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Our ref: CER/RH  
Date: 27 July 2015

Dear Avhantodi

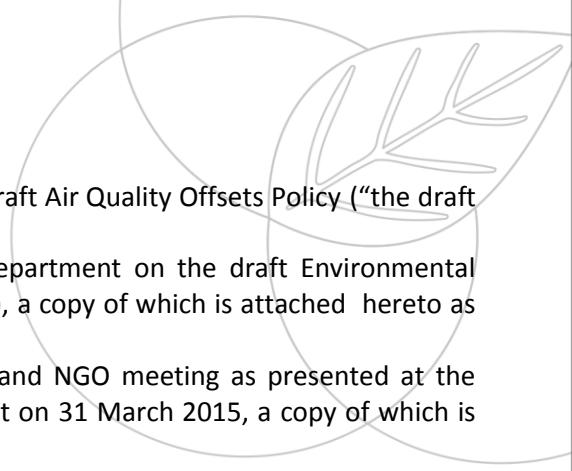
### **SUBMISSIONS ON DEPARTMENT OF ENVIRONMENTAL AFFAIRS' DRAFT AIR QUALITY OFFSETS GUIDELINE DATED JANUARY 2015**

1. The Centre for Environmental Rights ("the Centre") makes these submissions on the Department of Environmental Affairs' ("the Department's") draft Air Quality Offsets Guideline ("the draft guideline") on behalf of the following clients: groundWork,<sup>1</sup> Earthlife Africa Johannesburg, the Vaal Environmental Justice Alliance, the South Durban Community Environmental Alliance, and the Highveld Environmental Justice Network. Upfront, we are instructed to state that our clients do not agree, in principle, with the use of offsets as a management tool to avoid compliance with legislation. Our clients also do not agree that the air quality "offsets" as presented in the draft guideline qualify as offsets; they appear rather to be compensation. This is a position our clients have consistently maintained and which we reiterate in these submissions. We refer, in this regard, to the following:

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<sup>1</sup> groundWork is also doing its own additional comments on the draft guideline.

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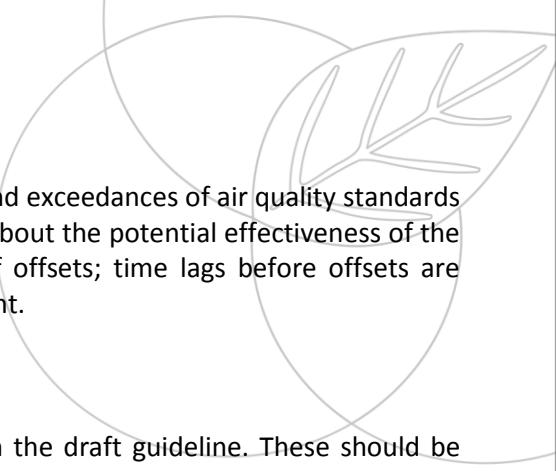


- a. the 21 February 2014 submissions made by the Centre on the draft Air Quality Offsets Policy ("the draft Policy"), a copy of which is attached hereto as "1";
- b. the 21 April 2015 correspondence from the Centre to the Department on the draft Environmental Offsets Discussion Document ("the draft Discussion Document"), a copy of which is attached hereto as "2"; and
- c. the 29 April 2015 presentation of outcomes of a community and NGO meeting as presented at the Department's meeting to discuss the draft Discussion Document on 31 March 2015, a copy of which is attached hereto as "3".

2. Our clients stand by these previous comments and request that they be read together with these submissions.
3. Upfront, we are instructed to point out that there is no legislative framework for offsets, nor does the term "offset" appear in any legislation in South Africa. Although there is also no overarching policy framework making provision for offsets, it is acknowledged that there are various offset guidelines, particularly for wetlands and biodiversity. Although a draft Environmental Offsets Discussion Document was prepared on the Department's behalf – which made provision for air quality offsets – as far as we are aware, this has not been finalised. In any event, such Discussion Document does not constitute policy or legislation and cannot be relied upon as constituting the necessary framework for air quality offsets.
4. The draft guideline states that offsets "*are not specifically highlighted as an option*" in the Constitution of the Republic of South Africa, 1996 ("the Constitution"), the National Environmental Management Act, 1998 (NEMA), or the National Environmental Management: Air Quality Act, 2004 (AQA), but that "*there is evidence elsewhere that offsets can provide an option for achieving improvements in ambient air quality, thereby improving human health while promoting justifiable economic development*".<sup>2</sup> According to the draft guideline, "section 43(m)" (sic) of AQA "*allows for the integration of offsets, as an air quality protection/improvement tool, within the licensing process.*"<sup>3</sup> We point out that section 43(1)(m) indicates that an atmospheric emission licence (AEL) must specify "*any other matters which are necessary for the protection or enforcement of air quality*". It is disputed that this provision authorises air quality offsets – there is no evidence that offsets as conceived of in the draft guideline protect or enforce air quality, let alone that they are "necessary" for this purpose.
5. We are also instructed to point out that none of the publications referred to in the draft guideline as "references" supports the type of air quality offsets proposed by the draft guideline. Nor do the examples provided in the draft Discussion Document bear any relation to the principles of offsetting – these are rather examples of compensation or corporate social responsibility projects.
6. The principle of legality requires that administrative action be legally authorised by the empowering statutory provision. Even if it were arguable that offsets could be relied upon in the authorisation context to ensure that environmental impacts are avoided and the best practicable environmental option is authorised and implemented, the relevant authority remains bound by the principles of administrative law which govern the exercise of public power and the scope and purpose of the particular empowering provision. Such power has to be exercised within the context of a particular proposed activity and its impacts. The effect of this is that, where offsets are included as conditions of authorisations, these must be supported by justifiable reasons and relevant considerations, and must be rationally connected with the purpose for which the power was given – i.e. to the impacts of the activity as assessed during the authorisation process. As described below, air quality "offsets" - as envisaged in the draft guideline and the draft Discussion Document - are not related at all to the impacts of the industrial activities for which the draft guideline proposes such offsets be used.
7. Next, we comment on the draft guideline, using the headings provided in the document. In summary, there are a number of potentially significant risks associated with the use of air quality offsets that could, amongst others, "let polluters off the hook", enable offsets to be used as "an excuse" for not reducing specific emissions and/ or

<sup>2</sup> 5.

<sup>3</sup> 9.



allowing polluters to “buy time”, and result in ongoing non-compliance and exceedances of air quality standards to the detriment of the public as a whole. Key risks include: uncertainty about the potential effectiveness of the proposed measures and how to measure this; inequities in the use of offsets; time lags before offsets are achieved; and limited capacity for compliance monitoring and enforcement.

## Abbreviations and table of contents

8. There are certain abbreviations listed which have not been used within the draft guideline. These should be identified and deleted from the “abbreviations” page. Also, certain abbreviations appear in the draft guideline, but not on the “abbreviations” page – this should also be corrected. In addition, the table of contents does not correspond, in every instance, with the contents of the guideline. For instance: there is no heading for “1.1 Regulatory Developments in Air Quality Management in South Africa; although “5.2 Areas of Intervention” appears in the table of contents under the heading “Offsets Design”, there is no such section in the draft guideline; and although “7.3 National Air Quality Officer” appears in the table of contents under the heading “Roles and Responsibility”, there is no such section in the draft guideline.
9. There are various typographical and similar errors in the guideline that should be corrected. For instance, “licence”, when used as a noun, is misspelled as “license” in various instances; “best practicable environmental” on page 5 is incomplete – it should read “best practicable environmental option”; “DNP” is used as an abbreviation instead of “NDP” on page 6; and page 13 refers to a “flow cart” rather than a “flowchart”.

## Introduction (section 1 of the draft guideline);

## Opportunities for the Atmospheric Emissions Offset Tool (section 1.3 of the draft guideline)

10. The draft guideline does not accurately reflect the constitutional environmental right. It is incorrect to refer to this fundamental human right as a “milestone”. In addition, the draft guideline improperly elevates “economic growth” considerations without proper recognition of the constitutional and legislative imperative for sustainable development. Ecologically sustainable development is not subordinate to economic and social development, and development that harms the environment, human health or wellbeing does not contribute to social development. The fact that South Africa is a developing country<sup>4</sup> facing “*major social and economic changes*”<sup>5</sup> and which has “*pressing economic growth objectives*”<sup>6</sup> does not mean that polluting companies should be permitted to operate outside the ambit of the law. It is also important to point out that the benefits and costs of economic development that results in harm are unevenly distributed – this is in contravention of the NEMA National Environmental Management (NEM) Principles that requires environmental justice<sup>7</sup> and equitable access to environmental resources, benefits and services.<sup>8</sup>
11. Air quality offsets in the draft guideline deal only with emissions and air quality in the context of human health; impacts of pollutants on ecological infrastructure such as water resources, productive agricultural resources and biodiversity – all of which affect human wellbeing and may affect livelihoods, are not addressed. Recent research<sup>9</sup> notes that environmental offsets often fail to take adequate account of environmental or ecosystem damages.

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<sup>4</sup> 5.

