



Centre for Environmental Rights

Advancing Environmental Rights in South Africa

Dr Thuli Mdluli
Chief Director: Air Quality Management
National Air Quality Officer
Department of Environmental Affairs
By e-mail: tnmdluli@environment.gov.za

Copy to:
Mr Vumile Senene
Director: Air Quality Management Services
Department of Environmental Affairs
By e-mail: vsenene@environment.gov.za

Mr Vusi Mahlangu
Nkangala District Municipality
By email: mahlangumv@nkangaladm.gov.za

Mr Chakane Sibaya
Fezile Dabi District Municipality
By email: chakanes@feziledabi.gov.za

Mr Dan Hlanyane
Gert Sibande District Municipality
By email: dan.hlanyane@gsibande.gov.za

Mr Phumudzo Thivhafuni
Limpopo Department of Economic Development,
Environment & Tourism
By email: thivafunipo@ledet.gov.za

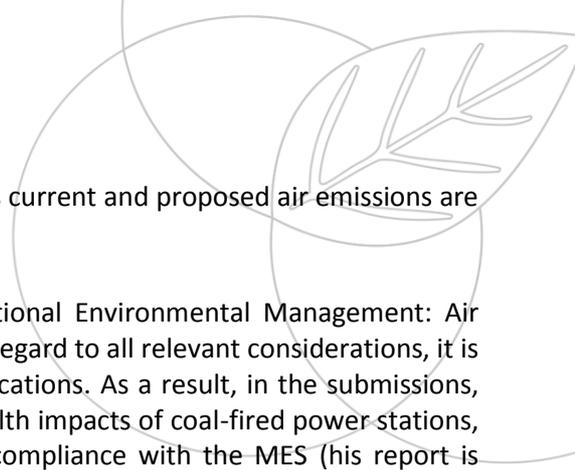
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Dear Dr Mdluli

ESKOM'S APPLICATIONS FOR POSTPONEMENT OF THE MINIMUM EMISSION STANDARDS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004: ESKOM HEALTH STUDIES

1. We refer to the above matter and to our previous correspondence, including the 12 February 2014 submissions opposing Eskom's applications for postponement of the minimum emission standards (MES), and variation of its atmospheric emission licences ("the submissions").
2. In the submissions, the Centre, on behalf of its clients, pointed out some of the numerous deficiencies in the applications, and argued that, in those circumstances, a decision made by the National Air Quality Officer (NAQO) to grant the postponement applications would be reviewable under the Promotion of Administrative Justice Act, 2000 (PAJA). As addressed in the submissions, one of the major shortcomings of the applications was Eskom's failure to undertake detailed assessments of the health impact of the postponement and variation applications. This, despite the requirement in the 2012 Framework for Air Quality Management that the

2nd Floor, Springtime Studios,
1 Scott Road, Observatory, 7925
Cape Town, South Africa
Tel 021 447 1647, Fax 086 730 9098
Email info@cer.org.za, www.cer.org.za



applicant for a postponement from the MES must show that the facility's current and proposed air emissions are and will not cause any adverse impacts on the surrounding environment.

3. In order to give effect to the section 24 constitutional right, the National Environmental Management: Air Quality Act, 2004, and the PAJA requirement that decision-makers have regard to all relevant considerations, it is essential for the NAQO to consider the health impacts of Eskom's applications. As a result, in the submissions, we referred to some of the literature that highlighted the significant health impacts of coal-fired power stations, and asked an expert to estimate the health impacts of Eskom's non-compliance with the MES (his report is annexure 5 to our submissions). The conclusions of this report are as follows:

"Air pollution emissions from Eskom's coal-fired power plants are currently causing an estimated 2,200 premature deaths per year, due to exposure to fine particulate matter (PM2.5). This includes approximately 200 deaths of young children. The economic cost to the society is estimated at 30 billion rand per year, including premature deaths from PM2.5 exposure and costs from the neurotoxic effects of mercury on children.

The non-compliance of Eskom's coal-fired power plants with the Minimum Emission Standards implied by the company's so-called "Emission Reduction Plan" would allow Eskom to emit an estimated 28,000,000 tonnes of excess SO₂, 2,900,000 tonnes of NO_x, 560,000 tonnes of PM₁₀ and 210 tonnes of toxic mercury over the remaining life of the power plants. The excess SO₂ emissions, for example, are equal to Eskom's entire emissions for 15 years at current rates.

The excess emissions are projected to cause approximately 20,000 premature deaths, over the remaining life of the power plants. This includes approximately 1,600 deaths of young children. These deaths will be avoided if Eskom's applications are rejected and full compliance with the MES is required. The neurotoxic effects of the excess emissions of mercury would result in a projected loss of 280,000 IQ points.

