

Environmental Tool Box Talks - Pg1

Nuisance - Noise



Legislation

Environmental Protection Act 1990 - Part III

Sections 80 and 82 - provide for proceedings to be instigated by the Local Authority (section 80) or by an individual (section 82) where noise or any of a number of other pollutant constitute a nuisance. Some LA's have been known to invoke a section 80 abatement notice with potentially more severe consequences than those normally associated with a section 60 notice under the COPA 1974.

Control of Pollution Act 1974 - Part III

The most important sections of this act are section 60 and 61 which focus on construction sites. A contractor can avoid potential prosecution by applying to the local authority for a "prior consent" governing work on the construction site, and adhering to the conditions set (section 61). A Local Authority can issue an abatement order if prior consent conditions are not adhered to (section 60).

Noise at Work Regulations 1989

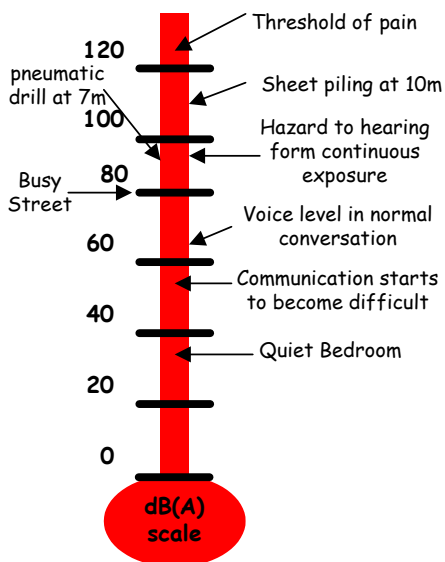
This is a statutory legal document that details provisions for the protection of peoples hearing while in the workplace.

Town and County Planning Act - 1990

Noise impacts must be considered in determining planning consents, and in any environmental impact assessment required under this act.

Guidance - British Standard - BS5228 - Noise control on construction and open sites.

As the nature of work on construction sites varies so enormously, regulation to control this noise from such activities requires some flexibility, this is provided by this standard.



NOISE - often explained as being a sound that is unwanted by the listener. Noise causes more off site complaints than any other topic and can rapidly turn relations sour.

Main issues on site

Activities:

- Working at night time
- Working close to urban areas
- Noisy Plant
- Piling
- Deliveries of materials.
- Vehicles movements on site

Impacts

- Noise - annoys neighbours
- Hazard to hearing
- Disturbs wildlife
- Vibration may cause damage to structures, and archaeology

- Avoiding Noise problems on site:**
- The checklist below can be used to minimise noise on site:
- ✓ Where possible fabricate off site.
 - ✓ Keep noisy plant away from public areas.
 - ✓ Adopt working hours to restrict noise activity to certain periods of the day, arrange delivery times to suit the area.
 - ✓ Route construction vehicles to take account of the need to reduce noise and vibration, keep haul road well maintained.
 - ✓ Use mufflers or silencers to reduce noise transmitted along pipes and ducts, minimise drop height - reducing the drop height by a factor of 10 reduces noise by about 10dB consider using rubber lining on tippers in very sensitive sites.
 - ✓ Liaise with nature conservation bodies to minimise noise disturbance (disruption) to any sensitive wildlife.
 - ✓ Careful selection of plant is essential when noise is important (BS 5228 provides guidance).
 - ✓ Use only plant conforming with relevant standards and directives on emissions.
 - ✓ Avoid older plant, although this is legal, it may be noisier and dirtier.
 - ✓ Operate plant properly.
 - ✓ Shut down plant when not in use or introduce a "no idling" policy.
 - ✓ Maintain plant well.
 - ✓ If possible use noise screening on site.
 - ✓ Monitor noise on site.

- Avoiding vibration problems on site:**
- 3 main aims in the management of vibration on site -
1. Avoid causing damage to nearby structures
 2. Avoid causing annoyance and concerns
 3. Avoid being falsely accused of causing damage
- Some of these problems can be mitigated by the following steps:
1. Evaluate the potential for vibration and thereby damage
 2. Monitor conditions before work starts
 3. Inform neighbours
 4. Minimise effects during works
 5. Monitor vibration levels during the works
 6. Monitor conditions after works are completed

Environmental Tool Box Talks - Pg2

Nuisance - Dust



Dust is generally considered to be any airborne solid matter up to about 2mm in size.

Legislation
Environmental Protection Act Part I
 Dust, emissions and odours often generate complaints of discomfort or inconvenience. Abatement notices can be served on the contractor, and through application to the magistrates court for an abatement order to stop the nuisance. Breach of an abatement order is a criminal offence.

Clean Air Act 1993
 This replaces the 1956 and 1968 part of the COPA 1974. Primary legislative control over smoke, grit and dust. Enforced by the LA and applies to emissions of dark smoke from industrial or trade premises e.g. demolition and fires on site.

