variation application number

EPR/AP3333HL/V005

Permit number

EPR/AP3333HL

Little Wratting Pork Processing Permit number EPR/AP3333HL

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

This consolidated permit has been issued following a full review against the best available techniques (BAT) conclusions for the Food, Drink and Milk Industries published on 4th December 2019 in the official journal of the European Union.

We have implemented the requirements of the Medium Combustion Plant directive and incorporated postdated requirements for 2030.

The schedules specify the changes made to the permit.

The activities are permitted under:

- Section 6.8 Part A1 (d) (i) Treatment and processing, other than exclusively packaging, of the
 following raw materials, whether previously processed or unprocessed, intended for the production
 of food or feed (where the weight of the finished product excludes packaging) animal raw materials
 (other than milk only) with a finished product production capacity greater than 75 tonnes per day.
- Section 5.4 Part A (1)(a)(i) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving biological treatment.

The main features of the permit are as follows.

The installation manufactures up to 80 tonnes per day of pork products. Raw ingredients including pork, spices and seasonings are delivered to the site in HGVs and transferred to the main stores. Processing activities are then split between three main process departments.

The main curing and cooking activities are undertaken in Department 1. This includes weighing and mixing raw ingredients to specific recipe requirements. Mincing, chopping, emulsifying, tenderising and injecting brine and packaging of uncooked ham into plastic casings "bombs". Cooking of ham is undertaken in steam overs (11), 1 roaster, 1 smoker and a pass-through oven.

Department 2 receives cooked ham. The packaging is removed, and the brine drained "knocking out", Hams are then sliced, instantly frozen using liquid nitrogen, packaged (include the use of carbon dioxide to modify the atmosphere within the packaging) on seven production lines.

Department 3 deals with the manual packaging and chilled storage of final products.

Process effluent is generated from cleaning operations. Effluent is directed to an on site treatment plant where it is screened prior to treatment within a plug flow aerobic activated sludge system. Nitrification and denitrification take place within the aeration system with the addition of a nitrifying filter. Phosphorous removal within the effluent treatment plant is achieved through the addition of ferric aluminium sulphate and precipitation. Waste activated sludge is removed to sludge pits where it is decanted and removed from site weekly. Up flow shingle bed filtration is used as tertiary treatment. The final effluent is discharged to the River Stour via a drainage ditch.

Uncontaminated surface water from roads and roofs is discharged at seven discharge points to the River Stour via a drainage ditch.

There have been substantial changes on site since the original permit was issued in 2005. There are now two point sources to air from 2 natural gas steam boilers with a total thermal input of 7MWth. Boiler 4 (4.3MWth) remains from the original permit and boiler 5 (2.7MWth) was installed in Oct 2020 and is now permitted for the first time. Boilers 1-3 have been decommissioned. As a result of these changes the Part B activity relating to the combustion plant (Section 1.1B(a)) is removed from the permit as the rated thermal input falls below 20MW. Boiler 4 is designated as existing Medium Combustion Plant (MCP) with the permitting requirements included as detailed above. Boiler 5 is considered new Medium Combustion Plant with monitoring and ELVs included and applicable from the date of permit issue.

There is also an emission point to atmosphere from the smoker (point A6). This is abated by wet scrubber.

As part of the permit review process, we have decided to grant the concurrent surrender application (S004). The operator submitted a site condition report in support of the partial surrender of the area of the installation formerly involved with the slaughtering of pigs (Section 6.8 Part A (1)(b)). This activity is no longer carried out at the site.

A vehicle washing activity, previously permitted as a DAA is also removed from the permit at the operators request.

There are no European Sites within 10km of the installation. A SSSI lies within 2km to the north.

