

20/06/2016

Michael Boland
Executive Scientist
Water and Environmental Services
Wicklow Country Council
County Buildings
Wicklow Town
Co. Wicklow

RE : Section 55 Notice for Ballinclare Quarry and Measures required

Dear Mr. Boland,

As required within the section 55 notice, on behalf of Kilsaran International, I am providing a description of the air monitoring to date and the planned air monitoring programme.

I. Overview of air monitoring programme to date

Long test and short test air sampling and vegetation sampling has been undertaken between 25th of May and 15th of June 2016 across the site and around the perimeter. These samples were chosen to be representative of the temporary waste containment area and receptors at the quarry perimeter.

Figure 1 - Air Sampling Locations (May/June 2016) provides the locations for all short test sampling undertaken by About Safety Limited. *Figure 1a - Air Sampling Locations (June 2016)* provides the locations for the long test sampling undertaken by AWN consulting as well as the vegetation sampling undertaken on the 2nd of June 2016.

Long test sampling was undertaken by AWN consultants between the 2nd and 6th of June 2016 with results analysed by IOM Laboratories in Edinburgh. Each sample was carried out over a 240-minute period using an SKC Universal Sampling Pump at 2 L/min onto a gridded membrane filter, providing a total volume of air sampled of 480 L. Short test sampling was undertaken by About Safety Limited using varying flow rates and pump durations in accordance with Safety Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 and the associated EU directives. The analytical method applied to all results is based on Asbestos International Association, Recommended Technical Method No. 2 (RTM2, AIA 1984) and International Standards Organisation (2002), International Standard 14966.



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Table 1 provides a comprehensive overview of the sampling results and includes an assessment of the fibre concentrations in relation to the HSA Binding Occupational Exposure Limit. All samples were in compliance with the HSA COP 2011 value of 0.1f/ml. Representative vegetation sampling was also undertaken by AWN and analysed by ChemTest showing no asbestos to be present.

II. Proposed air monitoring programme

As required by the Section 55, weekly dust and asbestos sampling will be undertaken and a report submitted to WCC. It should also be noted that Kilsaran has ensured that reassurance monitoring is being undertaken for all works being undertaken within the unloading area or blast area. This ensures that adequate mitigation is in place to minimise release of fibres within the quarry during works.

Please find below a description of the monitoring methodology at the quarry for dust and asbestos over coming weeks.

Methodology

Dust

It is proposed to monitor for PM₁₀ at one location (SD1) using a R&P Partisol®-Plus Sequential Air Sampler (Model 2025). The sampler is a manual air sampling platform which has been designed to meet US EPA Reference Designation (RFPS-1298-127). Approximately 24 m³ of air will be sampled daily through a particle size separator, which is contained within the PM₁₀ sampling head. The impactor removes particles with a diameter >10 µg and the remaining particles are collected on pre-weighed 47mm diameter filters. The Partisol® sampler is programmed to automatically replace each sampled filter by a new pre-weighed filter at midnight. This ensures that each filter represents a sampling period of exactly 24 hours. Gravimetric determination carried out pre- and post-sampling by a UKAS accredited laboratory using a calibrated scientific balance.

Asbestos

Monitoring of asbestos will be carried out at six different locations (SA1 – SA6) around the quarry (see *Figure 1 – Monitoring locations*). The methodology for the monitoring of asbestos will follow *The Health and Safety Executive (HSE) Guidance Asbestos: The Analysts Guide for Sampling, Analysis and Clearance Procedures*, which recommend that sampling and analysis of materials for the presence of asbestos is undertaken to comply with CAWR 2002 ACOPs L27 and L28 when sampling airborne fibres.

The HSE procedure recommends using a known flow rate (1-16 L/min) through a filter for a set period of time until 480 litres of air have been sampled. To achieve the quantification limit (0.01 f/ml), each measurement must result from a total of at least 480 litres in volume. The fibres can then be counted by the accredited IOM laboratory: The calculated total number of fibres collected on the filter is divided by the volume of air sampled to determine the fibre concentration in terms of fibre per millilitre of air (f/ml).

Frequency of Monitoring and Results

Dust monitoring will occur continuously from 00:00 on Friday 17th June. Samples will be collected weekly. The first set of samples will be collected on Friday 24th June with results expected approximately 5 working days later. Results expected to be received Friday 1st July for the first week of samples.

In relation to asbestos sampling, these samples will be taken on a weekly basis. The first samples will be taken on 17th June with results expected on the 24th or 27th June.

Yours sincerely,



Teri Hayes
Director AWN Consulting

cc. *Michael Geaney, A/Director of Services, Water and Environmental Services, Wicklow Co. Council*

encl. *Table 1 – Air Quality Monitoring Programme Results, Balliclare Quarry – May/June 2016*
Figure 1 – Air Sampling Locations (May/June 2016)
Figure 1a – Air Sampling Locations (June 2016)
Figure 1 - Monitoring Locations