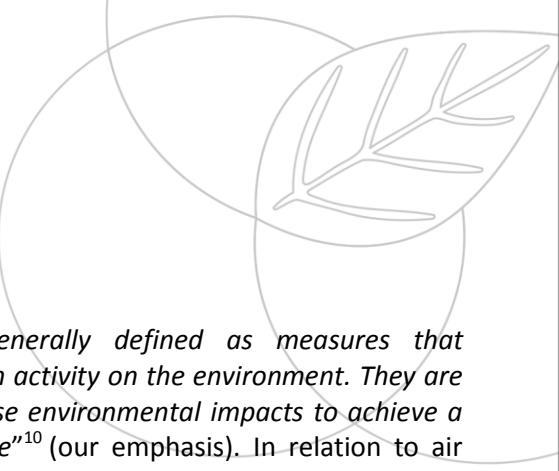
<sup>5</sup> 6.

<sup>6</sup> 6.

<sup>7</sup> S2(4)(c).

<sup>8</sup> S2(4)(d).

<sup>9</sup> E.g. Hahn R and Richards K 2013. Understanding the effectiveness of environmental offset policies. *Journal of Regulatory Economics* Volume 44, Issue 1, pp 103-119. DOI 10.1007/s11149-013-9211-1, available at: <http://www.smithschool.ox.ac.uk/library/working-papers/workingpaper%2013-01.pdf>



## Definition of offsets (section 1.2 of the draft guideline)

12. The draft guideline indicates that "*environmental offsets are generally defined as measures that counterbalance, counteract, or compensate for the adverse impacts of an activity on the environment. They are generally "balancing activities" carried out to counterbalance the adverse environmental impacts to achieve a "no net environmental loss" or a "net environmental benefit" outcome*"<sup>10</sup> (our emphasis). In relation to air quality, the draft guideline provides that "*an offset is an intervention, or interventions, specifically implemented to counterbalance the adverse environmental impact of atmospheric emissions in order to deliver a net ambient air quality benefit within the affected airshed/s*" (our emphasis).
13. In order to ensure a net benefit and/or overall ambient air quality improvement, a measure of residual negative impacts and of intended "gains" in air quality is essential. However, the draft guideline focuses solely on measuring the "offsets" in relation to an air quality baseline, in a way that is unrelated to residual negative impacts. That is, there is no measurable equivalency or commensurate compensation for impacts - this appears to be entirely at the discretion of the authorities and proponent. This is unacceptable to our clients.
14. Following on from the above point, and as addressed below, a principle of the proposed offsets is that they are not "like for like" exchanges of emissions/ pollutants. Offsets, by definition, involve equivalent gains for losses. In the absence of any exchange rules between the different pollutants that are to be "lost" and "gained", the term "compensation" and not "offsets" should be used. As highlighted below, the draft guideline thus does not satisfy many of its own principles (e.g. "additionality", delivering a "net ambient air quality benefit", and being "measurable and scientifically robust").
15. Studies by proponents of offsets insist that they are but one of a hierarchy of interventions implemented to counterbalance negative impacts. International literature on environmental impact and sustainability assessment, written within this framing, argues that offsets or compensation typically constitute the final step in a sequence of measures that can be taken to mitigate negative impacts: the so-called "mitigation hierarchy". Prior to considering them, it is generally seen to be important first to strive to avoid, then to minimise and repair or rectify harm. Only then would offsets or compensation be considered to remedy residual negative impacts. This sequence of mitigation measures is explicitly reflected in the NEM Principles with regard to pollution and degradation of the environment.<sup>11</sup> As set out below, the principle of "additionality" is incorrectly used, and, in fact, undermined in the draft guideline. This principle requires that the offset achieve gains beyond what would have occurred had the offset not been implemented, taking into account existing legal obligations and requirements (like emission standards and ambient air quality standards).
16. The draft guideline sends mixed messages with regard to the mitigation hierarchy - for example, it states that: "*any authorisation in terms of AQA which sets offsets as a condition should take into account not only the impacts of offsetting, but also all other measures to reduce emissions within the facility itself. This means that the offset should not be seen as a substitute for efforts that can be made to reduce emissions from a facility*";<sup>12</sup> "*the facility must make all the necessary efforts to reduce emissions, such that the offset programme becomes a complementary measure*"; "*offsets are not intended to replace regulatory and enforcement tools, but are an additional tool that can be used to achieve long-term environmental protection*";<sup>13</sup> and "*it is envisaged that offsets will provide the opportunity to remedy the impacts of pollution where it cannot be completely avoided or minimised further*". These provisions suggest a strict application of the mitigation hierarchy, with a requirement that emissions be minimised, prior to considering offsets.

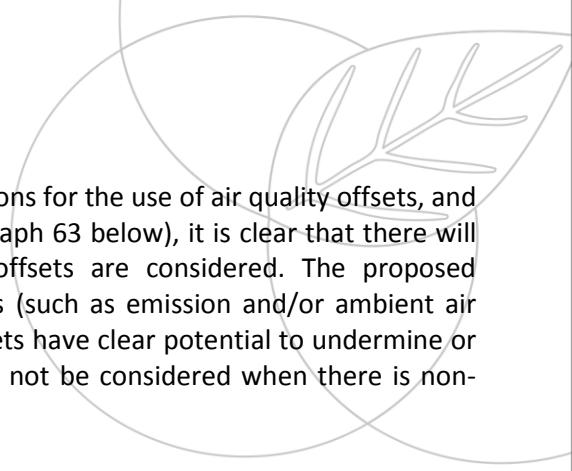
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<sup>10</sup> 5.

<sup>11</sup> S2(4)(a)(ii).

<sup>12</sup> 9.

<sup>13</sup> 6.



17. However, when regard is had to the draft guideline's proposed applications for the use of air quality offsets, and the cases in which they have already been used (discussed from paragraph 63 below), it is clear that there will be circumstances where emissions will not be minimised before offsets are considered. The proposed applications for offsets link them to the relaxation of core regulations (such as emission and/or ambient air quality standards) and permit non-compliance for periods of time. Offsets have clear potential to undermine or weaken core regulatory tools. Our clients reiterate that offsets should not be considered when there is non-compliance with standards.
18. As previously recommended – in our comments on the draft Policy - the definition of offsets in the draft guideline should be amended to refer to "*residual adverse environmental impacts after steps to avoid and minimise these impacts have first been taken*", or the prerequisites for bypassing the "minimise and repair/rectify" steps in the mitigation hierarchy must be made explicit. In our view, the pre-requisites for moving from avoidance straight to offsets should include, at minimum, the following:
  - a. offsets would be substantially more cost-effective than minimisation and would guarantee the same or better outcomes for air quality in the same timeframe;
  - b. offsets present a lower risk option to achieving desired outcomes for air quality in the same timeframe;
  - c. offsets would deliver a more efficient and better outcome in a shorter timeframe; and/ or
  - d. offsets would deliver the same outcomes in the same timeframe, and would endure for longer.
19. The acceptability of offsets must be seen in relation to sustainability goals, thresholds of change in environmental quality and acceptability of impacts, desired outcomes, as well as such considerations as risk. Of critical importance with regard to air quality offsets is the demarcation of what would – and what would not – be "acceptable".
20. The definition in the draft guideline also fails to link offsets to a particular project or development and its proponent (the "polluter"); individual offsets need to be linked to a particular polluter's actions and responsibilities.
21. As elaborated upon below, it is not clear how environmental offsets can be used to measure environmental protection, specifically in the case of air quality, nor how a result of "*no net environmental loss*"<sup>14</sup> can be achieved between the air quality impacts of, for example, a coal-fired power station and the air quality impacts that result from normal community activities.

#### **Opportunities for the Atmospheric Emissions Offset Tool (section 1.3 of the draft guideline)**

22. Our clients submit that the introduction of offsets will increase the challenges mentioned in this section: population growth, migration and industrial development. As companies like Eskom begin to offer free services and other benefits as offsets (in exchange for non-compliance with the law), it can be expected that more people will move into the areas in which offsets are offered. How will this unintended consequence be mitigated and how will it be determined which households are in need of which kinds of benefits? These are critical elements to consider and have not been mentioned in the draft guideline. The provision of services that are protective of health and well-being is a commitment that must be fulfilled by government, not industry.
23. The draft guideline states that South Africa "*is also characterised by dense, low income communities that rely mainly on coal and other dirty fuels for domestic cooking and burning*", and states that offsets may "*provide the opportunity to address these complex pollution sources by allowing concerted efforts by both government and polluting industries to clean up the air*".<sup>15</sup> The draft guideline seems to be largely concerned with fugitive emissions from households, which have never been systematically measured, characterised or documented. Our clients dispute that all low-income communities rely on dirty fuel as their primary energy source. They also

<sup>14</sup> 5.

<sup>15</sup> 7.

dispute that household emissions are the main drivers of exceedances of ambient air quality standards and that compliance can be achieved only – or even mainly - by household interventions. It is submitted that there needs to be a better measurement and understanding of the drivers of air pollution so that appropriate interventions can be identified and implemented.

