



Centre for Environmental Rights

Advancing Environmental Rights in South Africa

Honorable Barbara Creecy

Minister of Environment, Forestry and Fisheries

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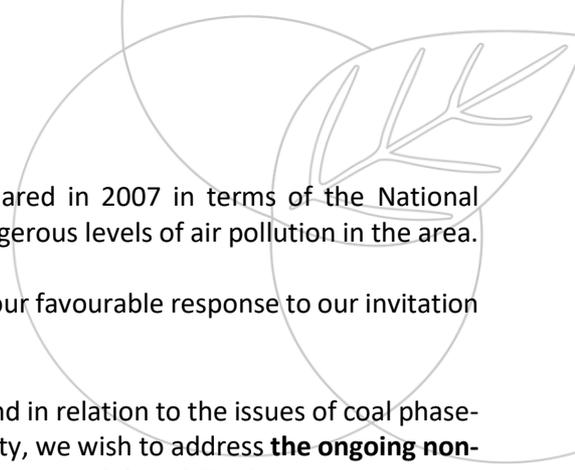
22 July 2019

Dear Minister Creecy

NEED FOR IMMEDIATE ENFORCEMENT ACTION RELATING TO ESKOM'S FLAGRANT NON-COMPLIANCE WITH ATMOSPHERIC EMISSION LICENCE CONDITIONS AT KENDAL POWER STATION

1. We address you on behalf of our clients, groundWork, Earthlife Africa Johannesburg, and Vukani Environmental Justice Movement in Action, otherwise referred to as the Vukani Environmental Movement (VEM).
2. As you know, the Centre for Environmental Rights (CER) and our clients have a particular interest and expertise in air pollution issues, the implementation and enforcement of South Africa's various air pollution laws, and protecting the Constitutional rights of vulnerable communities. Our clients represent and work closely with affected communities in the Mpumalanga Highveld, in particular, those whose health and well-being has been detrimentally impacted by air pollution in the area over a long period of time.
3. A dominant source of this air pollution is Eskom's existing fleet of 12 coal-fired power stations, including Kendal power station - the subject of this letter - situated near the town of eMalahleni. eMalahleni is one of the "pollution

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hotspots” located in the Highveld Priority Area (HPA), which was declared in 2007 in terms of the National Environmental Management: Air Quality Act, 2004 (AQA), due to the dangerous levels of air pollution in the area.

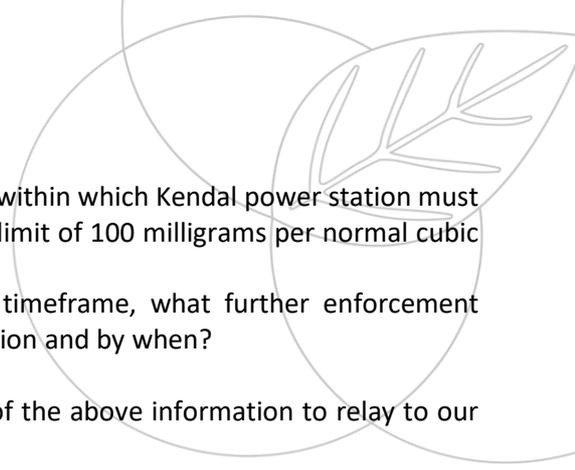
4. We refer to the CER letter sent to you on 5 July 2019. We thank you for your favourable response to our invitation to meet in order to discuss the crucial issues outlined in this letter.
5. In preparation for our meeting scheduled for Wednesday 24 July 2019, and in relation to the issues of coal phase-out, a just transition, and the dire health impacts caused by poor air quality, we wish to address **the ongoing non-compliance with atmospheric emission licence (AEL) conditions at Eskom’s Kendal coal-fired power station**. As outlined in the annexure, this non-compliance with Kendal’s AEL conditions is evidenced by Eskom’s own monthly emission reports from the period 2016 - 2018, an expert review of the AEL limit exceedances in Eskom’s monthly emission reports (2016-2017), conducted by Dr Ranajit Sahu, and visual and photographic evidence captured by public observers during the course of the past 12 months. We and our clients have also alerted the Department of Environment, Forestry and Fisheries (DEFF or the “Department”) to Kendal’s excessive emissions via Twitter and a telephone call.
6. Whilst we appreciate that a number of your colleagues in Cabinet, including Ministers Mantashe and Gordhan, also have responsibilities for Eskom’s operations, what does fall within your mandate is the non-compliance with environmental laws at Kendal power station, which has serious and detrimental impacts on people’s health, well-being, safety, and the environment. Kendal’s continued operation in violation of its AEL with impunity cannot be allowed to continue.
7. For the reasons set out below, our clients call on the Department to immediately initiate enforcement action to compel compliance with Kendal’s AEL conditions. Alternatively, in the event that enforcement measures have already been planned and are imminent, we are eager to understand what this entails during our meeting on Wednesday this week.

