

Dorota Richards

Subject: FW: Roadstone Ltd. - Licence for the Operation of an Asphalt Plant at Clasheen, Killarney, Co. Kerry (Air Licence Reg. AP20-01; EPA Reg. No. E0010-01): Response to EPA Letter dated 6th September 2021

Attachments: 210921 501.00180.00309 L. RL Killarney AP20-01 - Response to 3rd Party Submission.Rev0.pdf

Importance: High

From: Tim Paul <tpaul@slrconsulting.com>
Sent: Tuesday 21 September 2021 22:16
To: Licensing Staff <licensing@epa.ie>
Subject: Roadstone Ltd. - Licence for the Operation of an Asphalt Plant at Clasheen, Killarney, Co. Kerry (Air Licence Reg. AP20-01; EPA Reg. No. E0010-01): Response to EPA Letter dated 6th September 2021
Importance: High

We refer to your letter dated 6th September 2021 and provide the attached response on behalf of Roadstone Ltd.

Please acknowledgement receipt by return e-mail.

Yours faithfully,

Tim Paul.

SLR's response to Coronavirus COVID-19 - In response to the ongoing global pandemic, we are actively following the advice provided by our national and state governments. As a flexible, full-service organisation we are open for business and will continue to operate and deliver advice and services to our clients wherever possible and in line with government guidance.



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21st September 2021

By E-Mail
licensing@epa.ie

Ms. Dorota Richards – Programme Officer,
Environmental Protection Agency
Headquarters PO Box 3000
Johnstown Castle Estate
Co. Wexford
W35 W821

Our Ref: 501.00180.00309

Dear Ms. Richards,

RE: ROADSTONE LTD. – LICENCE FOR THE OPERATION OF AN ASPHALT PLANT AT CLASHEEN, KILLARNEY, CO. KERRY (AIR LICENCE REG. NO. AP20-01; EPA REG. NO. E0010-01)

RESPONSE TO 3RD PARTY SUBMISSION DOREEN, PHIL & PHILIP HORAN (DATED 24TH AUGUST 2021)

1 INTRODUCTION

We refer to your letter dated 6th September 2021 in relation to the above appeal under the Air Pollution Act, 1987, in relation to the Air Licence Reg. No. AP20-01 issued by Kerry Co. Council for the operation of an asphalt plant at Clasheen, Killarney, Co. Kerry.

This response on behalf of Roadstone Ltd. (hereafter referred to as “Roadstone”) relates to the submission dated 24th August 2021 submitted by Doreen, Phil & Philip Horan.

We have reviewed this submission and note that the issues raised within have in the main been addressed under the responses to the 3rd party objections submitted to the EPA on the 28th July 2021, on behalf of Roadstone. Notwithstanding this, we provide the following submissions / observations for completeness.

This is based on information prepared by Mr. Michael Bailey – Envirocon Ltd. and SLR Consulting on behalf of Roadstone Ltd. Mr. Bailey has over 25 years’ experience in planning aspects and licencing of asphalt plants throughout Ireland. He is also an expert in toxicology regarding evaluating community health risk due to exposure to atmospheric emissions from industrial installations including asphalt plants. SLR Consulting act as environmental and planning advisors to Roadstone.

2 RESPONSES TO 3RD PARTY SUBMISSION BY DOREEN & PHIL HORAN

The responses to the issues raised by the appellants are provided below, in the same order as their submission.

2.1 Ambient PM₁₀ Monitoring

Particulates (PM₁₀)

PM₁₀ monitoring was undertaken at the site in January 2021, refer to the Response to Further Information Request¹ (SLR Consulting, February 2021), Section 5.1 and Appendix 3 – Monitoring of Ambient PM₁₀ at Clasheen Quarry, Killarney, Co. Kerry. The detailed methodology is set out in Appendix 3 and contrary to the 3rd party assertion the monitoring is considered accurate and representative of ambient / background PM₁₀ levels at the site.

Of relevance to potential community health impacts, the particulate material referred to as PM₁₀ (particulate material with a mean aerodynamic diameter of less than 10µm) is recognised by the World Health Organisation as being associated with health concerns as they can enter the lower respiratory tract. The annual NAQS value for PM₁₀ is 40 µg/m³, with a daily limit value of 50 µg/m³ (no more than 35 exceedances per year). Ambient concentrations of PM₁₀ near the quarry boundary would be typically <10-15 µg/m³ that is within the range of concentrations measured in rural locations values and below 40% of the annual NAQS – refer to Appendix 3 for PM₁₀ monitoring results carried out in January 2021.