24. In April 2015, the CER called upon the Director-General to publish for comment the long-overdue Draft Strategy to address Air Pollution in Dense, Low-Income Settlements by 30 April 2015. A copy of this correspondence is attached hereto as “<sup>4</sup>”. Despite follow-up correspondence from the CER, no response has been received to this correspondence, and this draft strategy has not been published for comment. It appears from the version of this strategy made available by the Department in 2013 that it aims to *“provide a coordinated approach in implementation of efforts aimed at ensuring that ambient air quality in dense low-income settlements is in compliance with National Ambient Air Quality Standards, thereby ensuring the right to air that is not harmful to people’s health and well-being as required by section 24 of the Constitution of South Africa”*.
25. Our clients agree that concerted efforts are urgently required to address the significant health impacts of burning domestic fuels. But offsets are not the appropriate means to address this issue. In any event, addressing domestic coal burning does not mean that the air will be “cleaned up”.<sup>16</sup> The impacts of industrial pollution will remain.
26. The need for interventions to reduce non-industrial and domestic emissions is therefore acknowledged, as are the opportunities to involve both the private and public sector polluters in contributing to these interventions. However, the criteria on which exchanges between impacts and offsets are based (i.e. dealing with the type of acceptable exchange in time and space, and levels of risk in terms of outcomes) are of crucial importance in decisions on whether or not to use offsets, in which circumstances, and in which locations. Clear criteria are not provided in the draft guideline, and should be. In any event, regardless of an offsetting policy, industries and government are legally required to reduce ambient environmental exceedances.
27. The air quality in Priority Areas does not have the “potential” to impact poorly on human health – it does impact poorly on human health. It is submitted that the challenge of unemployment has little relevance to the draft guideline.
28. It should also be pointed out that, in addition to mentioning the need for economic growth, the National Development Plan also calls for the prudent use of natural resources and stimulating the Green Economy. In any event, the *“aspirations of the National Development Plan”<sup>17</sup>* can never trump the Constitution and legislation enacted to ensure compliance with the constitutional environmental right.

#### **Aims and objectives (section 1.4 of the draft guideline)**

29. The aim of the draft guideline is quite vague. It does not, for instance, state explicitly what the purpose and desired outcome of offsets should be. A clear statement to this effect should be included.

#### **Legislative context (section 2 of the draft guideline)**

30. It is submitted that offsets which allow non-compliance with ambient air quality standards or minimum emission standards (MES) violate the constitutional environmental right. They are also contrary to the mitigation hierarchy in NEMA. Our client submits that air pollution from polluting coal-fired power stations - such as those belonging to Eskom - can be avoided through use of the appropriate technology or through decommissioning ageing power stations and transitioning to alternative energy.

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<sup>16</sup> 7.

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31. As pointed out by the draft guideline, AQA provides “reasonable measures” for the protection and enhancement of air quality. Despite the reasonableness of these measures, and the fact that the MES were negotiated in a multi-stakeholder process that included industries like Sasol, Eskom and the National Petroleum Refiners of South Africa (Pty) Ltd (Natref), these companies proposed – and were granted permission – to implement offsets as an alternative to legal compliance with MES. From paragraph 63 below, we address these applications to postpone MES compliance.

32. The regulation of air quality aims primarily to give effect to the constitutional environmental right – to secure an environment that is not harmful to the health and wellbeing of people. However, the draft guideline focuses almost exclusively on human health and fails to address other components of wellbeing, many of which are intricately linked to environmental health. The fact that air quality impacts affect the biophysical environment and human wellbeing (e.g. agricultural productivity of crops and livestock health, both linked to livelihoods), as well as water resources and aquatic ecosystems (which, in turn, may be linked to livelihoods and/or biodiversity issues), appears to be overlooked. In order to satisfy the object of the AQA, the NEMA and the Constitution (providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development, while promoting justifiable economic and social development), this broader spectrum of potential negative impacts that would need to be addressed through air quality offsets must explicitly be taken into account.

33. We note that the draft guideline only refers to a few of the NEM Principles, omitting some of the most fundamental ones; including:

- environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests (section 2(2));
- sustainable development requires the consideration of all relevant factors, including that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions (section 2(4)(a)(vii));
- sustainable development requires the consideration of all relevant factors, including that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and, where they cannot be altogether prevented, are minimised and remedied (section 2(4)(a)(viii));
- environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (section 2(4)(c)); and
- equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination (section 2(4)(d)).

34. These and other NEM Principles militate against the use of air quality offsets as envisaged in the draft guideline.

#### **Air quality offsetting principles (section 3 of the draft guideline)**

35. It is submitted that the draft guideline in many instances contradicts the very principles it provides; particularly the need for: offsets to be “outcomes-based” – resulting in “net ambient air quality benefit”; “additionality”; and for offsets to be “measurable and scientifically robust”.

36. The draft guideline appears to use offsets as a means of influencing the “*air quality within the airshed*”. The envisaged “outcome” is “*overall improvements in ambient air quality within the airshed*”.<sup>18</sup> The translation of the “polluter pays” principle and application to offsets is thus problematic and begs a number of questions regarding the equity of the proposed exchanges: how will air pollutants that are not offset be remedied (or would they be allowed to remain non-compliant); and how will the particular exceedances of a specific polluter be “translated” into an equivalent “other pollutant”? Determining a reliable and defensible basis for

<sup>18</sup> 10.

determining equivalency between the impacts of regulatory relaxation and the offset effort is fundamental to any system of offsets. Unless there is rigorous measurement of residual negative impacts and gains, and they are effectively “counterbalanced”, this “outcome-based” principle will not be satisfied. This draft guideline focuses on “improvement” in air quality relative to baseline conditions, and not on “net benefit” in relation to specific potential residual negative impacts on air quality caused by a proponent.

37. The draft guideline seems to overlook this crucial aspect – i.e. that the quantum of gains must be commensurate with the quantum of losses. Instead, it focuses on measuring the offset, ignoring the quantum of damage for which the “out of kind” offset is designed to deliver compensation. In other words, there is no assessment of the basis on which the proposed scope of gains will be evaluated in relation to the losses. Although the draft guideline provides that: offsets must be “*measurable and scientifically robust*”;<sup>19</sup> that “*the emission reduction potential of the offsets*” should be calculated;<sup>20</sup> and that emission reductions should be “*quantified*”, there appears to be no point of reference in order to determine how to adequately measure the impact of offsets. It is not clear on what basis the scale or scope of “*acceptable*”<sup>21</sup> offsets would be gauged, nor by whom.
38. Requiring “*overall improvements in ambient air quality within the airshed*” is unacceptably vague, and not measurable, enforceable or auditable. It also does not appear to be tied to the activities and responsibilities of the polluter, or to specific pollutants. It is recommended that a more explicit outcome should be stated, and that this outcome makes clear that offsets will not be considered unless they will result in compliance with all ambient air quality standards.
39. According to the draft guideline, the proposed offset should address pollutant(s) “*whose ambient concentration is/are of concern in a particular area, and not necessarily the pollutant(s) whose emissions from a specific facility is/are of concern*.”<sup>22</sup> The draft guideline does not sufficiently address the intention regarding, and/or distinction between the use of air quality offsets to remedy exceedances of specific pollutants in terms of emissions standards, and the use of air quality offsets to remedy ambient air quality standard exceedances with regard, potentially, to other pollutants. It appears that the draft guideline permits exceedances of some pollutants in relation to emission standards – provided that ambient air quality as a whole is improved.
40. As one of the references relied on by the draft guideline makes clear (in the context of sequestration), “*when relevant to emissions, ‘like for like’ applies to both the chemical and quantity of emissions. The chemical being offset should be the same as the chemical being emitted... ‘Like for like or better’ refers to not only achieving ‘like for like’ but aiming for improvements beyond what is required for ‘like for like’. This may refer to either an enhancement in either the quality or quantity aspects of the offset activity while still considering ‘like for like’ requirements....Where relevant to emissions, ‘like for like or better’ may consist of a greater amount of pollutant being sequestered than what is required under ‘like for like’ and ‘offset ratio’ requirements .... ‘Like for like or better’ may also refer to achieving ecosystem improvements at the same time as achieving emission offsets*”.<sup>23</sup>
41. The fact that air quality offsets as conceived of by the draft guideline will not be “like for like” means that there is a material risk that the pollutants that are cheapest to address will be targeted by polluters, rather than those pollutants which pose the most harm. This is unacceptable to our clients. It is crucial for the regulator to provide defensible reasons and explicit criteria for determining “out of kind” offsets or exchanges between pollutants that would be deemed acceptable (e.g. SO<sub>2</sub> reduction to “offset” PM<sub>10</sub> exceedance, or *vice versa*).

<sup>19</sup> 11.

<sup>20</sup> 14.

<sup>21</sup> 10.

<sup>22</sup> 10.

<sup>23</sup> Australian Environmental Protection Authority (EPA). *Environmental Offsets: Position Statement No. 9*, 2006 at 10.

42. In relation to transparency and accountability, the draft guideline is not consistent about the role of communities; and, in particular, whether the proponent only needs to **consult** with affected people, or whether their **consent** to the offset is required. It indicates that:

- a. *“a public consultation process should be undertaken to ensure public buy-in of offset projects”<sup>24</sup> and “getting community buy-in”<sup>25</sup> – implying that community consent is required; and*
- b. *“affected communities will be granted the opportunity to participate in the various platforms, comment and suggest on (sic) the appropriate offsets project options” and it is important that the affected communities are consulted (and, where necessary, demonstrate support) in relation [to] the proposed offsets prior to it being adopted”<sup>26</sup> – implying that consultation suffices.*

43. More detail is required as to what is meant by “accountable administrations”. How will the “community” be defined? Will it only include low-income households? The proponent must ensure that communities understood the impacts and consequences of the draft guideline, and that there is broad support for the guideline before steps are taken to implement air quality offsets.