The need for immediate and meaningful enforcement action by government

8. Kendal’s AEL and sections 51 and 52 of the AQA are explicit that it is an offence to contravene or fail to comply with a condition or requirement of an AEL, including if air pollutants are at concentrations above the emission limits specified in an AEL.¹ A person - including Eskom’s directors and/or management personnel at Kendal power station - convicted of such an offence is liable to a fine not exceeding five million rand, and/or to imprisonment for a period not exceeding five years; and in the case of a second or subsequent conviction, to a fine not exceeding R10 million rand and/or imprisonment for a period not exceeding 10 years.
9. Eskom is also in non-compliance with the National Environmental Management Act, 1998 (NEMA)’s section 28 duty of care. In terms of section 49A of NEMA, Eskom’s unlawful and intentional or negligent acts or omissions which: cause significant pollution or degradation of the environment or are likely to cause significant pollution or degradation of the environment; or which detrimentally affect or are likely to detrimentally affect the environment are also offences. On conviction, the same persons are liable to a fine not exceeding R10 million and/or to imprisonment for a period not exceeding 10 years.
10. Our clients submit that this clear non-compliance with Kendal’s AEL conditions cannot be permitted to continue. There is both an obligation and a statutory duty that requires the Department to intervene. It is the Department’s core mandate to ensure compliance with South Africa’s environmental laws, including the AQA, promulgated to ultimately give effect to section 24 of the Constitution of the Republic of South Africa, 1996, and the rule of law. Our clients therefore request that the Minister provide the following information during the course of the meeting with CER this week, or before then:

10.1. what steps have been taken to enforce compliance at Eskom’s Kendal power station;

¹ See sections 51(1)(e) and 51(3).

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- 10.2. if enforcement action has been initiated, what is the timeframe within which Kendal power station must achieve a state of compliance with the particulate matter (PM) limit of 100 milligrams per normal cubic meter (mg/Nm³); and
 - 10.3. if compliance with the PM limit is not achieved within this timeframe, what further enforcement measures will the Department initiate against Kendal power station and by when?

11. We look forward to our meeting on Wednesday 24 July and to receipt of the above information to relay to our clients.

Yours sincerely

CENTRE FOR ENVIRONMENTAL RIGHTS

per:



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Annexure

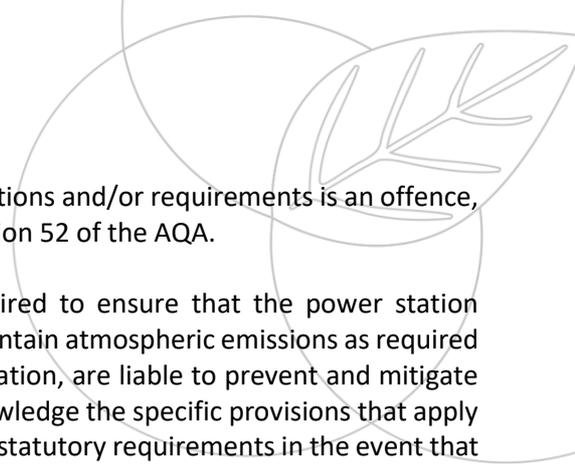
Kendal's atmospheric emission licence conditions

