The Poultry Site Environmental Risk Assessment

Source of Impact	Impact e.g. odour, noise, dust, ammonia, run-off, spillage	Receptor Air, water, land Humans, plants	Description of Negative Impact Nature of impact i.e. short term ST, medium MT or long term LT	Potential significance of negative impacts: major +++ moderate ++ minor + nil 0	Mitigation / Management Measures e.g. site planning, technical measures
Livestock housing	Ammonia	Air Land Plants	Possible direct toxic effect on trees (ST) Increased acidification of soil close to housing (MT) Changes to sensitive ecosystems (LT)	+ + ++	• Dry manure maintained • No sensitive woodland or other ecological receptors close to housing • Appropriate soil pH maintained by liming
	Odour	Humans	Nuisance (ST)	+++	• Dry manure maintained • Hard standing areas kept clean and spillages prevented • Manure air dried to reduce odours
	Dust	Humans Plants Land Water Air	Nuisance (ST) Contributes to odours (ST) Health issues - inhalation (LT) Covers leaves stopping photosynthesis (ST) Nutrient enrichment of water courses (MT) Impacts on air quality (ST)	+ ++ + + + +	• fans fitted with cowls and light filters • Regular clearing of dust to prevent build up on surfaces and around vents • No sensitive vegetation around sheds • Houses far enough away not to be affected • Hard standing cleaned to prevent dust being washed into water courses
	Noise	Humans	Nuisance (ST)	+	• Feed delivery times restricted, vehicles well silenced • Doors in housing sited away from neighbours

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	Used disinfectants	Water	Possible toxic effects on wildlife (ST) Increased biochemical oxygen demand (BOD) of watercourses (ST)	++ ++	• Spent disinfectant disposed of into dirty water tank • Use of Defra/NOAH approved disinfectants
	Zoonotic and notifiable diseases	Humans Livestock	Biosecurity risks (ST) Transmission of disease from birds to humans.(ST)	Nil to+++	• Secure site with visitor policy • Livestock monitored for signs of disease, and incidents reported quickly • Defra biosecurity guidance followed by all staff, contractors and visitors • Public have no access to birds
Disposal of carcasses	Odour	Humans	Nuisance (ST)	++	• Good husbandry to minimise mortalities • Use of covered/sealed skips to store carcasses • Carcasses disposed of through fallen stock scheme.
	Disease	Humans	Health risks (ST)	++	• Use of covered/sealed containers • No contact with people
		Livestock	Biosecurity issues (ST)	+	• Use of covered containers • Carcasses disposed of regularly • Bait traps used
Cleaning out	Contaminated run-off	Land Water	Increase in nitrogen and phosphorus levels in soil (MT) Potential for increased mineral or metal content of soils (LT) Increased biochemical oxygen demand (BOD) of watercourses (ST) Nutrient leaching from soil to surface waters and groundwater (LT) Nutrient enrichment (eutrophication) of watercourses and ground water (LT)	++ + ++ ++ ++	• Dry cleaning system used • Any run-off diverted to waste water tank • Dirty water tanks are emptied as filled during clean out • All lightly contaminated run-off treated by swales when not cleaning out

	Noise	Humans	Nuisance (ST)	++	• Machinery operated at reasonable times, wherever possible • Equipment maintained to optimum standards • Need for scraping minimised due to reduced yard area • Machinery and equipment sited as far as possible from neighbours • Idling of machines avoided • Voices not raised unnecessarily • Roads and tracks maintained to minimise noise produced
	Odour	Humans	Nuisance (ST)	++	• Cover loads • Load close to the shed door or inside • Outdoor heaps avoided • Yard areas cleaned at the end of each day • Dirty water tank emptied promptly
Use of vehicles	Soil,	Land	Soil compaction (ST) Transfer of soil across and off the installation (ST)	+ +	• Trafficking avoided when soil conditions are not favourable • Careful selection of machinery & tyres • Tyres, operated at correct pressures • Wheel wash in place
	Spillage of materials in transit	Water	Increased biochemical oxygen demand (BOD) of watercourses (ST) Nutrient leaching from soil to surface waters and groundwater (LT) Nutrient enrichment (eutrophication) of watercourses and ground water (LT)	Nil to + Nil to + Nil to +	• Dusty materials moved within sealed containers or covered vehicles • Integrity of vehicles checked for leakages

