

Environment Services Training Group

LOCAL AUTHORITY CONFERENCE

2024

Licence Application Instruction Note 2 (IN2)

**Assessing the Impact of Ammonia Emissions
to Air and Nitrogen Deposition
from EPA licensable activities on European Sites**

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LOCAL AUTHORITY
Climate Action
Training Programme



Local Authority
Waters
Programme
vibrant communities | catchment assessment | healthy waters

CCMA
Cumann Lucht Bainistíochta Contae agus Cathrach
County and City Management Association

epa
Environmental Protection Agency
An Ghníomhaireacht um Chaomhú Comhshaoil

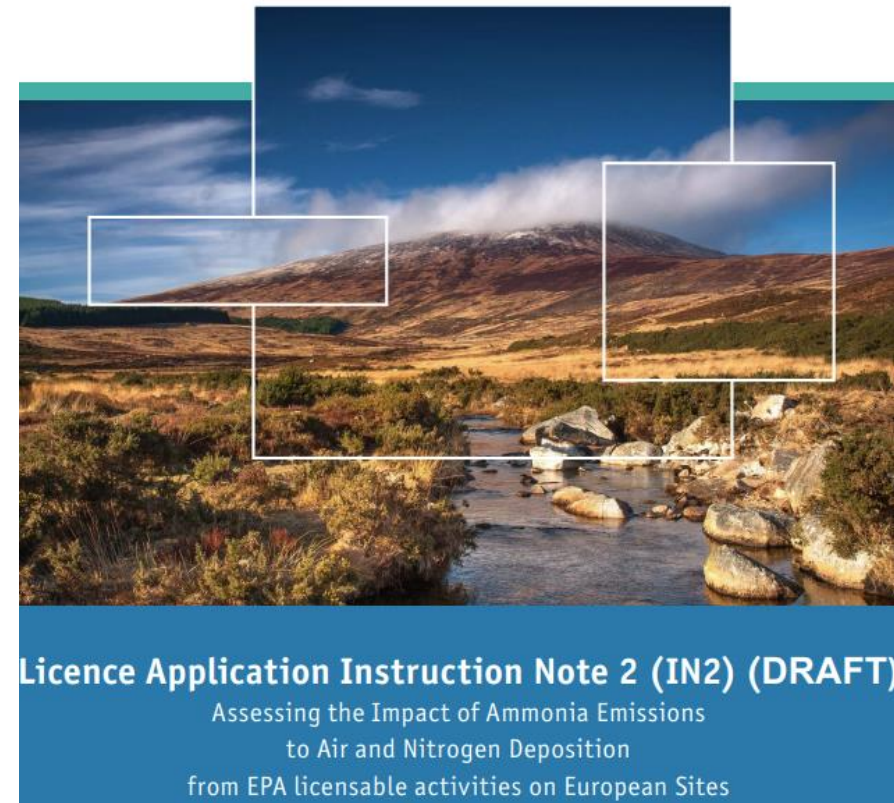
Covering:

- Introduction & background
- Development of the Instruction Note
- Air Pollution Information System
- Overview of the Instruction Note

IN2



- IN 2 - Industrial (IE, IPC & Waste)
- Published 9th October 2024
- Energy/power sector, AD
- Air Pollution Licences?



<https://www.epa.ie/publications/licensing--permitting/industrial/ied/Assessing-the-Impact-of-Ammonia-Emissionsto-Air-and-Nitrogen-Depositionfrom-EPA-licensable-activities-on-European-Sites.pdf>

Introduction

- IN2 relates to Appropriate Assessment screening and Appropriate Assessment.
- Designed to assist in determining the course of action to be taken when evaluating the impacts on European Sites of ammonia emissions to air and nitrogen deposition from main air emission points.
- The approach set out in IN2 may mean that in some instances it may prevent the EPA from licensing certain activities (where it is not demonstrated that there will be no adverse effect on the integrity of a European Site).