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

Status log of the permit					
Description	Date	Comments			
Application received EPRBO1963IV/A001	Duly made 09/09/2004	Application received for as slaughterhouse and meat processing facility.			
Additional information received	Request dated 22/03/2005	Received 01/04/2005, 11/04/2005 and 19/04/2005.			
Additional information received	Request dated 11/04/2005	Received 15/04/2005			
Permit determined	26/08/2005	Permit issued to Grampian Country Pork Suffolk Limited.			
Transfer application EPR/AP3333HL/T001	Duly made 02/08/2010				
Transfer Determined	06/09/2010	Permit Transferred to Vion UK Limited.			
Application EPR/AP3333HL/V002	Duly made 14/02/2013				
Variation EPR/AP3333HL/V002 determined	15/02/2013	Operator name and address change to Karro Foods Limited.			
Agency variation determined EPR/AP3333HL/V003	22/07/2013	Agency variation to implement the changes introduced by IED.			
Surrender application EPR/AP3333HL/S004	Duly made 06/09/2023	Partial surrender to amend the site boundary and remove an area of land previously used for the slaughter of pigs. The associated S6.8 Part A (1)(b) activity is also removed.			
		The partial surrender was assessed in tandem with the Environment Agency initiated variation and consolidation following the Food, Drink and Milk industries sector permit review.			

Status log of the permit					
Description	Date	Comments			
Application EPR/AP3333HL/V005 (variation and consolidation)	Regulation 61 Notice response received 01/12/2022	Environment Agency initiated variation and consolidation following the Food, Drink & Milk Industries sector permit review.			
Additional information received	18/09/2023	Revised non-technical summary, emission point plan and responses to BATc4, 5, 6, 8, 9, 11, 12 and 14			
Variation determined and consolidation issued EPR/AP3333HL (Billing ref. AP3333HL).	27/11/2023	Varied and consolidated permit issued in modern format			

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/AP3333HL

Issued to

Karro Food Limited ("the operator")

whose registered office is

13 Queens Road Aberdeen AB15 4YL

company registration number SC220000

to operate a regulated facility at

Little Wratting Pork Processing Haverhill Suffolk CB9 7TD

to the extent set out in the schedules.

The notice shall take effect from 27/11/2023.

Name	Date
Beccy Brough	27/11/2023

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/AP3333HL

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/AP3333HL/V005 authorising,

Karro Food Limited ("the operator"),

whose registered office is

13 Queens Road Aberdeen AB15 4YL

company registration number SC220000

to operate an installation at

Little Wratting Pork Processing Haverhill Suffolk CB9 7TD

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

Name	Date
Beccy Brough	27/11/2023

Authorised on behalf of the Environment Agency

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.

1.2 Energy efficiency

- 1.2.1 The operator shall:
 - (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
 - (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities:
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
 - (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

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 The activities shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 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 the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency 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 the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
 - (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.

- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total annual emissions from the emission point(s) set out in schedule 3 tables S3.1 and S3.2 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.
- 3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.
- 3.1.5 For the following activities referenced in schedule 1, table S1.1 (AR3) the first monitoring measurements shall be carried out within four months of 01/01/2030 or of the date when the MCP is first put into operation, whichever is later.

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 the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency 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 the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period

- specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in tables S3.1 and S3.2
- 3.5.2 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.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 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 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

3.6 Pests

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:
 - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
 - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

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 the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and

- (ii) matters which affect the condition of the land and groundwater.
- 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 the Environment Agency.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
 - (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production/treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, 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 S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

- 4.3.1 In the event:
 - (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit 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 the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency 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.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
 - (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
 - (a) a decision by the Secretary of State not to re-certify the agreement;
 - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
 - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

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	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity			
AR1	Section 6.8 Part A1 (d) (i)	Treating and processing materials intended for the production of food from animal raw materials (other than milk only) at a plant with a finished production capacity greater than 75 tonnes per day	From receipt of raw materials to dispatch of final products. Cooked and uncooked hams, bacon and pork products. Production capacity is limited to 80 tonnes per day.			
AR2	Section 5.4 Part A1 (a) (i)	Biological treatment of non- hazardous wastewater. Aerobic activated sludge treatment.	From generation of waste water to discharge to River Stour.			
Directly Asso	ciated Activity					
AR3	Steam supply	Medium Combustion plants: 1 x 4.3 MWth and 1 x 2.7 MWth natural gas boilers	From receipt of fuel to release of products of combustion to air.			
AR4	Raw material storage and handling	Storage and handling of raw materials at the installation	From receipt of raw materials to dispatch of final product.			
AR5	Use of refrigerants	Use of refrigerants in cooling, chilling and/or freezing systems at the installation.	From receipt of raw materials to dispatch of final product.			
AR6	Storage and use of chemicals and oils	Storage and use of chemicals and oils at the installation.	From receipt of chemicals and oils to disposal of wastes arising.			
AR7	Waste storage and handling	Storage and handling of waste materials	From generation of waste to storage pending removal for disposal or recovery.			
AR8	Surface water drainage	Collection of uncontaminated site surface waters	Handling and storage of site drainage until discharge to the site surface water system.			

