



**MINISTER
ENVIRONMENT, FORESTRY AND FISHERIES
REPUBLIC OF SOUTH AFRICA**

Reference: LSA 162340 / 158911

**DECISION REGARDING REQUEST FOR UPLIFTING THE SUSPENSION OF WASTE
MANAGEMENT LICENCE 12/9/11/L1200/4 ISSUED TO ENVIROSERV (PTY) LTD**

EnviroServ Waste Management (Pty) Ltd

Requester

Upper Highway Air NPC

Interested and Affected Party

Department of Environment, Forestry and Fisheries

Competent Authority

Request: This is a request by EnviroServ Waste Management (Pty) Ltd (EnviroServ) for the uplifting of the suspension of waste management licence (WML) 12/9/11/L1200/4 issued in terms of section 56 of the National Environmental Management Waste Act, 2008 (Act No. 59 Of 2008) (NEMWA), in respect of the Shongweni Landfill Site, in the Kwazulu-Natal Province.

1. BACKGROUND

- 1.1. On 8 April 2014, the Deputy Director-General: Chemicals and Waste Management (the DDG: CWM) of the Department of Environmental Affairs issued EnviroServ with a WML in respect of waste management activities listed in Category A and B of Government Notice No 718, dated 3 July 2009. EnviroServ thereafter commenced with the operation of its Shongweni Landfill Site, in the KwaZulu-Natal Province.

- 1.2. During the operation of the site in 2016, the DDG: CWM received a significant number of health and odour related complaints from the surrounding communities. Several thousand complaints relating to serious health impacts and odour nuisance continued to be received by the DDG: CWM from the surrounding communities.
- 1.3. The DDG: CWM issued EnviroServ with a notice to suspend its WML on 2 February 2017. EnviroServ submitted written representations to the said notice to suspend its WML on 9 February 2017 and made further oral representations on 15 February 2017 and 27 March 2017.
- 1.4. After consideration of EnviroServ's representations, as well as those by Upper Highway Air NPC (UHA), a non-profit organisation and an interested and affected party, the DDG: CWM concluded, *inter alia* that EnviroServ contravened conditions 5.1.4 and 5.1.5 of its WML.
- 1.5. Condition 5.1.4 of the WML stipulates that "*the Licence Holder must ensure that impact of odour from emissions from the Site is minimised*".
- 1.6. Condition 5.1.5 of the WML stipulates that "*the Licence Holder must prevent the occurrence of nuisance conditions or health hazards*".
- 1.7. As a result thereof, the DDG: CWM suspended EnviroServ's WML on 4 April 2017, in as far as it relates to the disposal of waste at the Shongweni Landfill Site.
- 1.8. Following the suspension of the aforementioned WML, the Directorate: Appeals and Legal Review within the Department of Environmental Affairs (Appeals Directorate) received a provisional appeal from EnviroServ on 10 April 2017, followed by a supplemented appeal on 26 April 2017.
- 1.9. Subsequent to the finalization of a number of independent studies, EnviroServ amended its grounds of appeal on 12 June 2017, primarily to propose certain amendments to the

suspension notice. On 12 July 2017, the UHA submitted a revised responding statement to the amended appeal.

- 1.10. On 9 December 2017, the late Minister of Environmental affairs, Dr B E E Molewa, decided (appeal decision) to vary Annexure A to the suspension notice issued on 4 April 2017. The variation allowed for, amongst others, the acceptance, treatment and disposal of solid waste that is inorganic and has a low sulphur content (including treated medical waste) to be accepted at the Shongweni Landfill Site for a period of 6 months.
- 1.11. In addition to this, the said appeal decision provided that on demonstration of containment of odours that are likely to be a nuisance, the Minister will review the acceptance of further waste streams. It is against this background that EnviroServ, on 16 November 2018, submitted a request for review of the appeal decision dated 9 December 2017.
- 1.12. On 5 March 2019, the previous Minister, Ms N P Mokonyane amended the appeal decision to allow for: *"the acceptance, treatment and disposal of municipal solid waste (including treated Medical Waste) may be accepted at the Shongweni Landfill Site. The restriction on sulphur containing waste still remains in force. On demonstration of containment of odours that are likely to be a nuisance, the Minister will review acceptance of further waste streams"*.
- 1.13. On 13 May 2019, EnviroServ submitted a request for uplifting of the suspension of its WML. As with the first request for amendment of the appeal decision, UHA was afforded 20 days in which to submit a response to the said request. The UHA submitted its response to the request on 3 June 2019. An answering statement was thereafter submitted by EnviroServ on 14 June 2019. In addition to this the Appeals Directorate received comments from the Chief Directorate: Air Quality Management on 21 May 2019 and Chief Directorate: Hazardous Waste Management and Licensing on 2 June 2019. Comments were also received on 31 May 2019 from the Community and Emergency Services Cluster Health Unit within the eThekweni Municipality.

