

Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for Bellmills Farm operated by M J Girking Limited.

The permit number is EPR/NP3137FA/A001.

This was applied for and determined as a new bespoke application.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Structure of this document

- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

Key issues of the decision

Ammonia Emissions

There is one Site of Special Scientific Interest (SSSI), 'River Hull Headwaters', located within 200 metres and five Local Wildlife Sites (LWS) located within 2km of the installation.

Ammonia Assessment – 5 x Local Wildlife Sites

The following trigger thresholds have been applied for the assessment of these sites.

1. If PC is < 100% of relevant Critical Level or Load, then the farm can be permitted (H1 or ammonia screening tool)
2. If further modelling shows PC <100%, then the farm can be permitted.

For the following sites this farm has been screened out, as set out above, using results of the Ammonia Screening Tool version 4.1. The Process Contribution (PC) on the LWS for ammonia, acid and Nitrogen deposition from the application site are under the 100% significance threshold and can be screened out as having no likely significant effect.

Table 1 - Ammonia Emissions LWS

Site	Critical Level Ammonia $\mu\text{g}/\text{m}^3$	PC $\mu\text{g}/\text{m}^3$	PC % Critical Level
Un-named Wood	1*	0.233	23.3
Sunderlandwick Hall	1*	0.881	88.1
Island Plantation	1*	0.920	92.0
The Bottoms	1*	0.482	48.2
King's Mill (Keld)	1*	0.340	34.0

* Precautionary CLe of $1\mu\text{g}/\text{m}^3$ has been used. Where the precautionary level of $1\mu\text{g}/\text{m}^3$ is used, and the process contribution is assessed to be < 100% the site automatically screens out as insignificant, and no further assessment of critical load is necessary. In these cases the $1\mu\text{g}/\text{m}^3$ level used has not been confirmed, but it is precautionary.

No further assessment is required.

Ammonia Assessment – River Hull Headwaters SSSI

The following trigger thresholds have been applied for assessment of SSSI's. If the Process Contribution (PC) is below 20% of the relevant critical level (CLe) or critical load (CLO) then the farm can be permitted with no further assessment. Where this threshold is exceeded an in-combination assessment and/or detailed modelling may be required.

If the PC is between 20% and 50% of the relevant CLe or CLO then an overlapping in combination assessment will be completed. An in combination assessment considers the cumulative PC (ΣPC) of all other existing intensive farms (with PC above 20% of the CLe or CLO) identified within 5km of the maximum concentration point at the SSSI, and the proposal will be assessed as follows:

- If $\Sigma\text{PC} < 50\%$ of CLe or CLO no further assessment is required and it is possible to conclude no adverse effect alone and in combination.
- If $\Sigma\text{PC} > 50\%$ of CLe or CLO a site specific assessment should be carried out. Options for the operation of the farm should be considered

Where this threshold is exceeded above 50% of the relevant CLe or CLO at a nature conservation site then detailed modelling is required.

Detailed modelling was requested from the applicant to model the predicted impact of ammonia at the River Hull Headwaters SSSI as it is less than 250m away from the farm. The operator submitted a modelling assessment with their application Ref: Ammonia Dispersion Modelling Assessment Bellmills Poultry Farm, Driffield, REC Report: 33041r2, Issued: 26th July 2013.

The location of maximum impact at River Hull Headwaters SSSI is approximately 150m to the north of Bellmills Farm (502780,456322), lichens and bryophytes are not considered integral and therefore a CLe of 3µg/m³ has been used in this assessment and confirmed by Natural England by email on 06/01/2014.

The modelling submitted with the variation was carried out by an independent consultant using ADMS-5. Following initial auditing and internal discussions by the Environment Agency's Air Quality Modelling and Assessment Unit, re-modelling was requested from the operator so that the modelling study more closely followed Environment Agency guidelines in 'Guidance on modelling the concentration and deposition of ammonia emitted from intensive farming, November 2010, V3'. The revised modelling assessment was submitted on 06/03/2014 and audited again and we have confidence that we can agree with the report conclusions.

The results discussed here are those from the revised model study submitted and have been predicted using the worse case 2011 meteorological data set in line with the above mentioned guidance which states that the model should be run using 5 years of meteorological data from the nearest appropriate meteorological station and the highest predicted annual average from the 5 years used as the basis of the assessment.

During the pre application discussion we received sampling evidence from the operator (audited by the Environment Agency) that the dry matter content of the litter is greatly reduced by a bespoke air flow method used in the housing system. For this reason it has been accepted to use a reduced emission factor. Reduced by 60% from 0.29 to 0.116 kg NH₃/animal place/year. This reduced emission factor was used for modelling purposes.