1. We attach Kendal's AEL as appendix "1" to this annexure, which was re-issued on 31 March 2015 following a variation to the emission limits due to Eskom's successful postponement application. This AEL expired on 31 March 2019, but we are not in possession of the latest AEL issued to Eskom by the Nkangala District Municipality; nor are its emission standards available on the South African Emission Licensing and Inventory Portal, as required. However, we understand that the emission standards and the other provisions we set out below still apply at Kendal power station. Those standards also applied during the assessments of Eskom's compliance with the AEL, described below.
2. In terms of Part 2, read with Chapter 5, of the AQA, Kendal requires an AEL in order to conduct the Listed Activities² reflected in the AEL, including solid fuel (coal) combustion. Section 21 of the AQA establishes minimum emission standards (MES) for coal combustion at installations with design capacity equal to or greater than 50 MW heat input per unit, such as Kendal power station, which result in atmospheric emissions, "**which the Minister or MEC reasonably believes have or may have a significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage**" (our emphasis).
3. We further note the following selected clauses as set out in Kendal's AEL:
 - 3.1. the general duty of care provision that requires the licence-holder (Eskom Holdings SOC Limited) to adhere to the duty of care obligations in section 28 of the NEMA, and failure to comply with this condition is a breach of the duty of care and subject to the sanctions in section 28 of NEMA;
 - 3.2. Eskom is responsible for ensuring compliance with the licence conditions by any person acting on its behalf, including, but not limited to, an employee, agent, sub-contractor or person rendering a service to the holder of the licence;
 - 3.3. the point source maximum emission rates for PM, Sulphur Dioxide (SO₂) and Oxides of Nitrogen (NO_x) for units 1-6, in terms of the 2015 and 2020 MES limits. In particular, the PM limit of 100 mg/Nm³ is currently applicable at the Kendal power station, as are relaxed emission limits for SO₂, granted to Eskom in terms of a previous application to postpone compliance with the MES;³
 - 3.4. the general operating requirements, including the location of Kendal in the HPA and that Eskom is liable to prevent and mitigate against the risk of harm to human health and the environment, and required to put in place measures necessary to prevent and/mitigate against such risks; and

² In terms of section 21 of the AQA.

³ We also wish to point out that Eskom seeks further leniency at Kendal in relation to all 3 pollutants, and seeks illegal exemption from compliance in relation to both NO_x and SO₂. As per its variation request dated March 2019 and the application for postponement currently before the National Air Quality Officer— which as far as we know has not been decided, Eskom seeks:

- i. Postponement of the new plant standard for PM between 1 April 2020 to 31 March 2025 and an alternative daily limit of 100 mg/Nm³ and an alternative daily limit of 85 mg/Nm³ for PM from 1 April 2025 until decommissioning (2039 - 2044). (The PM technology upgraded planned for Kendal will only be completed by 2025 and is not guaranteed to meet the 50 mg/Nm³ new plant limit);
- ii. Postponement of the new plant standard for SO₂ and an alternative daily limit for SO₂ of 3000 mg/Nm³ from 1 April 2025 until decommissioning (2039 - 2044) (A pilot to test SO₂ reduction technology is planned for 2022, this date may be moved due to funding constraints however);
- iii. A postponement of the NO_x new plant limit and an alternate limit daily limit of 1100 mg/Nm³. From 1 April 2025 Eskom requests a monthly limit of 750mg/Nm³ until decommissioning (2039-2044) (NO₂ levels in the area are in general compliance).