1.14. Further to the above, data is being generated from the Department's air quality monitor. The parties to the appeal have been provided with the data for the month of June 2019. The Chief Directorate: Air Quality Management provided comments on the said data on 23 July 2019 and UHA provided its comments on 8 August 2019. EnviroServ indicated that it will not be commenting on the June data. The Chief Directorate: Air Quality Management provided comments on 8 August 2019 on the Departmental data for the month of July 2019.

1.15. The request for uplifting the suspension of the WML is premised on the following grounds:

1.15.1. The purpose of the suspension notice has been met and the suspension is no longer required;

1.15.2. The current condition of the site justifies the request for uplifting the suspension of WML;

1.15.3. Additional remedial measures have been and will continue to be implemented;

1.15.4. Management of storm water and leachate continues to show positive trends; and

1.15.5. There is a decrease in community complaints.

2. THE GROUNDS FOR UPLIFTING THE SUSPENSION OF THE WML

2.1 I shall briefly discuss the individual grounds for uplifting the suspension of the WML as well as the responses thereto below:

2.2 *The purpose of the suspension notice has been met and the suspension is no longer required*

2.2.1 EnviroServ contends that there is compliance with the conditions of both the original and varied Annexures A to the suspension notice and therefore the exceptional circumstances mentioned in paragraph 4 of the suspension notice no longer exist as the risks of concern have been addressed. EnviroServ refers to paragraph 5 of the suspension notice which states that the suspension will remain in place until the Department states in writing that the disposal of waste may recommence and under what conditions. On this note

EnviroServ submits that the initial steps towards this end have already been taken by the previous Ministers.

2.2.2 EnviroServ suggests that as a precautionary measure it will continue the following conditions:

2.2.2.1 No trenching into the existing waste body;

2.2.2.2 No recirculation of leachate or contaminated storm water;

2.2.2.3 No waste streams with a leachable sulfate concentration >250 mg/l will be disposed at the site;

2.2.2.4 No waste streams containing aluminium that have the potential for reactivity under landfill disposal conditions will be disposed at the site; and

2.2.2.5 Continuation of the reporting requirements as per 5 March 2019 appeal decision by the Minister.

2.2.3 In response to this ground, UHA states that since the 7 March 2019 decision by the previous Minister, there has been no demonstrable change in circumstances justifying the latest request for the uplifting of a restriction on liquid wastes, wastes containing any sulphur or reactive wastes. UHA states that EnviroServ has deliberately failed to conduct the complaints analysis in accordance with the express conditions imposed by the late Minister in December 2017. UHA provides that its specialists analysed the complaints in compliance with the correct scientific methodology and it has particular concerns over the period from March 2019 to April 2019. In addition to this, UHA expresses its concern with the delay by EnviroServ in commissioning the flare as well as the manner of monitoring of the flare operation. UHA further contends that there are no expert reports which support the introduction of any sulphur containing wastes.

2.2.4 In its answering statement, EnviroServ states that the complaints analysis do not show an increasing trend and the complaints lodged in May 2019 are in fact the lowest recorded since May 2016. In addition to this, EnviroServ states that it has not requested the allowance of problematic waste streams and has proposed retention of a sulfate limit. EnviroServ states that it will not be disposing of liquid waste but will be treating wastes that

cannot be disposed due to the liquid prohibition and will thus be disposing of a suitably stabilized solid material. In addition to this, EnviroServ states that it will commit to no trenching on site. Further to this, EnviroServ states that the flare system in place will comprehensively deal with any adverse emissions, should these occur.