In terms of emissions from the asphalt plant the Air Quality Impact assessment (Envirocon, October 2020) included particulates PM₁₀, and Section 6.0 has concluded that:

*With the plant operating at maximum production and concentrations of NO₂, SO₂ and particulates in the stack exhaust gas also at maximum emission levels, the predicted ground level concentrations in the locality are substantially below the NAQS values. **The impact of***

¹ SLR Consulting (February 2021) – Licencing of Industrial Plant AP-20-01, Response to Request for Further Information.

emissions from the exhaust stack combined with background ambient concentrations of NO₂, SO₂ and PM₁₀ for the locality will also result in cumulative impacts that are well below the NAQS.

2.2 Odour Concerns

A detailed Odour Assessment has been undertaken for the proposed development (Envirocon, February 2021)² and submitted in response to Item 2 of the Further Information Request. This assessment has been carried out in accordance with the EPA guidance for such assessments. Section 5.0 of the assessment concluded:

The air dispersion modelling study was carried out to evaluate the impact on local air quality of fugitive odour emissions from the proposed asphalt plant within the Roadstone sand pit at Clasheen, near Killarney, Co. Kerry. The predicted concentrations were compared with the EPA ambient odour limits recommended for houses and other sensitive receptor sites near the boundary of industrial activities where odorous emissions take place that have a potential to create a community odour nuisance. The air quality assessment assumed a 'worst-case' emission scenario with the asphalt plant operating continuously during the normal working hours at the sand pit with no seasonal variation in output. The actual emissions from the proposed asphalt plant, with efficient operation of the aggregate dryer burner, will result in observed fugitive odour emissions substantially below the emission calculations used in the modelling study.

The design and operation of the proposed asphalt plant at Clasheen minimises the potential for malodours to be detected beyond the site boundary. The asphalt plant is designed to operate and be managed to meet BAT in terms of processes, emission abatement and monitoring. The whole process from delivery and storage of bitumen, production of asphalt and discharge of asphalt to transport of the asphalt off-site by covered trucks will be carried out so that odours from the asphalt production will be controlled and reduced.

The results of this impact assessment indicates that the maximum predicted 98 percentile of hourly odour concentrations is 1 ou_E/m³ at the nearest houses to the sand pit boundary. This predicted hourly concentration is below the stringent odour exposure target value of 1.5 ou_E/m³ at the nearest housing that has been adopted by the EPA in Ireland and other Environmental Agencies in the UK and elsewhere.

Based on an assessment of locations at the asphalt plant site where potential fugitive odour emissions may occur from storage of bitumen and production of asphalt the results of this odour impact modelling study demonstrates that no odour nuisance will occur beyond the sand pit boundary at Clasheen.

² Envirocon (February 2021) – Potential Odour Impact of Asphalt Plant at Clasheen, Killarney, Co. Kerry.

On this basis it is clear that the assertion made by the 3rd party that “we can fully assume we will be choked by the ongoing fumes” is incorrect.

2.3 Concern about Pollutants emitted from asphalt plant

A detailed air quality impact assessment has been undertaken for the asphalt plant.

SO₂ / NO_x/ CO

The results of the air quality impact modelling study undertaken by Envirocon (October 2020)³ submitted with the application documentation demonstrates that the predicted maximum concentrations for SO₂ and NO_x (including) NO₂ beyond the boundary are substantially below the National Air Quality Standards (NAQS). The modelling of the exhaust stack emissions was based on maximum worst-case emissions at the emission limits specified in Appendix A of the licence. Such emission rates are conservative and emission monitoring results from asphalt plants operating throughout Ireland in recent years demonstrate that ‘actual’ SO₂ and NO_x emissions are typically below 30% of the emission limit values used in the study. At the nearest houses predicted short-term concentrations are below 25% and 33% for SO₂ and NO₂, respectively.

Carbon monoxide (CO) has also been included in the Air Quality Impact assessment, refer to SLR Consulting (February 2021) – Response to Request for Further Information Item 4. Results of the modelling show predicted CO 8-hour maximum levels of 0.13 mg/m³, equivalent to 1.3% of the hourly NAQS. Beyond a distance of 300-350m from the plant site, predicted CO concentrations are below 0.075 mg/m³, or <0.75% of the 8-hour NAQS value.

Although it is accepted that residents have concerns of potential adverse community health effects, the results of the detailed modelling study for the asphalt plant do not support these claims, especially given the conservative approach relating to emission calculations used in the study.

The Air Quality Impact assessment (Envirocon, October 2020), Section 6.0 has concluded that:

With the plant operating at maximum production and concentrations of NO₂, SO₂ and particulates in the stack exhaust gas also at maximum emission levels, the predicted ground level concentrations in the locality are substantially below the NAQS values. The impact of emissions from the exhaust stack combined with background ambient concentrations of NO₂, SO₂ and PM₁₀ for the locality will also result in cumulative impacts that are well below the NAQS.