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- 3.5. failure to comply with any of the licence and relevant statutory conditions and/or requirements is an offence, and Eskom, if convicted, will be subject to penalties as set out in section 52 of the AQA.
4. Therefore, in accordance with Kendal's AEL obligations, Eskom is required to ensure that the power station complies with the emission limits for PM, SO₂ and NO_x, to minimise and contain atmospheric emissions as required by section 28(3) of NEMA; and those acting on behalf of Eskom, at the station, are liable to prevent and mitigate against the risk of harm to human health and the environment. We acknowledge the specific provisions that apply during start-up, maintenance, and shut-down periods of 48 hours and the statutory requirements in the event that this period is exceeded.
 5. As already highlighted in the CER letter, we reiterate that air pollution is the world's largest environmental health risk, responsible for the deaths of several million people each year. Whilst various sources contribute to this pollution, at a national level, Eskom, along with Sasol, are the two largest polluters in Africa, due to the burning of coal. A multitude of reports, including some commissioned by Eskom itself, reveal that industrial air pollution is responsible for at least hundreds of premature deaths every year, as well as thousands of respiratory and other illnesses. All of this at an enormous cost to the State, and in clear violation of the section 24(a) Constitutional right.
 6. In light of this, the CER letter calls on the Minister not to weaken the SO₂ MES, for the National Air Quality Officer (NAQO) to refuse Eskom's applications to postpone compliance with the MES, and refers to the litigation instituted by groundWork and VEM, in relation to the violation of Constitutional rights in the highly-polluted HPA.
 7. What is also of paramount importance, is that facilities with AELs – such as Kendal power station – are legally obliged to comply with their licence conditions. However, as we demonstrate below, this has not been the case at Kendal power station (or, in fact, at the majority of Eskom's stations).

Recurring exceedances of Kendal's AEL limits (2015 - 2018) without effective enforcement action

8. CER and our clients have extensively engaged with both Eskom management, the then Department of Environmental Affairs, and relevant municipal licensing authorities, regarding Eskom's compliance with South Africa's air pollution laws, specifically the MES. We continue to vigorously dispute that Eskom is in compliance with various emission limits contained in their AELs (all of which, apart from Kusile's, contain "relaxed" emission limits, as a result of their successful postponement applications).
9. Following an assessment conducted by Professor Cairncross of Eskom's compliance with its AELs over the period 1 April 2015 to 31 March 2016,⁴ the CER commissioned energy and air quality specialist, Dr Ranajit (Ron) Sahu, to conduct an updated assessment of Eskom's monthly emission reports for the period April 2016 – December 2017 ("the Exceedance Report").⁵ The latest version of this Exceedance Report, dated 22 March 2019, is attached as appendix "2".⁶ Dr Sahu reviewed Eskom's own hard-copy monthly monitoring reports from 14 Eskom coal-fired power stations, including Kendal power station, over this 21 month study period (April 2016 through December 2017), counting the number of days where reported emissions exceeded the corresponding AEL limit value. We emphasise that conclusions in the report are conservative and under-estimate the true scope of the problem due to a lack of availability of clear and comprehensive data.
10. The assessment revealed the state of Eskom's atmospheric emissions against its AELs – **3217 exceedances of the applicable daily AEL limits for PM, SO₂ and NO_x limits within less than two years**. This is illustrated in further detail below:

⁴ https://cer.org.za/wp-content/uploads/2016/07/AEL-Compliance-Assessment-of-Eskom-CFPSs-final-19-May-2017_final.pdf

⁵ Dr Sahu's review and opinions are based on his education, professional training, and twenty-eight years of experience in air pollution consulting and engineering.

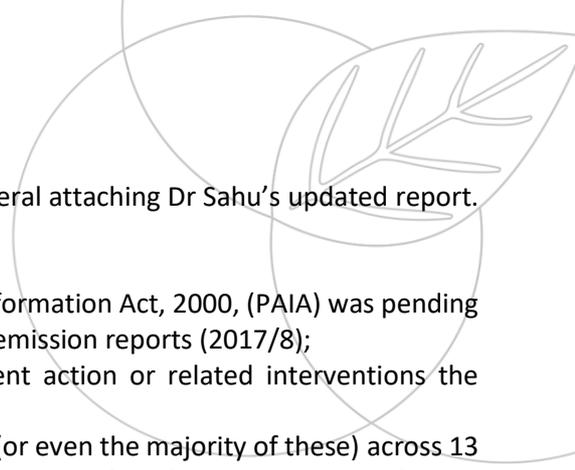
⁶ This study was originally issued in November 2018 with analysis hampered by several missing reports. After discussions with Eskom and others, these reports were received on February 28, 2019, with the updated findings presented in the 22 March 2019 report.