Dust Generation on Site

Impacts on ecology

- Dust blowing onto watercourses can damage the ecology
- Dust may also affect plant growth
- Alkaline dusts may change species composition
- Ash trees may drop their leaves up to 6-8 weeks early following exposure to high levels of dust
- Dust can cause mechanical or electrical faults to equipment and lead to the clogging of filters.

Annoys Neighbours:

- Have to re-clean washing, dusty cars and dusty windows are unsightly.
- May cause eye and chest irritation.
- Impact on project programme and budget.
- Working to comply with strict dust levels can impose cost and/or programme constraints.
- If a statutory nuisance is caused, an abatement noise may be issued.

How to avoid problems on site:
 To avoid causing complaints, the site should operate a management system that ensures that:
 Dust, emissions and odour from general operations are minimised through the adoption of good working practice
 Special consideration from control measure is given in circumstances where general "good practice" may not be sufficient to avoid causing problems
 It may be an idea to keep a log of daily dust conditions on site in case of future disputes

Damp down using water:
 The most effective application of water in suppressing dust is by using a fine spray, but the efficiency depends on the speed of the bowser.
 Repeat spraying frequently, especially during warm and sunny weather when water will evaporate quickly.

- Haul routes
- ✓ Select suitable haul roads away from sensitive sites if possible.
 - ✓ Pave heavily used areas, or use geotextiles e.g. around batching plant or haul routes. Sweep these regularly.
 - ✓ Provide a length of paved road before the exit from the site.
 - ✓ Reduce the width of haul roads (while still allowing two-way traffic) to minimise surface area from which dust may be produced.
 - ✓ Sweep paved access roads (while still allowing two-way traffic) and public roads regularly using a vacuum sweeper.
 - ✓ Limit vehicle speeds - the slower the vehicles the less the dust generation.
 - ✓ Damp down

- Demolition
- ✓ Use enclosed chutes for dropping to ground level demolition materials that have the potential to cause dust and regularly dampen the chutes.
 - ✓ The use of mobile plant for crushing materials such as bricks, tiles and concrete is covered by the EPA 1990.
 - ✓ Locate crushing plant away from sensitive sites - consider siting within buildings.

- Plant
- ✓ Clean the wheels of vehicles leaving the site so that mud is not spread on surrounding roads - dry mud turns to dust
 - ✓ Ensure that exhausts do not discharge directly at the ground

- Earthworks and excavations
- ✓ Revegetate or seal temporary or completed earthworks as soon as possible.
 - ✓ Keep earthworks damp - try to programme to avoid exceptionally dry weather.

- Checklist - preventing emissions of odours*
- Vehicles and plant
- ✓ Keep vehicles and plant used on site well maintained and regularly serviced.
 - ✓ Ensure that all vehicles used by contractors comply with MOT emission standards at all times.
 - ✓ Control deliveries to site, to minimise queuing.
 - ✓ Make sure that engines are switched off when they are not in use.
 - ✓ Control staff car parking to minimise queuing.
 - ✓ Keep refuelling areas away from the public.
 - ✓ No fires on site.
 - ✓ Do not burn waste materials/tyres on site.
- Waste storage
- ✓ Use covered containers for organic waste and remove frequently.
 - ✓ Remove organic waste (e.g. weeds and other vegetation) before it begins to decompose.
- Chemicals on site
- ✓ Store fuels and chemicals and other dangerous substances in the appropriate manner.
 - ✓ Take account of the wind conditions when arranging activities that are likely to emit aerosols, fumes, odours and smoke.
 - ✓ Position site toilets away from public areas.

- Materials Handling and Storage
- ✓ Locate stockpiles out of the wind (or cover) to minimise the potential for dust generation.
 - ✓ Keep stockpiles to the minimum practicable height and use gentle slopes
 - ✓ Compact and bind stockpile surfaces
 - ✓ Revegetate long term stockpiles
 - ✓ Minimise the storage time of materials on site
 - ✓ Store materials away from the site boundary and downwind of sensitive areas
 - ✓ Ensure that all dust-generating materials transported to and from site are covered by tarpaulin
 - ✓ Store materials away from the site boundary and downwind of sensitive areas
 - ✓ Minimise the height of fall of materials
 - ✓ Avoid spillage and clean up as soon as possible
 - ✓ Damp down
 - ✓ Concrete batching and pouring
 - ✓ Mix large quantities of concrete or bentonite slurries in enclosed/shielded areas
 - ✓ Before concrete pours, vacuum dirt in formwork rather than blowing it out
 - ✓ Keep large concrete pours clean after they have gone off, as they generate large quantities of dust
 - ✓ Cutting/grinding/grouting/packing
 - ✓ Minimise cutting and grinding on site
 - ✓ On cutters and saws use dust extractors or a wet cutting technique
 - ✓ Spray water during cutting of paving slabs to minimise dust