Table S1.2 Operating techniques					
Description	Date Received				
Regulation 61 (1) Notice – Responses to questions dated 09/06/2022	All parts	Received 01/12/2022			
Regulation 61(1) Notice – request for further information dated 30/08/2023	Additional information received by RFI.	Received 18/09/2023			

Table S1.3 Improvement programme requirements						
	Improvement programme requirements					
Reference	Requirements	Date				
IC12	The Operator shall confirm in writing to the Environment Agency that the Narrative BAT requirements for the BAT Conclusions for Food, Drink and Milk Industries with respect to BAT 6, 9 and 11 were in place on or before 4 December 2023. Refer to BAT Conclusions for a full description of the BAT requirement.	1 month from permit issue				
IC13	The operator shall use refrigerants without ozone depletion potential and with a low global warming potential (GWP) in accordance with BAT 9 from the Food, Drink and Milk Industries BATCs.	1 month from permit issue				
	To demonstrate compliance against BAT 9, the operator shall develop a replacement plan for the refrigerant system(s) at the installation. This shall be incorporated within the existing environmental management system by the specified date.					
	The plan should include, but not be limited to, the following:					
	Where practicable, retro filling systems containing high GWP refrigerants e.g. R-404A with lower GWP alternatives as soon as possible.					
	An action log with timescales, for replacement of end-of-life equipment using refrigerants with the lowest practicable GWP.					
IC14	The operator shall confirm in writing to the Environment Agency that they have achieved the specific Environmental Performance Levels (EPLs) for specific energy consumption, where compliance with the EPL was not demonstrated at the time of R61 submission. Where an operator cannot achieve the EPL, they should provide a justification and derive a site specific benchmark. Refer to BAT Conclusions for a full description of the requirements.	1 month from permit issue				
IC15	The operator shall confirm in writing to the Environment Agency that they have achieved specific Environmental Performance Levels (EPLs) for specific water consumption, was not demonstrated at the time of R61 submission. Where an operator cannot achieve the EPL, they should provide a justification and derive a site specific benchmark. Refer to BAT Conclusions for a full description of the requirements.	1 month from permit issue				
IC16	The operator shall produce a monitoring plan detailing how the management of relevant hazardous substances which did not screen out as low risk, based on the RHS baseline assessment, will be maintained and monitored to mitigate the risks of pollution. The plan shall be submitted for approval.	12 Months from permit issue or other date as agreed in writing with the Environment				
	The plan shall be implemented in accordance with the Environment Agency's written approval, including timescales to undertake any infrastructure improvements.	Agency				

