Appendix 6 Technical Standards – Cattle (Holderness) Limited, Southfield Pig Farm

Installation Name: Southfield Pig Farm	
Schedule 1 Activity or DAA description	**Relevant Technical Guidance note**
Section 6.9A (1) (a) (ii)	How to comply EPR 6.09 Version 2
Pig production	
Pig feed storage and preparation	□ Selection and use of feed is in accordance with SGN EPR6.09 'How to comply with your environmental permit for intensive farming' □ Feed is stored in purpose built, covered, feed silos and tanks as shown in Appendix 4. Bulk delivery and storage of dry and liquid feed ingredients takes place on site. Feed is blown, augered or pumped directly from the delivery lorry into the relevant storage silos. □ Feed is milled and mixed onsite. Dry and liquid diets are fed. Feed milling and preparation is carried out in an enclosed building. Feed is piped in sealed system to the sheds and liquid feed diets further reduce creation of dust. □ Feed storage vessels are protected from collision damage by curbing and barriers. □ All liquid feed storage is contained within a bunded area (with 110% capacity of largest vessel), preventing any spillage from entering the drainage system. □ There is minimal possibility of dust emissions around milling or mixing shed as it is fitted with dust control equipment. □ Areas around buildings are kept free from build-up of slurry and spilt feed □ Selection and use of feed is in accordance with SGN EPR6.09 'How to comply with your environmental permit for intensive farming' □ Dust cyclones are fitted to the bins.

	□ Feed is piped in sealed system to the sheds. It is fed in a targeted, automated system to reduce wastage. □ Feed storage vessels are protected from collision damage by curbing and barriers. □ Yard areas are kept clean and any feed spill would be promptly removed □ All feed rations are formulated to match the requirements of the pigs at different stages. A nutritionist regularly reviews and reformulates diets in order to optimise production and minimise excretion of nutrients.
Slurry and manure storage	□ Slurry is stored on site, underslats (vacuum removal at least every 10 weeks and not exceeding a depth of 800mm) from where it is removed to an underground sealed concrete reception pit, with concrete lid, which meets SSAFO regulations. Slurry is then separated and the solid separate is stored with FYM on the site muck pads, whereas the liquid separate is piped by underground pipe to a lagoon to the South of the site. This lagoon has a floating cover (clay balls) and slurry is introduced under the surface to mitigate risk of aerosol creation. □ Solids from separation process and FYM from solid floor systems are stored on muck pads on site. These are covered and have impermeable floors and weeping walls, with effluent captured in the underground reception pits with solid covers. □ There is a maximum of 200t FYM stored on site at any one time which is then removed to temporary field heaps. □ All slurry and FYM is applied to land owned and managed by the operator. □ Total slurry storage capacity gives sufficient flexibility to: a) Allow for 6 months' worth of storage capacity to cover closed period rules under Nitrate Vulnerable Zone regulations b) Allow for additional contingency margin for problems outside of closed periods to allow slurry to be applied where there is sufficient crop need and the ground, weather and crop conditions are suitable for access and application.

	□ No separate dirty water capture. All contaminated water (including effluent from muck, wash water from buildings and drainage from covered loading ramp) is captured in to the slurry system. All roof and yard water is uncontaminated and drains to ditches, as shown on the site plan (Appendix 4). □ Contents of footbaths are also disposed of via the slurry system. □ 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 slurry storage and all part of the drains and reception pits are impermeable.
Slurry spreading and manure management	□ Manure and slurry are all applied to land owned and managed by the operators. □ The operators store and apply FYM/slurry to land in accordance with the Defra Code of Good Agricultural Practice and NVZ regulations and the spreading is in accordance with a manure management plan for the receiving land. □ We keep records of stock counts and the tonnage/litres of slurry and FYM applied to land.
Fuel oil & chemical storage, low capacity non SRM	□ Diesel is stored in a plastic bunded tank which is in compliance with SSAFO regulations. The bund capacity will be at least 110% of the capacity of the tank. The tank, bund, fittings and security arrangements will be inspected in line with the inspection and maintenance schedule (see Appendix 3). □ Ditto the integrated diesel tank for the fixed generator. The generator is tested weekly. It has a noise reduction cabinet which keeps the level to within the legal limits.

