Bridge House Farm Ltd – Technical Standards

Farm name: Bridge House Farm Ltd Operator: Mr C Thompson Permit number: QP3831MX

Schedule 1 activity or directly associated activity (DAA) description	**Relevant technical guidance note**
Section 6.9A (1) (a) (ii) Pig production	How to comply EPR 6.09 Version 2
Pig feed storage and preparation	• Selection and use of feed are in accordance with Sector Guidance Note (SGN) EPR6.09 'How to comply with your environmental permit for intensive farming' • Feed is stored in purpose-built, covered, feed silos and tanks located next to the pig sheds. All pigs are fed a fully pelleted feed. Mo milling of feed occurs on farm. Dry feed is delivered to the farm by lorry from feed suppliers or by tractor and trailer. Feed is blown, augured or pumped directly from the lorry into the relevant storage silos. Feed is piped from the silos to the sheds, minimising dust emissions. • Selection and use of feed are in accordance with SGN EPR6.09 'How to comply with your environmental permit for intensive farming' • Protein and phosphorus levels in the rations are matched to the animals' needs by providing at least two different feed formulations. A nutritionist is employed to regularly review and reformulate diets, to optimise production and minimise excretion of nutrients. Synthetic amino acids are used to ensure that the protein needs of the pigs are met, with the minimum amount of protein in the diet • A new phased feed system was installed in 2018 which allows for every pen to be fed diets which change daily allowing very targeted feed provision. This maximises FCR and reduces protein wastage on site.
Slurry and manure storage	• Manure and slurry are stored on site • All slurry is gravity-fed from the pig housing to a partially covered reception pit (30 m^3 capacity). Adjacent to the

	reception pit is an aboveground steel tank (1,200 m^3 capacity). The slurry tank is not currently covered. As part of our improvement programme, we will cover the slurry store with a suitable cover by 2020 (see Improvement Plan B3.5 8e) • The slurry storage facilities conform to the technical measures detailed in the 'Water resources control of pollution (silage, slurry and agricultural fuel oil) regulations 2010 (England) and as amended 2013' (SSAFO). The base of the storage tank and all parts of the drains and reception pits are impermeable. The slurry storage tank and reception pit are designed to BS5502, Part 50. The reception pit and associated channels have the capacity to hold at least two days of slurry production, including rainwater • The farm is located within a Nitrate Vulnerable Zone (NVZ). The slurry storage tank capacity is six months' production, including an allowance for rainwater. The slurry storage tank has been designed to have a minimum 300 mm freeboard • The slurry store is only agitated prior to emptying • Solid manure from dry sow and service accommodation is scraped across yards to an impermeable concrete store. Liquid run-off (effluent) from the store is collected, meeting the requirements of SSAFO
Slurry spreading and manure management	• Slurry and manure are exported from the site. Records are kept of the arrangements in place when slurry is exported from the site. We have written confirmation that the recipient will spread the slurry and manure to land in accordance with the Defra Code of Good Agricultural Practice and that the spreading will be in accordance with a manure management plan for the receiving land (see AHDB Pork model template B3.5 8k), although this is not required at the time of application • There are contingency arrangements in place, should the land become unavailable
Fuel, oils and chemical storage	• Fuel oil, oils, pesticides and veterinary medicines are all stored in bunded areas capable of retaining any spillage • Fuel oil for the standby generator and carcase incinerator is stored in a bunded tank that meets the requirements of SSAFO. The bund has a capacity of 110% of the oil tank. The bund base and walls are impermeable to oil and water, and designed to catch leaks from tank fittings (including the tanker connection point, site gauge and shut-off valve). The tank is not within 10 m of a watercourse. There are no yard drains, ditches or land drains within 10 m. The tank tap through which fuel oil can be discharged is within the bund. The tap is locked shut when not in use • There is a flexible delivery pipe permanently attached to the primary tank, which is fitted with a self-closing tap at the end. The hose and tap are locked inside the bund when not in use • The bottled gas tanks are protected from collision damage by guard rails
Housing	• Housing design and management is in accordance with SGN EPR6.09 'How to comply with your environmental permit for intensive farming' • There are both straw and slurry-based housing systems in use at the farm. Refer to the building inventory (page 5) for more detail • The existing buildings were erected between 1987 and 2018. Maintenance and upgrade have taken place recently. The existing housing and drainage has been assessed as BAT (refer to the Housing and Drainage Reviews B3.5 8e). The new finisher house will be built to BAT standards