The operator shall produce a climate change adaptation plan, which will form part of the EMS.	12 Months from permit issue or other	
The plan shall include, but not be limited to:	date as agreed in writing with	
Details of how the installation has or could be affected by severe weather;	the	
The scale of the impact of severe weather on the operations within the installation;	Environment Agency	
An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation.		
The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency.		
The Operator shall undertake a survey of the primary, secondary and tertiary containment at the site and review measures against relevant standard including:	12 Months from permit issue or other date as agreed	
CIRIA Containment systems for the prevention of pollution (C736) – Secondary, tertiary and other measures for industrial and commercial premises,	in writing with the Environment Agency	
EEMUA 159 - Above ground flat bottomed storage tanks		
The operator shall submit a written report to the Environment Agency approval which outlines the results of the survey and the review of standard and provide details of		
current containment measures		
any deficiencies identified in comparison to relevant standards,		
• improvements proposed		
time scale for implementation of improvements.		
The operator shall implement the proposed improvements in line with the timescales agreed by the Environment Agency.		
The operator shall submit a copy of the monitoring results for TVOC emissions from the smoke chambers (A6) to the Environment Agency. The monitoring shall show the TVOC emission load in g/h and mg/Nm3 to establish whether the BAT-AEL for TVOC (BAT 29 from the BAT Conclusions from the Food, Drink and Milk Industries, Dec 2019) is applicable for emission point A6.	12 Months from permit issue or other date as agreed in writing with the Environment Agency	
	form part of the EMS. The plan shall include, but not be limited to: Details of how the installation has or could be affected by severe weather; The scale of the impact of severe weather on the operations within the installation; An action plan and timetable for any improvements to be made to minimise the impact of severe weather at the installation. The Operator shall implement any necessary improvements to a timetable agreed in writing with the Environment Agency. The Operator shall undertake a survey of the primary, secondary and tertiary containment at the site and review measures against relevant standard including: CIRIA Containment systems for the prevention of pollution (C736) — Secondary, tertiary and other measures for industrial and commercial premises, EEMUA 159 - Above ground flat bottomed storage tanks The operator shall submit a written report to the Environment Agency approval which outlines the results of the survey and the review of standard and provide details of current containment measures any deficiencies identified in comparison to relevant standards, improvements proposed time scale for implementation of improvements. The operator shall implement the proposed improvements in line with the timescales agreed by the Environment Agency. The operator shall submit a copy of the monitoring results for TVOC emissions from the smoke chambers (A6) to the Environment Agency. The monitoring shall show the TVOC emission load in g/h and mg/Nm3 to establish whether the BAT-AEL for TVOC (BAT 29 from the BAT Conclusions from the Food, Drink and Milk Industries, Dec 2019) is	

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels				
Raw materials and fuel description Specification				
-	-			

Schedule 3 - Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements							
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method	
A4 [Point A4 on site plan in Schedule 7]	Existing medium combustion plant fuelled on natural gas 1 x	Oxides of Nitrogen (NO and NO ₂ expressed as NO _x)	250mg/m³ Limit applies from 01/01/2030	Periodic	Every three years	BS EN 14792 [Note 1]	
	4.3MWth boiler	Carbon monoxide	No Limit	Periodic	Every three years	MCERTS BS EN15058	
A5 [Point A5 on site plan in Schedule 7]	New medium combustion plant fuelled on natural gas 1 x 2.7 MWth boiler	Oxides of Nitrogen (NO and NO ₂ expressed as NO _x)	100mg/m ³	Periodic	Every three years	BS EN 14792 [Note 1]	
		Carbon monoxide	No limit	Periodic	Every three years	MCERTS BS EN15058	
A6 (Point A6 on site plan in Schedule 7)	Smoke chamber	Total Volatile Organic Compounds (TVOC)	50mg/m ³ (Note 2)	Average	Annually	BS EN12619	
		Oxides of Nitrogen (NO and NO ₂ expressed as NO _x)	No limit	Periodic	Annually	BS EN14792	
		Carbon monoxide	No limit	Periodic	Annually	BS EN15058	

Note 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 O_2 content of 6% for solid fuels, 15% for engines and gas turbines and 3% all other MCPs.

Note 2: The BAT-AEL does not apply when the TVOC emission load is below 500g/h.

	Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method	
W1 on site plan in schedule 7 emission to River Stour	Effluent treatment plant	Total daily volume of discharge	550m³/day	24-hour total	Continuous	MCERTS self- monitoring of effluent flow scheme	
W1 on site plan in schedule 7 emission to River Stour	Effluent treatment plant	pH	6-9	24-hour total	Continuous	BS ISO 10523	
W1 on site plan in schedule 7 emission to River Stour	Effluent Treatment Plant	Biological Oxygen Demand (BOD)	20mg/l	Spot	Weekly	EN 1899-1	
W1 on site plan in schedule 7 emission to River Stour	Effluent Treatment Plant	Ammonia	10mg/l	Spot	Weekly	ISO 7150-2 1986	
W1 on site plan in schedule 7 emission to River Stour	Effluent Treatment Plant	Chemical Oxygen Demand (COD)	100 mg/l (Note 2)	24-hour flow proportional sample	Daily	As agreed in writing by the Environment Agency	
W1 on site plan in schedule 7 emission to River Stour	Effluent Treatment plant	Total suspended solids (TSS) (Note1)	30 mg/l (Note 1)	Spot	Weekly	BS EN 872	
W1 on site plan in schedule 7 emission to River Stour	Effluent Treatment plant	Total suspended solids (TSS) (Note 2)	30 mg/l (Note 2)	24-hour flow proportional sample	Daily	BS EN 872	
W1 on site plan in schedule 7 emission	Effluent Treatment Plant	Total Nitrogen	20 mg/l (Note 2 and 3)	24-hour flow proportional sample	Daily	EN 12260, EN ISO 11905-1.	