44. Members of the public are to be provided with *“any information related to the implementation of an offsets programme”*.<sup>27</sup> The draft guideline should be amended to make clear that such information must include *“all the necessary documents that may be required by air quality officials for the approval, monitoring and evaluation of the project”*,<sup>28</sup> *“progress reports on the implementation of the offset programmes over the agreed timeframes”*;<sup>29</sup> and copies of any agreements reached *“in cases where the offset depends upon another party or parties (other than the proponent) for implementation”*.<sup>30</sup> The draft guideline should make clear that the relevant AEL and all monitoring and compliance reports/data made available to the licensing authority and/or the National Air Quality Officer (NAQO) (both in terms of the AEL and in relation to the offset) must also be made publicly available.

45. It is noted that the authorities are required to *“maintain a consistent and transparent process in assessing applications that requires (sic) implementation of offsets”*.<sup>31</sup> However, there is no mention of the basis on which decisions will be taken about requiring and/or evaluating a proposed offset, or of criteria to be used. Importantly, in what situation would exceedances be permitted, either of AELs (including emission standards) and/ or ambient air quality standards and an offset seen as a potentially acceptable solution?

46. Where the primary motivation for air quality offsets relates to financial considerations on the part of the proponent, it is essential that the comparative costs and benefits of options (offsets being one option), as well as impacts of these options (taking into account e.g. time lags/delays in offset implementation and risks of failure of different options e.g. poor performance or high risk of failure of some interventions), are addressed and documented. In this regard, it is recommended that the proponent be required to provide the public not only with information related to the implementation of the offsets programme, but information should also be provided on reasonable and feasible alternatives to that offsets programme to meet air quality standards, and their associated costs and benefits both to the public and the proponent (e.g. the public health costs of not reducing emissions promptly, but instead implementing offsets over a long time period, could be far greater than the costs to the proponent of installing appropriate technology), as well as on concept options for offset design.

<sup>24</sup> 10

<sup>25</sup> Table 1, 16-18.

<sup>26</sup> 16

<sup>27</sup> 10.

<sup>28</sup> 10.

<sup>29</sup> 15.

<sup>30</sup> 10.

<sup>31</sup> 10.

47. The draft guideline misinterprets and undermines the principle of “additionality”. In the context of offsetting, additionality means that the activity would result in positive changes that would not have occurred in the absence of that activity and/or planned/predicted interventions. This means that offset actions must be “over and above” actions that others planned or intended, or the polluter intended - or were legally required in any event - to take anyway. In other words and as implemented internationally,<sup>32</sup> actions **already legally required** could not and would not be considered as an offset, as these would not be **additional**. Where offsets permit non-compliance with the law (such as emissions standards and/or ambient air quality standards), the principle of additionality is clearly not being satisfied. Instead of first identifying the actions that must be taken in order to satisfy legal requirements – and excluding those actions from consideration as offsets – the draft guideline instead indicates that, when administering offsets, authorities should, in addition to the impact of offsetting, consider *“all other measures taken and/or to be taken by the proponent to reduce emissions within the facility itself”*.<sup>33</sup> It is submitted that this is clearly contrary to the additionality principle.

48. The draft guideline goes on to provide that *“the offset should not be seen as a substitute for efforts that can be made to reduce emissions from a facility. The facility must make all the necessary efforts to reduce emissions, such that the offset programme becomes a complementary measure”*.<sup>34</sup> This is clearly not the case in relation to air quality offsets as envisaged in the draft guideline. For example, as described below, **instead** of complying with MES by the legislated deadlines, major polluters have been allowed to “postpone” compliance (this is exacerbated by the fact that it is clear at least from Eskom and Sasol’s applications that, in some cases, they do not ever intend to meet MES) and must, **instead**, implement air quality “offsets”. In other words, offsets are being – and will continue to be – used as a *“substitute for efforts that can be made to reduce emissions from a facility”*. This is unacceptable to our clients.

49. A corollary of the additionality principle is that there should not be displacement of negative effects to other locations (known as “leakage”) – no mention is made of this principle in the draft guideline. It is recommended that this corollary is included in the draft guideline and addressed as a criterion in decision-making.

50. It must be made specific which emissions reductions and from which baselines the offsets results be measured. Coal-fired power stations, for example, emit some different pollutants from other sources of poor ambient air quality. If different emissions are being counteracted by the draft guideline, then the end result will not result in “*no net environmental loss* or a *net environmental benefit* outcome”.<sup>35</sup>

51. The “sustainability” principle refers, in which it is stated that *“short-term solutions should not be considered”*.<sup>36</sup> Broadly speaking, offsets should secure outcomes that last at least as long as the facility’s emissions or environmental impacts (whichever is the longer), and preferably in perpetuity. It is recommended that the duration of the offset and the proponent’s responsibility be made explicit.

52. Our clients submit that the most appropriate way to achieve long-term sustainability would be to enforce legislated air pollution regulation. All offsets can be considered short-term solutions in comparison. Reducing domestic fuel burning is a “short-term solution” which will not be addressed by the proponent making *“all efforts to ensure that communities continue to use [alternative fuel sources] e.g. by providing them with sufficient subsidies”*.<sup>37</sup> We refer again, in this regard, to the urgent need to publish the Draft Strategy to address Air Pollution in Dense, Low-Income Settlements.

<sup>32</sup> See, for example:

<http://www.co2offsetresearch.org/consumer/Additionality.html>; [http://www.rggi.org/market/offsets/offset\\_requirements](http://www.rggi.org/market/offsets/offset_requirements)

<sup>33</sup> 10.

<sup>34</sup> 10.

<sup>35</sup> 5.

<sup>36</sup> 11.

<sup>37</sup> 11.

53. With reference to the statement in the draft guideline that offsets should not impede “*other socio-economic and environmental objectives*”,<sup>38</sup> it is crucial that air quality impacts are interpreted, assessed and evaluated – and mitigation, including offsets, planned – to include all potentially significant impacts on e.g. biodiversity, water resources and livelihoods, and not simply on human health.

54. The “measurable and scientifically robust” principle indicates that offsets should not amount to “greenwashing”. It is crucial (as stated) that offsets have real, quantifiable and verifiable outcomes, that they should represent the actual reduction of emissions from various sources, that emission sources are well understood and that reliable baselines representing forecasted emission levels in the absence of the project should be established (i.e. the scenario without offsets). Currently, accurate baselines do not exist. Existing air quality monitoring is inadequate and the equipment often unreliable and expensive to maintain. One of the most significant flaws with air quality offsets as conceived is the difficulty in attributing ambient emission reductions to a particular source. In other words, how will industries be able to demonstrate that an improvement in an airshed is “*as a result of implementation of the offsets*”,<sup>39</sup> and how will this be measured relative to the industrial emissions? This difficulty is compounded when there are multiple overlapping offset projects. In the absence of clear “exchange” rules and criteria for allowing swaps between pollutants that are not “like for like” and without accurate measurements of losses and gains, there is no scientific rigour.

55. There is a lack of clarity in relation to the location of the offset. The draft guideline makes the airshed impacted by the facility’s emissions the “first preference”; “*then any other area closest to the facility*”. In addition, “*where the emissions impact across municipal or provincial boundaries, the offset interventions can take place in any of these areas*”.<sup>40</sup> The definition of “affected airshed” provides even more flexibility, indicating that the offset should be located in “*the closest area to the facility in question, wherein ambient air quality standards are being or have the potential to be exceeded and opportunities for offsetting exist*”.<sup>41</sup> It is not clear what is envisaged by “opportunities”. It is also not indicated how it will be identified whether or not such “opportunities” exist, nor by whom. This has serious implications for environmental justice and equity, particularly when people who are negatively impacted by industrial emissions do not benefit from offsets and others do.

56. An offset involves an exchange in type, time and space. The draft guideline makes repeated reference to the idea of overall improvement in ambient air quality within the airshed; however, this principle fails to address the mechanisms for determining the quantum of offset required and is silent on (or at least makes inadequate provision for) the following related issues:

- how the size of offset is to be determined (presumably the gap between targeted air quality and pollution levels as a result of the specific polluting activity, over x years);
- the boundaries of the affected environment/communities in which the exceedance would need to be remedied/offset (i.e. an acceptable location for the offset), as well as specific sensitive recipients who/that should be targeted by the offset;
- how forecasted emission levels in the absence of the project would be accurately determined (setting a reliable baseline or counterfactual against which to set offsets is extremely challenging: it is frequently difficult to identify what a facility’s emissions might have been in the absence of the offset programme);<sup>42</sup>
- the timeframes for starting implementation of the offset and of achieving the required offset, and on what basis “suitable” or “acceptable” timeframes would be determined. According to the draft guideline, the timeframe for implementation of any offset project “*will be agreed in writing with the relevant approval authority*”.<sup>43</sup> However, no indication of the basis or criteria is given for deciding on the

<sup>38</sup> 11.

<sup>39</sup> 10.

<sup>40</sup> 14.

<sup>41</sup> 6.

<sup>42</sup> Hahn and Richards 2013.