	□ Chemicals including disinfectants, rodenticides and veterinary medicines are stored in a store compliant with current regulations – see Veterinary medicines and pest control section below. Pens are cleaned and disinfected between batches of pigs, with Defra approved disinfectants. □ Incinerator is electric powered and is inspected in line with the inspection and maintenance schedule and manufacturer's instructions.
Housing	Housing design and management is in accordance with SGN EPR6.09 'How to comply with your environmental permit for intensive farming' □ The buildings and associated drainage have all been built to BAT standards, with a strong focus on resource saving and efficiency, e.g. shallow-pit fully-slatted system, precision feeding system, targeted heating □ Refer to the building inventory (page 6) for more detail on housing and systems. The site has a mixture of systems including solid floor, straw bedded and naturally ventilated, as well as fully slatted with high speed roof fans (with an efflux velocity of between 7 and 14 m/s). □ The housing is well insulated and the sheds have a damp-proof course which helps to reduce heat loss and condensation. □ LED lighting is used throughout □ Heating is applied only where it is needed, by heat pads in covered piglet creep areas. Temperature reduces in line with the piglet's requirements as they grow. □ 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, drainage and all equipment. 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. A treatment to the floors ensures that they are hard-wearing, hygienic, dust-proof and easily cleaned.

	□ The straw-based accommodation has bedding managed in such a way as to optimise binding of dust and liquid. See Slurry and Manure Storage section above. □ Straw use minimal and good quality bedding used to reduce risks of dust and bioaerosols. □ Drinkers have been designed to prevent leakage to minimise the amount of dirty water going to the slurry storage. Water is supplied to sealed storage tank supplied from an on-site borehole with mains backup. All the water drinkers are either nipple or bowl drinkers on the unit, reducing potential for wastage. Water use is recorded and monitored. □ Service checks are carried out on the ventilation system in accordance with the manufacturer's instructions.
Low capacity non SRM	□ Approved installation and monitored by APHA □ Incineration on site improves biosecurity □ Ash disposed of via approved routes under U15 exemption
Drainage	□ Refer to the drainage plan (Appendix 4). 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 clean water pathways. Roof water and uncontaminated yard water all directed to piped outlets to ditches. □ 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. □ Disinfectant footbaths are designed not to overflow. Used disinfectant is added to the slurry store. □ Effluent from the bunded muck stores, drains to the reception tanks, R1 and R2. □ Muck stores and loading ramps covered.
Borehole (i.e. groundwater) protection	□ To protect the borehole (a direct pollution pathway) from any risk of contamination from the site, the following measures are employed:

	· Protection against risk of backflow · Bund around the borehole extraction point, in a secure container. · Trays placed under slurry connection pipes · Minimum of annual water tests (independently tested), taking samples as close as possible from source, checking total TVC and coliform levels □ Risk of spillages and leaks mitigated by frequent inspection and maintenance of all equipment, vehicles and infrastructure. □ Staff trained in Emergency Action Plan and materials and equipment readily available to contain spills.
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.
Deadstock disposal	Fallen stock is disposed of in accordance with the current Animal By-Products Regulations. It is incinerated on -site in an APHA approved electric-powered incinerator. Until collection, deadstock is stored in sealed and secure containers. Should there be a problem with the incinerator, deadstock would be collected by a licenced contractor. Deadstock collection vehicles would be kept to the perimeter of the site to reduce disease risk.
Veterinary medicines and pest control	Chemicals, rodenticides and veterinary medicines are kept in a store capable of retaining spillage, resistant to fire and are kept dry, frost free and secure.
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.
Hazardous waste	Veterinary waste is removed by the vet for safe disposal. Other hazardous waste, such as 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

Building name and ref on plan	**No of places**	**Type of ventilation****	**High velocity roof fan efflux velocity**	**Floor type**	**Feed**	**Slurry/manure management**
Sow 1	3 rooms of 12 pens – 7 per pen **252** total dry sow places	Computer controlled ventilation SCOV ridge outlet, high velocity	3 fans per room. 11-12m/s Emission height 5m	FSF	Liquid feed	Shallow slurry pit, frequently emptied
Sow 2	5 rooms of 12 pens – 10 per pen **600** total dry sow places	Computer controlled ventilation SCOV ridge outlet, high velocity	3 fans per room. 11-12m/s Emission height 5m	FSF	Liquid feed	Shallow slurry pit, frequently emptied
Sow 3	16 pens – 18 per pen **288** total dry sow places	Curtain ventilation (NV)	N/A	Solid	Dry feed	Solid floor, straw bedded, scrape-through (2-3 times per week to midden at end of building)
Sow 4	12 pens – 18 per pen **216** total dry sow places	Curtain ventilation (NV)	N/A	Solid	Dry feed	Solid floor, straw bedded, scrape-through (2-3 times per week to midden at end of building)