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements **Emission** Limit (incl. Reference Monitoring Monitoring Source **Parameter** point ref. unit) Period frequency standard or method & location to River Stour W1 on site Effluent **Total Phosphorus** Spot Weekly EN ISO 2 mg/l_(Note 1) plan in Treatment (TP) 6878, schedule Plant emission to River Stour W1 on site **Effluent Total Phosphorus** 24-hour **EN ISO** 2 mg/l (Note 2) Daily plan in (TP) 6878, EN Treatment flow schedule **Plant** proportional ISO 15681-1 sample and -2, emission **ENISO** to River 11885. Stour W1 on site Effluent Chloride 2000mg/l Spot Weekly EN ISO plan in Treatment 10304-1, EN (CI) schedule **Plant** ISO 15682 emission to River Stour W1 on site Effluent Iron (as Fe) 5mg/l Spot Weekly BS 6068-2.2:1983 ISO plan in Treatment schedule Plant 6332-1982 emission to River Stour W1 on site Effluent Aluminium (AI) Monthly BS EN ISO Spot Treatment 11885 plan in schedule Plant emission to River Stour W2 on site Uncontamin No parameters set No limit set ated roof plan in schedule and surface water 7 emission to River Stour W3 on site Uncontamin No parameters set No limit set ated roof plan in schedule and surface water emission to River Stour

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W4 on site plan in schedule 7 emission to River Stour	Uncontamin ated roof and surface water	No parameters set	No limit set	-	-	-
W5 on site plan in schedule 7 emission to River Stour	Uncontamin ated roof and surface water	No parameters set	No limit set	-	-	-
W6 on site plan in schedule 7 emission to River Stour	Uncontamin ated roof and surface water	No parameters set	No limit set	-	-	-
W7 on site plan in schedule 7 emission to River Stour	Uncontamin ated roof and surface water	No parameters set	No limit set	-	-	-
W8 on site plan in schedule 7 emission to River Stour	Uncontamin ated roof and surface water	No parameters set	No limit set	-	-	-

Note 1 Emission limit applies until 3 December 2023.

Note 2: Emission limit applies from 4 December 2023, unless otherwise advised by the Environment Agency'.

Note 3: The upper end of the range is 30 mg/l as a daily average only if the abatement efficiency is \geq 80 % as a yearly average or as an average over the production period.

Table S3.3 Annual limits				
Substance Medium Limit (including unit)				
Chloride	Water	2250kg in any 24 hour period		

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		
Point source emissions	A6	Every 12 months	1 January		
to air Parameters as required by condition 3.5.1	A4 (Existing MCPD boiler emission point)	Every 3 years	1 January		
3.3.1	A5 (New MCPD boiler emission point)	First monitoring undertaken in accordance with Condition 3.1.5 to be reported within 3 months of permit issue, and then every 3 years thereafter.	From first monitoring requirements in accordance with Condition 3.1.4		
Point source emissions to water (other than sewer)	W1	Quarterly	1 January, 1 April, 1 July & 1 October		
Parameters as required by condition 3.5.1					

Table S4.2: Annual production/treatment			
Parameter	Units		
Product produced	tonnes		
Wastewater treated	tonnes		

Table S4.3 Performance parameters					
Parameter Frequency of assessment Units					
Water usage	Annually	m ³			
Energy usage	Annually	MWh			
Waste disposal and/or recovery	Annually	tonnes			
COD efficiency	Annually*	COD te/te product			
Food waste Annually Tonnes					
*COD efficiency to be calculated on a weekly frequency, reported annually					

Table S4.4 Reporting forms				
Parameter	Reporting form	Form version number and date		
Point source emissions to air	Emissions to Air Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021		

Table S4.4 Reporting forms					
Parameter	Reporting form	Form version number and date			
Point source emissions to water (other than sewer)	Emissions to Water Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021			
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021			
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021			
Food Waste	Food waste Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1 06/02/2023			
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021			

