



# Centre for Environmental Rights

## Advancing Environmental Rights in South Africa



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CER/RH/TL

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Dear Olebogeng

### **SUBMISSIONS ON THE AMENDMENTS TO THE NATIONAL DUST CONTROL REGULATIONS 2013 PUBLISHED IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (AQA)**

1. In this document, we submit comments on behalf of a group of non-government and community-based organisations concerned about poor air quality caused by the prevalence of dust – from multiple sources – in their respective areas. These organisations include:
  - 1.1 groundwork (gW);
  - 1.2 Earthlife Africa Johannesburg (ELA);
  - 1.3 Federation for a Sustainable Environment (FSE);
  - 1.4 the Highveld Environmental Justice Network (HEJN) – comprising a number of community-based organisations;
  - 1.5 the South Durban Community Environmental Alliance (SDCEA);
  - 1.6 the Vaal Environmental Justice Alliance (VEJA); and
  - 1.7 mining-affected communities in Riverlea, Johannesburg, including members of the Mining and Environmental Justice Community Network (MEJCON) (“our clients”).
2. On behalf of our clients and partner organisations, the Centre for Environmental Rights (CER) has provided consistent and detailed submissions on the National Dust Control Regulations (“the Dust Control Regulations”), dating back to the development of the current Dust Control Regulations in 2013. Most recently, we submitted written comments and recommendations, dated 30 November 2017, focusing on the proposed

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amendments to the Dust Control Regulations (“the 2017 Comments”).<sup>1</sup> These written comments followed a Dust Control Regulations Stakeholder Workshop (“the Workshop”), hosted by the Department of Environmental Affairs (DEA) on 13 November 2017.

3. With reference to previous submissions, the 2017 Comments reiterate and substantiate many of the issues raised during the development of, and subsequent implementation of, the promulgation of the 2013 Dust Control Regulations.<sup>2</sup> The 2017 Comments also requested that the DEA not repeat the cycle of simply noting key weaknesses in the content of the Regulations, without addressing them in the revised version.
4. Notwithstanding the amendments to these draft Dust Control Regulations (“the 2018 Draft Regulations”), which are duly noted, we also note, with concern, that the **majority of our substantive recommendations in the 2017 Comments have not been incorporated by the DEA**. The following comments therefore further reiterate the general issues and specific recommendations previously submitted.

#### **General Comments on the 2018 Draft Regulations**

5. We maintain that the following general points are fundamental aspects that should inform the scope, objective, and approach of the Dust Control Regulations:
  - 5.1. We have expressed our support for the addition of “mining operations” and “listed activities” in draft Regulations 9 and 15, in relation to a fugitive dust emission management plan. However, we note that the explicit inclusion of these significant dust sources is futile without rigorous and effective enforcement of the fugitive dust emission management plan “developed prior to undertaking the activity”.
  - 5.2. The Dust Control Regulations should apply to and control all significant sources of dust emissions. In addition to mines and listed activities, the Dust Control Regulations should be explicit in relation to their application to activities and sources, and importantly, which non-anthropogenic sources are excluded i.e. arid areas. This will avoid any ambiguity and unintended consequences.
  - 5.3. We submit that the focus and primary objective of the Dust Control Regulations should be to manage, mitigate, and control dust emissions. The content and implementation of a dust management plan should be prioritised in the draft Regulations, with a monitoring programme and reporting as requirements to assess the effectiveness of the dust management plan in addressing any dustfall rate exceedance/s. We emphasise that section 32 of the National Environmental Management: Air Quality Act, 2004 (AQA) requires measures to “control dust” and “prevent nuisance” by dust, **as opposed to merely monitoring dustfall rates where there is evidence that exceedances already exist**.
  - 5.4. We note that the 2018 Draft Regulations retain the American Standard for Testing and Materials (ASTM) D1739 as the standard test method for measuring dustfall rate. **This method is not fit-for-purpose, and the extended averaging period for monitoring constrains an immediate response to short-term incidents/activities (e.g. demolition activities or wind storms)**. As we have noted in previous correspondence, the ASTM D1739 suffers from severe limitations as a method of measuring dustfall rates. It therefore remains our submission that alternative monitoring and measurement methods need to be considered by the DEA, recommendations for which are repeated below. Despite the inclusion of the “latest version” of the ASTM method in the ‘Definitions’ section and draft Regulation 6, this does not resolve the abovementioned shortfalls.