	• The animal housing is either of insulated prefabricated construction or portal frame with block penning. The housing is well insulated, where appropriate, and the sheds have a damp-proof course, which helps to reduce heat loss and condensation • All buildings and structures on site are maintained in good repair, in accordance with the management system. There is a programme of inspection and planned preventative maintenance for the housing and drainage. Floors and walls are kept clean. Any cracks and damaged areas of yards and walls are repaired • The slat systems remain fairly clean without accumulation, allowing slurry and urine to transfer quickly to the pits underneath • Slurry is frequently removed from beneath the slats to the slurry store when there is sufficient slurry to flow out (vacuum system) • Drinkers and troughs have been designed to prevent leakage to minimise the amount of dirty water going to the slurry tank • The straw-based accommodation is a scrape-through system to prevent ponding or build-up of urine. Muck is scraped across the yard area to the manure storage area • Service checks are carried out on the ventilation system monthly, in accordance with the manufacturer's instructions
Drainage	• There are no direct or indirect releases to ground water • Refer to the Drainage Plan (B3.5 5a). A copy of the Drainage Plan is also kept with the Accident Management Plan • The clean water drainage systems are not contaminated. Slurry is not allowed to enter surface water drains • Yard areas are kept visibly clean, drainage channels are kept clear and spilt feed and dust are cleaned up • Drainage from the animal housing and water from cleaning out is treated as slurry and directed to the slurry store. Drainage from the yard area used regularly by pigs is scraped and directed to the slurry store • Roof water drainage from the animal housing is directed either to soakaways. • Disinfectant footbaths are designed not to overflow. Used disinfectant is added to the slurry store
Livestock numbers and movements	• A system is in place to record the number of animals on the farm at any one time. Animal movements on and off the farm are also recorded; these records will be available for inspection.
Carcase incinerator	• Fallen stock is disposed of in accordance with the current Animal By-Products Regulations. Carcases are incinerated on site in an incinerator approved by Animal Health. The approval number is U1051212 • The incinerator is inspected and serviced in accordance with the manufacturer's instructions
Pollution prevention measures	• All operations are assessed annually for opportunities to reduce pollution risk and implementation schedules developed as appropriate • All staff are trained in pollution risk identification, minimisation and emergency procedures for general site activity and activity relating to their work duties • There is an accident management plan in place, with a procedure to review incidents
Veterinary medicines and pest	• Pesticides and veterinary medicines are kept in a store capable of retaining spillage, resistant to fire, and are kept

control	dry, frost-free and secure. Vermin control chemicals are brought on site by a registered contractor for use as needed. Chemicals to control flies and other insect pests will be stored with agro-chemicals on the arable unit, if needed
Hazardous waste	• Veterinary waste is removed by the vet for safe disposal. Other hazardous waste, such as fluorescent light bulbs, waste oil, aerosols, etc. are removed by a licensed contractor with an adequate audit trail, meeting the requirements of the Environmental Permitting Regulations

Buildings inventory

For location of buildings, refer to the BHF Site and Drainage Plan

No.	Name (description on plan)	Animal/bird category	No. of places	Housing system	Ventilation system	Emission Factor	Notes & comments
1	Pig Unit Shower/Office						Admin, Staff & bio security
2	Service Yard	Mating/gestating sows	394	Solid Floor, straw, 8 pens x 28, 32 x 2 service pens, 33 x 2 sow pens, **40 boar pens**	NV	3.29	2 x 8 tonne feed bin
3	Sow House	Mating/gestating sows	448	Solid floor, straw 16 pens x 28	NV	3.29	12 tonne feed bin
4	Open Barn	Gestating/cull sows	390	Solid floor, straw 13 pens x 30	NV	3.29	12 tonne feed bin
5	Service shed **(Proposed)**	Mating sows	225	FSF Shallow Pit, 5 pens x 45 sows.	NV	2.64	
6	Straw/Muck storage **(Proposed)**	Muck storage		Solid covered area for storing straw and muck.			
7	Farrowing	Farrowing sows	185	FSF Shallow pit 5 rooms x 37	10 No. Roof high speed fans (>10m/s)	4.62	3 x 10 tonne feed bins
8	Weaner/Grower	Weaner pigs (7-30kg)	2500	FSF Shallow pit 5 rooms, 4 pens x 125 pigs	5 No. Roof high speed fans (>10m/s)	0.443	
9	Grower Building 1	Finisher pigs 30kg+	1296	FSF Shallow pit 2 rooms. 6 sections, 6 pens x 36 pigs	8 No. Roof high speed fans (>10m/s)	2.813	Will house pigs from 15-45kg so calculated as >30kg
10	Grower Building 2	Finisher pigs 30kg+	1296	FSF Shallow pit 2 rooms. 6 sections, 6 pens x 36 pigs	8 No. Roof high speed fans (>10m/s)	2.813	Will house pigs from 15-45kg so calculated as >30kg

