

Pre-application Report

To: Mr Karl Collett, Green Inc Solutions Ltd (acting on behalf of Cobb Europe Ltd)

Pre-application number: EPR/NP3135JA/A001

Barn Farm
Fakenham Road
Great Witchingham
NR9 5QS

Date Completed – 13/12/17

Thank you for seeking advice before submitting an application for an Environmental Permit.

We have completed an initial ammonia screening assessment for your proposal to identify if you will need to submit a detailed modelling assessment with your application.

The screening assessment is based on your proposal to operate a farm which is permitted to stock 51,000 broiler breeder layer hens at Barn Farm.

Summary of the assessment:

Based on the information you have provided you will need to submit detailed modelling with your application. Further information about the screening results is provided in detail in Annex 1.

It will generally be necessary to employ experienced consultants to undertake this work. For more information about consultants you could contact your industry body representative or refer to the ENDS Directory:

<http://www.endsdirectory.com/>

A useful guide to choosing and using an environmental consultant can be found on the government's online resource for businesses 'Business Link':

<http://webarchive.nationalarchives.gov.uk/20120823131012/http://www.businesslink.gov.uk/bdotg/action/detail?itemId=1079422318&type=RESOURCES>

When completed, please include the detailed modelling report and supporting modelling files with your H1 Environmental Risk Assessment and submit these with your completed application form to the address given below.

For an example H1 Environmental Risk Assessment refer to the example Intensive Farming EPR application available on the national archives for Environment Agency Website:

<http://webarchive.nationalarchives.gov.uk/20140328084622/http://www.environment-agency.gov.uk/business/sectors/40057.aspx>

The Nature Conservation, Landscape and Heritage Factsheet screening lists all the sites that we currently consider when screening. The table details the supporting legislation and policies and the lead organisations for the protected area / species. Please note not all the sites listed are relevant to the Intensive Farming sector.

It is available on the Environment Agency website:

<http://webarchive.nationalarchives.gov.uk/20140328084622/http://cdn.environment-agency.gov.uk/geho0612burd-e-e.pdf>

Applying for your permit

You will need to complete application form part B3.5

<https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b35>

Your application should be sent to:

Permitting Support Centre
Environment Agency
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield
S9 4WF

If you need further information about this screening assessment or applying for your permit please contact the following officer:

Environment Officer – Simon Engler on 020302 55450

Pre-application nature conservation data are correct at the time of screening. We will consider all nature conservation sites using best available information at the time of permitting. Our GIS data are updated regularly, and we are occasionally made aware of additional nature conservation sites by other organisations which we will consider when determining a permit.

The Environment Agency takes care to ensure that the conclusions of the screening assessment are correct at the time of preparation but reserves the right to change the basis of the assessment in the light of technical developments or changes in Environment Agency procedures.

Annex 1 Ammonia Screening Results

Screening Input

Grid Reference used for the assessment: 608729, 318742 (with a 140m buffer).

Animal numbers and types

Animal numbers and types, housing systems, manure and slurry storage assessed are listed below. The animal numbers and emission factors are based on an interpretation of the information provided by the applicant during the pre-application process and have been used in this initial risk assessment to identify if modelling is necessary.

It is strongly recommended that the numbers of animal places by category, ventilation type and housing system is reviewed and appropriate emission factors are assigned before undertaking the detailed modelling assessment.

Category of livestock	Housing system	Number of animal places	Ammonia Emission Factor (kg NH ₃ /animal place/year)
Broiler breeder layer hens	Fan ventilated fully littered floor, non-leaking drinkers Roof ventilation only (vents greater than 5.5 metres high, fan efflux velocity greater than 7 m/s)*	25,500	0.21
Broiler breeder layer hens	Fan ventilated fully littered floor, non-leaking drinkers Roof ventilation only (vents greater than 3.5 metres high, fan efflux velocity greater than 2m/s)*	25,500	0.21

* this can include gable end fans that are used for heat extraction only during the summer months

Manure Storage

No manure stored on the installation

If you decided to alter your proposal by increasing the number of animal places or by changing the animal housing type or by increasing the manure or slurry storage you should include these changes in your modelling report.

Screening Overview

This screening assessment has considered any Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites within 10km; any Sites of Special Scientific Interest (SSSI) within 5km and also any National Nature Reserves (NNR), Local Nature Reserves (LNR), ancient woodlands and local wildlife sites (LWS) within 2km of the farm.

