

APPENDIX 9.2

SOURCE NOISE DETAILS

Instrumentation

The following instrumentation was used for all noise measurements:

Manufacturer	Description	Type	Calibration Due date	Serial No.
Cirrus	Integrating Sound Level Meter	CR: 831A	July 2011	B14325FF
Cirrus	Precision Integrating SLM	CR: 831A	July 2011	B15420FF
Norsonic	Real time Analyser	118	April 2011	31992
Cirrus	Electronic Calibrator	CR: 513A	July 2011	031692

The following set-up parameters were used on the sound level meters during noise measurement:

Static Noise Monitoring:

Time Weighting: Fast

Frequency Weighting: 'A'

Measurement Period: 1 hour

Calibration

Calibration setting: 94dB

The noise meters were calibrated with the electronic calibrator prior to commencement and on completion of the survey. No significant drift in calibration was observed.

Survey Dates and Personnel

Static noise measurements positions (shown on figure 7.1) were chosen in liaison with the EHO at Wrexham County Borough Council to carry out noise monitoring around the site to establish typical ambient noise data (see Appendix 7.3 for detailed information). Mr. D.R. Kettlewell of Noise & Vibration Consultants Limited set up the noise monitoring measurements on Friday 8th April to Thursday 14th April 2011.

Additional spot roaming noise measurements were recorded during the daytime and night-time periods to establish typical levels and the lowest existing residual noise levels.

Monitoring Period and Test Details

Baseline Survey

Measurements were recorded at two fixed monitoring positions over a period of 6-7 days. Data logging of L_{Aeq} , L_{A10} , L_{A90} and L_{Amax} were recorded at 1 hour intervals for information on the variation of typical noise levels at nearest receptor locations.

The noise meters were mounted on a tripod at a height of between 1.2 to 1.5 metres above ground level and fitted with a wind and rain shield.

Spot roaming measurements were recorded during daytime and night-time periods at each of the agreed noise monitoring locations over 3 x 5 minute periods. During night-time periods noise from any occasional road traffic movements were excluded by pausing the noise meter.

Meteorological Conditions

Weather details were recorded by the NVC engineer during the period of the surveys, and appear below:

Friday 8th April 2011

During the daytime it was dry, overcast and a light westerly wind (1-2m/s) a temperature of 10-17deg C. During the night-time period it remained dry with winds light west to northwest (1-2m/s). Temperature falling to 11-13deg C.

Saturday 9th April 2011

Daytime monitoring period was dry, variable cloud cover, light west to northwest winds (1-2m/s), temperature 11-18degC. The night-time period remained dry, clear skies winds light southerly direction (0-1m/s) and temperature ranging from 10-11degC.

Sunday 10th April 2011

Generally dry, with occasional light rain shower, light north westerly winds (1-3m/s) and temperature between 12-17degC. The night-time period was generally dry with light rain shower, winds light northeast (1-2m/s) and temperature ranging from 11-12degC.

Monday 11th April 2011

During the daytime it was dry, overcast and a light northeasterly wind (1-2m/s), temperature 11 to 15deg C. Weather overnight remaining dry, clear skies and light northeast wind (0-1m/s) and temperature falling to 5-10deg C.

Tuesday 12th April 2011

Dry monitoring period, sunny intervals, a light northeast to northwest wind (1-2m/s), temperature 11-18deg C. Night-time was dry, clear skies, winds calm and variable with a temperature range of 7-11degC.

Wednesday 13th April 2011

Dry monitoring period, sunny intervals, winds variable and light, temperature 14-22deg C. Night-time was dry, clear skies, winds variable and light with a temperature range of 8-12degC.

Thursday 14th April 2011

Dry monitoring period, variable cloud cover; winds light north easterly (1-2m/s), temperature 12-23deg C.

The above climatic conditions were suitable for monitoring environmental noise levels in accordance with advice given in BS 7445:2003 'Description and measurement of environmental noise'.