Power Station	Electricity Generation (MWh) 2016-2017 ²	Total Exceedances April 2016-Dec 2017	PM	SO ₂	NO _x
Lethabo	22,271,522	620	440	36	144
Matla	20,032,197	598	83	33	482
Matimba	25,610,275	449	0	449	0
Kriel	14,837,902	370	370	0	0
Duvha	16,349,000	249	164	28	57
Kendal	23,183,480	248	246	2	0
Camden	7,763,734	169	52	70	47
Grootvlei	4,545,234	125	48	63	14
Medupi	2,428,262	121	47	74	0
Tutuka	16,028,709	106	16	73	17
Komati	4,123,522	78	51	2	25
Majuba	20,900,760	61	49	9	3
Hendrina	8,919,238	23	0	12	11
Arnot	10,483,060	0	0	0	0
TOTAL		3217	1566	851	800

Table 1. Talled exceedances of PM, SO₂ and NO_x AEL limits at 13 Eskom power stations from April 2016 to December 2017, excluding clearly repetitive or erroneous reports.

11. The monthly emission reports for Kendal power station show approximately 248 exceedances within this period - the 6th highest out of 13 stations and 99% of Kendal's total exceedances are PM exceedances. The Exceedance Report also finds that there was a high frequency of exceedances of certain pollutants at certain plants, an example of which is Kendal with PM exceedances in 90% of the reported months (19 of 21 months), with up to 48 exceedances in a single month (June 2016). Finally, it is also noted in the Exceedance Report that *"Eskom has reported that Lethabo, Kriel, Kendal, Duvha and Matla do not have fabric filters. This study shows that these power stations without fabric filters had the most frequent exceedances of their PM AEL limits"*.⁷
12. The initial version of the Exceedance Report was submitted to both the Department and Eskom on 31 October 2018, for consideration. On the same day, the Director-General, Ms Nosipho Ngcaba, responded by email proposing dates to meet with CER to *"compare notes and reflect on the trends as captured from your expert assessments"*. We were unfortunately not available to meet on the proposed dates. However, in follow-up correspondence on 15 and 20 November 2018, we confirmed that Professor Eugene Cairncross and Dr. Ron Sahu (the authors of the reports set out in paragraph 9 above) would be available for the remainder of the month, and we requested convenient dates from the Director-General, Deputy-Director General, and NAQO, for a meeting to understand the Department's intended plan of action in response to the findings and recommendations in the Exceedance Report.
13. After receiving no response by the end of 2018, CER sent a further email on 1 February 2019, stating that we were still eager to arrange a meeting regarding the Department's plan of action in response to the findings of the Eskom Exceedance Report, particularly so in the midst of Eskom preparing its latest MES compliance postponement/suspension application and the preparation of the 2017/8 National Environmental Compliance and Enforcement Report (NECER). Dr Sahu was also planning a visit to South Africa during the course of February, which presented an opportunity for him to attend the meeting in person. We again received no response to this email.

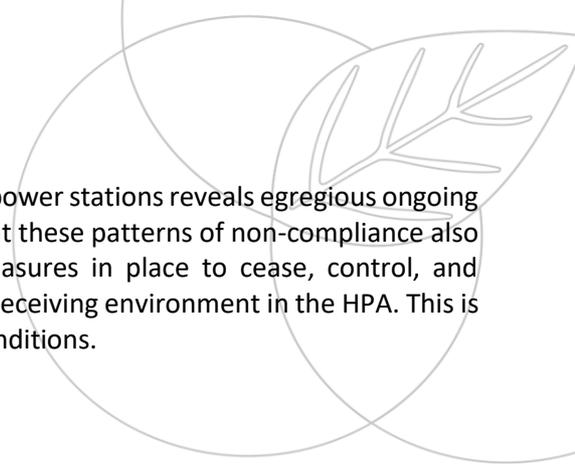
⁷ The report assessed the compliance of Eskom's coal fired power stations with 1 April 2015 AELs over the period of 1 April 2015 through to 31 March 2016, and ranked their pollutant and CO₂ emission intensities. A copy of this report is available at: https://www.ee.co.za/wp-content/uploads/2019/02/AEL-Compliance-Assessment-of-Eskom-CFPSs-final-19-May-2017_final.pdf

