UNDER the Resource Mangement Act 1991 ("RMA")

IN THE MATTER of a resource consent application to the Taranaki Regional Council for the application by Remediation (NZ) Limited

STATEMENT OF EVIDENCE OF ANDREW FERGUSON CURTIS ON BEHALF OF REMEDIATION LIMITED

1. INTRODUCTION

1.1 My full name is Andrew Ferguson Curtis. I am Technical Director Air Quality at Pattle Delamore Partners (**PDP**). I am a Chemical Engineer with over 30 years' experience. I have specialised for over 24 years in air quality, providing advice to clients in New Zealand, Australia and overseas.

Experience

1.2 I have a Bachelors Degree in Chemical and Materials Engineering from Auckland University, a Post Graduate Certificate in Sustainable Management from the Open Polytechnic and a Post Graduate Diploma in Toxicology from RMIT University. I am a Certified Air Quality Professional and an approved Hearing Commissioner.

1.3 I have extensive experience in dealing with the assessment of odour from composting and other odour generating activities. Some of my work experience, which is relevant to this application, is as follows:

(a) I was responsible for preparing the air quality assessment that Remediation (NZ) Limited (**RNZ**) used to gain the existing consent for the Uruti site.

(b) I was responsible for preparing air quality assessments for RNZ's composting facility in Cambridge.

(c) I was responsible for preparing air quality assessments for consenting food waste composting at EnviroWaste's Hampton Downs composting facility.

(d) I was responsible for obtaining air discharge consents for a large number of waste management companies such as waste transfer stations, landfilling operations and waste treatment plants.

Involvement in the Proposal

1.4 Concerning the RNZ application to renew its consent for the Uruti composting and vermiculture facility at 1460 Mokau Road, I was first engaged in June 2019[1] to prepare an air quality assessment as a result of a request for further information from Taranaki Regional Council (**TRC**) under Section 92 of the Resource Management Act (**RMA)**. After preparing that I started working for PDP, and my team and I were engaged in November 2020 to provide odour related advice as a result of several complaints, and to prepare this statement of evidence to address air quality related matters raised by the Submitters' submission after the TRC notified the application.

1.5 My staff and I have undertaken several site visits since being first engaged, and I have most recently visited the site on 4 February 2021.

1.6 My evidence will focus on the air quality related effects from the proposed expansion and the potential for odour emissions.

Code of Conduct

1.7 I confirm that I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2014. I have complied with the Code of Conduct in preparing this evidence and agree to comply with it while giving evidence. Except where I state that I am relying on another person's evidence, this written evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

2. EXECUTIVE SUMMARY

2.1 My staff and I have undertaken several visits to RNZ's Uruti site. Based on these visits, we have made some recommendations that I consider should minimise the potential odour effects off-site. I believe that with the

[1] While working for AECOM New Zealand Limited

mitigation measures proposed in the Application, together with the additional measures I have recommended, including monitoring, there is a low potential for off-site odour effects.

2.2 I consider that with the changes I have proposed that the consent conditions proposed by the TRC are appropriate.

3. BACKGROUND

3.1 The background information is set out in the AEE and my air quality assessment, and therefore I will not reiterate that material here other than highlighting some aspects that are important from an air quality point of view.

Site Location

3.2 The composting and vermiculture operations take place on river flats that run alongside the Haehanga Valley. The surrounding hill contours are steep, with the site sloping down towards State Highway 3. The main site operations occur approximately 1,300 metres from the site boundary to the south of State Highway 3.

3.3 The site is surrounded by a mix of grass, scrub and native bush to the east, south and west. To the north of State Highway 3 is predominantly agricultural land.

Sensitive Receptors

3.4 There are a small number of dwellings to the north and northwest of the site between 1,600 and 1,900 metres from the main composting operation. However, areas closer to the road are used for wastewater irrigation, with the closest field being approximately 500 metres from the nearest receptor.

3.5 In terms of the site location relative to the closest receptors, the composting and vermiculture facility is located well away from any sensitive receptors. It is at sufficient distance that any odour potentially produced on-site will be well diluted before reaching any receptor and therefore is unlikely to result in offensive or objectionable odours during most meteorological conditions.

3.6 However, during calm cool weather conditions, odorous air can drain down the valley towards State Highway 3. Under these katabatic conditions, it is possible that odours may be detected at State Highway 3, as there is little turbulence and therefore little opportunity for dilution to occur.