We have used the Environment Agency's Ammonia Screening Tool (AST v4.5) to assess the impact of your proposal at those sites identified within the above distance criteria.

We have applied a two stage screening criteria to the ammonia screening tool results:

For SAC, SPA, Ramsar and SSSIs the screening assessment has taken into account other intensive farms that could act in combination with the proposal.

Where the ammonia screening tool predicts that emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) will be <Y% (see Table 1 below) of the relevant Critical Level or Critical Load, the proposal screens out of the requirement for an ammonia assessment.

Further modelling is required where:

- emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) are in excess of Z% of the relevant Critical Level (ammonia) or Critical Load (nutrient nitrogen or acid) at any particular designated site;
- there is the potential for an in-combination effect with existing farms at a SAC, SPA, Ramsar and/or SSSI if emissions are > Y% of the critical level or critical load;
- the original permit for the installation required an Improvement Condition to reduce ammonia emissions;
- your proposal is within 250m of a nature conservation site.

Table 1 Screening thresholds

Designation	Y%	Z%
SAC, SPA, Ramsar	4	20
SSSI	20	50
NNR, LNR, LWS, ancient woodland	100	100

Screening Results

The nature conservation site listed in the tables below requires detailed modelling as the emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) is predicted to be > Z% of the relevant Critical Level (ammonia) or Critical Load (nutrient nitrogen or acid). Detailed modelling is therefore required to assess the impact of airborne ammonia at the following sites:

Table 2 Assessment of ammonia emissions

Site Name	Designation / Status	Ammonia Critical Level ($\mu\text{g}/\text{m}^3$)	Process contribution (PC) ($\mu\text{g}/\text{m}^3$)	PC as % Critical Level
River Wensum	SSSI	3	1.59	53

Table 3 Assessment of nutrient nitrogen deposition

Site Name	Designation / Status	Nutrient Nitrogen Critical Load (kg N/ha/yr)	Process contribution (PC) (kg N/ha/yr)	PC as % Critical Load
River Wensum	SSSI	15	8.291	55.3

The ammonia screening tool predicts that emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) will be between Y and Z% at the nature conservation site listed in the table below. We have identified that there are existing farms that could potentially act in-combination with your proposal. Detailed modelling is therefore required to assess the impact of airborne ammonia emissions (arising from your proposal only) at the following site.

Table 4 Assessment of ammonia emissions

Site Name	Designation / Status	Ammonia Critical Level ($\mu\text{g}/\text{m}^3$)	Process contribution (PC) ($\mu\text{g}/\text{m}^3$)	PC as % Critical Level
Norfolk Valley Fens	SAC	1	0.041	4.1

How we decided the sensitivity of the nature conservation site

Relevant Critical Loads were obtained from the [Air Pollution Information System](#).

Relevant Critical Levels were obtained from Natural England or assigned using the best information available at the time.

Permitting Outcomes

For SAC, SPA, Ramsar a permit may be issued where the ammonia screening tool or detailed modelling demonstrates that either:

- the process contribution is <4% Critical Level and Critical Load; or
- the process contribution plus contributions from other relevant intensive farms is <20% Critical Level and Critical Load; or
- the process contribution plus contributions from other relevant intensive farms plus background is **below** the relevant Critical Level or Critical Load.

For SSSI a permit may be issued where the ammonia screening tool or detailed modelling demonstrates that either:

- the process contribution is <20% Critical Level and Critical Load; or
- the process contribution plus contributions from other relevant intensive farms is <50% Critical Level or Critical Load;
- the process contribution plus contributions from other relevant intensive farms plus background is **below** the relevant Critical Level or Critical Load.

Proposing ammonia emission reduction techniques

Where your modelling indicates the predicted process contribution is greater than the allowable thresholds your assessment and application should include ammonia reduction techniques to reduce the contribution to the allowable threshold.

Where these criteria can not be met a detailed assessment of the proposal will be carried out by the Environment Agency. For SAC, SPA, Ramsar and SSSI we will need to consult with Natural England before the determination of the application can be completed.

Factsheets and guidance about ammonia emissions to the atmosphere and nature conservation, the Environment Agency's assessment process and how to model ammonia emissions from intensive farms can be found on our website at: <http://webarchive.nationalarchives.gov.uk/20140328084622/http://www.environment-agency.gov.uk/business/sectors/40071.aspx>