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Advancing Environmental Rights in South Africa

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Dear Ms Mdluli and Ms Masekoameng

SUBMISSIONS REGARDING THE REVIEW OF THE NATIONAL FRAMEWORK FOR AIR QUALITY MANAGEMENT

1. We address you at the instance of our clients, groundWork, the South Durban Community Environmental Alliance ("SDCEA") and the Vaal Environmental Justice Alliance ("VEJA").[1] These submissions also incorporate inputs from and are supported by Prof Eugene Cairncross. In addition, they are supported by the following organisations:

1. groundWork is a non-profit environmental justice service and developmental organisation aimed at improving the quality of life of vulnerable people in South Africa (and increasingly in Southern Africa), through assisting civil society to have a greater impact on environmental governance. groundWork places particular emphasis on assisting vulnerable and previously disadvantaged people who are most affected by environmental injustices. SDCEA is an environmental justice organisation based in south Durban. It is made up of 16 affiliate organisations, and it has been active since its formation in 1996. It is considered successful for many reasons, one of which is that it is a vocal and vigilant grouping in terms of lobbying, reporting and researching industrial incidents and accidents in this area. It contributes to the struggle against environmental racism for environmental justice and environmental health. VEJA is a democratic alliance of empowered civil society organisations in the Vaal Triangle, who have the knowledge, expertise and mandate to represent the determination of the communities in the area to control and eliminate emissions to air and water that are harmful to these communities and to the environment. Among other things, it aims to promote a culture of environmental awareness and sustainable development.

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1.1. Middelburg Environmental Justice Network;
1.2. Greater Middelburg Residents' Association;
1.3. Guqa Community Service Centre;
1.4. Southern Africa Green Revolutionary Council;
1.5. Greater Delmas Civic Movement; and
1.6. Schoongesicht Community Movement.

2. We refer you to our previous correspondence in which we requested – on our clients' behalf – an extension until 22 August 2012 to make comments on the draft Framework for Air Quality Management ("the Framework" or "the 2007 Framework") published in terms of the National Environmental Management: Air Quality Act, 2004 ("AQA"). This request was granted on 7 August 2012. Our submissions are set out below.

General

3. Although we had asked to be provided with a copy of the Framework marked-up with the proposed amendments, this was not provided. This made commenting on the review more cumbersome. All instances in the Framework where the abbreviation "DEAT" is used, should be amended to "DEA"; all instances of "DME" should be amended to "DMR"; and all instances of "DWAF" should be amended to "DWA". The same applies for any other abbreviations that are no longer applicable.

Absence of a systematic and comprehensive review of progress against the objectives and plans set out in the 2007 Framework

4. In his covering letter, the then Minister of Environmental Affairs and Tourism characterised the 2007 Framework as "*the first national plan to clear our skies of pollution and ensure ambient air that is not harmful to health and well-being*." The Minister also undertook to "publish a detailed State of the Air Report in December 2007" to "*provide further context and a baseline for measuring progress in the implementation of the [Air Quality] Act and the National Framework*." The Minister also included an undertaking to "*compile a 2008 National Framework that will capture the technical norms and standards being developed by the various projects currently underway*".

5. As far as we are aware, these documents have not been produced. We are particularly concerned at the absence of a current and comprehensive State of the Air Report. While individual cities have produced - with varying degrees of completeness - assessments of air quality, even these documents are not kept up to date, nor do they constitute comprehensive "State of the Air" reports for these cities.

6. We note that the Draft Framework Amendment 2012 has been published for comment without a systematic review or audit (or a current State of the Air Report), of whether or not the objectives and planned activities set out in the 2007 Framework have been achieved. As a result, we do not have a common set of data or reports that can serve as a reference for assessing progress against the plans and objectives set out in the Framework. Our comments on the 2012 Draft National Framework Amendment are also inhibited by the absence of these documents.

Availability and access to air quality information

7. The 2007 Framework addresses various aspects of environmental information, including in the following sections and subsections:

> **1.3 Purpose of the National Framework**
>
> …..
>
> According to Section 8 of the AQA, with respect to national monitoring and information standards, the National Framework must establish national standards for:
>
> - municipalities to monitor:
> - ambient air quality; and
> - point, non-point and mobile sources;
> - provinces to monitor:
> - ambient air quality; and

- the performance of municipalities in implementing the AQA;
- the collection and management of data necessary to assess:
  - compliance with the AQA;
  - compliance with ambient air quality and emission standards;
  - the performance of organs of state in respect of air quality management plans and priority area air quality management plans;
  - the impact of, and compliance with, air quality management plans and priority area air quality management plans;
  - compliance with the Republic's obligations in terms of international agreements; and
  - access to information by the public.