Historical and Recent Odour Concerns

3.7 In the past, the site received some odour complaints, and after investigation by RNZ, the source of the odour was attributed to dairy waste that the site was accepting. Based on these findings, RNZ stopped accepting this waste stream, and the odour complaints stopped.

3.8 The site has since been operating with relatively few complaints, however, since June 2020 the TRC has received 18 complaints[2] about odour believed to be originating from the composting and vermiculture facility.

4. POTENTIAL ODOUR SOURCES

4.1 After receiving the odour complaints in June 2020, RNZ engaged my team and I to review the potential odour sources on site.

4.2 Based on this review, I will discuss the activities that I have identified that I consider the greatest potential to generate odour if not appropriately controlled.

4.3 Based on this review, the potential sources of odour on the site are:

(a) Leachate treatment ponds;

(b) Organic waste composting pad (Pad 1);

(c) Drill mud/composting mixing pad (Pad 3);

(d) Wastewater irrigation;

(e) Material drop-off area;

(f) Paunch grass composting pad (Pad 2); and,

[2] At the time of preparing this evidence.

(g) Vermiculture facility.

4.4 When considering the site configuration and the topography, it is likely that during katabatic conditions, odour from the organics pad (and the paunch/vermiculture area to a lesser degree) will flow past the leachate treatment ponds and drill mud pad area and down the valley towards State Highway 3 and result in a cumulative effect, which could result in odours being detected off-site.

4.5 Therefore, in my opinion the odours detected off-site is unlikely a result of one particular source, but rather the cumulative combination of several sources. However, some sources are likely to be contributing more to the off-site odours than others.

Leachate treatment Ponds and Irrigation

4.6 The site has a series of leachate treatment ponds which run parallel to the drilling mud composting pad that collects run-off from both this pad and the organics compost pad. In addition to the leachate that comes from these pads, water from the truck wash is also treated in these ponds.

4.7 Based on a recent site visit undertaken by my staff, areas of the leachate treatment ponds had bubbles coming from the bottom and algae on the surface and was deemed to be one of the more odorous locations on the site. That was also the case when I visited the site in February. Based on these observations, I consider parts of the leachate treatment system have become anaerobic.

4.8 The treated leachate ends up in the northernmost pond and is then irrigated to land currently using either a travelling gun irrigator, k-lines or from a tanker pulled by a tractor, although RNZ is phasing out the use of the travelling irrigator.

4.9 Therefore, the level of odour that could be experienced from irrigation depends on the method in which the wastewater is irrigated and how the wastewater is treated and stored before irrigation.

Composting Pads

4.10 Broadly speaking the site has three composting pads; the organic pad, the paunch grass pad and the drill mud pad.

4.11 The organic pad is used for composting a variety of materials from green waste to animal products. The material is wedge piled and turned occasionally before it is left to mature.

4.12 The paunch grass pad composts paunch grass (the undigested contents of sheep and cattle stomachs) over a period of six months before it is removed and added to the vermiculture beds. This composting occurs in static piles. While undisturbed, there is little odour from this location. It is only when the material is fresh or disturbed and moved to the vermiculture facility when there is the potential for odour to occur.

4.13 Drilling mud is processed on its own pad where is mixed with sawdust and at times other organic waste streams. This large windrow is reasonably static, with newer material placed at the southern end and mature material removed from the northern end. Occasionally material is moved forward to allow for new waste to be added.

4.14 RNZ ceased accepting drill mud at the end of December 2020. While this will reduce the odour potential from the site, there will continue to be residual odours from this material until the most volatile hydrocarbons are broken down.

Material Drop-off

4.15 The potential for odour from material drop-off will vary depending on the waste stream, with green waste having less odour than animal products, and fresher waste having less odour, i.e. freshly cut grass clipping compared to partially decomposing grass clippings.

4.16 Based on odour observations that my staff and I have undertaken, the drop-off areas, particularly the area near the drilling mud pad and the organic pad animal waste, have a higher level of odour than other areas of the site.

Vermiculture

4.17 The vermiculture operation is a very different process to composting, and involves the worms eating the composted paunch grass, leaving behind worm casts.

4.18 Based on my experience and that of my staff that have also undertaken odour observations around the vermiculture operations, this process has

very low levels of odour apart from during the initial placement of composted paunch grass.