2.2.5 In evaluating this ground, I note that EnviroServ have taken numerous measures to reduce the emissions from the site and these measures have demonstrated reductions in the emissions from the site. The two decisions by the previous Ministers have constituted a partial uplifting of the suspension notice. I am of the view that there is currently sufficient information to determine if the entire suspension can be uplifted.

2.2.6 I note furthermore that EnviroServ has scientifically demonstrated a significant reduction in H₂S emissions from the site. Further to this, I derive from the complaints update which the Department has been receiving that there has been a reduction in the number of community complaints. I further find that the measures implemented by EnviroServ in the management of its Shongweni landfill site has limited the risk of health impact and odour annoyance.

2.2.7 The information before me indicates that EnviroServ has demonstrated sufficient progress at the Shongweni Landfill Site to warrant the uplifting of the suspension notice. However I find that certain remedial and preventative measures, inclusive but not limited to those recommended by EnviroServ, are vital in ensuring the continued minimising of odour and nuisance risk. As a result thereof I have decided to uplift the suspension of the WML and direct the Chief Directorate: Hazardous Waste Management and Licensing to review and amend the conditions in the WML so as to include necessary remedial and preventative measures.

2.3 The current condition of the site justifies the request for uplifting of the suspension of WML

2.3.1 According to EnviroServ, the current condition of the site, as confirmed by its monitoring data and inspections by both the Department's officials and their independent consultants,

justifies its request for uplifting of the suspension notice. EnviroServ states that with respect to odour impacts from the site, measured H₂S emissions show a continued downward trend and data from the community US EPA approved monitoring station reveals H₂S emissions in the area are currently significantly below the World Health Organisation (WHO) odour nuisance guideline value.

- 2.3.2 In response thereof, UHA states, *inter alia*, that the analysis conducted by EnviroServ is scientifically flawed and not based on an acceptable scientific method when investigating the source of odour, nor the express conditions imposed by the late Minister on 9 December 2017.
- 2.3.3 In its answering statement, EnviroServ states that its expert has reviewed all the available data in a detailed and holistic context to ensure an accurate interpretation of the daily complaints and the data reviewed included, *inter alia*, wind speed and direction from EnviroServ's weather stations.
- 2.3.4 In its analysis of the Departmental June 2019 ambient air quality data, UHA's expert, namely, Skyside provided in a letter dated 8 August 2019 that the data indicates that there were 71 breaches of the WHO-half-hourly guideline for H₂S in the 45 days. Skyside concludes that for an average at least 45 minutes of every day, the air quality is out of WHO specification.
- 2.3.5 In evaluating this ground, I am aware that in addition to EnviroServ's monitoring station, there is the Department's and UHA's ambient air quality monitoring station. One of the purposes of the Department's monitoring station was to independently verify the data obtained from EnviroServ's monitoring station. The Chief Directorate: Air Quality Management was requested to provide analysis of the ambient air quality monitoring data in and around the Shongweni landfill site.
- 2.3.6 The Chief Directorate: Air Quality Management advises me that the ambient H₂S levels have been on a downward trend since the remedial measures have been implemented by EnviroServ at the site. For the month of June 2019 the Department's monitoring station

provided data which indicated H₂S levels that are substantially lower than the peak H₂S levels reported in 2016. I note that the average H₂S concentration for the month of June 2019 was 1.38 ppb which is predominately below the WHO odour threshold of 7 ppb. The Chief Directorate: Air Quality Management also advises that the average H₂S concentration for the month of July 2019 is 1.8 ppb.

2.3.7 Further to the above, the Chief Directorate: Air Quality Management provided me with a comparison between the data from Department's and UHA's ambient air quality monitoring station. I am advised that the Department's monitoring data is supported by data from the UHA monitoring station located approximately four kilometres from the Department's monitoring station. Further to this the Chief Directorate: Air Quality Management did not raise any concerns regarding the manner in which EnviroServ has analysed the air quality data. I thus cannot find that the analysis conducted by EnviroServ is scientifically flawed.

2.3.8 Based on these sets of data before me, I am satisfied that the H₂S emissions from the Shongweni landfill site are not a health threat to the communities around the site. Secondly, while the H₂S dour threshold is exceeded at times, these episodes are few and short-lived.