The economic cost associated with the premature deaths, and the neurotoxic effects of mercury exposure, is estimated at 230 billion rand, with a confidence interval of 32 to 1,010 billion rand. This cost is based on the estimated willingness of the affected people, given their income levels, to pay to avoid the increased risk of death. As individual people do not have the choice of spending money to significantly reduce toxic power plant emissions, government action to mandate polluters to invest in emission reductions is justified.

Valuing the life of people with lower incomes at a lower level is a contentious concept, and using the value of life based on studies in OECD countries for cost-benefit analysis, without adjusting for lower income in South Africa, would result in a several times higher estimate. Furthermore, the cost evaluation is conservative in that it does not account for health impacts other than deaths.

The aim of this study, carried out using a simplified approach to air pollution exposure assessment, is not to be the final word on the health impacts of Eskom's power plants. The uncertainties associated with the estimates are quite large, as is typical of health impact assessment studies. However, even given the uncertainties, the results clearly demonstrate that the potential health impacts and economic burden associated with Eskom's proposed non-compliance with the MES are very large. In the same vein, they demonstrate the acute need for recognition and assessment of the health impacts of the MES "rolling postponements" as a part of the decision-making process – an assessment that Eskom has so far refused to carry out".

4. In its applications, Eskom argued that the health impacts of its applications were negligible. However, as set out below, this allegation is contrary to information that Eskom had in its possession.
5. It had come to our attention that Eskom had previously conducted health impact assessments, but had kept these from the public domain. Given Eskom's allegations about its stations' negligible health impacts, and the significant evidence to the contrary, our clients took the view that it was essential to have access to these

documents to evaluate their contents, and that these studies be made available to the NAQO as they would be relevant to deciding the applications.

6. In response to an application brought by the Centre in terms of the Promotion of Access to Information Act, 2000, Eskom released two Airshed Planning Professionals reports that it had commissioned in 2006, at a time when Eskom only operated ten coal-fired power stations. The two reports, entitled “Eskom Mpumalanga Highveld Cumulative Scenario Planning Study” and “Air pollution health risk analysis of current and proposed Eskom power stations located in the Limpopo Province” are available at: <https://www.dropbox.com/sh/151f0l0wb2qm4hx/AAAj7vJFvy2z63w68sec2HYla>
7. Despite these reports being outdated, and the findings likely too conservative, they reveal that Eskom’s stations result in significant health impacts – including mortalities and hospital admissions.
8. In other words, despite being in possession of relevant information regarding the health impacts of its stations - in the form of reports it had itself commissioned - and despite the fact that interested and affected parties had complained about Eskom’s failure to conduct health impact assessments, Eskom failed to make these reports available as part of its applications.
9. It is submitted that the findings of these reports - which Eskom apparently now disputes¹ - make even clearer that an updated, comprehensive health impact assessment of Eskom’s applications is essential before they can be decided.
10. In this regard, the Department has provided us with copies of the letters it has sent to Eskom requiring it to provide additional information before its applications will be further processed. The letter in relation to Hendrina provides, *inter alia*, that “no assessment of emissions’ impact to human health and the environment was conducted”; and “a detailed assessment of emissions’ impact on human health and the environment has not been conducted.” It is not clear why none of the other letters regarding the coal-fired power stations contain this same statement. Instead, the letters for Tutuka, Arnot, Camden, Grootvlei, Kendal, Komati, Kriel, Lethabo, Majuba, Matimba, Matla, Medupi indicate that: “there is limited data supplied to undertake the PM_{2.5} health and environment impact”; and only the letters for Duvha and Hendrina provide: “assessment for environmental impact was only conducted for [flue gas desulphurisation], and not for the impact of the facility on the receiving environment as required by legislation”.
11. In the circumstances, we are instructed to reiterate that Eskom should be required to conduct detailed, comprehensive health impact assessments (not only in relation to PM_{2.5}) for all of its stations before its applications can be considered. We also request that our clients (through us) – and other interested and affected parties – be provided with copies of all correspondence between the Department and Eskom/its consultants regarding the processing of the applications, including Eskom’s response to the Department’s letters requiring additional information.
12. Should you have any queries, or if you have any difficulty accessing the reports at the Dropbox link, please let us know.

¹ <http://mg.co.za/article/2014-06-19-power-stations-are-deadly-internal-report-reveals>;
<http://www.timeslive.co.za/scitech/2014/06/20/eskom-disputes-killer-pollution-claim>

Yours sincerely
CENTRE FOR ENVIRONMENTAL RIGHTS

per: 

Robyn Hugo
Attorney

Direct email: rhugo@cer.org.za

