



# Centre for Environmental Rights

Advancing Environmental Rights in South Africa

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CER/MF/RH/SK  
25 October 2016

Dear Minister Molewa

## **FOLLOW UP TO REQUEST FOR REVIEW AND STRENGTHENING OF THE NATIONAL DUST CONTROL REGULATIONS**

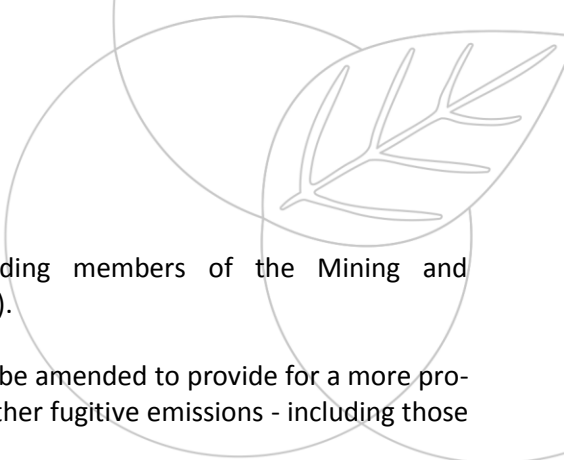
### **Introduction**

1. We, the Centre for Environmental Rights (“the Centre”) address you on behalf of a group of several non-government and community organisations concerned about poor air quality caused by the prevalence of dust in their respective areas, and on whose behalf we have written to you previously, in correspondence dated 16 October 2015, about strengthening the National Dust Control Regulations (“the Regulations”).<sup>1</sup> The 16 October 2015 correspondence is attached as **annexure ‘A’**.
2. These organisations include:
  - 2.1. groundwork (gW);
  - 2.2. Earthlife Africa Johannesburg (ELA);
  - 2.3. the Federation for a Sustainable Environment;
  - 2.4. the Highveld Environmental Justice Network (HEJN) - comprising 14 community-based organisations;<sup>2</sup>

<sup>1</sup> GG 36974 GN 827 of 1 November 2013

<sup>2</sup> Includes as affiliates the Movement Environmental Defence; Earthnogenesis; Greater Middleburg Residents Association; Guqa Environmental Community Service; Mpumalanga Youth Against Climate Change; Outrageous Courage Youth; Ekurhuleni