Table 2 Critical Levels and Loads

Name of SSSI	Ammonia CLe (µg/m³)	N Deposition CLo (kgN/ha/yr)	Acid Deposition CLo (keq/ha/yr)
River Hull Headwaters	3	10	1.166

Table 3 – Ammonia Emissions

Name of SSSI	Predicted Process Contribution $\mu\text{g}/\text{m}^3$	PC % Critical Level
River Hull Headwaters	2.76	92.0%

Table 4 – Nitrogen deposition

Name of SSSI	Predicted Process Contribution Kg N/ha/yr	PC % Critical Load
River Hull Headwaters	14.20	142.0%

Table 5 – Acid deposition

Name of SSSI	Predicted Process Contribution keq/ha/yr	PC % Critical Load
River Hull Headwaters	1.01	90.5%

Outcome and Discussion

The revised modelling report 'Ammonia Dispersion Modelling Assessment, Bellmills Poultry Farm, Driffield, REC Report: 33041r3 Issued: 5th March 2014' has determined that the process contributions of ammonia, acid and N deposition from Bellmills Farm are over the allowable threshold of 50% of the CLe and CLo, and therefore may cause damage to features of the SSSI.

Our internal operational instruction document 84_07 states that where an existing un-permitted farm already over EPR threshold is causing an impact a permit can be issued with an improvement condition requiring the operator to submit an ammonia emission reduction plan within 12 months of the permit being issued, that outlines how the operator will meet the allowable process contribution (in this case 50% of the CLe, which is $1.5 \mu\text{g}/\text{m}^3$) at the affected nature conservation site. The second Improvement condition states the timeframe for the implementation of the emission reduction plan.

The Improvement Conditions included in the permit are as follows:

IC1

The operator shall submit a written Emission Reduction Plan to the Agency for approval containing proposals that reduce the emissions from the permitted installation so that the process contribution of ammonia is no more than $1.5 \mu\text{g}/\text{m}^3$ and nitrogen deposition is no more than 5.0 kg/ha/yr (as annual averages) at the River Hull Headwaters SSSI (Ref: 1003285). The Emission Reduction Plan shall contain timescales for the implementation of the individual measures proposed.

IC2

The operator shall implement the individual measures of the approved Emission Reduction Plan necessary to achieve the reduced emissions (referred to in IC1).

Provided the Improvement Conditions are satisfied, then this permission is not likely to damage any of the flora, fauna or geological or physiological features which are of special interest.

Industrial Emissions Directive (IED)

The Environmental Permitting (England and Wales) (Amendment) Regulations 2013 were made on the 20 February and came into force on 27 February. These Regulations transpose the requirements of the Industrial Emissions Directive (IED).

This permit implements the requirements of the EU Directive on Industrial Emissions.

Groundwater/Soil Monitoring

As a result of the requirements of the Industrial Emissions Directive, all permits are now required to contain a condition relating to the protection of soil, groundwater and groundwater monitoring. However, the Environment Agency's H5 Guidance states **that it is only necessary for the operator to take samples** of soil or groundwater and measure levels of contamination where there is evidence that there is, or could be existing contamination and:

- The environmental risk assessment has identified that the same contaminants are a particular hazard; or
- The environmental risk assessment has identified that the same contaminants are a hazard and the risk assessment has identified a possible pathway to land or groundwater.

H5 Guidance further states that it is **not essential for the Operator** to take samples of soil or groundwater and measure levels of contamination where:

- The environmental risk assessment identifies no hazards to land or groundwater; or
- Where the environmental risk assessment identifies only limited hazards to land and groundwater and there is no reason to believe that there could be historic contamination by those substances that present the hazard; or
- Where the environmental risk assessment identifies hazards to land and groundwater but there is evidence that there is no historic contamination by those substances that pose the hazard.

The site condition report for Bellmills Farm (*Appendix 2, Site Condition Report for Bellmills Farm, November 2013*) demonstrates that there are no hazards or likely pathway to land or groundwater and no historic contamination on site that may present a hazard from the same contaminants. **Therefore, although this condition is included in the permit, no groundwater or soil monitoring is required at this installation as a result of this condition at this time.**

Annex 1: decision checklist

This document should be read in conjunction with the Duly Making checklist, the application and supporting information and permit/ notice.

