

Briefing



09 March 2022

Walleys Quarry Landfill Briefing for Staffordshire Health and Care Overview and Scrutiny Meeting – 15 March 2022

Our Role

The Environment Agency's (EA) primary role at Walleys Quarry is to regulate activities authorised by the environmental permit held by the operator of the landfill, Walleys Quarry Ltd. The permit conditions aim to minimise the impact on the local environment in terms of air quality, noise, odour, dust, leachate, and impacts to groundwater. We enforce that permit through monitoring and undertaking site visits (both announced and unannounced) and, where needed, we take enforcement action to address compliance issues.

At all sites that we regulate, we have a statutory obligation to protect the environment and safeguard people's health. Our main objective at Walleys Quarry is for the operator to comply with its permit, including taking the necessary actions to reduce the odour levels outside the site and controlling landfill gas. Whilst landfill sites will never be completely free of odour, the levels experienced at Walleys Quarry Landfill are unacceptable and we are using all our appropriate regulatory powers to bring the site back into compliance.

Current situation as of 09 March 2022

We are continuing to receive reports of odour on a weekly basis. However, over February 2022 the EA received the lowest number of odour reports since December 2020.

For the week 28 February to 6 March 2022 hydrogen sulphide (H₂S) levels were below the World Health Organisation's (WHO) 24-hour average health guideline level to protect against short-term health effects, but were above the WHO's 30-minute average odour annoyance guideline level between 0% and 15% of that week.

We do expect to see short term fluctuations in the concentrations of H₂S leaving the site. The causes can include factors such as the temporary impact of improvement works being carried out on site and changes in the weather. Odours associated with landfill gas emissions will increase during colder weather and still wind conditions. With less dispersion, the potential for causing odour nuisance is greater.

The UKHSA Health Risk Assessment for December 2021¹ records that *'the hydrogen sulphide data up to the end of December 2021 shows continuing exposure to the population around the site. For three of the monitoring sites, concentrations are below the long-term (lifetime) health-based guidance value, as they have been since June/July 2021. At the fourth site, concentrations are slightly above the long-term (lifetime) health-based guidance value. The concentrations measured in December have plateaued and are broadly comparable to those levels observed since September. They remain*

¹ UKHSA December 2021 Health Risk Assessment of air quality monitoring results from March to December 2021: Walleys Quarry Landfill Site, Silverdale Newcastle-under-Lyme see [here](#)

lower than the levels seen from March to August 2021'.

We continue to provide weekly updates on our Walleys Quarry Landfill Site Citizen Space page which can be viewed [here](#).

January 2022 H₂S levels and our action

We are aware that there was an increase in the H₂S levels for a limited period during January 2022 recorded by our mobile monitoring facility (MMF) units. In response to this, and a high volume of odour complaints, we undertook an inspection of the site on 14 January 2022 and carried out a review of landfill gas management data. We believe we have identified contributing factors for the increased odour around the site in the second and third weeks of January and have informed Walleys Quarry Ltd of our findings. We are unable to provide any further information on this at present, but will do so as soon as we are able to.

Walleys Quarry permit consultation

The consultation continues on the EA's draft decision to vary two environmental permitting conditions for Walleys Quarry Landfill.

Variations to environmental permits are not unusual during the operational lifespan of a landfill site and the specific variations within this permit are standard for such a regulated site. In most cases, permit variations are introduced to allow for the implementation of improved operational technologies and techniques, or to add additional conditions to improve regulation.

Applications of this kind do not require public consultation. However, given the level of interest from the neighbouring community, the Environment Agency has decided to carry out a consultation before it reaches its final decision. The consultation will allow local residents and interested groups to submit any new relevant information related to the proposed changes.

Further information, including details on how to take part in the consultation, is available online at <https://consult.environment-agency.gov.uk/psc/st5-6dh-walleys-quarry-landfill-site-epr-dp3734dc/>

The consultation documents can also be viewed in the following local libraries:

- Newcastle Library, Castle House, Barracks Road, Newcastle-under-Lyme, Staffordshire, ST5 1BL
- Knutton Library, Church Lane, Knutton, Newcastle, Staffordshire, ST5 6EB
- Silverdale Library, High Street, Silverdale, Newcastle-under-Lyme, ST5 6LY

Anyone wishing to comment on the proposals is invited to read the documentation online or at the local libraries detailed above before responding electronically on the website or by email to PSCpublicresponse@environment-agency.gov.uk

Our Plan to reduce H₂S emissions

On 17 February 2022 we published the second iteration of our plan to reduce H₂S emissions from Walleys Quarry. This plan continues to build on the extensive regulatory action taken to date and outlines the latest measures the EA has required Walleys Quarry Ltd to implement in the coming months to further improve control of H₂S emissions.

The full plan can be viewed here: [Plan to reduce hydrogen sulphide emissions](#)

The measures we have already required Walleys Quarry Ltd to implement are successfully reducing levels of H₂S emissions from the landfill. Since the recorded peak in those emissions in early March 2021, monitoring shows a significant reduction.

Whilst this is very positive, there is more to do, and we continue to focus on ensuring Walleys Quarry Ltd achieves further and sustained reduction in H₂S emissions. This plan outlines the necessary further steps to achieve the outcomes advised by UKHSA.

Along with the substantive action the Environment Agency has already required Walleys Quarry Ltd to take, additional action includes:

- Further operational measures to contain, capture and destroy the H₂S, including:
 - A revised capping and phasing plan and discussions over the final capping of Phase 1;
 - An updated gas management plan; and
 - installation of a new gas flare.
- Improvements in analysis and modelling of H₂S on site and how it is impacted by changes in atmosphere. This will help make sure the gas management system is effective in destroying H₂S in the short and long term.
- Continuation of measures to assure what comes onto the site to prevent new gypsum-bearing materials.

Walleys Quarry Ltd is responsible for the H₂S emissions escaping from its site. Publication of the plan and regular revisions represent our continuing work to rigorously require the operator to resolve the issue of unacceptable levels of those emissions.

Marc Lidderth

Walleys Quarry Landfill - Project Executive