11	Finisher Building 1	Finisher pigs 30kg+	1296	FSF Shallow pit 2 rooms, 18 pens x 36 pigs	12 No. Roof high speed fans (>10m/s)	2.813	
12	Finisher Building 2	Finisher pigs 30kg+	1296	FSF Shallow pit 2 rooms, 18 pens x 36 pigs	12 No. Roof high speed fans (>10m/s)	2.813	
13	ST2	Weaner pigs (7-30kg)	540	Solid floor straw, 36 pens x 15 pigs	ACMV	1.888	
14	ST3	Finisher pigs 30kg+	480	Solid floor straw, 32 pens x 15 pigs	ACMV	1.888	
15	ST4	Finisher pigs 30kg+	480	Solid floor straw, 32 pens x 15 pigs	ACMV	1.888	
16	ST5 **(to be replaced by Finisher Building 3)**	Finisher pigs 30kg+	880	Solid floor straw, 11 pens x 80 pigs	ACMV	1.888	
17	Finisher Building 3 **(proposed)**	Finisher pigs 30kg+	1944	FSF Shallow pit 3 rooms, 18 pens x 36 pigs	18 No. Roof high speed fans (>10m/s)	2.53	
18	Generator						Diesel backup electrical generator. Integral fuel tank (diesel)
19	Feed kitchen & store	12 no. Feed bins		16 tonne bulk bins			Feed preparation and ingredient storage.
20	Pig loading ramp	N/A	N/A	N/A	N/A		Open ramp for loading pigs on and off site
21	Straw/ FYM store	Straw/FYM		Concrete pad 52m x 23m 580 tonnes/month	N/A		
22	Incinerator & Fuel Tank			Fuel tank – 4,000 litres			Low capacity incinerator for pig carcasses

23	Reception Pit - small	Sow House drain		1.3m x 1.3m = 1.7m^2 34m^3 capacity.	Covered		Transfer of slurry & wash water to lagoon
24	Reception Pit - farrowing	Farrowing and flat deck slurry		5m x 3m x 4m 60m3 capacity	Covered		
25	Reception Pit - Large	Collection point for all slurry post weaning		500m3 capacity	Covered		Proposed to be extended with separation
26	Lagoon 1 – earth banked	Pig slurry		40m x 40m = 1155m^2 3.0m deep 4,800m^3	Floating straw mat BAT	0.68	Pig Slurry
27	Lagoon 2 - concrete	Pig slurry		30m x 30m =900m^2 3.6m deep, 3,240m^3 capacity	Floating straw mat BAT	0.68	Pig Slurry
28	Fuel store	Diesel		2000 litre bunded fuel tank			
29	Remote Lagoon 3 – earth banked	Pig slurry		60m x 40m x 4m = 9,600m^3	Floating straw mat BAT	0.68	Pig Slurry

Emissions

Table of emission points

Emission point reference	Emission point description and location	Source
Air		
1	Dry sows – natural ventilation roof outlets	Dry sow/Service Yard/Open Shed
1	Boars in dry sow house	In Service Yard
2	Farrowing house – high speed fan >10m/s (x10)	Farrowing roof
3	Weaner – high speed fan >10m/s (x5)	Weaner Shed roof
4	Grower shed roof mounted ventilation chimney – high speed fan >10m/s (x16)	Grower building 1 & 2 roof
5	Finisher shed roof mounted ventilation chimney – high speed fan >10m/s (x24 current, x40 proposed)	Finisher building 1 & 2 (plus 3 proposed)
6	Vent from fuel oil tank for incinerator, as shown on site layout plan	Incinerator fuel oil tank
7	Muck store	FYM
8	Slurry store (Lagoon 1, 2 & 3)	Slurry
9	Chimney stack on incinerator shown as on site layout plan	Incinerator
10	Land spreading	FYM and slurry
Land		
11	Soakaways, as identified on the site drainage plan	Roof water from buildings and the surrounding yard area
Water		
	Discharge to ditch	Roof water from buildings