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	
Name of operator	
Location of Facility	
Time and date of the detection	
	any malfunction, breakdown or failure of equipment or techniques, ance not controlled by an emission limit which has caused, is a 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	

(b) Notification requirements for t			
To be notified within 24 hours of	detection unless	otherwise specified belo	W
Measures taken, or intended to be taken, to stop the emission			
Time periods for notification follo	wing detection o	of a breach of a limit	
Parameter			Notification period
(c) Notification requirements for t	he breach of per	mit conditions not relate	d to limits
To be notified within 24 hours of det	ection		
Condition breached			
Date, time and duration of breach			
Details of the permit breach i.e. what happened including impacts observed.			
Measures taken, or intended to be taken, to restore permit compliance.			
(d) Notification requirements for t	the detection of a	any significant adverse e	nvironmental 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 submit		n as practicable)
notification under Part A.			
Measures taken, or intended to be t a recurrence of the incident	aken, to prevent		

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.

"average over the sampling period" means the average value of three consecutive measurements of at least 30 minutes each, unless otherwise stated, as defined in the General Considerations section of the Food, Drink & Milk Industries BAT Conclusions.

"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.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land 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 limit.

"Food waste" reporting: Reporting of food waste to use a methodology such as the global Food Loss and Waste Accounting and Reporting Standard (FLW standard), WRAP's Target Measure Act initiative or similar.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"Industrial Emissions Directive" means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

"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. An "existing medium combustion plant" is combustion plant operating before 20 December 2018.

"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, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

Pests" means Birds, Vermin and Insects.

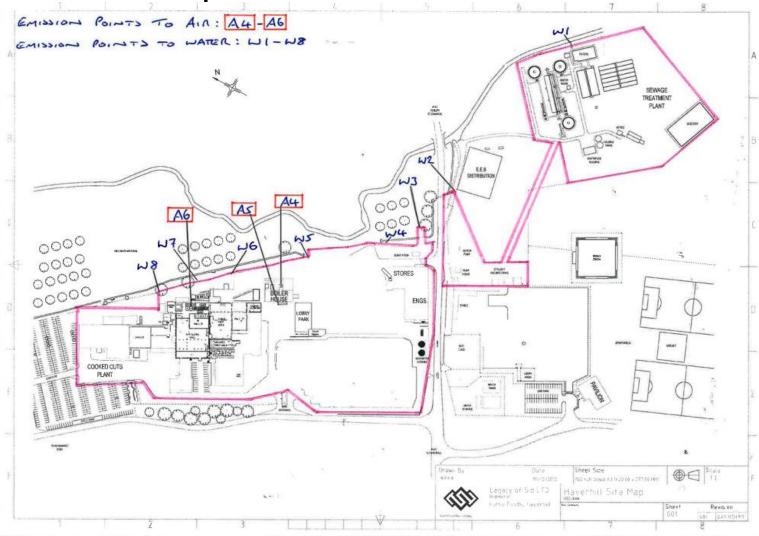
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels other than gas engines or gas turbines, 6% dry for solid fuels; and/or
 - in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content

[&]quot;year" means calendar year ending 31 December.

Schedule 7 – Site plan



END OF PERMIT

Emissions to Air Reporting Form

Permit number: EPR/AP3333HL/V005 Operator: Karro Foods Ltd

Facility name: [Unit A, Anytown] Emissions to Air Reporting Form: version 1, 08/03/2021

Reporting of emissions to air for the period from [DD/MM/YY] to [DD/MM/YY]

kides [e.g. 200 gen mg/m³] d NO ₂	[e.g. daily average]	[e.g. BS EN 14181]	[State	[State relevant	[State uncertainty
sed as		77701	result]	dates and time periods]	if not 95% confidence interval]

Signed: [Name] Date: [DD/MM/YY]

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- ¹ Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- ² Give the result as 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, give the result as the 'minimum to maximum' of the measured values.
- ³ For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- ⁴ Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Emissions to Water Reporting Form

Permit number: EPR/AP3333HL Operator: Karro Foods Ltd

Facility name: [Unit A, Anytown] Emissions to Water Reporting Form: version 1, 08/03/2021

Reporting of emissions to water (other than to sewer) for the period from [DD/MM/YY] to [DD/MM/YY]

