

NOISE AND INTEGRATED POLLUTION PREVENTION AND CONTROL

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1. INTRODUCTION

The Pollution Prevention and Control (England and Wales) Regulations 2000 ⁽¹⁾ were made under the Pollution Prevention and Control Act 1999 ⁽²⁾ as the mechanism in the United Kingdom to implement the EU Directive 96/61 on Integrated Pollution Prevention and Control (IPPC). ⁽³⁾

IPPC applies an integrated environmental approach to the regulation of certain industrial activities. This means that emissions to air, water (including discharges to sewer) and land, plus a range of other environmental effects, must be considered together. It also means that regulators must set permit conditions so as to achieve a high level of protection for the environment as a whole. These conditions are based on the use of the 'Best Available Techniques' (BAT), which balances the costs to the operator against the benefits to the environment. IPPC aims to prevent emissions and waste production and where that is not practicable, reduce them to acceptable levels. IPPC also takes the integrated approach beyond the initial task of permitting, through to the restoration of sites when industrial activities cease.

Under IPPC the definition of "emissions" includes noise and vibration, which must be considered in an integrated way alongside other pollution issues. An operator of an activity prescribed under the Regulation must use BAT to achieve the above aims. In this context:

BEST means the most effective techniques for achieving a high level of protection for the environment as a whole;

AVAILABLE means techniques developed on a scale, which allows them to be used in the relevant industrial sector, under **economically and technically viable** conditions, taking into account cost and advantages. The techniques don't have to be used or produced in the UK as long as they are reasonably accessible; and

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TECHNIQUES include technology and the way the installation is designed, built, maintained, operated and decommissioned.

A phased timetable for applications has been drawn up based on industry sectors. All applications for existing installations that come within the scope of the IPPC regime have to be made by the end of March 2007. New installations that fall within the scope of the regime require permitting before the installation commences operations.

There are two distinct regimes covered by the PPC Regulations:

1. The so-called 'Part A' regime of IPPC – applies a similar integrated approach to IPC while delivering the additional requirements of the IPPC Directive. 'Part A' extends the issues that regulators must consider alongside emissions into areas such as energy use and site restoration. Part A1 installations are regulated by the Environment Agency and Part A2 are regulated by Local Authorities. The arrangements in Scotland are different.

2. The second regime – the so-called 'Part B' regime of Local Air Pollution Prevention and Control (LAPPC) – represents a continuation of the old LAPC regime. LAPPC is similar to IPPC from a procedural perspective, but it still focuses on controlling emissions to air only – that is, it is not an integrated approach.

Where Part A1 installations are concerned, Part 3 of the 1990 Environmental Protection Act ⁽⁴⁾ - the Statutory Nuisance provisions - cannot be used without the permission of the Secretary of State, in the same way as it has not been able to be used for Part A processes since the implementation of Part 1 of the 1990 Act.

2. THE IMPLEMENTATION OF IPPC

In the early stages there was some concern from industry that noise issues would be highly regulated at all installations. Additionally, the converse view has also been voiced, that Local Authorities were concerned that the Agency may not be rigorous enough in its approach to noise. The Agency internal guidance has, through the consultation process, tried to address both of these concerns.

Both the Local Authorities and the Agency recognised the need for good working arrangements, especially in the exchange of information. This has resulted in the development of a protocol agreed between the Local Government Association and the Agency. The protocol, inter alia, outlines the following issues:

- Specific working arrangements will be agreed at local level between Agency and the Local Authority covering call-out, complaints, information exchange etc; and
- There is a high dependence on continuing effective liaison with Local Authorities, who are consultees on noise.

In order to be as consistent as possible and to facilitate the decision making process in all aspects of IPPC the Agency relies heavily on a suite of guidance notes, for example:

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- General guidance - general sector guidance and guide for applicants;
- Sector specific guidance - pulp & paper, non ferrous metals, iron & steel and cement & lime, with more to follow as industry sectors come within IPPC; and
- Horizontal guidance - environmental assessment for BAT, energy efficiency, noise and odour. These notes are cross-sectoral.

Final guidance notes, and consultation drafts can be found on the Agency web site at the following address:

www.environment-agency.gov.uk/business/ippc

Other guidance notes will be published on the web site as they are released for consultation and operational use.