2.4.1.3 Obligations for South Africa according to the UNFCCC related to air quality
2.4.3.2. International concerns around Mercury, Lead and Cadmium

4.2.1 Information management
5.2 AIR QUALITY INFORMATION MANAGEMENT
5.2.1.2 Ambient air quality information
5.2.1.3 Ambient air quality monitoring
5.2.1.4 Emission inventory
5.2.1.5 Listed Activities and compliance monitoring

8. We note that, notwithstanding the extensive reference to the gathering of air quality information in the Framework, and the explicit undertaking to provide access to this information, there is a marked paucity of air quality related environmental information. In addition, such environmental information as is available is generally incomplete and/or out of date and it is difficult or practically impossible for the public to access this environmental information.

9. Among others, the following national standards have not been established:

9.1. the collection and management of data necessary to assess:

9.1.1. compliance with ambient air quality and emission standards;
9.1.2. the performance of organs of state in respect of air quality management plans and priority area air quality management plans;
9.1.3. the impact of, and compliance with, air quality management plans and priority area air quality management plans;
9.1.4. compliance with the Republic's obligations in terms of international agreements; and
9.1.5. access to information by the public.

10. The plans and milestones for the establishment of these standards should be addressed in the review.

Section 1.2: Overview

11. We note the amendments proposed to this section. The Framework indicates that it is necessary to have "*mechanisms to ensure that ambient air quality standards are achieved and maintained*." In this regard, our clients are concerned that mechanisms that have this effect have not been established – particularly in the Vaal Triangle Air-shed and Highveld Priority Areas. This should be addressed in the review.

Section 1.3: Purpose of the National Framework

12. The review of the Framework should set out the extent to which the Framework has met its objectives; and the reasons for any failure to do so.

13. We note the proposal to change the heading of this section. The Framework indicates that it is required to provide "*mechanisms, systems and procedures to promote holistic and integrated air quality management through pollution prevention and minimisation at source*". Our clients are interested to know what

mechanisms the Department is employing in order to measure pollution prevention and minimisation at source. This should be addressed in the review.

14. This section provides that norms and standards established in the National Framework are aimed at ensuring; among other things:

    14.1. public access to air quality information;
    14.2. the prevention of air pollution and degradation of air quality;
    14.3. effective air quality monitoring; and
    14.4. compliance with the Republic's obligations in terms of international agreements.

15. However, as is the case of the Highveld Priority Area, and as has been set out above, the public is not always able to access air quality information. In addition, the prevention of air pollution and degradation of air quality is only achievable through bench-marking. The review should indicate the steps that the Department has taken to achieve this.

16. The review of the Framework should include an analysis of the effectiveness of air quality monitoring; including detail about the operation of monitoring equipment since its installation in the Highveld and Vaal Triangle Priority Areas, as well as in the South Durban Basin. In this regard, the review should indicate the percentage time that such monitoring equipment is operating correctly, and what will be done to address the issue of malfunctioning equipment. We make other recommendations in relation to equipment under section 4.2.8.

17. In relation to compliance with South Africa's obligations in terms of international agreements, South Africa does not even have a National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants yet. This has a negative impact on its compliance. Similarly, South Africa does not have an up-to-date and comprehensive Greenhouse Gas Emission Inventory compliant with the United Nations Framework Convention on Climate Change (UNFCC).

18. The ability to assign and delineate responsibilities for the implementation of the AQA amongst the different spheres of government may have to be revisited. Several municipalities within the Vaal Triangle Air-shed and Highveld Priority Areas appear to lack the capacity to implement the AQA and standards.

19. In relation to the establishment of national standards for municipalities to monitor ambient air quality, and point, non-point and mobile sources, and for provinces to monitor: ambient air quality, and the performance of municipalities in implementing the AQA, the review should make clear how successfully this has been done. The reports in this regard should be disclosed. So too, the success of the collection and management of data necessary to assess, amongst other things, compliance with the AQA; compliance with ambient air quality and emission standards; and the performance of organs of state in respect of air quality management plans and priority area air quality management plans, should be made available and the reports disclosed. Among other things, how has the performance of organs of state been assessed and how will it be assessed in future? Has there been bench-marking, and is any envisaged for the future? The review should address these issues.