2.3.9 I also note the comments received by the Community and Emergency Services Cluster Health Unit within the eThekweni Municipality. The said unit advises me that the reports have shown significant improvement in the pH and temperature on site. I am also advised that the site is not in its full methanogen state and therefore caution should be exercised.

2.3.10 I reiterate my finding that the site has indeed shown sufficient improvement to justify the uplifting of the suspension notice. In line with my instruction to the Chief Directorate: Hazardous Waste Management and Licensing regarding the review and amendment of the WML, I am of the view that EnviroServ should install and commission a permanent gas extraction system. This I derive from the Chief Directorate: Hazardous Waste Management and Licensing comment that such system will further reduce emissions from the site. The Chief Directorate: Air Quality Management also advises me that the gas extraction system is critical to the management of emissions going forward and its effectiveness needs to be

assessed. On this note the Chief Directorate: Air Quality Management recommends the following:

2.3.10.1 The landfill gas extraction, treatment and flaring system must be properly maintained and operational for 90% of the time over a period of a month;

2.3.10.2 The landfill gas extraction, treatment and flaring system must have 100% H₂S destruction efficiency; and

2.3.10.3 Monitoring and reporting of the operational status and efficiency of the landfill gas extraction, treatment and flaring system on monthly basis.

2.3.11 The Chief Directorate: Hazardous Waste Management and Licensing is to consider the above recommendations in its review of the WML

2.4 Additional remedial measures have been and will be implemented

2.4.1 According to EnviroServ, it has implemented and continues to implement additional remedial measures to ensure that the site has no impact on surrounding communities. EnviroServ goes on to specify the major remedial measures implemented by it. Further to this, EnviroServ states that the effect of the remedial measures are seen in the data from the United States Environmental Protection Agency (US-EPA) approved monitoring stations.

2.4.2 In response thereof, UHA expresses its concern that the complete uplifting of the suspension will not see these necessary remedial measures being continued. Furthermore, UHA disagrees that the monitoring stations are US-EPA approved.

2.4.3 In its answering statement, EnviroServ reiterates its proposals mentioned under paragraph 2.2.2 above. EnviroServ contends that a US-EPA approved Serinus SO₂/H₂S and a Teledyne SO₂/TRS monitor is in operation and used for monitoring odorous H₂S emissions related to its Shongweni landfill site. EnviroServ agrees that there are no US-EPA approved monitors for measuring H₂S only but questions why UHA so readily attacks the H₂S data provided by EnviroServ's instruments without placing the same caveats on the

data provided by the instrument used by UHA's expert which suffer from the same limitation.

2.4.4 In evaluating this ground, I note the current remedial measures that EnviroServ are implementing and the positive impact that such has had. I understand the concerns raised by UHA and agree that there is a need to obligate EnviroServ to implement certain remedial measures going forward as this is vital in ensuring the continued minimising of odour and nuisance risk. It is for this reason that I have decided to uplift the suspension of the WML and direct the Chief Directorate: Hazardous Waste Management and Licensing to review and amend the conditions in the WML so as to include necessary remedial and preventative measures. Further to this, I find the ambient air quality data from the EnviroServ monitoring station to be reliable as it correlates with that of the Department.

2.5 *Management of storm water and leachate at the site continues to show positive trends*

2.5.1 EnviroServ explains that storm water generated on site is separated into clean and contaminated water with the clean portion going directly to environment and the contaminated portion captured and contained within the built-for-purpose dams on site. It is further explained that the contaminated portion is tested to ensure compliance with specified limits and then ultimately transported to eThekweni's Southern Waste Water Treatment Works for lawful discharge. In addition to this, EnviroServ states that leachate volumes generated are treated, analysed and the results reported to the relevant authorities. According to EnviroServ, due to the lime dosing applied to the site, which is seen as a critical component in suppressing fugitive H₂S emissions, the key methanogenic parameters of chemical oxygen demand, volatile fatty acids and sulfates in the leachate have shown a general decline and stabilisation.

2.5.2 In response to this ground, UHA contends that it has not seen any of these records and therefore the submissions based on them should be ignored.