4.19 Given the low level of odour and that it is located further up the valley, it is unlikely that the vermiculture operation is contributing in any meaningful way to the off-site odour.

5. Control and mitigation

5.1 While there will always be odour associated with composting, the level of odour is dependant to a large degree on the raw materials used and more importantly the control of the composting process. Provided that the processes on-site remain in an aerobic condition any potential odours that may occur are less likely to be considered offensive.

5.2 Odours from the site can be categorised into two broad types; continuous baseline odours that occur from every source, and intermittent odours that occur from undertaking an activity such as turning a compost pile or irrigating treated leachate.

5.3 In my experience intermittent odours are usually easier to address, as they are typically linked to an activity. Therefore, to limit the potential for these odours to be experienced off-site, these activities can be modified or undertaking during favourable wind conditions. For example, turning compost piles when winds are not blowing from the southeast and the windspeed is below 3 m/s (10 km/hr), or applying treated leachate to the northern areas of the site with the tanker which produces much larger droplets and therefore will result in less odour when compared to spraying.

5.4 Baseline odours can be a bit more difficult to control, but in general terms, of the operations undertaken on-site, if compost and the leachate is kept aerated less odour is produced, which means less potential for offensive off-site odours.

5.5 Based on the current operations, the following sets out my recommendations that RNZ should undertake to reduce the potential off-site odour effects. An important part of the mitigation is the comprehensive odour management plan (**OMP**). As part of this process I have reviewed and provided input in the draft OMP which includes the proposed mitigation as well as identifying the triggers for action and who

is responsible for implementing the mitigation[3]. The following includes the key control measures, I consider important in reducing the potential for off-site odours.

Leachate Treatment Ponds

5.6 RNZ currently pumps water out from the last (northern most) pond and recirculates it back into the pond to aerate the it. This appears to have some limited beneficial effect as odour at this location is not as strong as at other locations. However, the upstream ponds are noticeably more odorous and are bubbling which indicates that they are likely to be anaerobic.

5.7 Therefore, if the system can be configured into a more aerobic condition odours will be reduced. This will primarily be by aeration but reducing the organic input by not accepting drilling mud will also assist.

5.8 In combination with aeration, the dissolved oxygen (**DO**) levels in each pond should be monitored regularly to ensure that the ponds are maintained above 1 mg/mL of DO. If the monitoring was to indicate dropping levels of DO or that the DO levels were below 1 mg/mL then additional aeration will be required.

5.9 However, prior to aerating these ponds, the sludge from the ponds will need to be removed to help reduce the anaerobic potential. This process will more than likely result in increased levels of odour in the short term while the desludging is occurring, therefore this activity should be undertaken when winds are greater than 3 m/s and not blowing from the southeast.

5.10 The sludge will need to be either incorporated into the compost piles or covered with green waste or mature compost immediately to control odour.

[3] I note that the OMP will require significant modification in order to meet the requirements of proposed condition 30, and therefore a revised draft of the current OMP including my recommendations has not been prepared.

5.11 Sludges will continue to build up within the ponds, and therefore RNZ will need to periodically desludge the ponds.

Organic Composting Pad

5.12 One of the important parts of composting is ensuring the piles are regularly monitored for temperature and oxygen, and are turned based on this monitoring, to improve porosity and oxygen, add/remove water and redistribute temperature throughout the pile.

5.13 Based on my observations, the odour generation from these types of operations produce less odour compared to less monitored and turned composting piles.

5.14 The organic composting piles at Uruti are currently only turned approximately every four weeks and there is no monitoring of pile temperatures or oxygen levels to ensure that the pile is composting in aerobic conditions.

5.15 To improve odour from this source I recommend that the material in this area is actively composted, with the windrows regularly monitored for temperature and moisture and turned accordingly, this should help ensure that the material is compost aerobically and to reduce the potential for odour.

5.16 During the turning process meteorological conditions should be considered to ensure potential spikes in odour are not dispersed towards the nearby receptors and because the turning process might bring material such as composting animal products to the surface, fresh green waste or mature compost should be available to cover the windrows immediately to limit potential odours.

5.17 However the odours from this activity are considered less offensive that those that might occur if the windrows were allowed to become anaerobic.