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method ¹	Result ²	Sample dates and times ³	Uncertainty ⁴
[e.g. W1]	[e.g. Total suspended solids]	[e.g. 30 mg/l]	[e.g. For 95% of all measured values of periodic samples taken over one month]	[e.g. BS EN 872:2005]	[State result]	[State relevant dates and time periods]	[State uncertainty if not 95% confidence interval]

Signed:	[Name]	Date:	[DD/MM/YY]
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(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- ¹ Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- ² Give the result as 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, give the result as the 'minimum to maximum' of the measured values.
- ³ For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- ⁴ Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Water Usage Reporting Form

Permit number: EPR/AP3333HL Operator: Karro Foods Ltd

Facility name: [Unit A, Anytown] Water Usage Reporting Form: version 1, 08/03/2021

Reporting of water usage for the year [YYYY]

Water source	Water usage (m³)	Specific water usage (m³/tonne of product) ²
Mains water	[insert annual usage in m³ where mains water is used]	Not Applicable
Site borehole	[insert annual usage in m³ where water is used from a site borehole]	Not Applicable
River abstraction	[insert annual usage in m³ where abstracted river water is used]	Not Applicable
Other – [specify other water source where applicable]. Add extra rows where needed]	[insert annual usage in m³ where applicable]	Not Applicable
Total water usage	[insert total annual water usage in m³]	[insert total water use per tonne of product produced m³/t]

Operator's comments		

Operator's comments			

Signed: [Name] Date: [DD/MM/YY]

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual water usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

Energy Usage Reporting Form

Operator: Karro Foods Ltd

[DD/MM/YY]

Energy Usage Reporting Form: version 1, 08/03/2021

Permit number:

Facility name:

Signed:

[Name]

EPR/AP3333HL

[Unit A, Anytown]

Energy source	Energy consumption / production (MWh)	Specific energy consumption (MWh/tonne of product) ²
perator's comments		

Date:

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual energy usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

- ¹ Multiply delivered electricity by 2.4 to convert to primary energy where the electricity is supplied from the national grid. If the electricity is supplied from another source, specify the conversion factor used. Add additional rows as needed if electricity is imported from multiple sources.
- ² Divide energy consumption by an appropriate unit of raw material processed or product output.

Food Waste Reporting Form

Permit number:	EPR/AP3333HL	0	Operator: Karro Foods Ltd
Facility name:		F	Food Waste Reporting Form: version 1, 06/02/2023
Reporting of food wa	aste for the period fro	m [DD/MM/YY] to [DD/MM/Y	Y]
Overall food was	te (tonnes)		
Food waste as %	of product		
Food waste dispo	osal routes	As specified below	
			_
Source			Tonnage
Redistribution for	r human consumpti	on	
Animal feed			
Bio-based materi		cessing (e.g. feedstock	
Anaerobic digest	ion/codigestion		
Composting/aerobic processes			

Incineration/controlled combustion	
Land application	
Landfill	
Sewer/wastewater treatment (e.g. as COD)	
Other (Please specify)	

Signed: [Name] Date: [DD/MM/YY]

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your food waste metrics.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information.

Rationale: Avoidance of food waste is a key issue for the sector, both nationally and globally, and is subject to a United Nations Sustainable Development Goal: SDG 12.3: "By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses".

This complements Defra's Food and drink waste hierarchy: deal with surplus and waste - GOV.UK (www.gov.uk) and WRAP's Target Measure Act Initiative.

Reporting of food waste should be to a set methodology such as the global Food Loss and Waste Accounting and Reporting Standard (FLW standard).

Other Performance Parameters Reporting Form

Permit number:	EPR/AP3333HL	Operator: Karro Foods Ltd
Facility name: 08/03/2021	[Unit A, Anytown]	Other Performance Parameters Reporting Form: version 1,
Reporting of other	performance parameters for	the period from [DD/MM/YY] to [DD/MM/YY]
	Parameter	Units
Operator's commer	nts	

Signed: [Name] Date: [DD/MM/YY]

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report the performance parameters (other than water and energy) required by your permit. Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. The parameters to report and units to be used can be found in the 'Performance parameters' table in schedule 4 of your permit. Add additional rows as necessary.