<sup>43</sup> 15.

timing of implementation of offsets. Ideally – and as now required in some jurisdictions – the “environmental gains” (i.e. reduction in pollution) should be demonstrated/achieved prior to undertaking development, in order to avoid associated risks and uncertainties of outcomes. Timeframes are thus critical, particularly where harm to environment and/or people is potentially severe;

- e. some offset policies explicitly recognise that there are limits to what can be offset; thresholds beyond which offsets would not be considered because of the level of harm, irreversibility of the impact and/or loss of irreplaceable resources. It is recommended that the draft guideline include a principle on limits/thresholds to guide decision-making on when an offset would or would not be appropriate, for the benefit of decision-makers, developers (polluters) and for interested and affected parties; and
- f. the distributional effects of both air quality impacts and offsets must be taken into account in considering, designing and implementing offsets. We elaborate on this from paragraph 105 below.

57. Our clients are concerned to note that the draft guideline no longer includes, as one of its principles, that *“offsets must meet all planning, statutory and regulatory requirements”*, and that they should not be seen *“as an alternative to the law”*. These provisions were included in the draft Policy and are essential. They should be included in the draft guideline. Offsets should only be considered where they would, with a high degree of confidence, contribute to achieving full compliance with air quality standards, and there is broad stakeholder agreement and buy-in.

#### **Applications (section 4 of the draft guideline)**

- 58. Polluters should not be permitted to use offsets instead of complying with legislated standards. This would be contrary to the Constitution, NEMA, AQA and Framework for Air Quality Management (Framework).
- 59. The basis on which decisions would be taken to allow consideration of offsets is crucial. It is inappropriate and unacceptable to allow financial and technical considerations to take precedence. Protection of human health and the environment are paramount. The draft guideline indicates three “authorisation circumstances” for which air quality offsets are “recommended”. However, offsets may not always be appropriate in every case, and, subject to what is set out below regarding the three examples, it is recommended that the wording of the draft guideline be changed to “could have offsetting conditions where appropriate”. It is reiterated that offsets cannot be an alternative to compliance.
- 60. It is also not clear whether offsets could also be applied in other circumstances; including if it is the intention to use offsets as remedies or penalties in instances where polluters are non-compliant (with the law or an offset condition) as a form of retrospective remedy – it is submitted that this would not be permissible.
- 61. The draft guideline lacks clarity on the criteria to be used and/or references to relevant sources for such criteria to decide whether: postponement should be granted; variation applications should succeed; when activities in Priority Areas should receive AELs; and how offsets would fit in.
- 62. The first example where the draft guideline recommends offsets is when *“an application for postponement of compliance timeframes (section 21) is positively considered (in part or in full)”*. Below, we provide some examples of the application of so-called air quality offsets in the context of postponements of MES.

#### **MES postponements**

- 63. Multiple industries, including the biggest polluters – Eskom, Sasol, and Natref - applied to the NAQO to postpone compliance with the MES published in terms of section 21 of AQA. These applications were made despite the fact that all of these facilities fall within declared Priority Areas where ambient air quality standards are already out of compliance, and the Framework, which is binding,<sup>44</sup> only permits applications to be made

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<sup>44</sup> S.7(3) of AQA.

where ambient air quality standards in the area **are in compliance and will remain in compliance even if postponement is granted**.

64. Despite detailed objections to the applications on many grounds,<sup>45</sup> on 24 February 2015, the NAQO granted the majority of these postponement applications. The decisions included the following statements:

- a. for Eskom: *“in addition, you are to implement an offset programme to reduce PM pollution in the ambient/receiving environment. A definite offset implementation plan is expected from Eskom by 31 March 2016”*;
- b. for Sasol (Natref’s is the same): *“in addition, you are to implement an offset programme to reduce PM and SO2 pollution in the ambient/receiving environment. A definite offset implementation plan is expected from Sasol by 30 June 2015”*; and
- c. that the postponement decisions had to be included into the AELs to have “force and effect”.

65. Thereafter, the relevant licensing authorities varied the AELs to incorporate the NAQO’s MES postponement decisions, and included provisions such as the following regarding the “offset programme” required by the NAQO:

- a. for Eskom’s Komati power station (and other AELs issued by Nkangala District Municipality): *“the licence-holder must submit an emission offset programme to reduce PM pollution in the ambient/receiving environment by 31 March 2016”*;
- b. for Eskom’s Lethabo power station (AEL issued by Fezile Dabi District Municipality): *“the licence-holder must submit a definite offset implementation plan to reduce PM pollution in the ambient/receiving environment is to be presented to the NAQO and the licensing authority by 31 March 2016 and followed by an appropriate public participation process. The conditions associated with this will be included as an annexure to this [AEL]”*;
- c. for Eskom’s Camden, Grootvlei and Tutuka power stations (AELs issued by Gert Sibande District Municipality): *“the licence-holder must submit to the National Air Quality (sic) and licensing officers for approval the off-set program/plan that will mitigate the priority pollutants applied for postponement including details of implementation in the surrounding affected communities/plant impact zones and timeframes by 1 June 2015”*;
- d. for Sasol Chemical Industries (Infrachem) and Natref (AELs issued by Fezile Dabi District Municipality): *“a definite offset implementation plan to reduce PM and SO2 pollution in the ambient/receiving environment is to be presented to the NAQO and licensing authority by 30 June 2015, followed by an appropriate public participation process. The conditions around this will be included as an annexures to this AEL”*; and
- e. for Sasol Synfuels (issued by Gert Sibande District Municipality): *“the facility must implement offset program (sic) to reduce PM and SO2 pollution in the ambient air/receiving environment and the implementation plan to be presented to the [NAQO] and the licencing (sic) authority by 30 June 2015 after agreement followed by appropriate public participation process. [T]he conditions associated with this will be included as Annexure to the AEL”*.

66. The Centre, on behalf of its clients, has appealed the AELs for Eskom’s Komati, Camden, Hendrina and Lethabo power stations,<sup>46</sup> including the conditions dealing with the offset plans. The outcomes of these appeals are awaited.<sup>47</sup> In its appeals, the Centre reiterated that its clients do not agree with the use of these “offsets” as an alternative to legal compliance with health-based standards. The appeals went on to state that, since the NAQO’s MES postponement decisions included a requirement for Eskom to implement an offset programme and provide an offset plan, the requirement should at least be included as a condition of the AEL, expressed in

<sup>45</sup> The relevant documents appear at <http://cer.org.za/virtual-library/letters/eskom/eskoms-applications-to-delay-compliance-with-aqa-minimum-emissions-standards>

<sup>46</sup> The LRC has appealed the Sasol AELs.

<sup>47</sup> The Centre was invited to make oral submissions on the appeals of Hendrina and Komati AELs on 23 July 2015.

quantitative terms against firm timeframes, so as to be enforceable. The appeal further stated that the conditions should be fleshed out so as to ensure that a meaningful, measurable plan is provided by Eskom as the current AEL provisions dealing with the “offset” programme are unacceptably vague, not adequately monitorable, unenforceable and will not achieve acceptable reductions of PM pollution. Nor do they ensure that crucial considerations – such as public participation and whether or not communities accept the “offset options” – will form part of the plan. The conditions also fail to make provision for the plan to be accepted (or rejected) by the licensing authority.

67. It was submitted in the Eskom appeals that each AEL should indicate, among other things:

- a. that if the “offset” does not achieve the envisaged reductions, the emission limits will be varied so that these at least comply with the MES;
- b. that Eskom was required to make a draft offset plan available for a reasonable period for comment by interested and affected parties by 30 June 2015;
- c. that the draft plan must contain details of its proposed implementation, including: how impacted communities will be determined; which “offset” options are being considered; the public participation process to be undertaken, including the nature and frequency of discussions to be held with impacted communities, including regarding the “offset” options, acceptability and duration, the envisaged reductions of PM and the dates of such reductions; how such reductions will be monitored, measured and reported to the licensing authority; the frequency of reporting; that all reports will be made available immediately on request to interested and affected parties; how long the “offset” will apply; and in which circumstances an “offset” will be terminated and the proposed process for this;
- d. that, following amendment of the plan to incorporate inputs of interested and affected parties, the plan should be submitted to the licensing authority for consideration;
- e. that the licensing authority must evaluate and can either accept or reject the plan (with reasons);
- f. that, if the plan is rejected, Eskom should be required to amend the plan as required by the licensing authority; and
- g. that, following amendment of the plan, the plan should be resubmitted to the licensing authority for consideration with enough time for it to be implemented by 1 April 2016.

68. Despite the condition in at least three of Eskom’s AELs that it was to have submitted its offset plans to the NAQO and licensing authority by 1 June 2015, it has, to date, not done so. In addition, notwithstanding the request made in the appeals of the Eskom AELs that Eskom make its offsets plan available by 30 June 2015, it has not done so.

69. It appears from Eskom’s response to our clients’ appeal of the variation of the Komati AEL<sup>48</sup> that it only intends to make its offset plan available for 30 days’ public comment. As for the implementation date, Eskom states that it is not reasonable to expect the plan to be implemented by 1 April 2016. Eskom indicates as follows: “*Eskom can only start with the implementation once the plan has been accepted by the licensing authority and the costs approved by NERSA. Then Eskom can commence with consulting with the communities, doing baseline assessments in the communities, following the procurement process, getting approval from Eskom tender committees for the expenditure, and placing contracts with service providers to implement the offsets*”.

70. This does not provide our clients with a hopeful precedent of how air quality offsets will be implemented, and creates significant doubt regarding the implementation, in particular, of the “transparency and acceptability” principle.