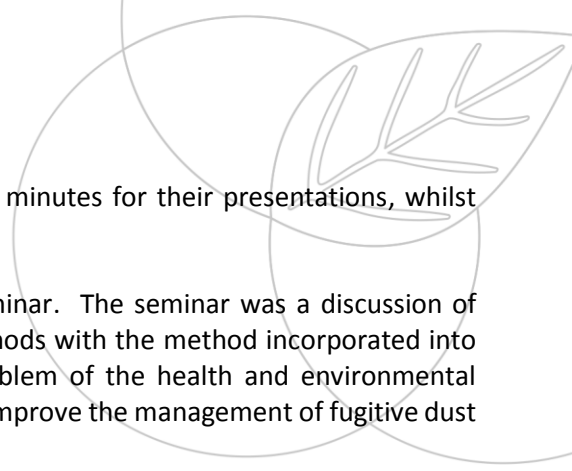
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- 2.5. the South Durban Community Environmental Alliance (SDCEA);
  - 2.6. the Vaal Environmental Justice Alliance (VEJA); and
  - 2.7. mining-affected communities in Riverlea, Johannesburg, including members of the Mining and Environmental Justice Community Network (MEJCON) (“our clients”).
3. In summary, we requested, in our correspondence, that the Regulations be amended to provide for a more proactive and cautionary approach for managing and controlling dust and other fugitive emissions - including those from mining activities.
  4. The Minister responded to our comments in an initial letter dated 26 February 2016, in which she stated that there were discussions in the air quality fraternity regarding the use of the ASTM D1739 version as the main scientific standard for measurement of dustfall, and that the Department of Environmental Affairs (“the Department”) would be revising the Regulations in the 2016/17 financial year. On 23 March 2016, the Minister sent detailed correspondence responding to our comments - this is attached as **annexure ‘B’**.
  5. We followed up with the Department on this correspondence, and, on 4 July 2016, we were informed by the Atmospheric Policy, Norms and Standards Control Environmental Officer – Mr Olebogeng Matshediso - that an academic joint seminar (“the seminar”) would be organised by the Department and the National Association for Clean Air (NACA) on 5 August 2016 on dust fallout monitoring.
  6. It was stated that the main objective of the seminar was to provide stakeholders with a platform to discuss methods for dust fallout monitoring, and their equivalence to the regulated method (ASTM D1739), with a view to inform future revision of the Regulations.<sup>3</sup> The Centre asked Professor Eugene Cairncross, who is well known to the Department and has been involved in many air quality processes, to attend this meeting due to its technical nature and his vast experience in dealing with air quality monitoring. After a lengthy delay and some apparent reluctance by the Department and NACA to allow Professor Cairncross to present, he was finally given permission to present at the seminar.
  7. Ms Mariette Liefferink from the Federation for a Sustainable Environment (FSE), one of the organisations that had signed on to the 16 October 2016 letter, also received an invitation from the Department about the joint seminar. She had also wanted to present on concerns of communities affected by uraniferous dust fallout from tailings storage facilities within the Witswatersrand goldfield at the seminar, but when she requested such opportunity from Ms Terry of NACA, she was told that it was a closed seminar and she was not permitted to present. She was advised that Professor Eugene Cairncross had been appointed to participate on FSE’s behalf. This, we point out, was not the case. Ms Liefferink sent an email with her concerns to the Minister for Environmental Affairs, Edna Molewa, and to the National Air Quality Officer, Dr Thuli Khumalo. A copy of this email is attached marked **annexure ‘C’**.
  8. Professor Cairncross reported back to the Centre on his return from the meeting. Below, we highlight some of the concerns from the joint seminar.
  9. We are surprised and concerned about the apparent reluctance to allow non-profit organisations and community representatives such as Professor Cairncross and Ms Liefferink to participate in and be present at the seminar - even though it would appear that the seminar was part of the response to the Centre and FSE’s request for a review of the Regulations.
  10. We note that the entire audience, with the exception of Professor Cairncross, Ms Liefferink, and Dr Gerrit Kornelius - an independent academic - consisted of representatives of regulated industries and environmental consultants

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Environmental Organisation; SANCO Tokologo; SANCO Emalahleni; Khutala Environmental Care; Schoongesicht Residents Committee; Caroline Environmental Crisis Committee; Guide the People and Wonderfontein Resettlement Forum.

<sup>3</sup> Invite sent 4 July 2016 from DEA’s Mr Olebogeng Matshediso



to these industries. The industry representatives were all allocated 30 minutes for their presentations, whilst Professor Cairncross was allocated 15 minutes for his presentation.