Irrigation of Treated Wastewater

5.18 There are a number of ways in which odour from the irrigation of treated wastewater can be controlled. Firstly, having wastewater that is well treated or fresh, and therefore has low odour to start with, is key to reducing the chances for odour effects from the irrigation of the

wastewater. Secondly, the wastewater application methodology will have an impact on the level of odour that could be experienced.

5.19 As already discussed, if RNZ maintains the ponds in an aerobic condition, the odour potential from irrigation will be reduced. Alternatively, another option to reduce the odour potential from the treated wastewater could be to dilute it with cleaner water from the stormwater pond.

5.20 The method of wastewater application will impact on the odour potential off-site, with a low release height and large droplet size likely result in lower odour effects.

5.21 RNZ use a variety of irrigation systems, with the majority of irrigation being undertaken using K-Line irrigators. The K-line system is designed to apply the wastewater over a large area, therefore the release height is relatively high and this system can produce finer droplets, which can result in odour if they are carried off-site.

5.22 Therefore it is important that RNZ considers where it uses K-Lines under certain meteorological conditions. Provided that K-Lines are operated in wind speeds less than 3 m/s and more than 200 metres from the northern boundary, there should be little possibility for off-site odour from this activity.

5.23 The northern irrigation area, which is closest to the receptors is irrigated using the tanker, which has a release height of approximately one metre and produces larger droplets which fall close the point of irrigation, therefore it is unlikely for odour to be experienced off-site from the irrigation of wastewater.

Paunch Pad and Vermiculture Operation

5.24 The paunch grass that is fed to the worms is composted in relatively small static piles for up to six months before being added into the worm beds. Based on my observations, the level of odour from this area is low and only detectable relatively close to the material. However as the material is composted statically, the middle of the pile could become anaerobic and once disturbed could generate odours.

5.25 Therefore it is recommended that when the paunch grass is disturbed, it should occur when winds are not blowing from the southeast, or when wind speeds are greater than 3 m/s.

5.26 The vermiculture process itself produces very little odour, with the most significant potential odour to occur during the raking in of the composted paunch grass.

Drill Mud Composting Pad

5.27 Historically, RNZ has accepted drilling mud which is mixed with organic material and composted in a continuous pile. The odour from this source is a mix of hydrocarbon and organic composting type odours, and as it is a reasonably static pile, the odours have an anaerobic character.

5.28 Even though RNZ no longer accept drilling mud the potential for odour will remain from this area as it continues to compost.

5.29 I consider that the ongoing odour mitigation for this source should either be, regular monitoring of the pile and turning to aerate the pile, or if the material from the pile was to remain in this location then the pile could be contoured and then grassed or covered with mature compost which should minimise any fugitive odours.

Cold Air Drainage

5.30 To help reduce the cold air drainage from katabatic flows from the site, RNZ is constructing a four-metre high bund that runs across the width of the valley, just north of the site office with a gap roughly in the centre to allow for vehicle access.

5.31 The intention in constructing this bund is to constrict the flow the potential odorous air coming down the valley and direct the air through a narrow gap where it can be treated.

5.32 RNZ is proposing to build a spray line over the gap in the bund, which will spray a fine mist of biOx odour neutraliser to reduce the odour before the air reaches the road.

5.33 I have seen similar odour suppressant system used at landfills and waste transfer stations in the past, and while they don't necessarily eliminate

odour, a well-placed system can have positive effects on reducing off-site odours.

5.34 To improve this system, I recommend that the spray system is automatically trigged to turn on based on certain wind conditions, such as when winds speeds are less than 3 m/s and coming from the southeast as measured by the on-site weather station.

5.35 While I consider that the bund with the misting system is a useful odour management tool, reducing odour at the source will provide bigger gains in terms of minimising the potential for off-site odour effects.

Monitoring

5.36 In addition to the activity specific mitigations already discussed, I also consider that an appropriate level of odour monitoring is an important aspect to control odour. The measures that I recommend at minimum are set out in Table 1.

