Application for Environmental Permit EPB3.5 (Version 4)

Buckles Farm, Kaber, Kirkby Stephen. Cumbria

Pre Application Ref.EPR/GP3001LP/A001

BF 1.5 Efficient Use of Raw materials.

An important part of Raw material management at the farm is the guiding principal of using ‘just in time’ (JIT) availability for use. The minimisation of materials on site, whilst originally was introduced to support cash flow results in less material, (all descriptions) being stored in bulk and for an extended period on site. This fact significantly reduces the risks associated with accidents, dealt with in BF1.3.

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| **Raw / Auxiliary material** | **Environmental Fate/ Behaviour** | **Effect : human health** | **Effect: Environmental.** | **BAT compliance.** |
| Water | Consumed by flock. Also wash down after sheds cleared and cleaned. All wash-water captured and drained to sealed storage tanks. Drinking water through non drip, low pressure watering nipples with oversized drip cups, maximising consumption and minimising risk of wetting litter. Use continually monitored and linked to computer system which alarms failures. Routine daily monitoring and repair if necessary. Reduction in consumption unlikely as flock requires sufficient water at all times. Efficiency limited to minimising losses.  Water consumption requires sterility, preventing the opportunity for rainwater harvesting. However roof water will largely soak away via swale and contribute to aquafer recharge.  All water use is recorded.  Wash down only every 13 to 15 months for each house at end of flock  Contractors brought in only after physical cleaning to minimise water usage. High pressure / low volume used to maximise efficiency.  All storage tanks covered.  No pipes above ground and outside as water supply failure through freezing would have severe consequencies. (Water company tankering contingency in place) | Water use minimised to ensure optimal shed conditions (humidity / dryness) for flock welfare and ammonia creation (avoidance).(Exhausted to air) | Water associated with wash water has minimal contamination as sheds are cleaned physically to a high level before washing. Wash-water then spread on fields outside of permit area. Raw water is drawn from borehole which reduces the quantity of chlorinated water produced by the water company Only treatment is by uv light which produces bio-secure water but no free chlorine inclusion. Consumption is low volume and aquafer recharge is significantly met within farm boundary | **.** |
| Droppings / manure | Removed every 2-3 days under perches, feeders, drinkers and cages by conveyor belt and (for entire shed) at end of that programme when sheds cleaned out. | Air quality controlled to prevent dust creation / humid conditions, ammonia generation | All manure / droppings, presently delivered to adjacent farms so little on site. In the future plan is to provide some storage of manure, all under cover in a designed manure store. Subsequent used as fertiliser on farm(s) at appropriate rate and time as part of nutrient budgeting plan. | **”** |
| litter | Small covering applied at beginning of campaign which degrades slowly. Topped up if necessary. | None. Litter remains dry throughout cycle. Does not emit noxious gases. Physically removed once every 13 to 15 months. | Ultimately cleared out at end of campaign and dealt with as manure. Becomes field fertiliser. | **”** |
| Feed- stuffs | Feedstuffs delivered into houses by chain system in square sectioned channel to feeding stations. Computer controlled to maximise uptake by birds and minimise waste. Small losses to ground becomes part of ‘litter’ (but still largely consumed). Mechanics designed to maintain crumb size and maximise amount consumed. | Air quality controlled to prevent dust creation / humid conditions. | None- consumed feed has positive contribution to fertiliser contribution when litter spread on fields. Feed formula changed once or twice through campaign to ensure maximum content is converted to biomass. This reduces N and P emitted the environment.  Prevented from loss at delivery by secure (impact proof silos) and displaced air passing through cyclones fitted with dust filters. | **”** |
| General Chemicals eg detergents | Used in small volumes for specific cleaning events. All liquid waste collected and added to wash water system. (sealed tank) | Used at concentrations not harmful to humans. Use follows manufacturer’s instructions. Purchase only of industry approved materials.  Mixed in bunded area or directly into washing equipment in empty house during cleaning | No detergent / chemical disposed of to watercourse or ground water. All storage of concentrates is kept to a minimum and contained in areas equivalent to 110% of largest container. All relatively degradable. | **”** |
| Veterinary medicines | Kept in secure store and refrigerated (for short period ) until required. Dosed into working solutions in secure area. (No drains). Consumed in usage. No residual for disposal. Practice not anticipated. Routinely this would be brought in as and when needed. | Use under control by trained staff member to avoid contact by personnel. | Used and stored in small quantities and in secure area. No direct release to environment. Management plans to absorb any spillage and dispose of in appropriate manner. | **”** |
| Pesticides | Kept in containers in secure indoor location (Central Service area) in location without drains. Minimum amounts stored on site equating to planned usage. Consumed. No residual for disposal | Use under control by trained staff member to avoid undue personal contact. | Used only by trained staff in appropriate way consistent with protection against spillage / run-off to surface or ground water. | **”** |
| Biocides | Kept in containers in secure indoor location (Central Service area). Minimum amounts stored on site equating to planned usage. No residual for disposal | Use under control by trained staff member to avoid undue personal contact. | Used only by trained staff in appropriate way consistent with protection against spillage / run-off to surface or ground water. | **”** |
| Agricultural Fuel oil | Use as fuel for stand-by generator only. Only used when mains power fails. Fuel stored in secure double skinned storage tank (SSAFO compliant) with spill proof delivery mechanism. Kept locked and accessible only by key holder. Delivery hose and trigger mechanism after lock and inspected for leakage on each occasion generator is topped up. | Use controlled through appropriate training of staff. System outside to avoid accumulation of fumes. | Inspection programme and site infrastructure in place to prevent release to environment. (R. Belah). Compliant with SSAFO requirements. | **”** |
| Other fuel oils | Used for site machinery. (mowers, strimmers, etc.) Stored in small quantities equating to planned usage,(5 litre bespoke containers) and in secure area. No residual for disposal. Most fuel brought in as and when needed. | Little human health risk. Filling of machinery outside of confined spaces. (Indoors). | Filling protocol in place to fill machinery away from site drainage system. Machinery under planned maintenance to prevent excess noise and optimise quality of exhaust gases. Standby emergency absorbents on site, but volume limited to approx. 1 litre for most usage. | **”** |