2.5.3 In evaluating this ground, I note the manner in which storm water and leachate are being managed on site. I reiterate that there has indeed been a decline in H₂S emission emanating for the site. I am thus inclined to conclude that the manner in which EnviroServ has been managing the storm water and leachate has been successful. As per my above findings, the WML should be amended to specifically state the manner in which storm water and leachate are to be treated and managed. On this note EnviroServ should be obliged to ensure, *inter alia*, that there is no trenching of storm water and leachate into the existing waste body and there is no recirculation of leachate or contaminated storm water.

2.6 There is a decrease in community complaints

2.6.1 EnviroServ states that the trend of complaints logged on the UHA website inherently also provides clear evidence that mitigation measures implemented by EnviroServ have been successful and the downward trend demonstrates that the containment of odours that are likely to be a nuisance has been successful. EnviroServ stipulates that it remains committed to investigating all valid complaints.

2.6.2 In response to this ground, UHA states that the complaints have decreased from grossly unacceptable to a level which still falls within the concept of significant impacts. UHA submits that there is no containment of odours as there are thousands of complaints in a single month and a steady increase in complaints since operations commenced on 5 October 2018. UHA relies on the findings of its expert, namely Dr Lisa Ramsay, which demonstrates the vast majority of complaints are associated with airflow from the landfill.

2.6.3 EnviroServ states in its answering statement that the UHA complaint data published on their website does not substantiate the claim that complaints have increased since operations commenced in October 2018. Further to this, EnviroServ states that there is no factual or scientific basis for UHA's allegations and questions UHA's data and methodology.

2.6.4 In evaluating this ground, I am aware that there has been dual and triple reporting of complaints which could distort the complaint analysis. Nevertheless, the information before

me indeed indicates a decline in complaints and I find that this correlates with the reduction of H₂S emissions. I am satisfied that EnviroServ has demonstrated a containment of odours through the implementation of remedial measures. There is currently sufficient information before me to justify the uplifting of the suspension notice issued to EnviroServ on 4 April 2017. As a result thereof, the suspension of the WML is uplifted.

3 DECISION

3.1 In reaching my decision on the request for uplifting the suspension of the WML, I have taken the following into consideration:

3.1.1 The request for uplifting of suspension of WML, received on 13 May 2019 together with annexures thereto;

3.1.2 The response to the request for uplifting of suspension of WML submitted by UHA on 3 June 2019 together with annexures thereto;

3.1.3 The answering statement submitted by EnviroServ on 14 June 2019 together with annexures thereto;

3.1.4 The comments by Chief Directorate: Air Quality Management received on 21 May 2019;

3.1.5 The comments from the Community and Emergency Services Cluster Health Unit within the eThekwin Municipality received on 31 May 2019;

3.1.6 The comments by Chief Directorate: Hazardous Waste Management and Licensing received on 2 June 2019;

3.1.7 The comments by Chief Directorate: Air Quality Management on the Departmental air quality monitoring data received on 23 July 2019 and 8 August 2019; and

3.1.8 The comments by UHA on the Departmental air quality monitoring data received on 8 August 2019.

3.2 In terms of paragraph 1.1 of annexure A of the appeal decision dated 9 December 2017, I may, on demonstration of containment of odours that are likely to be a nuisance, review the acceptance of further waste streams.

- 3.3 Having considered the above mentioned information, I have decided to uplift the suspension of the WML and direct the Chief Directorate: Hazardous Waste Management and Licensing to review and amend the conditions in the WML so as to include necessary remedial and preventative measures.
- 3.4 In arriving at my decision, it should be noted that I have not responded to each and every statement set out in the request or responses thereto, and where a particular statement is not directly addressed, the absence of any response thereof should not be interpreted to mean that I agree with or abide by the statement made.
- 3.4 Furthermore, should any party be dissatisfied with any aspect of my decision, it may apply to a competent court to have this decision judicially reviewed. Judicial review proceedings must be instituted within 180 days of notification hereof, in accordance with the provisions of section 7 of the Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000) (PAJA).



MS B D CREECY, MP

MINISTER OF ENVIRONMENT, FORESTRY AND FISHERIES

DATE: 26/8/2019