

Transcript of Facebook Live event 29/06/2022

PRES: Presenter

ML: Marc Liddersh

PRES: Hello there, and welcome to the third and final video. This is the answer to June's questions thread here on Facebook. I'm Neil and I'm a Communications manager here in the Midlands for the Environment Agency. Marc Liddersh is with me once again; Marc is a Project Executive for the EA with the responsibility for the regulation of Walley's Quarry Limited. This particular video is looking at the subject of H<sub>2</sub>S and to point out there may be some questions we can't answer for legal reasons, some that fall out our remit and some that we answer together as they are on a theme.

PRES: First up them, it's the question from Mark and Mark writes to say your monitoring only shows point observation in that particular location and he has included the picture which I will put below in the thread. The impact of changing windspeed and direction have been noted anecdotally in observations where H<sub>2</sub>SO odours could be detected one minute and not the next landfills with odour problems and then quotes in brackets (Towns and et al 2000). Houses act differently and when retained the dense H<sub>2</sub>S and exposing residents so therefore, do you agree effectively your equipment and use of WHO, World Health Organisation guidelines are respectively incorrect with actually emissions from toxic odours? He goes onto say, do you accept that your monitoring stations are not 100% accurate for the surrounding area and only show the Hydrogen Sulphide for that particular spot and as a percentage that's worryingly very low? Should you have all of your monitors just on the perimeter fence to ascertain the site is not breaking its permit with pollution going beyond the perimeter fence? And he refers to the picture again so I will go and put it below in the thread. As you can see in the picture the monitoring is affected by buildings for your result.

PRES: There is quite a bit in there I appreciate. Let's go over to Marc Liddersh from the Environment Agency now please for a response.

ML: Thanks Neil, and thank you Mark for those questions. So, I will try and approach under the two main questions just been asked. So, yes, we have took into account the potential flow around buildings and the local photography of the local area when we were locating and the network of the mobile monitoring facilities and in the future of this video. I will refer to those as MMF's. The MMF's monitor a range of compounds which do include Methane and Hydrogen Sulphide both of which we know are landfill gases and these two gases in particular are those main components that do make up landfill gases. And they are the two we do monitor through these units along with other areas of monitoring we do like particulates and Nitrogen Oxides for example. It simply just isn't feasible for us to place these MMF's in every single possible location to gain data for where people are reporting to us and we also have to take into account certain locations to put these in because we need certain criteria's and need to make sure that there is for example power, security to be able to hold these locations so putting them directly onto the perimeter of the landfill site just sometimes is not feasible. But also, it helps by putting these more into the areas and closer to the communities because that's where the potentials odours are moving away and across from outside the perimeter of the boundary. The network of the MMF we have currently deployed in place are effective, they are able to capture that data and are capturing data on a daily basis and are picking up transient odour episodes that are occurring within the local community. The long duration also of the monitors that we have in place at their fixed locations is really important to us as it captures a range of operational conditions taking place on the site and the changing metrological conditions that are

also being experienced. And just to also say it is really important that we have to keep the same the locations so that we can do a data comparison for they have been now deployed over 12 months period so we can compare the data from this time last year to this year but also helps us compare the data from our previous studies that we've taken.

In answer to the 2<sup>nd</sup> part of the question Mark, we operate the MMF's in accordance to Industry standards and also to Government guidance it's very strict guidance that's set we have to do a number of things to ensure that the monitors are accurate, so we do regular calibration and maintain of that equipment and that again is all in accordance within Industry standards. The monitors locations are a compromise between competing factors that we have to take into place when we consider when we are selecting site and have given some of the reasons as to why we have and chosen certain sites because of those parameters. We are confident that where we have placed these monitors there are no kind of or other better monitoring locations for this study and again because they are in those locations and have been for a significant period of time it comes back to the point about of us being using data comparison. Our general approach to assessing pluton ploms now being in environment so that outdoor concentrations comply with relevant health standards that are set from our health experts, UKSHA and any ploms that obviously reach building and thereby avoid or minimises the risk the ploms potentially contributes to indoor exposure. So, the remit of the Environment Agency is about giving the pluton ploms an ambient environment taken from the outdoor to understand how that moves through the local community. Health advice has been published can be found on Staffordshire County Council's website for those who need to look at health advice around if you experience an episode of odour. The advice from there from the health partners is about saying residents should ventilate their properties after odour episode but as I said more information on that, and other health advice can be found the Staffordshire County Council's webpage.

PRES: Ok, thank you Marc Liddeth.