Sow 5	20 pens – 18 per pen – **360** total dry sow places	Computer controlled ventilation SCOV ridge outlet, high velocity	4 fans 11-12m/s Emission height 7m	FSF	Liquid feed	Shallow slurry pit, frequently emptied
Sow 6	8 pens – 20 per pen – **160** total dry sow places	Side vents, natural ventilation	N/A	FSF	Dry feed	Solid floor, straw bedded, scrape-through (teleporter bucket transporting muck to midden, scraped 2-3 times per week)
Sow 7	2 pens @ 40/pen + 3 pens @ 20/pen – **140** total dry sow places	Yorkshire boarded, natural ventilation	N/A	FSF	Dry feed	Solid floor, straw bedded, scrape-through (undercover storage in shed, taking run-off to Sow 5 shallow pit)
Farrow 1	**125** places	Computer controlled ventilation Warkup SCOV ridge outlet, high velocity	4 fans 11-12m/s Emission height 6m	FSF	Liquid feed	Shallow slurry pit, frequently emptied
Farrow 2	**120** places	Computer controlled ventilation Warkup SCOV ridge outlet, high velocity	4 fans 11-12m/s Emission height 5m	FSF	Liquid feed	Shallow slurry pit, frequently emptied
Farrow 3	**150** places	Computer controlled	6 fans	FSF	Liquid feed	Shallow slurry pit, frequently emptied

		ventilation Warkup SCOV ridge outlet, high velocity	11-12m/s Emission height 5m			
Farrow 4 (part of the Sow 1 building)	2 rooms of 49 farrowing sow places **98** total places	Computer controlled ventilation Warkup SCOV ridge outlet, high velocity	3 fans per room 11-12m/s Emission height 5m	FSF	Liquid feed	Shallow slurry pit, frequently emptied
Service Area	**252** places	Side vents, high velocity	2 fans 11-12m/s	FSF	Liquid feed	Shallow slurry pit, frequently emptied
Note re. Gilts in-pig and total sow and >30kg pig numbers	*350 gilts in-pig housed in sow houses 4 and 6 (included in dry sow places listed above)*	*Gilts arrive in-pig already so will be classed as sows in the dry sow figure.* *There are 6 boars on site, classed as >30kg pig places.* *2268 Dry sow places (inc service shed, culls pen, gilts in pig)* *493 Farrowing Places* ***Giving a total of 2761 sow places + 6 >30kg places***				
Mill and Mix Feed silos and liquid feed tanks	Grinding of dry feed ingredients, mixing of feed, using both dry and liquid ingredients.	Mill and Mix Feed silos and liquid feed tanks				
Office, chemical and vet med store and showers		Secure and compliant storage				
Diesel tank		2500 litre capacity. Plastic bunded tank.				
Kerosene tank		1500 litre capacity. Plastic bunded tank.				

Fixed Generator		Diesel powered, with integrated and bunded diesel storage
Calor gas tanks		2 x 2000 litre capacity tanks
Incinerator (electric powered)		Approved facility <50kg/hr
Underground reception tank 1		Fully sealed underground concrete structure, built in line with SSAFO regulations, with a concrete lid. Capacity 80m³.
Underground reception tank 2		Fully sealed underground concrete structure, built in line with SSAFO regulations, with a concrete lid. Capacity 50m³.
Lagoon, clay lined		2997m2 surface area 7770m3 capacity, allowing 300mm freeboard plus contingency margin Clay ball cover
Slurry separator		Slurry is transferred by a combination of gravity flow and pumping to the slurry separator.
Muck pad 1		Effluent is drained (weeping wall) to one of the underground sealed reception tanks, which itself drains to the slurry lagoon, via separator.
Muck pad 2		Effluent is drained (weeping wall) to one of the underground sealed reception tanks, which itself drains to the slurry lagoon, via separator.
Straw Barn		Covered straw and mineral storage
Borehole and water tanks		1) 2 x 20,000 litre above-ground tanks, buffer store for drinking water 2) 1 x 10,000 litre above-ground tank, for pressure washing 3) 1 x 6000 litre above-ground tank, for buffer store for liquid feed system 4) Rainwater from F1 and S5 is captured into an underground tank
Welfare Office		Staff changing room, shower, office and welfare facilities