71. The draft guideline only mentions two of the requirements for an application to postpone compliance with the MES. There are several additional requirements contained in the List of Activities which result in Atmospheric Emissions which have or may have a Significant Detrimental Effect on the Environment, including Health, Social

<sup>48</sup> Please let us know if you would like to see the appeal and/or Eskom’s response thereto.

Conditions, Economic Conditions, Ecological Conditions or Cultural Heritage (“the list of activities”),<sup>49</sup> and in the Framework.

72. The list of activities provides as follows:

***“Postponement of compliance time frames”***

(11) As contemplated in the National Framework for Air Quality Management in the Republic of South Africa, published in terms of section 7 of this Act, an application may be made to the National Air Quality Officer for the postponement of the compliance time frames in paragraphs (9) and (10) for an existing plant.

(12) The application contemplated in paragraph (11) must include—

(a) An air pollution impact assessment compiled in accordance with the regulations prescribing the format of an Atmospheric Impact Report (as contemplated in section 30 of the AQA), by a person registered as a professional engineer or as a professional natural scientist in the appropriate category;

(b) a detailed justification and reasons for the application; and

(c) a concluded public participation process undertaken as specified in the NEMA Environmental Impact Assessment Regulations.

(13) The National Air Quality Officer, with the concurrence of the Licensing Authority as contemplated in section 36 of this Act, may grant a postponement of the compliance time frames in paragraphs (9) and (10) for an existing plant for a period, not exceeding 5 years per postponement.

(14) The National Air Quality Officer, with the concurrence of the Licensing Authority, may—

(a) from time to time review any postponement granted in terms of paragraph (13) should ambient air quality conditions in the affected area of the plant not conform to ambient air quality standards; and

(b) on good grounds, withdraw any postponement following—

(i) representations from the affected plant; and

(ii) representations from the affected communities”.

73. The Framework provides, at 5.4.3.3:

***Compliance time frames***

Compliance time frames have been informed by industry cycles. Based on international experience, an effective approach would be to set minimum time frames for compliance nationally (taking account of industry cycles), with provision being made for more restricted compliance time frames to be specified by provinces or municipalities for industries within their jurisdictions and/or stricter timetables being negotiated for inclusion in permits. Compliance time frames, in line with international trends are typically:

- 2 to 3 years in the case of new or substantially modified facilities;
- 5 to 10 years in the case of existing facilities, potentially differentiated by age.

Given the potential economic implications of emission standards, and mindful that emission standard setting in South Africa was not based on comprehensive sector-based CBA (at least not for the initial group of Listed Activities as the intention was to ensure that there is no regulatory vacuum when the APPA was repealed), provision has been made for specific industries to apply for possible extensions to compliance time frames, provided ambient air quality standards in the area are in compliance and will remain in compliance even if the postponement is granted.. The proponent of a Listed Activity is allowed to apply for a postponement of the compliance date according to Section 21 of the Act, and for such application to be positively considered, the following conditions must be met:

<sup>49</sup> GN893 of 22 November 2013.

- An air pollution impact assessment being compiled in accordance with the regulations prescribing the format of an Atmospheric Impact Report (as contemplated in Section 30 of the AQA) by a person registered as a professional engineer or as a professional natural scientist in the appropriate category;
- Demonstration that the facility's current and proposed air emissions are and will not cause any adverse impacts on the surrounding environment;
- A concluded public participation process undertaken as specified in the NEMA Environmental Impact Assessment Regulations;
- Any reasonable additional requirements specified by the National Air Quality Officer;
- The application must be submitted to the National Air Quality Officer at least 1 year before the specified compliance date.

This provision would ensure that any requirement to upgrade is informed by an understanding of any environmental impact of the affected plant. At the end of the extension period, a further extension could be granted subject to a repeat of the conditions above-mentioned.

74. It is submitted that the draft guideline should include all relevant requirements for a postponement application or it should indicate that the requirements are set out in paragraphs 12 of the list of activities and 5.4.3.3 of the Framework.

75. The draft guideline also provides three "*examples of conditions that may lead to an application of a postponement*".<sup>50</sup> These examples do not appear in the Framework or in the list of activities. The third such example is, it is submitted, overbroad, unclear and subject to potential abuse. It provides that "*if investment in abatement technology/techniques cannot be made due to restrictions by other national strategic and legislative requirements*", this may lead to a postponement application. If these examples are to be retained in the draft guideline, this example must be reworded for clarity and to avoid companies improperly applying for postponement. It is recommended that such parameters as the likely significance of impacts (in relation to air quality, livelihoods, biodiversity, water resources), irreversibility of impacts, and/ or consideration of all reasonable and feasible options to achieve reduction (i.e. best practicable environmental option) be explicitly considered prior to authorising a postponement

76. The concluding paragraph of this section of the draft guideline provides: "*in this particular case, the offset programme shall be included as a condition for positively considered postponement applications and will therefore be a condition of a licence that it issued after the postponement is granted*".<sup>51</sup> This creates the impression that postponement applications in the example cases **will** be granted and **will** include offsets as a condition. This is unacceptable to our clients. It is recommended that this wording be changed to "... *the offset programme may be included.... and may therefore be a condition...*", to avoid expectations of automatic approval of postponement and inclusion of offsets as AEL conditions.

77. The second example for which the draft guideline "recommends" air quality offsets is when a licence-holder seeks to vary an AEL in terms of section 46 of AQA, and the request will result in an increase in atmospheric emissions. The draft guideline provides that, in such circumstances, an offset "*could be considered to counter the impacts of increased emissions*".<sup>52</sup> Our clients do not agree that the envisaged offsets will counter the impacts of increased emissions. The MES actually allow an increase in emissions if the facility's production rate increases. There is technology available to bring emissions in line with emission limits in the AELs – this is a far more appropriate way to offset increased atmospheric emissions.

78. The third example is where there is an application for an AEL in areas where national ambient air quality standards are being or are likely to be exceeded. In relation to Priority Areas, many activities earmarked within such areas could be located out of these areas. The requirement to consider reasonable and feasible

<sup>50</sup> 11-12.

<sup>51</sup> 12.

<sup>52</sup> 12.

alternatives, including the “no go option”, is often poorly addressed in the environmental authorisation process, and is of paramount importance to avoiding further deterioration in air quality within areas of poor air quality, including Priority Areas. For this reason, the consideration of alternative locations should be a key criterion in evaluating applications, with the likely costs of location within the Priority Area, including emission abatement to meet ambient air quality standards, compared to costs of location outside the Priority Areas.

79. This being said, our clients do not advocate permitting the deterioration of air quality in other areas to the extent that ambient air quality standards are approached or exceeded in additional parts of the country. Ideally, new polluting industries should not be permitted to commence operations in the Priority Areas. The appropriate approach to create pollution “space”, is for all existing industries in Priority Areas to reduce emissions so that ambient air quality is well below ambient air quality standards. This will enable development without unacceptable health impacts.
80. Figure 1 of the draft guideline indicates that, if a facility which is not in compliance with emission limits/AEL conditions has applied for a variation or postponement that is “being positively considered”, then the AEL conditions should include “offset conditions”.<sup>53</sup> Also, if the facility were compliant with emission standards, but ambient air quality standards were exceeded, then an offsets programme would, according to the draft guideline, have to be included as part of the AEL conditions. Since the draft guideline focuses on the “quality of the airshed”, rather than on the offending pollutants, there is latitude in permitting exceedances of some pollutants in relation to emission standards - provided that ambient air quality as a whole is improved. The latter is potentially problematic from an equity perspective (discussed from paragraph 105 below). Figure 1 should also make provision for the possibility that an AEL application will be refused. The situation where neither emission standards nor ambient air quality standards are being met should be addressed in the draft guideline. In this regard, our clients reiterate that facilities should not be permitted to use offsets instead of complying with standards. This would be contrary to the Constitution, NEMA, AQA and the Framework.
81. Our clients point out that, in one of the reference documents referred to in the draft guideline, it is stated that it is inappropriate to validate or endorse the use of environmental offsets where projects are predicted to have significant adverse impacts on “critical assets”.<sup>54</sup> These include “*environments sensitive to emissions/discharges*:
  - *In areas where new or an addition to existing emissions present a significant risk to human health or the environment.*
  - *In areas where new or an addition to existing emissions exceed a prescribed environmental or health standard.*
  - *Where emissions contribute to a global environmental problem such as ozone depletion*”.<sup>55</sup>
82. It is clear that air quality offsets should, in fact, never be permitted: in Priority Areas – or any other area where ambient air quality standards are exceeded; and/or as a condition of a MES postponement application; and/or as a condition of an AEL variation application which will result in increased emissions that are more lenient than the MES and/or will result in exceedances of ambient air quality standards.
83. It is agreed that “*compliance and enforcement of offsets implementation should be integral to AEL compliance monitoring and enforcement*”;<sup>56</sup> however, our clients have significant concerns about the capacity of the relevant authorities to undertake the necessary compliance monitoring and enforcement. This is addressed from paragraph 101 below.