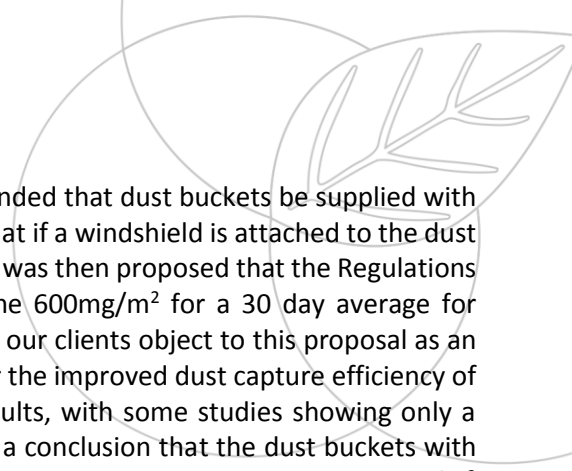
11. Professor Cairncross also noted the extremely narrow focus of the seminar. The seminar was a discussion of “dustfall” monitoring methods only, and a comparison of available methods with the method incorporated into the current regulations – rather than a broader discussion of the problem of the health and environmental problems caused by fugitive dust emissions, and how to strengthen and improve the management of fugitive dust emissions and to reduce and minimise their impacts.
12. We are also concerned about statements apparently made throughout the seminar that fugitive dust emissions were “not about health”, but about “nuisance dust”. This is not correct. The health of many community members has been affected, and continues to be affected by the exposure to dust from various sources in and around where they reside.
13. The Department’s narrow focus on the monitoring of fugitive dust, with the conscious exclusion of a discussion of methods to improve the control and management of fugitive dust, and the implications of such a discussion for the revision of the Regulations, would be more appropriate if its task were to monitor dust emissions only. However, the Department is also, of course, required to minimise these emissions as required by their constitutional mandate, the National Environmental Management Act 107 of 1998, and the National Environmental Management: Air Quality Act 30 of 2004 (AQA).
14. The AQA is very clear that one of its objectives is to give effect to section 24(b) of the Constitution, in order to enhance the quality of ambient air for the sake of securing an environment that is not harmful to the health and well-being of people. By only monitoring dust as a “nuisance”, and not finding other dust monitoring solutions for dealing with dust over-exposure and poor ambient air quality in areas where there have been complaints, the Regulations fail to give effect to affected people’s rights to ambient air that is not harmful to their health or wellbeing.
15. This insistence that fugitive dust is only a “nuisance” contrasts sharply with the overwhelming evidence that dust arising from mining operations, in particular, is contaminated with a range of toxic substances, including, in the case of extensive gold mining residues, arsenic and radioactive dust. The health risks posed by these contaminated sites is recognised in a number of jurisdictions, including South Africa.<sup>4</sup>
16. A report commissioned by the Gauteng Department of Agriculture and Rural Development (GDARD), published in 2009, showed, for example, that gold mine residues (tailing dumps, return water dams, spillage areas and waste rock dumps) occur extensively in Gauteng Province.<sup>5</sup> Many of these gold mine residues are located in proximity to residential areas, both formal and informal. This report indicates that these gold mine residues contain alarmingly high concentrations of toxic substances, particularly of arsenic (1 to 1348mg/kg) and uranium (0 to 1175mg/kg).<sup>6</sup> Dust arising from these residues is clearly harmful to the health of exposed populations.
17. As pointed out by Professor Cairncross in his presentation, exposure and health risks due to toxic dust occur via both ingestion and inhalation. Children in informal settlements suffer greater exposure and are at higher health risk, and, generally, residents in informal housing suffer significant health risks from fugitive dust emissions.

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<sup>4</sup> DEA 2010. Framework for the Management of Contaminated Land. <http://sawic.environment.gov.za/documents/562.pdf>, US EPA. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24. December 2002. Pamphlet: Mine Tailings \_ Dean Carter Binational Center for Environmental Health Sciences (<http://binational.pharmacy.arizona.edu/content/mine-tailings>)

<sup>5</sup> PW van Deventer, AM Hattingh, F Botha & F du Plessis. GDARD - Conceptual Study on Reclaimed Mine Land - Final Report: November 2009.

<sup>6</sup> Ibid. Table 3, page 19.