PRES: We stay with Hydrogen Sulphide now as it has been a busy theme this particular month or in June as it were. So, there's another question from Mark, don't know if it's the same Mark, but Mark writes to say; with the tipping municipal waste that has been stored for some time before disposal its clear that the stench affects local residents. You have no equipment to monitor this pollution going beyond the parameter so how can you justify this action being so close to thousands of residents? The perfume spray clearly does not work and adds to the actual irritation of being present knowing what it is and where it is from.

PRES: Let's go back to Marc Liddeth from the Environment Agency.

ML: Thanks again Neil, and thank you Mark for that question. So, odour from the tipping operations rather than landfill gases is caused by a wide range of compounds present at low concentration levels that can be obviously detected by the human nose. As you are many of you are aware we have staff who are regularly conducting offsite odour checks in the local area and they are able to record the impact as they perceive it whilst they are in the area. So, these offsite odour checks that our staff carry out which is critical to our regulator work as this helps our officers assess compliance with the odour conditions. So, as well as our staff being out doing odour checks for landfill gases they are also picking up and can pick up obviously other odours that could be associated to tipping operations. So, the data that we obviously receive from our MMF's that have been deployed around the landfill site does support our officer's observation particularly landfill gases when they are detected by them and also the MMF's. And there are obviously occasions where we do the offsite checks and we have been able to trace back in the past onsite odours relating to the same smell that has been detected

offsite and that's when we can then look to any potential breaches of the permit conditions. As some of you may have watched the previous video that I have given some answers to the questions too there was a question to the fog which was linked to the deodoriser system that's being used and the Environment Agency as I mentioned in that video and just to say here in case you haven't seen it the Environment Agency does not accept a deodoriser system as an appropriate measure to deal with odours from a site that could potentially have odours going beyond their boundary. There has been research that has been carried out on these deodorisers some of this research is actually contradictory so until further research has been conducted that gives us a definite conclusion, we do remain open that deodoriser systems can be used by operators. However, it does come back to the point that I said that appropriate measure this is not part of it. The, in our case here the appropriate measures we have which are part of our strategy is around the capping of the landfill site, the capturing of the gas and the destruction of the gas all part of the contained capture destroy strategy.

PRES: Ok, Marc Liddeth thank you.

We move on then to HS2 again, and Nigel, Nigel messaged us on Facebook this morning to ask when his question will be answered well it's coming up for you now Nigel. In fact, it's on behalf of his partner Abby who does not have a Facebook account and Abby says giving your repeated statements and inference acceptance that short term fluctuations are to be expected in levels of offsite Hydrogen Sulphide pollution can you please confirm what measurement or threshold you are using when incidents or circumstances can be excused as short term fluctuations that have to be lived with or something more fundamentally wrong on site that needs to be addressed? An explanation or comment on the specific circumstances of cold British winters will be appreciated. Why have they not been accounted for or effectively prepared for?

And we'll go onto Annie as well within this question. Annie quotes as she says this is an insert from your update on Thursday 9<sup>th</sup> June and she quotes what we have put on Citizen Space; we do expect to see short term fluctuations in the concentrations of Hydrogen Sulphide leaving the site. Does this statement mean that you the EA and Walley's Quarry Limited expect the community sorry to accept and put up with these fluctuations just by saying you expect us to be gassed does not mean the community will therefore, think 'oh well that's ok then the EA has expected us to be gassed so we will put up with it?' How is the community supposed to be able to plan birthday, garden parties, barbeques, outdoor exercises etc. with the said fluctuations? Are we supposed to be yet again to be beholden to the whims of a reckless landfill site? And I'm quoting Annie on that.

PRES: Let's go over to Marc Liddeth then please for a response.

ML: Thanks Neil for that, thank you Abby and Annie for your questions. So, firstly just coming to the last points that Annie has made about the ability to experience you know activities outdoors it's a question I've faced many times in the public kind of meetings we held last year, and I understand the concern and issues the community has around the fluctuation and the ability not to know when this will happen. The Environment Agency continues to do everything it can to bring this you know situation back into a place where these fluctuations are in the end essence are few and far between. And that's the point what I want to come to now is because we have always said no landfill will ever be odour free and, but an operator of a landfill site has to put in place all appropriate measures the ones I've described before to ensure they are mitigating against odours escaping from the site perimeter. And we are not seeking you know any excuses here but to provide an explanation to why there would be some fluctuations.