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14. Most recently, on 26 March 2019, CER sent an email to the Director-General attaching Dr Sahu's updated report. In the email, we also recorded the following:
- 14.1. that a request to Eskom in terms of the Promotion of Access to Information Act, 2000, (PAIA) was pending for Eskom's latest monthly emission reports (2018/9) and annual emission reports (2017/8);
 - 14.2. a request for information regarding compliance and enforcement action or related interventions the Department or local authorities had initiated against Eskom;
 - 14.3. that we do not accept Eskom's claim that over 3000 exceedances (or even the majority of these) across 13 power stations over a 21-month period could all be as a result of start-up, shut-down, or upset conditions. We confirm that Dr Sahu adopted a conservative approach in his assessment, excluding section 30 of NEMA incidents where specified in the emission reports, for example; and
 - 14.4. by Eskom's own admission, Kendal power station has been non-compliant with its AEL since January 2018.
15. To date, we have not received a response to this email either.
16. In the above email and in the written objections to Eskom's pending applications to postpone and/or suspend MES compliance, submitted on behalf of a number of our clients,⁸ we have acknowledged the relevant content in the Department's more recent NECERs. We note that, in the 2016/7 NECER, the Department issued a pre-compliance notice to Kendal power station, in response to which, Eskom accepted its shortcomings and committed to certain undertakings/improvements.⁹ Despite such undertakings, the 2017/8 NECER confirmed that a follow-up inspection was conducted at Kendal power station from 5 - 6 December 2017, which revealed, among other non-compliance issues, continued violations of the facility's AEL conditions and exceedances of its emissions limits.¹⁰
17. The 2017/8 NECER confirmed that the Department decided to issue enforcement notices against Kendal power station in response to the facility's multiple incidents of non-compliance observed during the inspection in December 2017. However, we submit, with grave concern, that these previous enforcement actions have evidently had little effect at Kendal power station, despite the facility developing a history of non-compliance with its AEL.
18. Following the PAIA request submitted to Eskom earlier this year, we have received redacted copies of Eskom's latest monthly emission reports (2018/9) and its annual emission reports (2017/8) for its coal-fired power stations. With expert assistance, we intend to analyse these various reports for all of Eskom's coal-fired power stations in greater detail; however, a sample of Kendal's monthly emission reports for January 2018, June-July 2018, December 2018, and January 2019, demonstrates the following alarming patterns of constant non-compliance with PM limits:
- 18.1. There is generally a significant time delay between the submission of the monthly emission report to the Air Quality Officer at the Nkangala District Municipality and the month that has been monitored. For example, the June and July 2018 reports were only submitted in February 2019.
 - 18.2. There are multiple exceedances of the PM limit of 100 mg/Nm³ at the majority of the 6 units at Kendal and recurring exceedances at particular units are significantly higher than the allowable PM limit. For example, units 5 and 6 reflect exceedances that are 12 to 13 times and 3-and-a-half to 4 times higher than the PM limit, respectively.
 - 18.3. There are no reasons provided for the exceedances in the June and July 2018 reports, and where reasons are provided in the January 2018, December 2018, and January 2019 reports, the exceedances are alleged to be caused by the same issues, including electrostatic precipitator damage, emission controls out of commission, and/or ash backlogs.

⁸ See paragraph 93 of the objections available at: https://cer.org.za/wp-content/uploads/2019/02/LAC-Eskom-MES-Postponement-Submissions_4-February-2019.pdf

⁹ Please see page 55.

¹⁰ Please see page 50.



19. A high-level review of just these 5 monthly emission reports from Kendal power stations reveals egregious ongoing non-compliance with the PM limit of 100 mg/Nm³. Our clients submit that these patterns of non-compliance also illustrate that there are inadequate operational and management measures in place to cease, control, and mitigate Kendal's chronic exceedances and the consequent harm on the receiving environment in the HPA. This is a breach of the section 28 duty of care and a violation of Kendal's AEL conditions.