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<sup>1</sup> <https://cer.org.za/wp-content/uploads/2018/05/CER-submissions-Dust-Control-Regulations-proposed-amendments-30-November....pdf>

<sup>2</sup> See paragraph 2 of the 2017 comments.

5.5. During the course of the Workshop, the DEA acknowledged that the objective of the AQA is to protect the environment and human health in giving effect to section 24 of the Constitution of the Republic of South Africa, 1996. Both practically and in terms of regulating dust emissions, one **cannot separate nuisance dust from dust that causes health impacts**. It is therefore critical to correctly characterise the scope of these emissions to encompass all sizes and properties of dust particles. It is with this understanding that we can ensure that the measures adopted in the Regulations to control dust emissions are rationally connected to the purpose of protecting the environment and human health and well-being in terms of section 24 of the Constitution.

### **Comments on Specific 2018 Draft Regulations**

#### Definitions (Draft Regulation 1)

6. It appears that the only proposed amendment in this section is the insertion of “latest version” in the ASTM D1739 definition. Our clients therefore maintain that the following additional text should be re-considered for inclusion in the definition section:

6.1. confined to the local town planning scheme, the **definition of “residential area” may have the effect of excluding some informal and traditional areas around mining operations**. The definition should be amended to ensure that such areas – which are very vulnerable to poor air quality – are not excluded;

6.2. a significant source of dust emissions from mines is caused by the transportation of materials, minerals, or other material, by vehicles between the mining operation and other facilities i.e. outside the mining operation boundaries. Therefore **“transportation of any materials” should be explicitly included in the definition of “matters directly incidental thereto”** and

6.3. we commend the amendment of draft Regulation 16(2) to “best practicable environmental measures” (BPEM). However, for regulatory clarity and consistency, we submit that the **definition for BPEM, as proposed in the 2017 Comments,<sup>3</sup> be inserted in the 2018 Dust Control Regulations.**

#### Application of the Dust Control Regulations (Draft Regulation 3)

7. We emphasise the fundamental importance of local government’s role to ensure the effective implementation and enforcement of the Dust Control Regulations, and air quality management in general. We submit that this is particularly urgent in South Africa’s three declared priority areas.<sup>4</sup> The Air Quality Management Plan in Highveld Priority Area (HPA), for example, demonstrates that **49% of the Particulate Matter (PM<sub>10</sub>) emissions are sourced from mine haul roads**.<sup>5</sup> Recognising the vast number of mining operations in the HPA, coal specifically, ranging across a number of municipalities, the effective implementation by designated air quality officers at local government level is critical in such areas. We therefore, reiterate that the Regulations should:

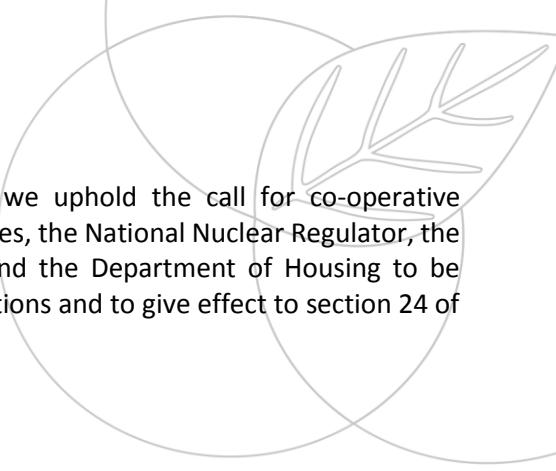
7.1. subject to the amendments proposed in this submission, call upon all metropolitan, district, and local municipalities to amend their respective by-laws so as to ensure that the 2018 Regulations are the **minimum dust control standard** (of course, where by-laws are stricter than the 2018 Regulations, they may not be weakened); and

7.2. clarify, where relevant, which air quality officers and other officials, in which government spheres, are responsible for implementation and enforcement of the Regulations.

