Technical Documentation

1. Modelling

There appears to be a difference between initial Preapp screening with a mix of high velocity and medium velocity roof fans and modelling report date – dated 17/12/17. Please confirm modelling report is now accurate housing ventilation design and confirm that the final roof fan outlet is at least 5.5 metres (not 5.3 metres) – to benefit from high velocity criteria in our screening tool. Otherwise screening will have to be redone with potential for other habitat sites needing assessment.

A further screening is not considered necessary. Both the Environment Agency screening and the modelling have used correct inputs. The Agency have provided a screening based on half high and half medium velocity emissions - owing to the latter having been installed lower than the height criteria for high velocity - although they are high velocity fans. The modelling has been conducted using the high efflux velocity via all the fans and the lower of the two emission heights.

The same fans have been installed in all 8 poultry houses intended for working at their highest velocity 11.93m/s – and within the Environment Agency high velocity criteria of 7-14m/s. All the poultry houses have been erected the same height from ground level to ridge, but the fans have different outlet cones. Emission points from houses 5-8 are highest from the ground (5.742m) whereas emission points from houses 1-4 are slightly lower (5.275m) - less than the 5.5m to benefit from the high velocity criteria. The screening report is based on high velocity fans for half the emission points and medium velocity for the other half – albeit the latter have high velocity fans installed but the emission points are 0.2 m less than the height criteria. The modelling has been conducted using the actual high efflux velocity of 11m/s and from the lower height of 5.3m for all the emission points.

Modelling concluded that both ammonia concentrations and nitrogen deposition rates in the area surrounding Barn Farm would be significantly lower following demolition of the old poultry houses and erection of new houses for breeder chickens.

2. <u>Site drainage plan</u>

Please update site drainage plan with

a) Drainage routes for roof water and yard water from each 8 houses. Please confirm if drains are solid drains or French drains acting as soakaways.

Updated plan attached showing stone French drains with perforated pipes for roof water from 8 poultry houses, other buildings and hardstanding areas in the vicinity of the admin block to the off-site ditch. Plus 4 drains in the hardstanding in front of the houses for uncontaminated and dirty water being conveyed through underground solid pipes to the off-site ditch or dirty water storage tanks respectively, via diverters.

b) Please link drains to final discharge points from installation boundary i.e. are there actually five discharges from installation to surface water beyond installation (W1-W5)?

Please ensure it is clear with drainage routes which poultry houses discharges to which final discharge point (W1 etc.). Please confirm for yard water where water discharges to W1 etc.

4 Emission points have been installed - W1, W2, W3 & W4 for roof water from the poultry houses, transfer building, admin block and hardstanding areas into the off-site ditch shown on the plan:-

Emission point description & location	Source
Emission point W1 for roof water from	Roof water from poultry houses 1 & 2,
poultry houses and yard run-off into	transfer building, admin block and hard
off-site ditch	standing areas (excluding dirty water
	from washing out)
Emission point W2 for roof water from	Roof water from poultry houses 3 & 4
poultry houses and yard run-off into	and hard standing areas (excluding dirty
off-site ditch	water from washing out)
Emission point W3 for roof water from	Roof water from poultry houses 5 & 6
poultry houses and yard run-off into	and hard standing areas (excluding dirty
off-site ditch	water from washing out)
Emission point W4 for roof water from	Roof water from poultry houses 7 & 8
poultry houses and yard run-off into	and hard standing areas (excluding dirty
off-site ditch	water from washing out)

Related documents have been updated:-

- Updated the Drainage Review document
- Updated list of emission points in the Technical Standards document
- Updated installation boundary on the drainage plan and site layout plan
- Updated the Site Condition Report.

The operator has installed a palisade fence around the site for security, limiting the extent of the permitted activity and directly associated activities across a smaller area within the overall property. The installation boundary has been updated in the drainage plan and site layout plan. The SCR has been updated having removed reference to an off-site borehole adjacent the transfer building not used by the operator.