3. THE AGENCY'S APPROACH TO NOISE

The key guidance on noise is the Horizontal Guidance Note (H3) ⁽⁵⁾, which is split into two parts:

Part 1 "Regulation and permitting", places noise in context and discusses its interaction with other pollutants. It offers advice on the information required in the application and details the consultation process. Guidance is offered on the determination of BAT and the use of conditions is discussed. Finally in the main body of the guidance is advice on the agreement of enforcement responsibilities between the Agency and Local Authorities. Two annexes have templates for consultation and enforcement arrangements.

Part 2 "Noise assessment and control," covers the physical nature of sound, measurement techniques and the general principals of noise control. There are appendices covering British Standards etc. and reporting forms.

In addition to the general guidance in H3, the Sector Specific Guidance, where appropriate, will also include advice on noise and specifies what should be included in an application for an IPPC permit.

The Agency does not routinely carry out long term and detailed monitoring but will do so where it becomes necessary as part of the enforcement process. The Agency carries out spot-checks, or sample monitoring which may be part of determining the application or enforcing permit conditions and to enable this has over 20 Type 1 sound level meters.

Concern was expressed in some areas about the Agency's technical ability to deal with noise matters, and it has gone to great lengths to ensure that it develops the capability to deal with noise. It should be remembered that the Agency has had responsibility for regulating noise from waste management activities for some while but is now building up a wider technical ability alongside this to deal with IPPC.

Each area has at least one identified noise specialist. This person has access to the other noise specialists and has a specific qualification in noise, usually the Institute of Acoustics Diploma or the Certificate in Environmental Noise Measurement. Specifically designed in-house training is also available. Each noise contact has access to other expertise within the Agency.

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A specialist noise topic group has been set up within the Agency, which includes representatives from the Scottish Environmental Protection Agency and Northern Ireland Environment and Heritage Services. The noise group meets to discuss guidance, identify and resolve problems and make recommendations on policy issues including enforcement and complaint responses.

The Agency is developing its own noise modelling capability within the Air Quality Modelling and Assessment Unit, in order that modelling data included in applications, principally new ones, can be thoroughly checked. In addition the Agency's Monitoring, Certification Scheme is developing to cover monitoring, calibration, reporting qualifications and/or experience of personnel undertaking monitoring.

That said, the Agency is not in competition with Local Authorities but it is charged with dealing with the noise under IPPC regime. The Agency recognises the much wider noise remit of Local Authorities and their greater experience in noise, especially in the development control process and the statutory nuisance procedures.

4. THE PERMITTING PROCESS

The IPPC Sector Guidance sets out the information required from operators and lays down the standards against which it will be assessed. Information is required on the noise environment including, noise sources, levels and the location of sensitive receivers. The applicant must assess the environmental impact of noise & vibration and outline the control techniques employed. Where BAT has not been met the Operator must describe how this will be achieved.

During the permitting process the interface between Local Authorities and the Agency is important. Effective liaison and good relationships between the two parties is vital. The process provides an opportunity to review planning conditions that may be outdated or difficult to enforce due to changes in circumstances. However there remains some overlap between the planning and statutory nuisance legislative regimes. There may be both Local Authority and Agency regulated sources on a single site since the "non-installation noise" will remain under the control of the Local Authority. Additionally it should be remembered that the planning consent boundary might not be coincident with the installation boundary. In some premises there may be several installations controlled under IPPC (e.g. a paper mill may have waste installation, power generation and the paper and pulp installation each with a different operator.)

In the case of new installations, and existing ones migrating into the IPPC regime, pre-application discussions between the operator, the Local Authority and the Agency are likely to be beneficial and highly desirable. The Agency needs details of existing planning controls and any outstanding noise abatement notices. Additionally the enforcement history together with complaints and their outcomes are all-important when it comes to assessing the risk of noise emissions. In view of the previous involvement the Agency attaches particular weight to the responses from Local Authorities

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4.1 DETERMINATION OF THE APPLICATION

The three overarching considerations are:

- **BAT for the sector/installation**

As has been indicated before, BAT takes into account costs and benefits, and each installation should work towards and achieve BAT for that sector. In some cases special local circumstances and the need to protect sensitive receptors may dictate that BAT for a particular installation is tighter than the standards described in the sector guidance.