Emissions

Table of Emission Points

Emission Point Reference	Emission Point Description and Location	Source
Air		
App 4, roof fans	High speed roof fan outlets on buildings Sow 1, 2 and 5; and Farrow 1, 2, 3 and 4	Roof fan exhaust outlets from pig buildings
App 4, naturally ventilated buildings	Natural ventilation on buildings Sow 3, 4, 6 and 7	Area emissions from naturally ventilated pig buildings
App 4, side fans	Side fans on Service Shed	Side fan exhaust outlets from pig building
App 4, generator App 4, incinerator	Generator outlet – fixed unit – exhaust output (intermittent activity) Incinerator chimney exhaust output	Diesel powered - Exhaust fumes Electric powered - Exhaust fumes
App 4, slurry storage	Underground reception tanks (rigid covers) – marked R1 and R2 on the site plan – slurry separator, and lagoon (floating cover) which is located to the SSE of the pig buildings and is connected to the pig unit by underground pipe	Slurry storage (including liquid faction of separated slurry, effluent, wash water, used footbath disinfectant)

App 4, FYM stores	FYM on bunded muck pads (removed frequently to temporary field heaps) Effluent directed to slurry system. Solids from separation process removed frequently from site and stored as per FYM	FYM and solids from slurry separation
Off installation	Land spreading - outside installation boundary (refer to Manure Management Plan) All slurry and FYM spread on operator owned/managed land	Land spreading of slurry is by dribble bar and solids are spread at low trajectory.
Water		
App 4, clean water drainage, emission point D1	Roof water discharges into nearby ditch via sump for trapping silt Source: Sow House 7, roof water (naturally ventilated building)	Roof water
App 4, clean water drainage, emission point D2	Roof water and uncontaminated yard water discharges into nearby ditch, via sumps and/or attenuation ditch Sources: Roof water from Sow Houses 1, 2 and 5; Farrow 1, 3 and 4 (roof fan ventilated buildings) and Roof water from Sow House 6 (naturally ventilated building) And Yard water from the site (as per drainage plan, showing surface flow directions on concrete yard areas)	Roof water Clean water from uncontaminated impermeable yard areas
App 4, clean water drainage, emission point D3	Roof water and uncontaminated yard water discharges into nearby ditch via sump for trapping silt Source: Roof water from Sow Houses 3 and 4 (naturally ventilated buildings)	Roof water

	And Roof water from Service Shed (side ventilated building) And Roof water from Farrow 2 (roof fan ventilated building)	
Land		
App 4, clean water on to free-draining yard surfaces	Rainwater on to uncontaminated free-draining yard areas	Clean water on to uncontaminated free-draining yard areas
Off installation	Land spreading - outside installation boundary on to operator owned/managed land (refer to Manure Management Plan)	Land spreading of slurry is by dribble bar and solids are spread at low trajectory.
Off installation	Incinerator ash is augered into a sealed container before disposal by incorporation in to FYM and application to land under U15 exemption	Incinerator ash disposal

Carcass management

Fallen stock is disposed of in accordance with the current Animal By-Products Regulations. Carcasses are incinerated on site in an approved facility, or collected by a licenced contractor.

Flies

There have been no incidents of fly nuisance at the farm. Appropriate actions will be put into place to prevent and control flies should a nuisance arise e.g. use of pesticides, traps and electric fly killers. The farm manager undertakes regular inspections of the site.

Odour

There are neighbours (sensitive receptors) within 400 m of the farm and, therefore, an up-to-date Odour Management Plan (Appendix 7) is in place. This conforms with the SGN EPR6.09 ‘How to comply with your environmental permit for intensive farming’ and the H1 Environmental Risk Assessment (Appendix 5). There is no history of odour complaints resulting from current activities on the unit.

Noise and vibration

There are neighbours (sensitive receptors) within 400 m of the farm and, therefore, an up-to-date Noise Management Plan (Appendix 8) is in place. This conforms to SGN EPR6.09 ‘How to comply with your environmental permit for intensive farming’ and the H1 Environmental Risk Assessment (Appendix 5). There is no history of noise complaints resulting from current activities on the unit.

Bioaerosol and dust

There are neighbours (sensitive receptors) within 100 m of the farm and, therefore, an up-to-date Bioaerosol and Dust Management Plan (Appendix 9) is in place. This conforms with the SGN EPR6.09 ‘How to comply with your environmental permit for intensive farming’ and the H1 Environmental Risk Assessment (Appendix 5). There is no history of bioaerosol or dust complaints resulting from current activities on the unit.