³ Envirocon (October 2020). Air Quality Impact of Asphalt Plant at Clasheen, Killarney, Co. Kerry.

2.4 Sheheree Bog

The 3rd party state in their submission that:

“Sheheree Bog is measured @ 5kgN/ha/yr currently higher critical load value of 11.4 kgN/ha/yr ref. Henry & Aherne Study. This is over twice the reading so how much of the other data contained is under declared to meet planning / environmental and tick box exercises.”

This assertion by the 3rd party that *“data contained is under declared”* is completely refuted. All of the air quality assessments supporting the licence application have been undertaken by a recognised expert Mr. Michael Bailey – Envirocon. As stated in Section 1 Mr. Bailey has over 25 years’ experience in planning aspects and licencing of asphalt plants throughout Ireland. He is also an expert on emissions and acid deposition and during the 1980’s carried out the first major study on acid rain in Ireland when employed in An Foras Forbartha.

The 3rd party refer to the critical load values and refer to *“measured @ 5 kgN/ha/yr currently higher critical load value of 11.4 kgN/ha/yr”*. It is not clear what issue the 3rd party are raising but it noted that the critical load conservation target of 5 kgN/ha/yr has been adopted by Envirocon i.e. the lower critical load threshold range of 5-10 kgN/ha/yr used for comparable ecosystems.

It is not a measured value of N annual deposition rates in the Killarney area but a lower target value to protect raised bog ecosystems. Furthermore, the derivation of the value of 11.4 kgN/ha/yr was examined in the context of historical deposition modelling studies, including the Henry and Aherne study referred to by the 3rd party and its relevance to current N deposition rates in the Kerry area. The latest deposition modelling in the 2020 EMEP report indicates that the current annual N deposition is in the order of 1-2 kgN/ha/yr in the Kerry region, with 60% originating from transboundary wet deposition. For Total N deposition, including Reduced Nitrogen (ammonia), this is calculated at below 45% of the 11.4 kgN/ha/yr referenced in the NPWS Conservation Objectives for Sheheree Bog SAC (Refer Section 3.0 of the Envirocon report, March 2021⁴)

The Envirocon report used the lower critical load value of 5 kgN/ha/yr as the conservation target value for Sheheree Bog SAC based on the assessment of critical loads in the NPWS Conservation Objective Supporting Document for Raised Bog Habitats⁵ that refers to the precautionary approach in its recommendation of setting a target value, as follows:-

It is recommended in the case of Sheheree Bog that the level of N deposition should not exceed the low end of the range i.e. 5kg N/ha/yr. This recommendation is based on a precautionary approach, as the evidential basis for setting a higher level is not

⁴ Envirocon (March 2021) – Air Emissions Licence Application AP-20-01 Response to Request for Further Information of 18th February 2021.

⁵ NPWS (2015) – Sheheree (Ardagh) Bog SAC (000382) Conservation Objectives Supporting Document - Raised Bog Habitats, Version 1.

*particularly strong as alluded to by Payne (2014). Total N deposition in the vicinity of Sheheree Bog as reported by Henry & Aherne (2014) is 11.4kg N/ha/yr. The site-specific target for the attribute air quality is: **Air quality surrounding bog close to natural reference conditions. The level of N deposition should not exceed 5kg N/ha/yr.***

The Envirocon report concluded the following:-

The predicted annual concentration level and deposition load at Sheheree Bog SAC due to emissions from the proposed asphalt plant is less than 1% of the annual NO_x NAQS and the critical load conservation target of 5 kg N/ha/yr specified for raised bog ecological areas. Within the locality of Sheheree Bog SAC, NH₃ emissions are estimated to be the primary source of total annual N deposition rates at the SAC. As such, oxidised N concentration or deposition rates due to emissions from the proposed development will have no perceptible effect within the Sheheree SAC. Emissions of NH₃ are negligible from the operation of the asphalt plant.

On the basis of the above it is clear that the emissions from the asphalt plant will have negligible impact on the Sheheree Bog SAC.

2.5 Planning Permission

The asphalt plant has been installed and will operate under planning permissions (P. Refs. 10/1163; 10/91163). It is noted that planning related matters fall under the jurisdiction of Kerry Co. Council and not the EPA.

On the basis of the above response; the responses to the 3rd party appeals dated 28th July 2021; and the detailed assessments contained in the application / further information response documentation; the EPA is requested to uphold the decision of Kerry Co. Council and grant a licence for the operation of the asphalt plant at Clasheen, Killarney.

Yours faithfully,
SLR Consulting Ireland

A handwritten signature in black ink, appearing to read 'Tim Paul'.

Tim Paul
Director

Enc.

Cc. + Enc. Mr. P. Gibney (Roadstone Ltd.)