IN1

- IN 1 - Intensive Agriculture (3rd revision to be published shortly
- 1st revision published in May 2021
- Engagement with LAs on this (as well as Depts, ABP and others
- Cumulative impacts of ammonia emissions especially in Cavan/Monaghan area



Licence Application Instruction Note 1 (IN1)

ASSESSMENT OF THE IMPACT OF AMMONIA AND NITROGEN ON NATURA 2000 SITES FROM INTENSIVE AGRICULTURE INSTALLATIONS

Background

Ammonia emissions to air and nitrogen deposition above critical levels/ limits have an adverse impact on biodiversity through eutrophication, acidification or direct toxic effect.

Already above levels that can result in harm to biodiversity at many European Sites across Ireland according to NPWS (2022).

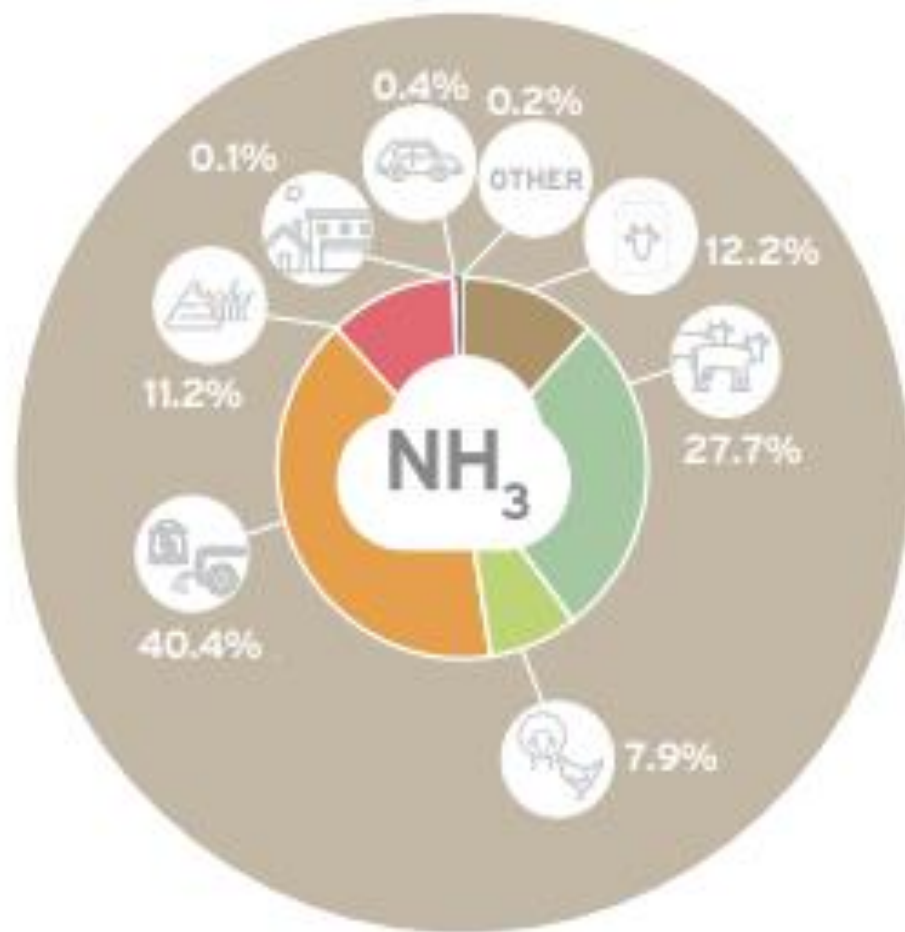


Figure 2 Examples of epiphytic *Xanthoria parietina*. Photographs David Kelleghan.



