Application for Environmental Permit EPB3.5 (Version 4)

Buckles Farm, Kaber, Kirkby Stephen. Cumbria

Pre Application Ref.EPR/GP3001LP/A001

BF Appendix 18 BAT Assessment

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| **BAT Conclusion** | **Area of Work** | **Compliance** | **Comments** |
| 1 | EMS | **√** | All sections 1 to 11 reviewed and included in full application |
| 2 | House  Keeping | **√** | All aspects of paras ‘a - e’ checked and all referred to in application. Section ‘a’ important because of close proximity of SSSI. |
| 3 | N in Diet | **√** | Crude protein level included in diet formulation, changed up o 3 times over life cycle to match product and flock needs. No use of authorised additives to date.. |
| 4 | P in Diet | **√** | Phosphorus availability to birds in feed and need to minimise excretion / loss is considered in formulating feedstuffs. Addition of phytase not considered to date. All P excreted into manure offsets P applied to fields through nutrient budgeting reducing need for application of mined P in NPK addition (if needed.) |
| 5,6,7, | Water | **√** | See application for water management. |
| 8 | Energy | **√** | See application |
| 9, 10 | Noise |  | Not an issue for this site but plan in place to augment site management and inform Planning process |
| 11 | Dust |  | Not an issue for this site but plan in place to augment site management and inform Planning process |
| 12,13 | Odour |  | Not an issue for this site but plan in place to augment site management and inform Planning process |
| 14, 15 | Emissions from manure storage (future only) |  | 14 (a-c) all techniques applied.15, all techniques a-d) applied, point e - N/A |
| 16 | Slurry | **√** | Limited to transient wash-water. |
| 17 | Lagoons |  | Not Applicable |
| 18 | Slurry collection | **√** | a,c,f all applicable and complied with. B,D,E not applicable |
| 19 | Manure Processing |  | Not applicable. In-house manure management aims at ammonia prevention through maximising dryness |
| 20 | Manure Landspreading |  | All components (a-h) are included in farm manure management plan and also in farm plans on farms where manure is exported. Manure on 3rd party farms replaces slurry spread when these were dairy units and represents an overall reduction and better management of N and P application to general environment. Spreader is a ‘rear discharge’ fitted with canopy / cowling designed for spreading chicken manure at low level. |
| 21 | Slurry spreading |  | Washwater from house cleansing limited to cleansing of houses once every 55 to 65 weeks. Ie less than 1/ yr. Fields identified beforehand. Only small contribute to nutrient budget |
| 22 | Manure spreading |  | Not applicable. All to grassland. Vertical rotary rear discharge spreader (Bunning) |
| 24 | Monitoring N and P to land | **√** | Analysis of manure 1 / yr for total nitrogen and total phosphorus |
| 25 | Monitoring N and P to air | **√** | Use technique c – emission factors |
| 26 | Odour monitoring |  | Not applicable |
| 27 | Dust emission monitoring |  | Not applicable |
| 28 | Monitor dust / ammonia removal equipment |  | Not applicable |
| 29 | Parameter monitoring | **√** | Water, electricity, fuel, bird numbers, feed utilisation and manure management all included in detail in application |
| 31 | Ammonia emissions from Poultry houses | **√** | Complies with non-caged system (0.02 -0.13. ‘*existing (and new) plant using forced ventilation system and* ***frequent*** *manure removal in combination with a measure achieving a high dry matter content of the manure*’.  All non-caged. All manure removed from all houses by belts and therefore no deep litter.  B2 forced air drying via tubes onto belt for new houses 2a  and 2b(i),  heat exchangers drying manure and litter in houses 1a  and 1b.(ii)  B4 Aviary system deployed at all 4 houses  Air drying of manure on laying hen manure belt system 30% reduction (DEFRA WA 0638 Misselbrook et al report Feb 2019)  Poultry litter drying by heat exchangers 30% reduction (Misselbrook et al report Feb 2019)  Assumed reduction houses 1a &1b from 0.08 to 0.056  Assumed reduction houses 2a &2b from 0.08 to 0.032  (Kg/ animal / yr) |