Table 1: Proposed Odour Monitoring

Monitoring Activity	Frequency
Check weather forecasts for light winds (<3 m/s or 10 km/h) and winds coming from the southeast to plan appropriate work schedule and odour management response.	Daily
Undertake odour observations at the source and at the site boundary.	At least Weekly
Observe weather conditions including wind and rain via observations.	Daily and as conditions change
Inspect all odour sources to ensure that any odour emissions are minimal.	Daily and as work is undertaking on the source.
Inspect composting piles and windroses for temperature and moisture levels to ensure composting is undertaken un aerobic conditions.	Daily
Inspect odour suppressant systems to ensure equipment is maintained and functioning to effectively to minimise odours when required.	Weekly
Monitor odour generating activities.	In winds under 3 m/s (10 km/h)

5.37 As I have already mentioned I consider that the site should plan and consider onsite activities based on the weather conditions. Activities which RNZ have control of, such as compost turning should only be undertaken during wind conditions that will not result in odours being dispersed towards the nearby receptors.

5.38 Activities such as irrigation should also consider the wind conditions discussed in 5.3, but this doesn't mean that irrigation cannot be undertaken during these conditions, rather irrigation should be undertaken in the more southern irrigation blocks during these conditions.

5.39 During the odour investigations, if odour is detected at the boundary or the source and has an odour intensity of 3 or 4 respectively as described in the OMP plan, then immediate action is required to identify the source and reduce or eliminate the odour.

6. ISSUES RAISED BY SUMITTERS

6.1 I have reviewed the air quality related aspects of the submissions, and there are four main concerns that appear to have been raised with respect to air quality. These are:

(a) Off-site odour effects.

(b) The potential for BTEX emissions from drilling mud.

(c) The potential for toxic or pathogen emissions from the site.

(d) The potential for adverse effects from dust.

Off-site odour effects

6.2 Some submitters and the nearest submitters have commented that they experience strong and offensive odours at their dwellings.

6.3 I have already addressed some controls and mitigation measures in my evidence. Once these are fully implemented, I consider that it is extremely unlikely that the nearest dwellings would experience offensive or objectionable odour effects in the future.

Potential for BTEX emissions from drilling mud

6.4 Some submitters have made comment on BTEX emissions from the drilling mud that is processed on-site.

6.5 The drilling mud does contain BTEX, and there is the potential for these compounds to be released into the air as the pile heats up or the material is disturbed.

6.6 RNZ has stopped taking drilling mud, and therefore BTEX emissions from the site will reduce. There will continue to be residual BTEX emissions from the current material on-site, but these emissions will reduce over time.

6.7 In terms of the actual BTEX emissions, these are at relatively low concentrations compared to other sources such as vehicle exhausts or petrol station.

6.8 I have undertaken BTEX monitoring around the petroleum industry sites and reviewed comprehensive BTEX monitoring undertaken near busy roads. In both cases, the potential BTEX concentrations are significantly greater than those in the drilling mud.

6.9 Based on my experience, it is rare to see elevated BTEX concentrations near these sources. I consider it extremely unlikely to see elevated levels at over one kilometre (equivalent distance to that at RNZ) from that source.

6.10 Therefore, I consider it extremely unlikely that there will be any BTEX emissions from RNZ that would result in off-site concentrations above the relevant guidelines.

The potential for toxic or pathogen emissions from the site

6.11 In terms of toxic air discharges, I have already discussed BTEX and consider that the potential for them to be present at concentrations that could be considered toxic is extremely low.

6.12 There could also be some hydrogen sulphide (H_2S) produced in anaerobic conditions that can be toxic in high concentrations.

6.13 While it is possible there could be small pockets of H_2S, it is unlikely that if a pocket of H_2S gas was to be released, it would be anywhere near toxic levels by the time it reached the site boundary.

6.14 Additionally, if the controls already mentioned in my evidence are implemented, it is unlikely for anaerobic conditions to occur and therefore H_2S gas.

6.15 In terms of pathogens, I have undertaken monitoring for pathogens around RNZ's Cambridge composting plant in the past. The outcome from this study found that there was no difference in the type of pathogens found downwind of the site when compared to the upwind locations. i.e. pathogens found downwind of composting facilities are no different from pathogens that are naturally occurring.

6.16 In terms of pathogens within the wastewater, these may become airborne when irrigation occurs. However once in the air, the water droplets act much in the same way as dust particles, and given the size of the droplet, it is unlikely for these droplets to travel more than a few hundred metres. Therefore the wastewater droplets will not be able to reach any of the nearby dwellings.

The potential for adverse effects from dust

6.17 The composting process creates little dust, provided that the material is kept damp. Keeping the material damp is important in the composting processing as it results in efficient composting.