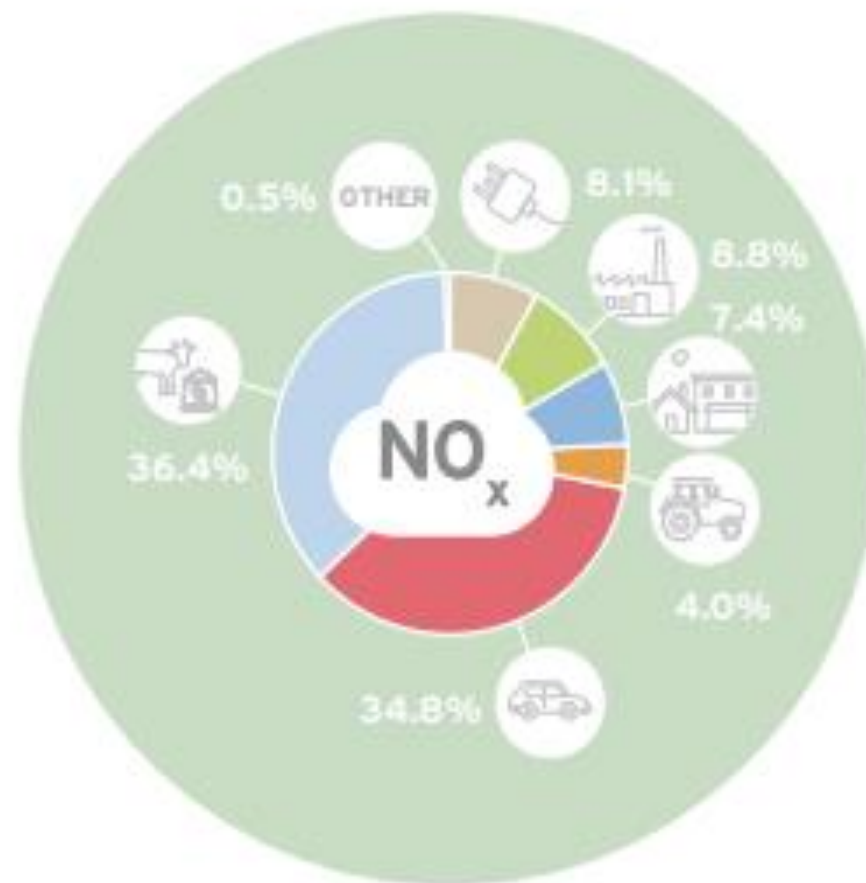
Figure 4 Examples of decaying *Sphagnum* spp. Photographs David Kelleghan.

Figure 2.7 Sources of ammonia emissions in Ireland



Source: EPA, 2024a

Figure 2.9 Sources of emissions of nitrogen oxides in Ireland



Source: EPA, 2024a

- A goal of the European Commission's Zero Pollution Action Plan is to reduce the size of the area of ecosystems at risk from nitrogen deposition by 25% by 2030.
- The NEC Directive requires every Member State to monitor the impacts of air pollution on sensitive ecosystems within its territory.
- Ireland's response to this requirement has been to develop the National Ecosystems Monitoring Network (NEMN), which focuses on atmospheric NH₃ and other nitrogen-containing pollutants.

Figure 2.16 Example of a National Ecosystems Monitoring Network atmospheric level 2 site



APIS

- The Air Pollution Information System (APIS) provides a searchable database and information on pollutants and their impacts on habitats and species.
- Catalyst for developing IN2.

The screenshot displays the APIS web application interface. The top navigation bar includes the 'APIS' logo and a menu icon. The left sidebar contains a 'Take me for a tour' button and navigation links for 'Map Controls', 'Results', and 'Report'. Below these are five filter panels: 'DESIGNATION SELECTED' (SAC), 'COUNTRY SELECTED' (Ireland), 'No Site selected', 'NO MID-YEAR SELECTED', and 'NO LANDCOVER SELECTED'. The main content area features a map of Ireland with a 'Background + Map' control and an 'Irish Networks' button. A 'Map controls' panel is open, showing options for 'Designation' (SAC, SPA, SSSI/ASSI, NHA, Woodland) and 'Country' (Ireland, UK). It also includes a search box for SAC sites and a 'Remove all designated sites' checkbox. The map shows various sites across Ireland, with labels for cities like Derry, Londonderry, Belfast, Dublin, and Cork.

Critical Levels & Critical Loads

Critical Level for ammonia (Cle) expressed as $\mu\text{g}/\text{m}^3$	Concentration of ammonia in the atmosphere above which direct adverse effects on receptors, such as plants and ecosystems may occur according to present knowledge.
Critical Load for nitrogen deposition (CLo) expressed as $\text{kg}/\text{ha}/\text{year}$	A quantitative estimate of exposure to nitrogen deposition below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge.