<sup>3</sup> As per paragraph 9: “means the set of mitigation measures, on a case-by-case basis, that provides the most benefit or causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term”.

<sup>4</sup> As declared in terms of section 18 of the AQA to reduce ambient air pollution in compliance with the health-based National Ambient Air Quality Standards (NAAQS): Vaal Triangle Air-shed Priority Area (2006); Highveld Priority Area (2007); and Waterberg National Priority Area (2012).

<sup>5</sup> Highveld Priority Area Air Quality Management Plan (2011), Table 5 on page 19.



8. Furthermore, on the point of effective and efficient governance, we uphold the call for co-operative agreements between the DEA and the Department of Mineral Resources, the National Nuclear Regulator, the Department of Water and Sanitation, the Department of Health, and the Department of Housing to be established, to ensure the implementation of the Dust Control Regulations and to give effect to section 24 of the Constitution.

#### Dustfall Standard (Draft Regulations 4 and 6)

9. In terms of the ASTM D1739 test method, our concerns remain that the proposed Regulation does not take into account acute dust exposure over a short duration. Dustfall rates measured over a period of 30 days mask episodes of high emission rates that may occur over short time periods. The Regulations should be amended to set standards for exposure over a short duration, such as 24 hours.
10. In addition to challenging the validity of the monitoring method, we continue to dispute that the limit values retained in the draft Regulations are protective of human health. We note in paragraph 6.1. above that the present definition of “residential area” appears to exclude informal and traditional areas around mining operations – the effect of this is that these communities will be subjected to higher dust levels ( $D \leq 1200$ ). This, we submit, is in contravention of section 32 of the AQA and section 24 of the Constitution. It is clearly also completely contrary to the requirement in section 2(4)(c) of the National Environmental Management Act, 1998 (NEMA) for environmental justice.
11. We continue to advocate for available technologies that can be adapted to provide quantitative or semi-quantitative cost-effective methods for both monitoring and measurement.
12. We refer to our suggested examples in the 2017 Comments, namely: the use of two or three (or more for an activity with an extended area of operation) security cameras, which will require minimal adaptation to fit the purpose of monitoring the appearance of a dust plume from its source - with appropriate setup, calibration, and analysis of digital images, the images can provide a qualitative measurement of the dust concentrations and the severity of the dust event; portable PM measurement devices (such as the DUSTTRAK DRX AEROSOL MONITOR 8533 (<http://www.tsi.com/DUSTTRAK-DRX-Aerosol-Monitor-8533/>) or similar devices from PCE ([www.pce-instruments.com/](http://www.pce-instruments.com/)) may be co-located with the security cameras to continuously measure PM concentrations.
13. The regulatory development and deployment of these devices will, in due course, provide the data needed to determine appropriate enforceable standards. Mindful of these suitable instruments, and the DEA’s willingness as expressed at the Workshop to consider alternative methods, we respectfully cannot understand its decision to persevere with the ineffective and inappropriate ASTM method.