6.18 The likely source of dust from the site will be from the unsealed access road, and one submitter has commented on dust coming from the site entry from vehicle movements.

6.19 The dust from unsealed roads is typically coarser (>20 µm), and while typically at this size it is unlikely to result in health effects, it can create a nuisance.

6.20 Based on my experience, this type of dust can travel up to a couple of hundred metres in strong winds if not controlled. Given there are no dwellings within 200 metres from the site access way, it is unlikely that dust from this location will result in nuisance effects.

6.21 If dust from the site access was to become an issue, then RNZ could control dust through watering this location.

7. Section 42A Report Comments

7.1 I have read the relevant air quality related sections of the TRC Officers report, and agree with the majority of the comments that are contained in it with respect to air discharges. I have a few comments on a few matters as set out in the following paragraphs.

7.2 In Section 11.1.5.1 the Officers talk about dust. I agree with the comments in paragraph 270 and 271, and that there are no specific health effects associated with the dust.

7.3 I also agree that because of the typical size range of that dust generated by on-site activities that it will settle even in the strongest winds within 200 metres. Therefore, apart from dust that might be generated by traffic as it enters and leaves the site it is extremely unlikely that there would be any off-site effects associated with dust from the processing activities on site.

7.4 In paragraph 273 the Officers mention PM_{10} and the potential health effects associated with it. PM_{10} is primarily generated by combustion activities such as vehicles or domestic heating in New Zealand. Therefore, apart from the small number of on-site vehicles and generator it will not be generated by on-site activities.

7.5 Consequently, I agree with the Officers (paragraph 276) that the potential for adverse dust effects are no more than minor.

7.6 In Section 11.1.5.2 the Officers discuss odour effects. I agree with much of what they say in relation to odour. However I note that even in my most recent site visit odour was only detectable in close proximity to the sources, consequently I do not consider that off-site odours occur regularly.

7.7 However, I accept that there is potential on occasions for odours to be detected off-site primarily during katabatic conditions.

7.8 I have some concerns about adopting the approach proposed by the Waikato Regional Council, but understand and agree on the need to have robust systems in place to control the potential for odours to occur.

7.9 That having been said I have already outlined in my evidence (paragraphs 5.1 to 5.39) addition measures that I consider should be implemented on site to further reduce the potential for odours from on-site activities, and in particular those odours carried by the katabatic winds, which generally have the greatest potential to result in off-site effects.

7.10 The majority of the measures that I have proposed are reflected in proposed Condition 30.

7.11 Finally, I agree with the Officers that it is very difficult to measure odours using instruments, and therefore I promote proactive odour monitoring as set out in paragraph 5.36.

7.12 Section 11.6.2 of the Officers report discusses health effects and a letter prepared by the Taranaki Medical Officer of Health. As I have discussed in my evidence, I consider it extremely unlikely that emissions from the site are resulting in any adverse health effects, although I accept that the presence of odours can result in a wide range of symptoms in some people.

7.13 I am confident that the range of mitigation measures I have proposed in conjunction with the consent conditions proposed by the Officers will reduce the potential for odours off-site and there for ameliorate the effects experienced by some of the submitters.

8. Proposed Consent Condition

8.1 I have reviewed the conditions that have been proposed and have the following comments.

8.2 In Condition 28(b) the Officers have proposed a suspended dust level of 3 mg/m^3. I am not aware of the source of this value, but note that without a monitoring period e.g. as a 1 hour average, the value is meaningless.

8.3 I recommend that condition 28(b) is modified to the following, which is consistent with guidance in the Ministry for the Environment Good Practice Guide for Assessing and Managing Dust (2016).

Total suspended particulate concentrations 100 $\mu g/m^3$ as a rolling 24 hour average

8.4 I note that the Good Practice guide referenced in Condition 29 has been superseded, and the reference should be modified to:

Good Practice Guide for Assessing and Managing Odour, Ministry for the Environment (2016)

9. CONCLUSION

9.1 I believe that with the mitigation measures proposed in the Application, together with the additional measures I have recommended, including monitoring, there is a low potential for off-site odour effects.

9.2 These mitigation measures are reflected in the proposed condition conditions, and I consider with the very minor changes I have proposed, the conditions are appropriate and there are no air quality related reasons for not granting consent.

Andrew Ferguson Curtis

5 March 2020