Take me for a tour

Map Controls

Results

Report



DESIGNATION SELECTED
SAC



COUNTRY SELECTED
Ireland



SITE SELECTED
**Killyconny Bog
(Clog 000006**



NO MID-YEAR SELECTED



NO LANDCOVER SELECTED

Site Specific Information

Screening Acidity Critical Loads

Site Features Info

Site Detailed Grid Information

Site Critical Loads

Table

Plots

Summary of the features for Killyconny Bog (Cloghbally) SAC (000006)

Data extracted from the last year available in the database

Nutrient Nitrogen Information

Acidity Information

Show 10 entries

Feature Code	Feature Name	Are Bryophytes integral for this habitat?	Are Lichens integral for this habitat?	Is the Feature sensitive to N?	Nitrogen Critical Load Class	EUNIS code	Minimum Critical Load for N (kg N/ha/yr)	Maximum Critical Load for N (kg N/ha/yr)	Ammonia Critical Level (ug m-3)
H7110	Active raised bogs	Yes	Yes	Yes	Raised and blanket bogs	D1	5	10	1
H7120	Degraded raised bogs still capable of natural regeneration	Yes	Yes	Yes	Raised and blanket bogs	D1	5	10	1

Showing 1 to 2 of 2 entries

Purpose of IN2

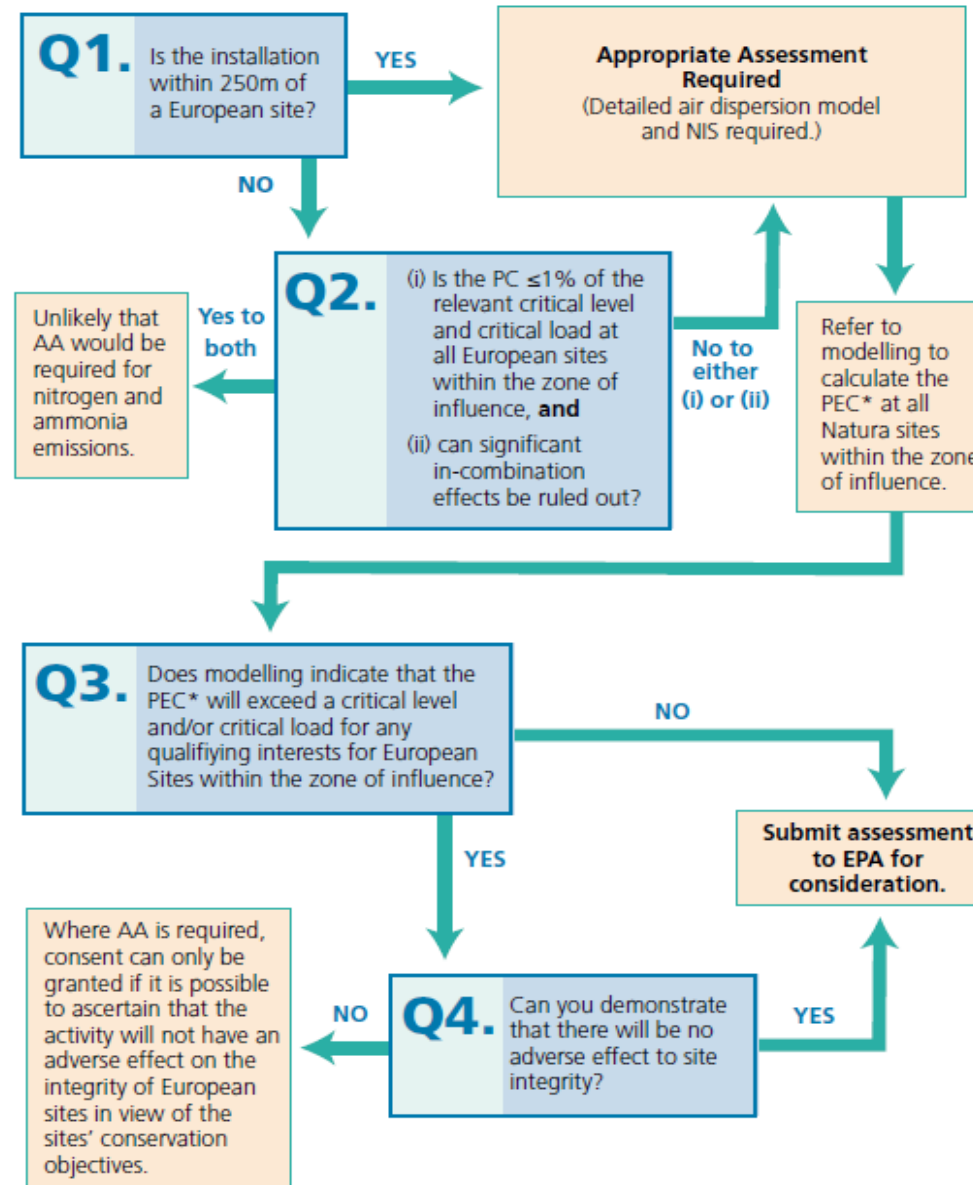
- IN2 will assist applicants/licensees when using this data to evaluate impacts on European sites of nitrogen and ammonia emissions to air from main emission points at EPA licensable industrial sites when preparing licence applications.
- Assist EPA Inspectors in that it sets out a consistent approach to follow across all teams.
- The approach set out in IN2 may mean that in some instances it may prevent the EPA from licensing certain activities (where it is not demonstrated that there will be no adverse effect on the integrity of a European Site).