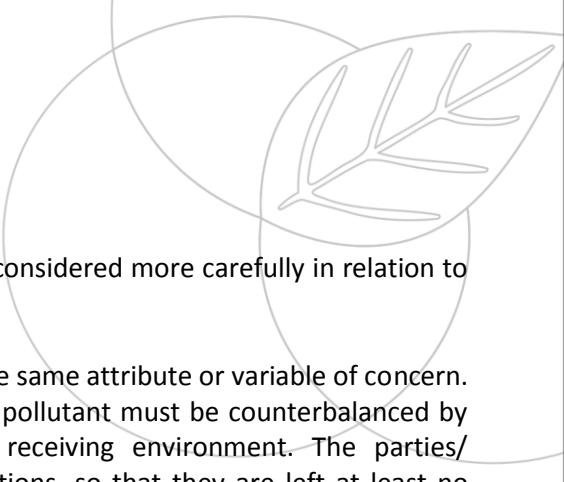
<sup>53</sup> 13.

<sup>54</sup> Australian EPA 2006 at 14.

<sup>55</sup> Australian EPA 2006 at 17.

<sup>56</sup> 13.

## Offsets design (section 5 of the draft guideline)



84. The draft guideline lists certain generic considerations. Offsets must be considered more carefully in relation to the political and social context of South Africa
85. Offsets, simply stated, must result in a balancing of losses and gains in the same attribute or variable of concern. For emissions, exceedance of local or regional standards in a particular pollutant must be counterbalanced by equivalent reductions in emissions of that pollutant in the same receiving environment. The parties/environment affected by the exceedance must benefit from the reductions, so that they are left at least no worse off, but ideally, in a better position.
86. It is thus of the utmost importance to show the linkages between (a) the non-compliance and relevant parameters of air quality involved, (b) the gains from the different proposed interventions, both for households (indoors) and for ambient air quality in relation to the offending parameters, and (c) monitoring and evaluation, with adaptive/ corrective actions clearly set out and made public.
87. As set out above, unlike the draft Policy, the draft guideline does not contain “areas of intervention”. If this heading is to be included in the draft guideline, our clients reiterate the comments we made in this regard on the draft Policy and in these submissions.

## Scope (section 5.1 of the draft guideline)

88. As set out above, our clients have serious concerns about the provision that states that, “**as first preference**”, it is “expected” that the offset will take place in the specific airshed impacted by the facility’s emissions, “**then any other area closest to the facility**”.<sup>57</sup> The same principle is expressed in the proposed definition of “affected airshed” as “*the closest area to the facility in question, wherein ambient air quality standards are being or have the potential to be exceeded and opportunities for offsetting exist*”<sup>58</sup> (our emphasis). In circumstances where emissions “*impact across municipal or provincial boundaries, the offset interventions can take place in any of these areas*”.<sup>59</sup> There is apparently significant scope for the proponent to select the offset area and to determine when and where offsetting “opportunities” exist. The location of the offset has significant implications for issues of equity and environmental justice. We elaborate on this from paragraph 105 below.

## Authority approval (section 5.2 of the draft guideline)

89. The draft guideline states that “*(t)he decision on any proposed offset shall be made by the relevant authorities including the national department, provincial and local authorities, depending on the nature of the application*”<sup>60</sup> (our emphasis) and specifies when the decision is to be made by the NAQO, in concurrence with the licensing authority, and when it is to be made by the licensing authority alone. There is no clarity on the criteria to be used to decide whether or not an offset would or should be considered. These criteria are essential and must be included in the draft guideline. One such criterion should be that there is compliance with ambient air quality and emission standards.

## **Public participation (section 6 of the draft guideline)**

90. It is stated – and supported - that a public participation process should be undertaken “*to ensure public buy-in of offset projects*”.<sup>61</sup> The draft guideline provides that public participation can be undertaken in terms of NEMA “*and/or as a separate process*”. It is insufficient to require the invitation only to be “*placed at public places*

<sup>57</sup> 14.

<sup>58</sup> 6.

<sup>59</sup> 14.

<sup>60</sup> 15.

<sup>61</sup> 10.

*within the communities*".<sup>62</sup> It is essential that the range of public (interested and affected party) involvement should be informed both by the boundaries of the affected area and of proposed offsets. It is submitted that the draft guideline should provide for public participation to comply, as a minimum, with the NEMA public participation process, and including a reasonable number of public meetings in suitable locations.

91. In the context of the statement that the "*development of any offset programme will be subject to a detailed and transparent public participation programme*",<sup>63</sup> our clients point out that the draft guideline has already been released without adequate input from communities, especially from those communities that live within Priority Areas. In addition, as set out above, air quality offsets have already been included in AELs without consultation with relevant stakeholders. The development of the draft guideline must be accompanied by an extensive training/education programme so that communities appreciate the consequences and trade-offs of offsets. It is not acceptable to our clients that the public participation will only occur at the implementation phase of the guideline and not in its design.

### **Roles and responsibilities**

92. According to recent research favouring offsetting,<sup>64</sup> the effectiveness of offset policies depends on the political and institutional context in which they are developed. It is noted that most of the countries where offset systems are in place are relatively well-capacitated and resourced to administer, monitor and enforce these offsets. In South Africa, the capacity to monitor and enforce conditions of authorisations, licences and permits is recognised as being poor. Many of these functions lie with municipalities, which have serious capacity constraints and difficulties in fulfilling their current air quality obligations. The additional responsibilities that offsets will entail will exacerbate this situation. This is elaborated upon in paragraph 101 below.
93. The mentioned parties should be involved in the development of the draft guideline and not in the implementation phase only. As recognised by the draft guideline, there may be circumstances in which "*the offset depends upon another party or parties... for implementation*"<sup>65</sup> – the role of such parties should also be addressed in this section of the draft guideline. To develop the draft guideline without adequate participation is contrary to the requirements of cooperative governance.
94. According to the draft guideline, the applicant would be responsible for identifying, securing and managing the offsets programme, and would need to demonstrate financial capability/ approval for project implementation over a specified time. According to Table 1,<sup>66</sup> the applicant would also be responsible for "*public awareness – getting community buy-in*", "*implementation of the Offset project*", and "*monitoring and reporting*" on offsets - these responsibilities should be added to the text for clarity.
95. The relevant licensing authorities and the NAQO ("*particularly in case of postponement applications*") would be responsible for "*assessing, evaluating and reviewing*" offsets, and licensing authorities are responsible for "*monitoring and reviewing the implementation of the offsets within their jurisdiction*" and ensuring that offset conditions are "*clear, measurable and enforceable*".<sup>67</sup> Table 1 provides that the licensing authority (with the NAQO in the case of a postponement of emission standards) is also responsible for reviewing the sustainability of the offset project. When an offset is to be withdrawn in relation to the postponement of emission standards, this is also the responsibility of the NAQO and the licensing authority. These responsibilities should also be added to the text for clarity.

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<sup>62</sup> 15.

<sup>63</sup> 15.

<sup>64</sup> Hahn and Richards 2013.

<sup>65</sup> 10.

<sup>66</sup> 16-18.

<sup>67</sup> 16.

96. In relation to the role of communities, we reiterate what has been set out above, including that the proponent must ensure that communities understood the impacts and consequences of offsets and that there is broad support for an offset programme before steps are taken to implement it. It is noted that the draft guideline envisages, in Table 1, that NGOs and CBOs are responsible, together with the applicant for “*public awareness – getting community buy-in*”.<sup>68</sup> Our clients object to the idea that NGOs and CBOs are responsible for getting communities to “buy-in” to offset projects. Although “*public awareness*” of offsets is likely to be spread by NGOs and CBOs, getting communities to “buy-in” to such projects is not the role for such organisations - the draft guideline should be duly amended.

### **Monitoring, evaluation and reporting (section 8 of the draft guideline)**

97. According to Table 1<sup>69</sup> in the draft guideline, the proponent would be responsible for monitoring and reporting on the offsets programme. It is recommended that reporting on offsets must be done strictly in terms of performance in relation to explicit targets and timelines set out in the offset programme.

98. Reliance on ambient air quality monitoring within the offset implementation area as an indicator of offset performance is a major concern and does not suffice. For an offset to be shown to be successful, a reliable measure of its effect is essential. As stated above, there are complex challenges to measuring diffuse, non-industrial sources of pollution rather than point sources. There are numerous and, it is suggested, too many variables affecting ambient air quality to tie changes with confidence to any one proponent’s offset, and thus uncertainty around the total level of emissions reductions may be considerable. Should there be multiple offset programmes running in an area, it would be difficult, if not impossible, to attribute changes in pollution levels unequivocally to one proponent. It is important that these scenarios and challenges, and ways to resolve them, be explicitly covered in the draft guideline.

99. Monitoring, evaluation and reporting should be more holistic than just from air quality monitoring stations. A holistic monitoring and evaluation system would, for example, include human health and ecological impacts of the offsets. If, for instance, it can be proved that respiratory disease decreases as a result of the implementation of the draft guideline, then it can be considered to have made some improvements.

### **Withdrawal (section 9 of the draft guideline)**

100. The draft policy also states that “*(a)ny authorisation granted with a condition for offsetting may be revised/withdrawn at any time by the relevant authority should a proponent of the offset project fails to deliver on any of the agreed interventions.*”<sup>70</sup> Experience with environmental management programmes points to the need to relate performance not only to interventions or actions, but to explicit outcomes in a defined schedule: it is the outcomes achieved and not the actions being undertaken to deliver the outcomes that count. It is recommended that the draft guideline be revised accordingly. It is highly problematic to establish baselines of non-industrial emissions and measure progress over time. South Africa does not, in any event, have a strong track record of quantification. In addition, Table 1 only makes provision for withdrawal of an offset in the case of postponement of compliance with MES.<sup>71</sup> This discrepancy must be clarified.