Section 1.5: Scope of the National Framework

20. In relation to its scope, the Framework must set out to achieve a preventative approach which aims to minimise pollutant emissions at source, at the same time as setting maximum permissible ambient air standards for particular pollutants in order to improve overall ambient air quality. The review should make this clear.

21. The following are among the projects that contribute to the Framework:

    21.1. Limits For Common Air Pollutants (SANS 1929); and
    21.2. Greenhouse Gas Information Management Project.

22. In relation to the former, ambient air standards are treated as discrete standards for each pollutant. However, in polluted areas, there is more than one pollutant in the air. Such areas usually consist of a large number of different pollutants, which have cumulative effects, and, in addition, may have synergistic effects on air quality. For instance, even in highly polluted areas like the South Durban basin, a number of the pollutants do not exceed ambient air standards. However, the cumulative effect of the large number of pollutants which are released from the industries in the area is highly damaging to human health.

23. An approach to air quality management which attempts to ensure only that each pollutant does not exceed the ambient air quality standard will not result in compliance with the overall requirements of the AQA, which include "*generally to give effect to section 24 (b) of the Constitution in order to enhance the quality of ambient air for the sake of securing an environment that is not harmful to the health and well-being of people*". There should be bench-marking and measurement of this indicator. The review should make provision for this.

24. How successful has the Greenhouse Gas Information Management Project been? Is the reporting available? This should be addressed in the review.

Section 2.2.3: National Environmental Management: Air Quality Act (AQA)

25. The AQA focuses on the adverse impacts of air pollution on the ambient environment and sets standards to control ambient air quality levels. Our clients submit that the public impacts of air pollution should be integrated into the performance monitoring of the AQA and the associated regulations – for example, in pollution hot-spots, the health impacts must be measured and bench-marked to allow for future comparison and effectiveness evaluation.

26. In relation to the requirement that Air Quality Officers (AQOs) be appointed at each level of government (national, provincial, municipal), has this happened? If not, why not? Have these AQOs been trained and how effective have they been? This should be dealt with in the review.

27. In relation to the requirement in the AQA that each organ of state is required to report on the implementation of its Air Quality Management Plan in the annual report submitted in terms of the National Environmental Management Act, 1998, it is submitted that reporting is not sufficient – effectiveness evaluation is a much better approach. This review should require this.

Section 2.2.4: Other related national legislation

28. <u>Table 1: National legislation directly or indirectly linked to the management of air quality</u>

    28.1. The Working Document proposes the addition of three pieces of legislation to this table. However, the citation of these Acts must be corrected. The citation should also be consistent with the format used for the other legislation, and the three additional Acts should be inserted into the table in the correct chronological order. "National Waste Act (2007)" should read: "National Environment Management: Waste Act (Act No. 59 of 2008)" and should be inserted into the correct chronological order in the table.

    28.2. The same applies for the citation and chronological orders of the "Disaster Management Act, 2002 (Act No. 57 of 2002)" and the "Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice, 2006 (Act No. 19 of 2006)". In relation to the former, in the "relevance" section of the table, it is indicated that "air quality management is one of the mediums of the environment". It is submitted that this should read "air quality management affects the environment".

    28.3. The table deals with the "Mineral and Petroleum Resources Act Amendment (2007)". It is presumed that this is intended to be a reference to the Mineral and Petroleum Resources Development Amendment Act 49 of 2008, which is not in operation. The table should be amended to reflect the correct position.

    28.4. "National Waste Management Bill (2007)" should be deleted. The Waste Act is now in operation.

Section 2.3: Municipal by-laws

29. We note the amendments to this Section. As has been set out above, our clients' experience is that municipalities do not have the capacity to deal adequately with issues relating to air quality. The review should indicate which municipalities have not adopted by-laws, the reasons for this, and what will be done to address this situation.

Section 2.4.1: Greenhouse gases and climate change

30. The review should also deal with the National Climate Change Response Strategy.

Section 2.4.3.2: International concerns around mercury

31. We note the amendments to this Section. The proposed treaty on mercury is essential. Mercury is primarily important from a coal combustion emissions point of view – coal-fired power stations, cement kilns, paper mills, oil refineries, and gas refining/processing plants. South Africa's position on mercury emissions from coal-fired power stations (as the largest source sector) must be made explicit.