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18. We understand that, at the conclusion of the workshop, it was recommended that dust buckets be supplied with a windshield. This recommendation was apparently based on the view that if a windshield is attached to the dust bucket, the measurements would be more accurate. As a result of this, it was then proposed that the Regulations be revised to allow for 1200mg/m<sup>2</sup> for a 30 day average instead of the 600mg/m<sup>2</sup> for a 30 day average for residential areas – because the windshield will retain more dust. We and our clients object to this proposal as an appropriate solution to address the harmful impacts of dust. Evidence for the improved dust capture efficiency of buckets fitted with shields presented at the seminar showed mixed results, with some studies showing only a minimal improvement. No consistent evidence was presented to enable a conclusion that the dust buckets with windshields would capture twice as much dust as those without windshields. Increasing the limit to 1200mg/m<sup>2</sup> for a 30 day average is regressive, since, on our understanding, it means that double the amount of dust must be retained by the buckets before any action is required in terms of the Regulations.
  19. In our 16 October 2015 letter, we highlighted that the 30 day dust monitoring average currently used in the Regulations makes it difficult to quantify dust and fugitive emissions occurring at high concentrations during discrete intervals. We explained that dust monitoring reports obtained for various industries have shown that the dust readings regularly fall within the “acceptable” dust-fall rates, notwithstanding complaints of episodes of high emission rates, making it difficult to challenge non-compliance with the Regulations.
  20. Putting a windshield around the dust bucket may collect more dust, but that does not mean that the harmful exposure to dust through inhalation or ingestion will be reduced if the dust is still blowing in high concentration during certain intervals. The application of the Regulations in their current form is inadequate to deal with the significant impacts of high dust fallout averaged over a month. It is submitted that the limit values as they stand in the Regulations are already insufficient to protect human health, as is required by the objects of the AQA. Increasing the limit to 1200 mg/m<sup>2</sup> will merely exacerbate this situation and likely result in increased contraventions of the constitutional right to an environment not harmful to health or well-being.
  21. We and our clients maintain that the Regulations must be amended to provide for other more effective fugitive dust monitoring methods and that the amendments be aimed at improving the control and management of fugitive dusts in residential areas particularly. Regard should be had to the various other dust monitoring methods that are utilised in other countries - as outlined in our 16 October 2015 comments.
  22. In addition, in amending the Regulations, subcategory 5.1 on the storage and handling of ore and coal in the AQA s21 Listed Activities should also be revisited.<sup>7</sup> It provides:

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<sup>7</sup> Section 21 List of activities which result in atmospheric emissions which have or may have a significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage

**Category 5**  
**Mineral Processing, Storage and Handling**

(1) *Subcategory 5.1: Storage and Handling of Ore and Coal*

<b>Description:</b>		Storage and handling of ore and coal not situated on the premises of a mine or works as defined in the Mines Health and Safety Act 29/1996.	
<b>Application:</b>		Locations designed to hold more than 100 000 tons.	
<b>Substance or mixture of substances</b>			
<b>Common name</b>	<b>Chemical symbol</b>	<b>Plant status</b>	<b>mg/Nm<sup>3</sup> under normal conditions of 273 Kelvin and 101.3 kPa.</b>
Dustfall	N/A	New	a
		Existing	a
<sup>a</sup> three months running average not to exceed limit value for adjacent land use according to dust control regulations promulgated in terms of section 32 of the NEM: AQA, 2004 (Act No. 39 of 2004), in eight principal wind directions.			

23. The description for the storage and handling of ore and coal needs to be reviewed in order to ensure that it addresses all the situations and activities that give rise to dust emissions. The scope and description of solids storage structures (for example ‘tailings storage facilities’, tailings dumps’, ‘ore and coal stockpiles’) that are subject to this regulation should be clarified. We point out that gold mine tailings re-mining operations, which frequently occur in proximity to residential areas and are potential sources of significant dust emissions, should be explicitly included in the scope and description of the regulation. All measures required for dust control and management must be clearly stipulated. These dust control and management systems must meet a given standard as the default position.
24. Precedents are available from the s21 Listed Activities, which are aimed at controlling fugitive emissions from hydrocarbon liquid storage and handling facilities (see, for example subcategory 2.4 on the storage and handling of petroleum products). These subcategories have very specific and stringent requirements for minimising fugitive emissions.
25. We trust that this letter and our previous correspondence provide a basis for the prioritisation of the review of the Regulations. We and our clients also expect that there will be proper and effective public consultation, with all affected interested and affected parties, when these Regulations are reviewed.
26. Please let us know should you require any additional information regarding any aspect of these submissions. We, our clients and experts who provided input into our previous submissions are willing and able to work with the Department to review the Regulations.

Yours sincerely

**CENTRE FOR ENVIRONMENTAL RIGHTS**

per: 

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