Abby's mentioned the cold British weather just before I do come onto that, I want to obviously just highlight that another factor that can play into this and where you do see fluctuations across landfill

sites is where an operator maybe carrying out some operation activity that could cause a very short, sharp increase in odours. Those are things that do happen but again that's only something that should only be very very intermittent and very quick. Coming back to the cold British weather concentrations for landfill gas emission do generally increase in cold weather conditions they are affected by that and also during winter you do get sometimes get some very still wind conditions. So, with less ability to for the landfill gas emissions to disperse there is the greater potential for these emissions to cause odour nuisance in the local community. By contrast to the cold weather in the warmer climates where you get the gases then become natural more diluted and also the high temperature rising of air you get better dispersions. Therefore, a less odours occurring over the summer months compared to those in winter. One of the reasons the odours from the landfill may make it worse also during certain times of the day particularly night or first thing in the morning through a phenomenon called Cold Drainage Flow. So, this is where air including the odorous trace gases in with it above the site cools down rather quickly and at night and during those early hours in the morning it flows down and follows it topography of the land to its lowest point. Given the topography of Wally's Quarry landfill the lowest point of that landfill site is out towards MMF 9 on Galingale View and so that is where we do see this cold drainage flow take place and why we seem to experience high levels of Hydrogen Sulphide being recorded at that MMF compared to the other MMF's. There are obviously metrological conditions that do play to that like wind directions as well.

Secondly, atmospheric pumping occurs where changes in bromic pressure affects push or pumps the odourise gases actually physically out of the waste mass in the ground. This pumping is caused by the changing of pressures both in the atmosphere and the pressure in the waste mass where it equalises. So, again, we see gas emissions coming from the ground is what we called fugitive emissions. So, this is where capping plays a really good role under our strategy, we've currently got capping with the operator taking place. That capping obviously provides a seal so the landfill gas emissions cannot escape into the atmosphere and where we at the moment with this situation with Walley's Quarry the operator is carrying out large amount of capping work. Phase 2 is now temporary finished with their sorry they have finished with their temporary capping of Phase 2 and Phase 1 there are some delays with that capping the really huge area, but progress is being made and the permanent capping of Phase 1 is going to be completed over the coming weeks and we are continuing to push the operator to have this done as soon as possible. Also, just wanted to quickly mentioned that our previous Air Quality Monitoring studies between 2017 and 2019 shows levels of Hydrogen Sulphide detected outside of the boundary were very minimal and coming to the point of you know are we expected to continue to have these fluctuations the rate we have come through previously in the past referring back to these Air Monitoring Units. Because the data we gather back then is where we want to see the returning for the levels for this time round. So, all the steps we have required Wally's Quarry take under our contained capture destroy strategy has the aim in returning to the previous levels we found during to our 2017 and 2019 studies.

PRES: Ok, lots in there thanks Marc, Marc Liddeth there.

Final question now, it's a short one and it's Richard and Richard has written to say have you got this year's readings yet? And this is in relation to H<sub>2</sub>S. Have we got this year's reading yet? Reply to this one from Marc please?

ML: Thanks Neil and thanks Richard for your question. So yes, if we are talking about have, we got the HS<sub>2</sub>, Hydrogen Sulphide readings throughout the whole of 2022, we do. I have mentioned earlier all our MMF's that we have deployed gathering data on a daily basis, 24-7. Over the past couple of months now our Mobile Monitoring Facilities are those MMF's have been recording those and over these couple of months we have now started to see a fairly decent decline now in Hydrogen

Sulphide. So, we accept there was some temporary increases at the start of 2022 but, overall, Hydrogen Sulphide emissions where we have been over couple of months are now reducing from the site. Each week we provide update for gas extractions in our update that we publish on our Citizen Space page website in which Richard if haven't been on there then you can go on there and find all the data that we gather from our MMF's on that Citizen Space page. And if there is any data that we hold we can provide, and we will do so and we are ask for anyone that wants that data make a request of information to us and be very clear in terms of what you are asking for the timeframe etc, and we will obviously pass that data on to you through that process.

PRES: Ok, thank you very much indeed Marc Liddeth there, Project Executive for the Environment Agency with responsibility for the regulation of Wally's Quarry.

\*\* END OF Q&A, Presenter wraps up asking for feedback and advises Questions Thread open below.

PRES: Thanks very much for you for watching and if you submitted a question, we should be back to normal next month there are details on the Facebook page of the next Facebook Live session. The video if you're watching on the day this video was made which is the 5<sup>th</sup> of July the questions thread remains open until Friday at 5pm.

So, from myself and Marc Liddeth bye for now.