3. Odour and noise management plans

 Please update both documents confirming exact distances of receptors from installation boundary not from source of odour/noise receptors and names of receptors and National Grid References. Please add any extra receptors that come within 400 metres of installation boundary c/w their National Grid Reference. Please note any buildings owned by the farmer/farm workers can be excluded.

Following a visit to check for sensitive receptors and measured their distances from the site boundary using the measuring tool on the online MAGIC map applications added a list of 'sensitive receptors within 400 metres' to the odour, noise and dust & bio-aerosol management plans, including location, distance from boundary, name and grid references.

The Norfolk Wildlife Park and cottages at Windy Ridge off the Fakenham Road previously reported have been deleted owing to the Park is closed down and the cottages are approximately 420 metres from the boundary.

 Please confirm frequency and type of odour monitoring to be employed in case of odour complaints. Please update odour management plan.

Added requirements to the OMP for checking the actions to minimise odour and odour risks continue to be in place and implemented and with daily monitoring for any odour emissions by sniff testing near the boundary.

 Please add contingency plans for odour management plans with a list of abnormal scenarios where there is potential for elevated odour pollution risk and controls in place for each scenario to minimize odour risk and timeline to execute such actions.

Added some further potential risks and problems to the OMP otherwise the list of abnormal scenarios and controls in place here appears quite comprehensive.

Added indicative timelines and some further actions for investigating, stopping or reducing odorous emissions and recording findings. Also in accordance with the Poultry Industry (2013) 'Code of Conduct: Addressing Odour Complaints' and the Poultry Industry (2013) 'Good Practice Checklist; Reducing Odours from Poultry Production through the Application of Best Available Techniques' to be kept in the farms written environment management system.

The amended OMP and NMP are attached.

4. Dust management plan

Please update plan confirming exact distances of receptors from installation boundary not from source of receptors and names of receptors and National Grid References. Please add any extra receptors that come within 100 metres of installation boundary c/w their National Grid Reference. Please note any buildings owned by the farmer/farm workers are included in this assessment.

Following a visit to check for sensitive receptors and measured their distances from the site boundary using the measuring tool on the online MAGIC map applications added a list of 'sensitive receptors within 400 metres' to the odour, noise and dust & bio-aerosol management plans, including location, distance from boundary, name and grid references.

The amended DBMP is attached.

5. <u>BAT</u>

 Please confirm ammonia and dust monitoring will be completed via usage of emission factors to comply with BAT conclusion criteria BAT 25 and 27.

Monitoring conditions in the permit should include provisions for estimation using emissions factors once every year for ammonia (BAT 25) and dust (BAT 27).

• Please confirm which one or more of BAT 31 criteria on ammonia emissions reduction the installation will employ.

To reduce ammonia emissions to air from each house the operators are using forced drying of litter using indoor air being generally applicable for broiler breeders in houses with solid floors and deep litter (BAT 31(b)(5)).

6. Application form – B3.5 question 9

For the erection of the new 8 poultry houses – please confirm when planning agreement was received for these houses. On this basis please provide any relevant Environmental Impact Assessment documentation (link acceptable for simplicity).

A Design & Access Statement (Sept 2014) was submitted with the planning application. Broadland District Council published its EIA screening opinion on 27/02/15 having adopted the opinion the development is not EIA development (Application Number 20150146). Granted planning permission on 22/07/15 for Demolition of Existing Chicken Sheds and Auxiliary Buildings and Erection of 8 Poultry Sheds, Feed bins and Weighing Rooms, Erection of Ancillary Buildings and Loading Bay Cover. Construction of Roadway and Auxiliary Works with New Vehicular Access (Application Number 20142049). Delegated Report Sheet (Application Number 201420149)

Was unable to establish a working hyperlink with the BDC planning portal so the Design & Access Statement, Screening Opinion, Planning Permission and Delegated Reports are attached.

Kc09/12/18