Site operations and pollution prevention measures

1.Site operations (storage and use)	2. Substance	3. Relevant activity	4. Possible failure mechanism and potential for pollution	5. History/records or evidence of leaks of polluting substances to associated with the that could result in emissions to land, e.g. in hard standing, leaking or bund Detail any incidents of spills from the relevant This can be based on visual assessment during site walk or other records and data sources	6. Do pollution prevention measures exist for relevant activity? Yes/No	7. Provide details of pollution prevention measures To include: primary, e.g. tanks or pipework; secondary, e.g. bund hard standing and, where present, tertiary, e.g. oil interceptor	8.Testing and inspection of pollution prevention measures Note: If you are not able to supply all of this information at present, you may submit the details with your Accident Management Plan
Vehicle and machine fuel/ incinerator fuel	Fuel oil	Main storage	Failure of tank leading to spillage to land	None identified	Yes	Concrete base and bund containing tank and fill point Double valves locked when not in use Sight gauge enclosed by guard Complies with SSAFO Regulations	Tank, fittings and bund visually inspected monthly and following any notified spill
		Delivery by road tanker to installation and road tanker off-loading	Spillage from road tanker on installation yards entering clean drainage and hence soakaways Spillage from road tanker or delivery pipework to yard	None	Yes	Delivery by supplier's vehicle. Oil tank located at edge of site to avoid unnecessary traffic past the pig buildings Tank and fixed pipework within bunded area Concrete hard standing Materials available to soak up minor spills Area drains to slurry store reception pit so containment provided	Concrete hard standing area visually inspected monthly Bunded area and tank visually inspected before each delivery
		Fuelling vehicles	Spillage on yard, overflowing tanks	As above	Yes	As above. Automatic closing trigger, locks on valves stored in bund when not in use Record kept of fuel use, regularly reviewed	As above
Incinerator fuel	Fuel oil	Fuel supply to incinerator	Failure of underground pipeline between the oil storage tank and incinerator leading to loss of fuel to land	None	Yes	Underground steel pipeline in plastic ducting	Burn time and fuel use logged and correlated Fuel line checked as part of annual service schedule

1.Site operations (storage and use)	2. Substance	3. Relevant activity	4. Possible failure mechanism and potential for pollution	5. History/records or visual evidence of leaks of potentially polluting substances to land associated with the activities that could result in ongoing emissions to land, e.g. in hard standing, leaking tank or bund Detail any incidents of pollution or spills from the relevant activity. This can be based on visual assessment during site walk over or other records and data sources	6. Do preventio measures for activity? Yes/No	7. Provide details of pollution prevention measures To include: primary, e.g. tanks or pipework; secondary, e.g. bund hard standing and, where present, tertiary, e.g. oil interceptor	8.Testing and inspection of pollution prevention measures Note: If you are not able to supply all of this information at present, you may submit the details with your Accident Management Plan
Feed	Nutrients: Phosphorus and nitrogen Dust	Delivery to storage areas: dry bulk	Spillage, split or failed pipework, dust, failure of bins	None	Yes	Purpose-made dedicated stores	Pipework and bins regularly inspected to assess condition
		Delivery to storage areas: dry bagged	Spillage, split bags	None	Yes	Purpose-made dedicated stores	Regular inspection of facilities and equipment
		Distribution: all	Broken augers	None	Yes	Auger runs kept to minimum, mostly within buildings	Regular inspection of facilities and equipment
		Transfer from delivery tanker to storage: liquid bulk	Failure of pipework or tanks	None	Yes	Bunded tanks	Regular inspection of facilities and equipment
		Feed mixing and distribution: liquid	Failure of pipework or tanks overflowing troughs	None	Yes	Impermeable floors and hard standings Feed mixing area drains directly to slurry reception pit Overhead pipework routed through buildings with internal slurry storage or over yard area draining to slurry store	Regular inspection of facilities and equipment
Slurry (including dirty water)	(Nutrients) ammonia, nitrate, phosphate	Storage within buildings, transfer to reception pit, store in main slurry store	Structural failure Overflow to clean water stream/ground water, land and property	None	Yes	Dedicated purpose-built facilities, including impermeable yards and aprons, falls and gradients arranged to direct flow to appropriate storage facilities and minimise contamination Regular monitoring of tank and	Regular inspection of facilities and equipment