### **Capacity of competent authorities (not addressed in the draft guideline)**

101. Many of the models of offsets that are used around the world to assess costs savings and environmental impacts assume, for simplicity, that they will be implemented effectively; yet, this does not appear to be the case. Experience with offset programmes internationally suggests that the administration of these programmes has been challenging in practice - that offsets could easily give rise to inefficiencies and reduce rather than

<sup>68</sup> 16-18.

<sup>69</sup> 17-18.

<sup>70</sup> 18.

<sup>71</sup> 17.

improve environmental quality.<sup>72</sup> For air quality offsets to be effective, therefore, it is crucial that there is sufficient capacity within the competent authorities to determine whether or not offsets would be appropriate and what form of offset would be appropriate, to evaluate and validate offset proposals, and to carry out rigorous compliance monitoring and enforcement of offset programmes being implemented.

102. The track record of the Environmental Management Inspectorate (EMI) has, to date, been poor with regard to rectifying and enforcing air quality transgressions. In the 2011-2012 period, EMI activities were predominantly in response to complaints rather than being proactive in nature. Compared to the previous year, there was a “dramatic increase” in complaints in the air pollution category, a 45% decline in proactive inspections, a decrease in follow-up inspections, a 122% increase in non-compliances, and an increase (by more than 90) in the total number of inspections that required enforcement actions.<sup>73</sup> In the 2012-2013 period, these same percentages were recorded.<sup>74</sup> In the 2013-2014 period, an increase in non-compliances resulting in enforcement action of 18.3% in comparison with 2012/13 figure was recorded. Although the total number of non-compliances detected decreased,<sup>75</sup> those that required enforcement action increased.<sup>76</sup>

103. The proposal to use air quality offsets appears complex and, given the probable diffuse nature of emissions to be targeted by offsets, as well as the challenges of using ambient air quality to monitor offset progress and ensure that “the polluter pays”, is likely to add a significant burden to these authorities.

104. It is recommended that, should air quality offsets be adopted by government, consideration be given both to establishing a specialist compliance monitoring and enforcement unit for air quality offsets and to significantly increasing EMIs at local authority level.

#### **Equity and distributional effects (not addressed in the draft guideline)**

105. Section 2 of NEMA states that environmental management must serve people’s long term physical, psychological, developmental, cultural and social interests equitably, and pursue equitable access to environmental resources, benefits and services to ensure wellbeing.<sup>77</sup> It notes that special measures may be taken to ensure access by categories of persons disadvantaged by unfair discrimination,<sup>78</sup> and requires that environmental justice be pursued so that adverse environmental impacts are not distributed so as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons.<sup>79</sup>

106. According to the draft guideline, community “buy-in” of offset projects must be ensured.<sup>80</sup> Elsewhere, it is indicated that communities must be “consulted (and where necessary demonstrate support)”<sup>81</sup> for the project. No definition of “*the community*” is provided, however. In most cases, the beneficiaries of offsets are likely to support the interventions, while the wider community may not support them for a number of reasons.

107. Most offset policies require offsets to be designed and implemented in an equitable manner, which means sharing the rights and responsibilities, risks and rewards in a fair and balanced way. The draft guideline lacks direction in this regard, and fails to address a number of potentially significant equity issues:

<sup>72</sup> Hahn and Richards 2013.

<sup>73</sup> DEA National Environmental Compliance and Enforcement Report 2011-2012 at 5, 56, available at [https://www.environment.gov.za/sites/default/files/docs/necer2011\\_12.pdf](https://www.environment.gov.za/sites/default/files/docs/necer2011_12.pdf)

<sup>74</sup> This appears to be incorrect. DEA National Environmental Compliance and Enforcement Report 2012-2013 at 2, available at [https://www.environment.gov.za/sites/default/files/docs/necer\\_report2012\\_13.pdf](https://www.environment.gov.za/sites/default/files/docs/necer_report2012_13.pdf)

<sup>75</sup> The report used the 2012-13 figures, some of which appear to be incorrect.

<sup>76</sup> DEA National Environmental Compliance and Enforcement Report 2013-2014 at 3, available at [https://www.environment.gov.za/sites/default/files/docs/nationalenvironmental\\_complianceand enforcement\\_report2013\\_14.pdf](https://www.environment.gov.za/sites/default/files/docs/nationalenvironmental_complianceand enforcement_report2013_14.pdf)

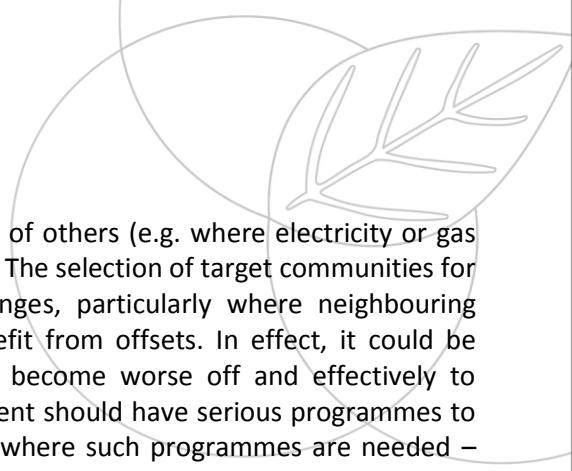
<sup>77</sup> S2(2).

<sup>78</sup> S2(4)(d).

<sup>79</sup> S2(4)(c).

<sup>80</sup> 10, Table 1, 16-18.

<sup>81</sup> 16.



108. Offset activities may unfairly favour some communities at the expense of others (e.g. where electricity or gas subsidies are provided, or improvements/ retrofits to houses are made). The selection of target communities for offsets may kindle resentment and lead to political or legal challenges, particularly where neighbouring communities are similarly exposed to air pollutants, but do not benefit from offsets. In effect, it could be concluded that air quality offsets provide for some communities to become worse off and effectively to subsidise improvements in others. Our clients emphasise that government should have serious programmes to reduce and eliminate household emissions from dirty fuel in all areas where such programmes are needed – such as the Draft Strategy to address Air Pollution in Dense, Low-Income Settlements. This should not depend on offsets for corporate pollution.
109. Ultimately, the responsibility for tackling the problems of domestic air pollution would best be placed at the local authority and/ or community health level, supported by national policy and assistance, to ensure that roll-out of interventions aimed at improving such non-industrial pollution sources would be equitable rather than selective, as offsets are likely to be.
110. Emissions from stacks at different heights are likely to adversely affect a range of different areas, from local to regional or potentially trans-boundary airsheds, depending on circulation patterns at different levels/altitudes. The effect of domestic emissions – and of offsets targeting these emissions, by contrast, is likely to be relatively limited in extent. Offsets should not benefit some at the cost of others.
111. While some proposed interventions at domestic level would be beneficial (e.g. better insulation, reducing the need to heat houses using solid fuels), the reach of those benefits would be limited. In effect, therefore, the offsets could endorse higher levels of regional pollution, while reducing pollutants at a localised level.
112. Air quality offsets should not be permitted where they perpetuate past inequities, namely the pattern of deteriorating or degrading environmental quality (i.e. public goods) for the proponent's benefit. For example, the implications of offsets for public health will be affected by the timeframes permitted for implementing offsets and attaining required air quality standards. Negative externalities associated with any failure to meet these standards would be borne by the wider public, and associated costs would need to be borne by the State, while the proponent would, in all likelihood, benefit from additional time, reduced costs and/or leniency in compliance.

## Conclusion

113. In conclusion, our clients do not agree, in principle, with the use of offsets as a management tool to avoid compliance with legislation. It is submitted that, if the decision is made to consider offsets in the suite of options for managing the environment, this must be done using the correct process. There is currently no overarching legislative or policy framework regarding offsets. Notwithstanding this, air quality offsets have already been imposed as conditions in AELs where Eskom and Sasol have been granted postponement of compliance with MES. In the case of at least three Eskom AELs (Camden, Grootvlei and Tutuka), there has already been non-compliance with these offset conditions (in that Eskom has failed to provide the required plans by the deadline); and, as far as our clients are aware, no steps have been taken by the authorities to enforce compliance with these conditions. Our clients' suggestions in the Eskom appeals regarding the offset plans have also been ignored. This does not bode well for the implementation of air quality offsets, particularly for their "transparency and acceptability".
114. In addition, both compliance with and enforcement of environmental legislation leave much to be desired, and there is, in general, a lack of accountability for polluting industries. It is submitted that government should first demonstrate their ability to manage and give meaning to the existing governance and enforcement systems – before offsets can be considered.

115. As pointed out in one of the draft guideline's own references, "*long-term studies of environmental offset schemes overseas have shown that implementing offset projects without sufficient data, research, information, available resources, regulation and commitment will only result in a net loss of environmental assets and values – the opposite desired effect of environmental offsets... Therefore it is imperative to ensure that offset-related policies, programs and projects are robustly coordinated, monitored, managed, evaluated and enforced to ensure the environmental offset contributes to successful, long-term environmental outcomes.*"<sup>82</sup>

116. In the circumstances, it is submitted that it is premature to conclude the draft guideline.

Yours faithfully  
**CENTRE FOR ENVIRONMENTAL RIGHTS**

per:   
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<sup>82</sup> Australian EPA 2006 at 4.