Aspect considered	Justification / Detail	Criteria met
		Yes
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. The decision was taken in accordance with our guidance.	✓
Operator		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator.	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application. See key issues section above for further information. This permit implements the requirements of the EU Directive on Industrial Emissions.	✓
The site		
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	✓
Site condition report	The operator has provided a description of the condition of the site. We consider this description is satisfactory. The decision was taken in accordance with our guidance on site	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	condition reports – guidance and templates (H5).	
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat .</p> <p>A full assessment of the application and its potential to affect the sites has been carried out as part of the permitting process.</p> <p>See key issues section above for further information.</p> <p>The following assessments were performed:</p> <ul style="list-style-type: none"> • An Appendix 4 proforma has been completed for River Hull Headwaters SSSI and sent to Natural England for consultation (dated 20/01/2014). • An ‘Other Nature Conservation Sites Assessment’ has been completed for nearby local wildlife sites for information only (dated 03/03/2014). • A Revised Appendix 4 proforma has been completed for River Hull Headwaters SSSI and sent to Natural England for information (dated 25/03/2014). 	✓
Environmental Risk Assessment and operating techniques		
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory.</p> <p>The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment, all emissions may be categorised as environmentally insignificant.</p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in SGN EPR6.09 ‘How to comply with your environmental permit for intensive farming (version 2)’ Technical Guidance Note and we consider them to represent appropriate techniques for the facility.</p>	✓

Aspect considered	Justification / Detail	Criteria met Yes
	<p>The operator has proposed the following key techniques:</p> <ul style="list-style-type: none"> • Fully insulated housing designed and managed in accordance with SGN EPR6.09. • Ventilation is a combination of side and ridge mounted fans and is controlled automatically by computers so that optimal conditions are maintained. • Concrete floors throughout the sheds • Water provided by nipple drinkers to reduce spillage • Dirty water is contained in underground storage tanks before being exported from site. <p>The proposed techniques for priorities for control are in line with the benchmark levels contained in the SGN and we consider them to represent appropriate techniques for the facility. The permit conditions ensure compliance with relevant BREFs and BAT Conclusions, and ELVs deliver compliance with BAT-AELs.</p>	
The permit conditions		
Improvement conditions	<p>Based on the information on the application, we consider that we need to impose improvement conditions.</p> <p>We have imposed two improvement conditions (IC1 and IC2) to ensure that:</p> <ul style="list-style-type: none"> ➤ appropriate measures are in place to reduce the impact of ammonia emissions at nearby conservation site River Hull Headwaters SSSI. <p>See key issues section above for further information.</p>	✓
Incorporating the application	<p>We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.</p> <p>These descriptions are specified in the Operating Techniques table in the permit.</p>	✓
Operator Competence		
Environment	There is no known reason to consider that the operator	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
management system	will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.	
Relevant convictions	<p>The National Enforcement Database has been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found.</p> <p>The operator satisfies the criteria in RGN 5 on Operator Competence.</p>	✓
Financial provision	<p>There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with RGN 5 on Operator Competence.</p> <p>The financial provision arrangements satisfy the financial provisions criteria.</p>	✓

Annex 2: Consultation and web publicising responses

Summary of responses to consultation and web publication and the way in which we have taken these into account in the determination process.

Response received from
Environmental Health department, East Riding Council – 10/01/2014
Brief summary of issues raised
Section 2 statutory nuisance completed and no issues raised.
Summary of actions taken or show how this has been covered
No action necessary.

Response received from
Local Planning Authority, East Riding Council – 10/01/2014
Brief summary of issues raised
Section 3 planning conditions & acceptance completed and no issues raised. Also confirmed that there have been no enforcement issues.
Summary of actions taken or show how this has been covered
No action necessary.

Response received from
Natural England – 17/02/2014
Brief summary of issues raised
<ul style="list-style-type: none"> • An ammonia process contribution in excess of 1.5µg/m³ is likely to lead to continued exposure of the SSSI interest features to a total ammonia concentration in excess of the 3µg/m³ critical level (CLE); with the result that the recovery of the interest features is likely to be prevented or delayed. • A Nitrogen deposition process contribution in excess of 5kgN/ha/yr is likely to lead to continued exposure of the SSSI interest features to a total nitrogen deposition in excess of the 10kgN/ha/yr critical load (CLo); with the result that the recovery of the interest features is likely to be prevented or delayed. • If the Agency is minded to grant consent for this application NE advise that there is a risk that the predicted ammonia process contribution and/or the predicted nitrogen deposition process contribution will result in damage to the features of special interest for which the River Hull Headwaters SSSI has been notified. • The Environment Agency have advised NE that we intend to issue a permit with Improvement Conditions to reduce the ammonia emissions to the target of below 50% of the CLe and CLo. • Natural England considers that the proposed approach is compatible with that which has previously been agreed between Natural England and the Environment Agency and which was applied to the early stages of other cases involving intensive pig and poultry farms. Consequently, Natural England has no objection to the issuing of the permit with these conditions.

Summary of actions taken or show how this has been covered

Improvement conditions have been added to the permit.

See key issues section above for further information.
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The following organisation was consulted, however no response was received:

- Health and Safety Executive (HSE)

This proposal was also publicised on the Environment Agency's website between 07/01/2014 and 04/02/2014 but no representations were received during this period.