32. The Framework should indicate that the direct approach will be used to achieve emissions reductions and those emissions controls will be mandatory. This would require facilities to reduce emissions at identified priority sources (both new and existing) by imposing Best Available Technology/Best Environmental Practice emission limits or percentage mercury emission reductions (at the facility level). This approach would offer greater certainty in achieving substantial progress toward national; and consequently, global emissions reductions in a timely manner.

33. It is crucial also to address the releases of mercury to land and water (even from the same sources subject to air emission controls). A failure to do so could result in inappropriate cross-media transfers of mercury pollution. Given that there are certain mining-related exclusions in the National Environmental Management: Waste Act, 2008, the Framework should also make provision for the release of mining wastes (such as industrial gold and zinc, for example) where mercury is not recovered, but is released to land and water.

34. It is submitted that the Framework should make provision for continuous monitoring of sources, and facility-reporting obligations related to the progress in implementation of these mercury control measures.

35. In anticipation of the mercury treaty, all of these measures should be included in the Framework, together with defined activities and timelines for compliance by the sectors responsible for the most mercury emissions (based on the findings of the South African mercury inventory). These include (but are not limited to): electricity generation, cement, mining and smelters.

Section 3.2.4: Other national departments

36. The review should indicate which of the departments required to do so have failed to produce air quality management plans. The reasons for this should also be provided. The review should stress that this is mandatory in terms of the AQA. Such plans are especially crucial in priority areas.

Section 3.3: Industry

37. The review should make clear what the consequences are of non-compliance with obligations, and what remedies are available both to members of the public and to government departments when there is non-compliance. Regulators must be aware of the procedures and available penalties.

38. From the air quality data available within the Priority Areas, it appears that many (if not most) industries will collectively be in non-compliance with the air quality standards. There needs to be an effective penalty for such collective non-compliance with emission standards. This should be addressed in the review.

Section 3.5: The general public

39. It is essential that a stakeholder committee be urgently established to steer the review process and to keep the public fully informed at each stage of the process.

Section 4.2.3: Strategy development

40. Whilst strategies and plans of action are important, an evaluation of their effectiveness is essential. This should be addressed in the review.

Section 4.2.7: Authorisations

41. Atmospheric emission licences set out, amongst other things, the maximum allowed amount, volume, emission rate or concentration of pollutants that may be discharged in the atmosphere. Although licences also include penalties for non-compliance, unless licence-holders are required to report as to the contents of their pollution stream, the effectiveness of air quality management is severely hampered. Once the regulatory authority is aware of the concentration of such pollutants, it can implement better management options to limit – and eventually eliminate – undesirable pollution streams. This is particularly important where the pollutants are not currently included in the ambient air quality standards – such as the toxins mercury and cadmium. This should be addressed in the review.

Section 4.2.8: Compliance monitoring

42. Compliance monitoring is an essential element of air quality management. Monitoring and reporting by facilities and licence-holders is also crucial. In this regard, polluters cannot rely on malfunctioning equipment for a failure to monitor and report or to comply with any of their other obligations. Equipment should be regularly maintained and there should be a standard with which equipment is to comply.

43. In addition to the licences, real-time monitoring data must be easily accessible to member of the public, so that licence-holders can be held to account. This is especially relevant for listed activities.

44. Section 155(7) of the Constitution of the Republic of South Africa, 1996 ("the Constitution") provides that the national government, subject to section 44, and the provincial governments have the legislative and executive authority to see to the effective performance by municipalities of their functions in respect of matters listed in Schedules 4 and 5 (including air pollution), by regulating the exercise by municipalities of their executive authority (which includes air pollution). Mechanisms should urgently be developed to monitor compliance monitoring and enforcement at the local level, as well as support and intervention procedures and infrastructure, should they be required.

45. In relation to compliance monitoring (and enforcement (which is dealt with below)), please advise how many Environmental Management Inspectors (EMIs) have been appointed to monitor compliance with and enforcement of the AQA? Of these, how many EMIs are dedicated to compliance with and enforcement of the Waste Act (as opposed to other legislation)? What plans are there to increase these numbers? This should be addressed in the review.

Section 4.2.9: Enforcement

46. Where an exceedence has been proven, the onus should be on the polluter to show that there is no adverse health impact. Emissions monitoring is essential and the data must be publicly available. In relation to section 5.4.3 below, a proposal is made regarding the definition of "frequency of exceedence" contained in the National Ambient Air Quality Standards.