Consultations

- National Parks and Wildlife Service
- County and City Management Association
- An Bord Pleanála
- Department of Environment, Climate and Communications
- Department of Housing, Local Government and Heritage
- Office of the Planning Regulator
- Northern Irish Environment Agency
- Irish Business and Employers Confederation

Overview

APPENDIX 1. FLOWCHART



* PEC = PC + Sum of PCs from other plans and projects + BC

Question 1

Is the installation/facility within 250m of a European site?

IF ANSWER IS

Yes

Within 250m it cannot be excluded on the basis of objective information that the activity will have a significant effect on the site concerned. AA required. NIS and detailed modelling should accompany the licence application.

Proceed to Question 3.

No

Proceed to Question 2.

Question 2

Part (I): Is the Process Contribution (PC) from the application installation/facility alone $\leq 1\%$ of the relevant critical level (ammonia) and critical load (nitrogen deposition) at all European sites within the zone of influence, and

Part (II): in the context of the site-specific factors, can significant in-combination effects be ruled out.

IF ANSWER IS	
Yes, to Q2 parts (I) and (II)	Emissions are not considered to be likely to have a significant effect on European sites. No need to progress to further questions. Submit application to EPA for consideration.
No, to <u>either</u> Q2 part (I) or part (II)	The PC, either alone or in combination with other installations/facilities may have a significant effect on European sites. AA is required. Detailed air modelling should inform the NIS accompanying the licence application. Proceed to Question 3.

Full Appropriate Assessment and Natura Impact Statement (NIS) Required.

Question 3

Does modelling indicate that the PEC will exceed a critical level and/or critical load for any relevant qualifying interests for European sites within the zone of influence?

IF ANSWER IS	
Yes (the PEC will exceed a CL)	Proceed to Question 4.
No	Submit assessment with application to EPA for consideration.

Question 4

Can you demonstrate that there will be no adverse effect to site integrity?

IF ANSWER IS	
Yes	Submit assessment with application to EPA for consideration.
No	The application/review may potentially be refused when all avenues to reduce the contributions are exhausted, and it cannot be shown that there will be no adverse effect on site integrity*.

*Where a plan or a project is deemed to have an adverse effect on the integrity of a European site and no alternative solutions are available, the plan or project can only then proceed on the grounds of Imperative Reasons of Overriding Public Interest (IROPI). Refer to Article 6(4) of the EU Habitats Directive (92/43/EEC).

Comments welcome on the draft IN2.

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