#### Non-anthropogenic Discount Factor (Draft Regulation 5)

14. We note the amendment in Regulation 5 to “exempt” naturally occurring, non-anthropogenic sources and extreme weather or geological events, as opposed to “discounting” these sources. This substitution has, however, not remedied our concern raised in the 2017 Comments – the amended version of Regulation 5 is still too ambiguous and susceptible to exploitation by entities or individuals that exceed the dustfall rates. Our clients strongly recommend that DEA revisit this Regulation as follows:
  - 14.1. the terms “extreme weather” and “geological event” must be defined in the Regulations;
  - 14.2. the text is narrowed to arid areas only, with presumably limited and/or no anthropogenic activity; and
  - 14.3. it is made explicit that an evidentiary onus is imposed on the entity/individual that/who relies on Regulation 5, i.e. it must be clearly demonstrated that the dustfall rate exceedance was as a result of a non-anthropogenic “extreme weather” event or “geological event”.

## Dustfall Monitoring Programme Section / Implementation of Dust Management Plan Section

15. With reference to the general comment in paragraph 5.3 above - the focus and primary objective of these Dust Control Regulations should be to manage, mitigate, and control dust emissions – we therefore submitted in the 2017 Comments that the order of the monitoring programme and management plan sections should be reversed, in order to better serve section 32 of the AQA and section 24 of the Constitution.<sup>6</sup> We stand by and reiterate this position in relation to the 2018 Draft Amendments.
16. In addition, we submit that draft Regulation 7 should be framed in peremptory terms, using “must” as opposed to “may”. If there is a reasonable suspicion that there is a contravention of Regulation 4, the air quality officer should not have a discretion in ordering remedial action. We therefore propose that draft Regulation 7 reads as follows:

*“An air quality officer must require any person, through a written notice, to implement a dust management plan as contemplated in regulation 16 and undertake a dustfall monitoring programme as contemplated in regulation 12, if an officer reasonably suspects that the person is contravening regulation 4.”*

### *Implementation of the Dust Management Plan*

17. In the 2017 Comments, we expressed our support for the DEA’s proposition tabled during the Workshop that the dust management plan should be implemented immediately, foregoing upfront approval by the air quality officer. We note that the DEA has indeed acted upon this in amending draft Regulation 14, requiring the implementation of the plan first and its submission within three months thereafter.
18. That said, we also cautioned that, in order to permit the immediate implementation of a dust management plan, it needs to be based on a prescriptive, but flexible, list of “Best Practicable Environmental Measures”. Despite the provision of a recommended non-exhaustive list in the 2017 Comments, none of these suggested measures has been specified in draft Regulation 16(2), or elsewhere for that matter.
19. In reviewing draft Regulations 10 (dustfall monitoring programme), 13 (contents of a dustfall monitoring report), for example, we observe the inclusion of minimum specifications i.e. “at least”.<sup>7</sup> We support these specific requirements, as they provide certainty (for all parties), contributing to the robustness and therefore overall effectiveness of the Dust Control Regulations. It is on this same basis that we maintain our recommendation to stipulate the flexible list of BPEMs.
20. Similarly, in relation to draft Regulation 16(3) – “detail an implementation schedule” – we reiterate that the implementation schedule also requires a clear timeframe in which the operation/individual will implement the appropriate prevention/mitigation measures to reduce dust emissions to the acceptable rates in the dust impact area. This will allow for the implementation schedule to be objectively monitored as a measure of progress in controlling dust emissions.
21. In response to the 2017 Comments, we note that draft Regulation 17 is amended to require the mandatory inclusion of the proof of implementation of the dust management plan, not on the instruction of the air quality officer.

### *Content of the Dustfall Monitoring Report:*

22. Despite the minimum specifications in draft Regulation 13, identified above, we note that the 2018 Draft Amendments do not incorporate our submissions in the 2017 Comments. Based on previous submissions and

<sup>6</sup> See paragraphs 18-9.

<sup>7</sup> See draft Regulation 13(5) and (6).

with reference to the recommendations submitted by the FSE, dated 26 November 2017, the 2017 comments focused on the health impact of dust from tailings storage facilities on affected communities.<sup>8</sup> These affected communities, we submit, should be explicitly included as 'sensitive receptors' in draft Regulation 13(3).