47. As for compliance monitoring, the review should make clear that the ultimate responsibility lies at the national government level. It should develop mechanisms to monitor compliance monitoring and enforcement at the local level, as well as support and intervention procedures and infrastructure.

Section 4.4.5: The Provincial-Municipal Air Quality Officers' Forum

48. We note the amendment proposed in this Section. The review should indicate the extent to which there has been compliance with the requirement that each province establish and convene this Forum. Where there has been non-compliance with this requirement, the reasons for this should be provided.

Sections 5.2.1 – section 5.2.1.2: The South African Air Quality Information System (SAAQIS)

49. The description of some of the functions and features of SAAQIS clearly show that it is not only an information system, but will play a crucial role in compliance monitoring and environmental management. For example, ambient monitoring data will be reported or uploaded to the SAAQIS system, and it would appear that a certain level of data quality monitoring will be done via the system. Thus, assessing compliance or otherwise with Ambient Air Quality Standards will, to a considerable extent, depend on the development and integrity of the SAAQIS. Similarly, this comment would apply to emission values reported to the system. The quality and integrity of the Emissions Inventories compiled through SAAQIS may well be important in assessing background concentrations within Environmental Impact Assessments.

50. Against this background, this subsection contains the statement "*in achieving the objectives of the SAAQIS, the South African Weather Service (SAWS) is the relevant custodian of the SAAQIS*." It is of concern that the SAWS appears, at face value, to be taking on the task of hosting a database and a web-based information service; but, on closer examination, it is *de facto* assuming a central role in air quality management. We are concerned that the mandate of SAWS as "relevant custodian" is undefined and unclear, and that the full implicit mandate may not be properly resourced or funded. It is important that the Department, as lead agent in air quality management, remains directly involved and responsible for air quality management, and that the relationship with SAWS and its role be carefully and fully defined.

51. SAAQIS has not delivered as expected of it. For instance, its website refers to various targets that have not been met. In order for SAAQIS to meet its objectives and provide a meaningful service, there needs to be strict compliance with timeframes. The review should address the difficulties relating to compliance by SAAQIS with its mandate, as well as the steps that will be taken to address these challenges.

52. It is not completely clear which amendments are proposed. For instance, it is indicated that the third of subsection 5.2.1.2 is to be amended by the addition of a sentence, but it appears that what is actually envisaged is the deletion and replacement of this paragraph.

53. Similarly, it is not clear whether it is proposed to move Table 10 to a different position in the Framework. Our comments in relation to Table 10 are addressed in section 5.2.1.3 below.

Section 5.2.1.3: Ambient air quality monitoring

54. It is also not clear exactly which amendments are proposed to section 5.2.1.3.

55. Although National Ambient Air Quality Standards for certain pollutants have been promulgated, and the Framework includes (under 5.2.1.3) norms and standards for air quality monitoring, the standards for *the collection and management of this data, and for providing access public access to the data*, have not been published. Table 10 (2007 Framework) describes timeframes for the completion of much of the ambient data management system under SAAQIS, but these targets have not been met.

56. The 2012 draft Framework promises a substantially redesigned SAAQIS. The revised Table 10 (2012 draft Framework) (numbering added for ease of reference) is as follows.

Table 10

Key Milestone, Product or Output	Timeframe
1. Reporting of all government owned stations into SAAQIS	• 2017/18
2. **Live** reporting of stations into SAAQIS **(at least 30%)**	• 2015/16
3. Development of National Air Quality Monitoring Guidelines/standards	• 2013/14
4. Development of National Air Quality Index	• 2013/14

57. Item 1 is scheduled for completion only in 2017/18. It is submitted that, if this means that air quality monitoring data will only be available in 2018, *this is unacceptable*. A number of monitoring stations have been gathering data for 10 years or more. We note that, in the cities of Cape Town and Durban/ Ethekwini at least, web-based systems for making, at least, summary data available to the public have been in place for a number of years. We also note that further development of these systems seems to have stalled; and, in some cases, the quality and scope of monitoring data appears to have deteriorated in recent years, thus decreasing public access to essential environmental information. The timelines in Table 10 imply that, for the next five years, the public must suffer a steady decrease in access to environmental information in the hope that a national system is put in place at the end of this time period. This is unacceptable and not in keeping with the objects of the AQA or the Constitution. It is proposed that the 2012 Framework include maintenance and continued upgrading of current city-based monitoring systems *and* systems for making the monitoring data available online – as opposed to having to request documents. This would relieve the burden on all parties.