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	Odour, noise	Humans	Nuisance (ST)	++	• Type and size of vehicle suitable to task • Loads covered or closed • Wheels cleaned • Vehicles well maintained
Manure spreading	Ammonia and major nutrients (N:P:K)	Air Land Plants	Contributes to climate change (LT) Contributes to odours (LT) Nutrient enrichment or 'fertilising' effect on crops, plants and water. (LT) Changes to sensitive ecosystems such as natural woodland, heathland or peatland. (LT) Nutrient enrichment of soils, particularly phosphorus (LT) Potential for increased mineral and metal content of soils Eutrophication caused by run-off (MT) Reduced biodiversity (LT)	+ +++ +++ + +++ + ++ +	• Spent litter applied in accordance with manure management plan • Balanced diets fed to reduce N & P in manure • Spent litter/Manure incorporated within 24 hours • Application in accordance with DARD codes of good practice • Only temporary field heaps used • No ecologically sensitive receptors near the site
	Odours	Humans	Nuisance (ST)	+++	• No spreading in adverse weather conditions • No spreading at weekends or on Bank Holidays • No spreading close to neighbours' houses • Manure incorporated within 24 hours • Manure applied in accordance with manure management plan
Storage of fuel, chemicals etc.	Leakage	Water	Contamination of surface and groundwaters (ST) Killing of animals, plants and aquatic life (ST)	+++ +++	• All tanks are bunded and compliant with legislation • Use of chemicals least hazardous to the environment
Flooding	Contaminated run-off	Water Land	Increase in nitrogen and phosphorus levels in soil (MT) Potential for increased mineral or metal content of soils (LT)	++ +	• The Environment Agency Flood Hazard Map identifies that the proposed unit will be constructed upon land within Flood Zone 1. However, the existing

			Increased biochemical oxygen demand (BOD) of watercourses (ST) Nutrient leaching from soil to surface waters and groundwater (LT) Nutrient enrichment (eutrophication) of watercourses and ground water (LT)	++ ++ ++	site access (which is included within the application site boundary) is partially located in flood zones 2 and 3. Nevertheless, the application site has not been subject to localised flooding or drainage problems attributed to surface water discharge. • The site includes a comprehensive surface water drainage scheme designed to avoid adverse impacts upon surface water flow. This will be achieved through the discharge of roof and surface water into a substantial drainage attenuation PVC crate soakaway with restricted flow into an adjoining ditch. • The landscaping and site design deliver some protection to the buildings and associated tanks from the risk of flooding • Rainfall and flooding risk will be monitored on an ongoing basis and, in the event of flooding being likely, additional measures would be employed to either a) protect the site and/or tanks from flood water incursion or b) remove birds and risk of contamination. • Infrastructure will be well maintained. • Weather forecasts and weather warnings will be closely monitored.. • stepped access, providing some protection against inflow of flood waters/surface flow to the building • bunded generator and chemical store (generator fuel tank is not kept full, for security purposes, holding only enough fuel to kick in when required in an

					emergency) • raised and sealed feed bins, securely fixed • registration to Flood Alerts and access to sandbags in the unlikely event that flooding of the site is possible • Based on the Flood Risk and Drainage Assessment Report, the site design and the accident management plan, the risk of contamination of local watercourses in the event of a flood appears to be negligible. This risk will be routinely reevaluated as part of ongoing reviews of Climate Change risk and adaptation.
Fire and firewater containment	Dust/bio-aerosols Odour Contaminated run-off	Humans Plants Land Water Air	Nuisance (ST) Contributes to odours (ST) Health issues - inhalation (LT) Covers leaves stopping photosynthesis (ST) Nutrient enrichment of water courses (MT) Impacts on air quality (ST) Increase in nitrogen and phosphorus levels in soil (MT) Potential for increased mineral or metal content of soils (LT) Increased biochemical oxygen demand (BOD) of watercourses (ST) Nutrient leaching from soil to surface waters and groundwater (LT) Nutrient enrichment (eutrophication) of watercourses and ground water (LT) • Toxic smoke and other pollutants, • Dust and fibres from sheet building material	+ ++ + + + + + ++ ++ ++	• Fire alarm system • Security systems in place to deter and prevent arson • Minimal flammable materials stored on site • Electrics are checked continuously by our own electrician. • Fire extinguishers available in the control rooms. • Sheds constructed in steel and rock wool insulation . • Escape doors at each end of the sheds and halfway down at each side. • The sheds are surrounded by either concrete or hardcore which is kept free of vegetation, reducing risk of fire spread from outside. • In the event of a fire, firewater falling on to concrete areas would be collected to the wash water tanks and would be emptied by slurry tankers and removed before risk of overflow. • Any water falling from roofs or on to

			• Surface run-off from firefighting water, • Surface run-off from failed storage tanks, pipes and stores • Increased numbers of dead animals for disposal		stone areas surrounding the building would normally be piped to the attenuation soakaway before eventual release in to the ditch to the South. This drainage pathway could be shut off and water piped direct to slurry tanker • Deadstock collector would be informed immediately.