						store contents	

1.Site operations (storage and use)	2. Substance	3. Relevant activity	4. Possible failure mechanism and potential for pollution	5. History/records or visual evidence of leaks of polluting substances to land associated with the activities that could result in ongoing emissions to land, e.g. in hard standing, leaking tank or bund Detail any incidents of pollution spills from the relevant activity. This can be based on visual assessment during site walk or other records and data sources	6. Do pollution prevention measures exist for relevant activity? Yes/No	7. Provide details of pollution prevention measures To include: primary, e.g. tanks or pipework; secondary, e.g. bund hard standing and, where present, tertiary, e.g. oil interceptor	8.Testing and inspection of pollution prevention measures Note: If you are not able to supply all of this information at present, you may submit the details with your Accident Management Plan
		Transfer from storage to tanker	Reception pit overflow during agitation Leaking tanker	None	Yes	Above ground slurry store fitted with double gate valves All equipment regularly serviced	Regular inspection of facilities and equipment
		Road transport to field	Tanker failure, road accident	None	Yes	Purpose-made equipment, regularly maintained Fully trained operators	Regular inspection of facilities and equipment
		Field spreading	Surface run-off, drain contamination Over-application of plant nutrients	None	Yes	Spreading in accordance with Manure Management Plan and advice from qualified person	Regular soil testing
Manure	Nutrients: ammonia, nitrate, phosphate	Storage in Midden Road transport from midden to field heaps or spreading Field spreading	Midden failure Spreader/trailer failure, road accident Surface run-off, drain contamination Over-application of plant nutrients	None	Yes	Dedicated purpose-built facilities with impermeable base and perimeter channels Drainage to belowground reinforced concrete tank (installed 1995), complies with SSAFO Purpose-made equipment, regularly maintained Fully trained operators Spreading in accordance with Manure Management Plan and advice from qualified person	Regular inspection of facilities and equipment Regular inspection of facilities and equipment Regular soil testing

1.Site operations (storage and use)	**2. Substance**	**3. Relevant activity**	**4. Possible failure mechanism and potential for pollution**	**5. History/records or visual evidence of leaks of polluting substances to land associated with the activities that could result in ongoing emissions to land, e.g. in hard standing, leaking tank or bund** Detail any incidents of pollution spills from the relevant activity. This can be based on visual assessment during site walk or other records and data sources	**6. Do pollution prevention measures exist for relevant activity?** Yes/No	**7. Provide details of pollution prevention measures** To include: primary, e.g. tanks or pipework; secondary, e.g. bund or hard standing and, where present, tertiary, e.g. oil interceptor	**8.Testing and inspection of pollution prevention measures** Note: If you are not able to supply all of this information at present, you may submit the details with your Accident Management Plan
Pesticides and biocides	List substances used	Delivery and transfer from vehicle to on-site storage Storage of pesticides Mixing of pesticides Application foot dip and wheel wash use Transfer of pesticide and biocide Disposal of waste packaging	Spillage, leaks, contamination of clean drains	None	Yes	Transfer directly from delivery vehicle to dedicated store Damaged or suspect packaging rejected at time of delivery Dedicated contained store to current specification Records kept Dedicated mixing area, impermeable base, drains to slurry store Trained staff with appropriate qualifications Relevant Codes of Practice followed Foot dips on good concrete, drains to slurry store or dirty water system Foot dips located where overflowing gutters will not dilute Wheel wash constructed from reinforced concrete with sealed joints Dedicated container, impermeable hard standing within bund Removed from site by licensed contractor Dedicated storage area Removal by licensed collector	Deliveries Regular inspection of facilities and equipment Full application records Regular inspection of storage area Records kept