- **Local Authority consultation response**

The Agency will need details of existing planning controls and any outstanding noise abatement notices. Additionally the enforcement history together with complaints and their outcomes are all-important when it comes to assessing the risk from noise emissions. The Agency attaches particular weight to the responses from Local Authorities. It should be noted that the Agency would not expect individual complainants to be identified in the material that goes on the public register.

- **Level of risk**

This is determined from the information in the application and the consultation responses. The operator's application information has to include information on the proximity of noise sensitive receptors and details of noise sources and control measures. Additionally the type of industry will clearly be included, as should the level of noise, nighttime noise, and its characteristics. However the extent of the information will depend upon the risk. A quiet installation with no sensitive receptors may only have to provide basic information, possibly just a subjective assessment. On the other hand a large installation, with a history of noise problems and sensitive receptors may have to submit a long and detailed acoustic report.

There are three key criteria that influence the determination of the application and the approach to conditions:

- **The underpinning of good practice**

This is closely aligned to BAT and any conditions should, at the very least, ensure that good practice applicable to that sector is followed.

- **The noise should not be loud enough to give reasonable cause for annoyance to persons in the vicinity.**

This phrase has been on the statute book since 1974 where it appeared in the Control of Pollution Act 1974.⁽⁶⁾ There are no specific numerical limits that can be used to specify this standard, but the emphasis has to be on reasonable and it does not just mean annoyance. The guidance suggests a benchmark or "starting point" of background as defined in BS4142: 1997 Method of rating industrial noise affecting mixed residential and industrial areas.⁽⁷⁾ However this can be adjusted according to the circumstances.

- **The prevention of "creeping background"**

The traditional phrase "creeping background" is potentially a misnomer since many people mean creeping ambient. This has to be an option in the permitting regime for those particularly sensitive locations where it is both desirable and important to prevent the background, or ambient noise level increasing gradually year on year. It is anticipated that it will not be widely used, but will have a place in permits relating to rural or very quiet areas.

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4.2 Permit conditions

If there is no noise problem and good practice is being observed then implied BAT would probably be sufficient. However where noise is likely to be a problem the permit conditions are likely to be influenced by relevant planning conditions and previous enforcement activity. Care will have to be taken where there is a duplication of planning controls, in some cases good planning conditions may be mirrored on the permit but poor or outdated ones may be updated and modified. Sometimes, in hopefully rare occasions, permit conditions may not be as stringent as planning conditions, but these cases will require careful consideration and discussion with the Local Authority. It should be remembered that the Agency can review permit conditions at any time should circumstances change or problems arise.

A range of conditions, similar to those attached to Part A or Part B authorisations, can be imposed and include:

- General site management
- Maintenance and operations
- Specific physical conditions
- Specific numerical noise conditions
- Monitoring requirements
- An updated inventory of the sources
- A complaints procedure
- An improvement timetable may be included
- Additional information may be required especially for a new installation

Other issues which will have to be addressed during the process include:

- Consideration of which sources are on the site but outside of the installation;
- Clarification in writing of the split of regulation between Agency and Local Authority and the Agency; and
- Conditions must be capable of being complied with and the regulator must be able to ascertain whether or not the operator is complying with the conditions.

5. SUMMARY

Effective liaison between the Local Authorities and the Agency is vital from both the environmental and human point of view. The interface with other legislation is complex, but has been recognised and can be clarified during the permitting process. Finally the importance attached to noise during permitting and on the permit itself must take into account previous regulatory approach, extant conditions, the level of risk and BAT.

References

- 1 Pollution Prevention and Control (England and Wales) Regulations 2000 HMSO
- 2 Pollution Prevention and Control Act 1999 HMSO
- 3 EU Directive 96/61 Integrated Pollution Prevention and Control
- 4 Environmental Protection Act 1990 HMSO
- 5 Horizontal Guidance for Noise (H3) Environment Agency
- 6 Control of Pollution Act 1974
- 7 BS4142: 1997 Method of rating industrial noise affecting mixed residential and industrial areas.

