

## **Appendix 1 Construction Mitigation**

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### General Measures

Several safeguards exist to minimise the effects of construction and demolition noise and include:

- the various EC Directives that limit noise emissions of a variety of construction plant;
- guidance set out in BS5228-1:2009+A1:2014, that covers noise control on construction and open sites; and
- the powers that exist for local authorities under The Environment Protection Agency Act 1992.
- It is recommended that the precise mitigation measures to control noise from the works are agreed with the local authority prior to the works starting. Generic measures below are given to illustrate the range of techniques available.
- The adoption of Best Practicable Means, as defined in The Environment Protection Agency Act 1992, is usually the most effective means of controlling noise from sites. Within the constraints of efficient site operations and the requirements of the relevant Standards, the following is advisable:
  - limit the use of particularly noise plant, i.e. do not use particularly noisy plant early in the morning;
  - limit the number of plant items in use at any one time;
  - plant maintenance operations should be undertaken as far away from noise-sensitive receptors as possible;
  - phasing the works to maximise the benefit from perimeter structures;
  - any compressors brought on to site should be silenced or sound reduced models fitted with acoustic enclosures;
  - reduce the speed of vehicle movements;
  - all pneumatic tools should be fitted with silencers or mufflers;
  - ensure that operations are designed to be undertaken with any directional noise emissions pointing away from noise-sensitive receptors where practicable;
  - when replacing older plant, ensure that the quietest plant available is considered wherever possible; any deliveries/spoil removal vehicles should be programmed to arrive and depart during daytime hours only.
  - drop heights must be minimised when loading vehicles with rubble.
  - care should be taken when loading vehicles to minimise disturbance to local residents. Vehicles should be prohibited from waiting within the site with their engines running;
  - all plant items should be properly maintained and operated according to the manufacturers' recommendations in such a manner as to avoid causing excessive noise. All plant should be sited so that the noise impact at nearby noise-sensitive properties is minimised;
  - local hoarding, screens or barriers should be erected as necessary to shield particularly noisy activities; and

- any problems concerning noise from construction works can sometimes be avoided by taking a considerate and neighbourly approach to relations with local residents. Works should not be undertaken outside of the hours agreed with the local authority.

Experience from other sites has shown that by implementing these measures, typical noise levels from construction works can be reduced by 5dB(A) or more.

Further best practice means are set-out below to further reduce the possibility of adverse noise impacts from construction activities.

## Training

The contractor's site induction programme and site rules must include good working practice instructions for site staff/managers and contractors to help minimise noise and vibration whilst working on the site.

- Good working practice guidance/instructions should include, but not be limited to, the following points:
- Avoid un-necessary revving of engines;
- plant used intermittently should be shut-down between operational periods;
- avoid reversing wherever possible;
- drive carefully and within the site speed limit at all times; and
- report any defective equipment/plant as soon as possible so that corrective maintenance can be taken.

## Maintenance

A weekly inspection of all plant shall be made to ensure that:

- Any plant found to be requiring interim maintenance should be identified by the operator and repairs undertaken by a qualified engineer as soon as possible.
- Regular and effective maintenance of plant can play an important part in keeping noise levels under control.
- Always ensure that doors fitted to acoustic enclosures around fixed plant remain closed, the fitting of self-closing mechanisms is advisable.

## Public Relations

Endeavour to be good neighbours, i.e.:

- get to know the neighbours, be concerned about them and try to understand their problems, encourage them to know the site personnel, listen as well as talk,
- hold a liaison meeting and provide information as freely as possible; and
- create a good impression by running a tidy and efficient site.
- Ensure lines of communication, e.g.:
- nominate a point of contact for issues relating to the site,
- support a liaison committee,

- give advance notice and explanation of activities that might cause complaint,
- keep systematic records of complaints and the remedial actions taken, and
- follow up complaints with correspondence and action.

Ensure that site staff are environmentally aware and are trained to cope with issues.

Do not rely on the letter of the law where there are obvious problems but culpability cannot be easily proved; be prepared to be flexible.

Try to co-operate and avoid being adversarial.

### Action Plan

The following details the actions which should be undertaken following a complaint being received, namely:

- A complaints response system shall be maintained by the contractor for the site enabling any complaints regarding noise to be reported and appropriate action taken.
- An investigation shall be instigated as soon as possible following receipt of the complaint to identify the cause of the complaint.
- Such an investigation may involve the identification and cessation of the activity or activities considered to be the cause of the complaint and/or the investigation of mitigation measures to reduce the noise emission levels from the activity or activities, for example the replacement of noisy plant with quieter alternatives and/or the use of temporary screening.
- Any deviation from agreed working practices shall be identified immediately and conformance to the working practice reinstated.