58. Item 2, "live reporting of stations into SAAQIS (at least 30%)", should be clarified.

59. Item 3 of Table 10 implies that National Air Quality Monitoring Guidelines/Standards have yet to be developed, and that this task will be completed by 2013/14. At the same time, paragraph 5.2.1.3 refers to "accepted norms and standards" for ambient air quality monitoring, and lists a number of quality criteria. However, the language in this paragraph is ambiguous. It is not clear if the listed criteria are intended to be prescriptive - and will become policy once the 2012 Framework has been finalised and adopted - or if the listed criteria are simply suggestions to be considered for incorporation into the National Air Quality Monitoring Guidelines/Standards that have yet to be developed. For example, the statement "*the conformity assessment activities (specifically testing and calibration) involved in ambient air quality monitoring shall comply with the requirements of ISO/IEC 17025: 2005. Once ISO/IEC 17025: 2005 is implemented, SANAS accreditation for these conformity assessment activities shall be applied for and obtained*" appears to be quite prescriptive. Yet elsewhere in this section (for instance: "if monitoring station is not SANAS accredited, this must be highlighted in metadata of station"; "data should be validated before reporting" etc) statements appear to be non-prescriptive. The wording should be clarified. Is the 2012 draft Framework providing binding criteria for incorporation into the National Air Quality Monitoring Guidelines/Standards document that has yet to be developed?

60. The ISO/IEC 17025: 2005 standard is not accessible, as it has to be purchased at a significant cost.

Criteria for determining the recommended minimum number of sampling sites

61. The location of sampling sites for ambient air quality monitoring does not say anything about community participation in the siting of ambient air quality monitors. It is crucial that members of the community have an opportunity to identify the best sites for monitoring – they know where the air quality, odours and health impacts are the worst, as they experience these effects on a daily basis. The review should address this.

62. Table 12: Recommended minimum number of sampling points for fixed measurements to assess compliance with national ambient standards for SO_2, NO_2, PM_{10}, CO, C_6H_6 and Pb (adapted from SANS 1929)
Table 13: Recommended minimum number of sampling points for fixed measurements to assess compliance with ozone limit values for the protection of human health in zones and agglomerations where fixed measurement is the sole source of information (adapted from SANS 1929

62.1. We note that the Tables 12 and 13 in the Framework include recommendations as to the number of monitoring stations in relation to the population of the urban agglomeration, but no guidance is given as to the location of the monitoring stations in relation to the population. In order to assess the health impacts of air pollution (using monitored data), the guidance should include the placing of a minimum number of monitors within residential areas, particularly in densely populated areas, in order to obtain population exposure data.

62.2. In priority areas where low income urban populations live in proximity to heavy industry, these communities are not likely to exceed population density thresholds as set out in the Table; yet, they are the most vulnerable people. Exceptions must be made to this rule so that such communities have more sampling points.

Insertion of new Section 5.2.1.4: Emissions monitoring

63. We note the insertion of this section 5.2.1.4 and we welcome this initiative. This service to be provided by SAAQIS is important and should be prioritised. It will, however, be a meaningless exercise unless the actual data is complete, up-to-date – in as near real time as possible - freely available, and in a format that makes it user-friendly for regulators, communities and other members of civil society.

64. Timeframes need to be determined and made explicit in the Framework. Target stakeholders could be prioritised – for instance, in the first phase, the focus should be on all processes requiring atmospheric emissions licences.

65. Is reference intended to be made to Table 15?

Section 5.2.1.5: Emissions inventory

66. The Framework requires [the establishment of] "*national standards for municipalities to monitor point, non-point and mobile sources*". Paragraph 5.2.1.4 of the Framework provides that "the SAAQIS will provide *access to information* that is necessary for the production of an emission inventory. It will also act as a repository for *existing* emission inventories in South Africa." Table 15 indicates that Municipal Emission Inventories and a Greenhouse Gas Emission Inventory would be established by 2010.

67. However, to our knowledge, national standards for the compilation of emission inventories have not been established, and municipal emission inventories have also not been established. We are aware that some municipalities have completed once-off point source emission inventories, but these have not been updated on a regular (annual) basis, nor have they been compiled using a common methodology. Even these once-off emission inventories are substantively incomplete – they do not include vehicle emissions or domestic fuel use emissions, for example. In any event, no responsibility was allocated (in the 2007 Framework) for the compilation of a National Emission Inventory – that is, an aggregation of all local level emission inventories into an annual, national emission inventory. This omission has not been rectified in the 2012 draft Framework. It is submitted that it should be.

