

NOISE MONITORING REPORT

for

Timoleague Agri Gen Ltd.

at

Barryshall

Timoleague

Bandon

Co. Cork

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Prepared by

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18TH September 2012

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1. SCOPE

This report presents the results of the environmental noise survey and assessment which was conducted at the site of the proposed Biogas Plant at Barryshall, Timoleague, Co. Cork. NRG Ltd. personnel conducted a Noise Survey on 18th September 2011.

2. REGIONAL ENVIRONMENTAL SETTINGS

The site is located approximately 3km west of Timoleague off of the L-4021-0. The proposed facility is in an area of undulating topography in a depressed section of land. The proposed facility will be located in close proximity to a pig processing facility approximately 250m south of the site. The closest residence to the pig unit is approximately 90m South West of the facility (The promoter's dwelling).

3. EXISTING NOISE CLIMATE

The dominant noise source in the region is traffic on the L-4021-0 and the operations in the pig processing facility. The local area is rural and partially influenced by local industry. Light winds, road traffic, pig processing and general environmental noise are the predominant noise sources in the area.

4. SURVEY PROTOCOLS

4.1 Monitoring Locations

The monitoring locations were determined according to the guidelines in ISO 1996 – *Acoustics – Description and Measurement of Environmental Noise* and the EPA publication *Environmental Noise Survey, Guidance Document*. Noise measurements were taken at two locations at adjacent noise sensitive locations. The noise monitoring locations are detailed in Table 1 and can be seen on the 1:2500 scale map attached.

Table 1: Description of Noise Monitoring Locations

Monitoring Locations	Description
N1	At the North-East end of an adjacent dwelling house.
N2	South-West of the site on the L-4021-0 local road.

4.2 INSTRUMENTATION AND METHODOLOGY

Noise measurements were made according to the requirements of ISO 1996: *Acoustics – Description and Measurement of Environmental Noise* and in addition, with reference to the 2006 EPA publication *Environmental Noise Survey Guidance Document*. The measurement was made using a Bruel & Kjaer 2260 Data logging integrating sound level meter.

4.3 SURVEY IMPLEMENTATION

The survey was conducted on the 18th October 2012. The measurement parameters included meteorological measurements and observations of prevailing conditions at the time of the survey. The main noise measurement parameter was the equivalent continuous A-Weighted Sound Pressure Level, $L_{Aeq,T}$. Noise levels at the site boundary locations were measured over 30 minute measurement intervals during the day time period. A statistical analysis of the measurement results was also completed so that the percentile levels, LAN T for N=90% and 10% over the measurement intervals were also recorded. The percentile levels represent the noise level in dB(A) exceeded for N% of the measurement time.

4.4 SPECIFIED NOISE LIMITS

Legal limits for emissions from piggeries are 55dB daytime and 45dB night-time. The main sources of noise on the existing development will be feeding time (10-15 minutes) and from feed delivery vehicles. It was decided to carry out the noise monitoring at the nearest noise sensitive locations at the public road. This will also be the case with the proposed development.

5. SURVEY RESULTS

The results for the environmental noise survey are reported in Table 2.

Table 2: Daytime Environmental Noise Survey on 18th October 2012

Monitoring Location	Time	L _{Aeq} 15min dB(A)	L _{A90} 15 min dB(A)	LA10 15 min dB(A)	Major Noise Source
N1	11:00 – 11:30	52.9	38.4	43.9	Emissions from the fans at Staunton's meats, squeals from pigs being unloaded from road vehicles and road traffic
N2	11:45 – 12:15	51.3	36.4	42.2	Road Traffic and leaves rustling

6. EVALUATION OF THE RESULTS

'Description and Measurement of Environmental Noise' in order to demonstrate that the noise levels generated in the area are predominantly from the pig processing facility close-by when measures at the site boundary position will not exceed the specified limits. The specified noise limit values are 55dB(A) when measures during daytime and 45dB(A) at night-time.

The recorded noise levels during the survey on the 18th October 2011 recorded levels between 41.3dB(A). At N2, local traffic was the only influence on ambient levels.