1.Site operations (storage and use)	2. Substance	3. Relevant activity	4. Possible failure mechanism and potential for pollution	5. History/records or visual evidence of leaks of polluting substances to land associated with the activities that could result in ongoing emissions to land, e.g. in hard standing, leaking or bund Detail any incidents of pollution spills from the relevant activity. This can be based on visual assessment during site walk or other records and data sources	6. Do pollution prevention measures exist for relevant activity? Yes/No	7. Provide details of pollution prevention measures To include: primary, e.g. tanks or pipework; secondary, e.g. bund hard standing and, where present, tertiary, e.g. oil interceptor	8.Testing and inspection of pollution prevention measures Note: If you are not able to supply all of this information at present, you may submit the details with your Accident Management Plan
Incineration of non-SRM material: Ash	Fats and residues Trace elements, heavy metals, calcium, phosphate, dust	Incineration Transfer from incinerator Land spreading, etc. as per manure	Leaks, spillage, wind blow	None	Yes	Impermeable hard standing with liquid collection Transfer incinerator to barrow, ash sprayed with water before moved, added to midden and mixed into manure	SVS-approved activity, includes records and inspections
Dirty water/wash waters	Nutrients, pesticides, biocides	Wash waters from rearing units/yard/ equipment Drainage from rearing units/yard Area below ground storage Above ground storage	See slurry				
Lightly contaminated surface waters	Ammonia, nitrates, phosphates, dusts and organic particles	Surface water drainage	Contamination of land, surface and ground waters	Yes to swale	Yes	Impermeable yards, and aprons, falls and gradients arranged to direct flow to swale Swale constructed in accordance with guidance in How to comply and in accordance with the groundwater regulations 1998	Hard standing inspected monthly, belowground drainage surveyed within two years and swale is inspected to ensure compliance with performance standards

Pest Management Plan

On-site and Pest Management Plan (PMP) assessment (options not mandatory): Template checklist for pig and poultry farms

Source	Method	On site check	PMP check	Comment
PMP	Manage site activities in accordance with the PMP			
Fly monitoring	Follow routine monitoring for flies using: resting counts; adhesive paper fly catches, fly larval counts, other			Specify which monitoring method(s) were used
	Fly species identified			
	Trigger levels followed for the relevant monitoring method/s to initiate insecticidal control			Specify the trigger level for each monitoring method used, if applicable
Manure management	Daily check of water lines and drinkers for defects and/or spillages			
	Buildings are watertight, with no water ingress from outside			
	Manure holding areas well ventilated			
	Liquid feed stores are appropriately sealed and external sources and surrounding areas are kept as clean as practically possible. Try to organise vents so that flies cannot pass through these			
	Manure and slurry removed frequently, if appropriate			
	Scrapers are cleaned regularly			
Infrastructure	Buildings are in good condition and kept well maintained			
	Windows and doors are fitted with fly screens, if appropriate, but do not impede ventilation			
Carcases	Fallen stock are removed and/or incinerated frequently			
Housekeeping	Spillages are cleaned up as soon as possible			
	Rubbish bins are emptied regularly			
Biological	Use of fly parasites/predators to control flies			Describe the species used

control options	Insecticide drift onto manure avoided when using adulticides			

Insecticide control options	Insecticide labels are complied with and records kept of all treatments			
	Fly baits used			
	Space treatments used			
	Residual insecticides used			
	Larvicides used			
	Larvicide applications are targeted to known infested areas			
	Insecticide products are rotated to reduce risk of insecticide resistance			
Transporting manure	Adult fly numbers minimised before house opened for manure removal			
	Manure is checked on site for fly maggots before transporting it off site			
	If possible, treat the infestation and leave on farm for a suitable period of time for the treatment to have been effective			
	If the manure is infested and flies could be released during transport, cover the trailer before leaving the site			
Manure storage	Manure field heaps are inspected regularly for flies			
	Manure heap covered if found infested with flies/maggots			
	If sheet covers are used, they are left for at least 10 days			
	If sheet covers are used, they are inspected to check for any damage			
Manure spreading	Manure is spread to land as soon as possible after it is received			
	Manure is fully incorporated into the ground immediately after spreading (within 24 hours)			
	Three weeks must elapse after the last application of insecticide, before the treated manure can be spread on land, another four weeks must elapse before grazing or cropping			