23. We have referred to the evidence of the significant health impacts caused by the inhalation and ingestion of radioactive and toxic dust fallout from gold and uranium tailings dumps.<sup>9</sup> Our clients once again reiterate that the Dust Control Regulations should require the geochemical analysis, including the chemical analysis and speciation required to determine the chemical toxicity, and radionuclide analysis to determine the radiological toxicity, of dust from tailings storage facilities. We submit that the geochemical analysis of dust from tailings storage facilities should be reported to the air quality officer on an annual basis.
24. We maintain that these radioactive and toxic dust emissions are within the DEA's remit, and that in light of the severe health risk posed and the objective of section 32 of the AQA and section 24 of the Constitution, the 2018 Draft Regulations fail to provide sufficient protection to mining affected communities.

#### Ambient Air Quality Monitoring of PM<sub>10</sub> (Draft Regulation 18)

25. Although we have specifically addressed the monitoring of PM<sub>10</sub> in previous submissions, we note the draft Regulation appears to be unchanged from its version in the 2013 Dust Control Regulations and the proposed amendments in 2017.
26. We reiterate the purpose of section 32 of the AQA to control dust emissions and the known health effects of PM<sub>10</sub>, among other forms of dust. We submit that the Regulations should require the mandatory monitoring of PM<sub>10</sub> in accordance with the ambient air quality standards, and that individuals or operations must comply with such standards. We therefore recommend that "may" in draft Regulation 18 is substituted with "must".
27. Furthermore, we emphasise that it is inadequate to require only the monitoring of a reasonably-suspected dust impact area, without requiring the immediate prevention and mitigation measures to address the source emitting PM<sub>10</sub>.

#### Offences & Penalties (Draft Regulations 19 and 20)

28. With reference to our submission in paragraphs 7-8 above on the role of local government and the importance of co-operative governance – as the AQA binds all organs of state, government offenders must also be held to account when they breach the Regulations.
29. We reiterate that the penalty provisions in the Regulations must be applied with due consideration to the factors set out in section 52(a)-(c) of the AQA (the penalty provision).

#### Transitional arrangement (Draft Regulation 21)

30. We note that these Regulations will take effect on 1 November 2019, unless otherwise indicated in the text. Based on the prevalence of dust emissions, especially the need to urgently reduce emissions in the industrialised priority areas and the Highveld with a high concentration of operational and abandoned tailing dams, our clients cannot accept this delay.

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<sup>8</sup> See paragraphs 24-9.

<sup>9</sup> See paragraph 26 and the previous submissions listed in paragraph 2 of the 2017 Comments. References include M. W. Sutton 'Land-Use after Mine Closure – Risk Assessment of Gold and Uranium Mine Residue Deposits on the Eastern Witwatersrand, South Africa' (2008); Gauteng Department of Agriculture and Rural Development: Feasibility Study on Reclamation of Mine Residue Areas for Development Purposes: Phase II Strategy and Implementation Plan (2011); and National Nuclear Regulator's Report, 'Radiological Impacts of the Mining Activities to the Public in the Wonderfonteinspruit' (2007).

31. We submit that the 2018 Dust Regulations still require further improvement, for the reasons reiterated in this document; however, a critical amendment is the explicit inclusion of mining operations and section 21 listed activities. Insofar as the 2018 Dust Regulations impose dust management obligations upon these proportionally larger sources of dust emissions, these provisions need to take effect as soon as possible.
32. We trust that the DEA will reconsider our recommendations in the course of its revision of the 2018 Dust Regulations. Please let us know should you require any additional information regarding any aspect of these submissions. As always, with our clients and experts, we continue to be both available and willing to work with the Department to ensure an effective set of regulations as envisaged by section 32 of the AQA.
33. Notwithstanding the above, in the event that DEA persists in publishing the same inadequate provisions, we reserve our clients' rights to challenge the 2018 Dust Regulations, including through litigation.

Yours faithfully

**CENTRE FOR ENVIRONMENTAL RIGHTS**

per:



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