7. CONCLUSIONS

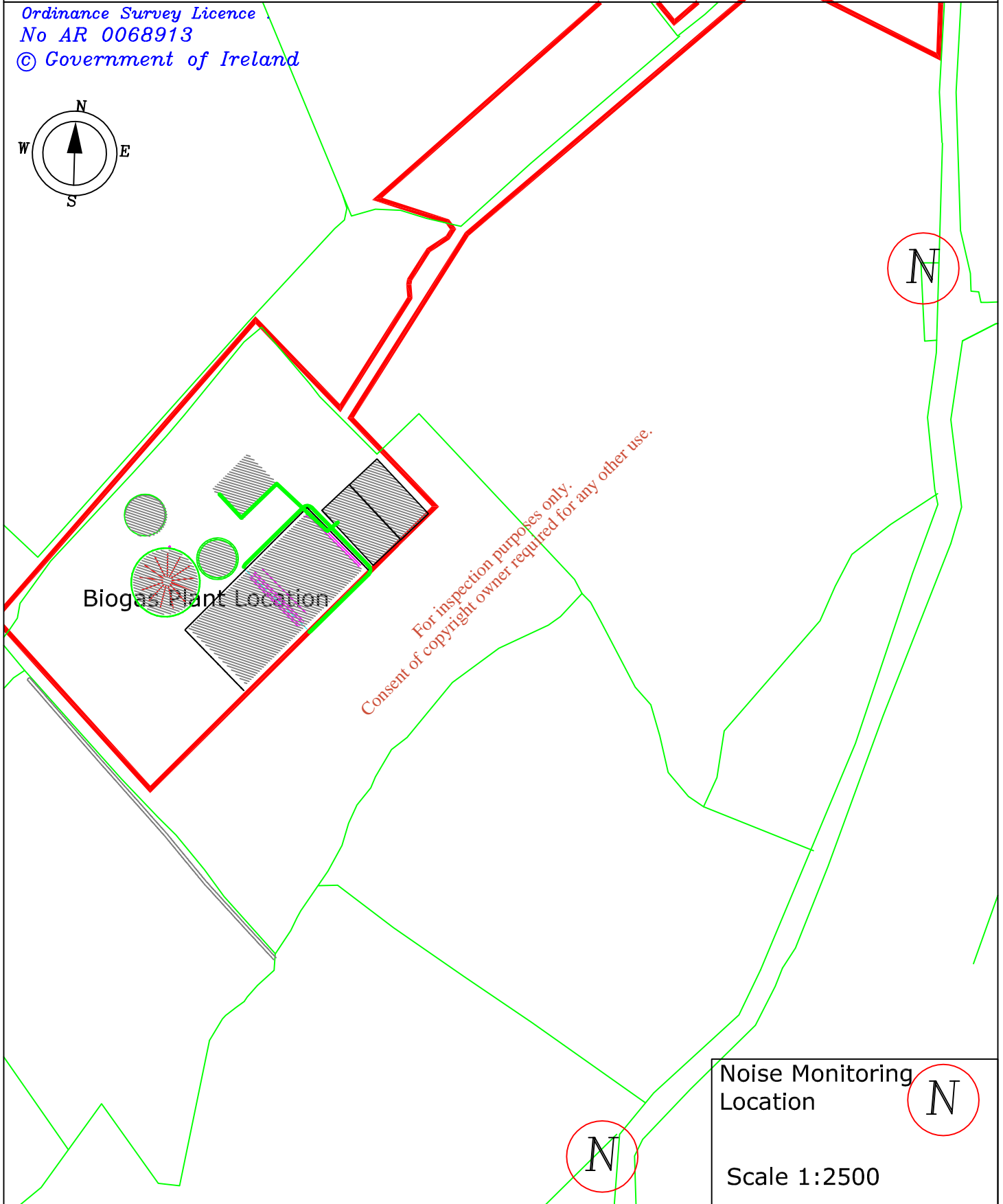
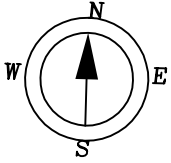
The distance of the facility from the public road and the nearest dwelling will ensure the facility is not a source of nuisance at local sensitive areas. The noise levels from the

proposed facility will not be greatly above background noise levels. Noise sources from the facility are vacuum pumps with collections of digested fertiliser, electric motors on pumps agitators and fans which emit very little noise and would only be audible at very close proximity to these motors.

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Noise Monitoring Location Points

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Noise Monitoring Location **N**

Scale 1:2500