68. The corresponding paragraph 5.2.1.4, Table 15 in the 2012 draft Framework sets new target dates for the development of the (presumably) web-based SAAQIS tools for the estimation of emissions from various source categories. As before, the municipalities have the responsibility for the compilation of municipal emission inventories. The 2012 draft Framework, as was the case with the 2007 Framework, does not allocate responsibility, nor does it include an implementation timeframe for the compilation of the National Emission Inventory. It is important to address these issues in the review.

69. Emissions inventories are extremely useful tools to undertake some of the following activities:

69.1. setting priorities and focusing efforts;
69.2. identifying key sectors/sources and stakeholders;
69.3. initiating communication with stakeholders;
69.4. assisting in the identification of environments and populations at risk; and
69.5. as a tool for monitoring progress in reduction efforts.

70. As a result, the emissions inventory proposal should must set out exactly what the emissions inventory aims to achieve – it is no use compiling emissions inventories, unless specific activities are defined and acted upon: for example, if the initial aim is to determine baseline levels of emission, then this must be defined as an objective with a defined timeline and set of activities to be accomplished by certain dates.

71. Similarly, for other aims and objects of the emissions inventory, activities, timelines and means of verification should be determined and set out in the Framework.

Mandatory provision of environmental information

72. Paragraph 5.2.1.4 and Table 15 are focussed on the development of the SAAQIS system as a technical tool for the compilation of the Emission Inventory. In order to use the (future) SAAQIS emission inventory tools, diverse input data will be required; including, for example, industrial and domestic fuel use data, vehicle registration data, vehicle activity rates (annual kilometres travelled), quarry activity data, etc. These data are held by a variety of agencies – industries, parastatals, and commercial distributors, among others. To date, attempts to compile emission inventories have had to rely on the voluntary disclosure of information. Holders of the data have, at times, refused to supply the information, or have been very tardy in supplying data. The compilation of a credible Emission Inventory is impossible without accurate timeous and complete input data. Regulations are required to compel holders of environmental information to submit such information to the relevant authorities, and to be held accountable for the accuracy and timeous submission of the data. The 2012 Framework should include the drafting of such regulations, and the development of the necessary infrastructure to ensure compliance in its work plan.

Section 5.2.1.5:[2] Listed activities and compliance monitoring

73. The Department proposes that the System for National Atmospheric Emission Licensing will "*facilitate compliance monitoring by licensing authorities and will be accessible through the SAAQIS website*". This initiative is welcomed; however, the methodology of its operation should be explicit in the Framework, with defined timelines, activities and means of verification. Compliance monitoring is possibly the greatest weakness in local authorities' capacity to manage air pollution. It is important for the Framework to set out how local authorities and AQOs are to be integrated into the system, as well as the respective responsibilities of the role-players.

74. It is assumed that the proposed Table 2 should be Table 16 and will replace the current Table 16.

Section 5.2.1.6: Policy, legislation and regulations &
Section 5.2.1.7: South Africa air quality research database

75. The SAAQIS website is not up-to-date, nor is it particularly user-friendly. For instance, it still contains the proposed national ambient air quality standard for PM2.5. It is proposed that draft legislation and notices be listed under a separate heading, together with the date by which comments are required. Drafts of documents that have subsequently been finalised should be removed from the site. The documents should be grouped in a way that is sensible and easy to understand. For instance, all documents relevant to a particular priority area should be grouped together.

76. It is not clear where the "South African Air Quality Research Database" is available on the SAAQIS site.

[2] Numbering as per draft Framework

Section 5.3.2: Identifying and prioritising pollutants of concern

77. Table 23: Pollutants of concern

    77.1. It is submitted that mercury and VOCs should already be Criteria Pollutants. PM2.5 has recently been gazetted, but following the outdated WHO 2000 Guideline values. Since fine particles (PM2.5) constitute a much more significant health risk than PM10, the WHO 2005 Guideline limits should have been used. Even these Guidelines are based on 7-year-old epidemiology. In addition, compliance dates have been set far into the future – almost 18 years in same cases. It is submitted that this is completely inadequate to protect human health. The effect is likely to be about at least about 20 years of continued adverse impacts - increased respiratory symptoms and increased daily mortality. This fails to meet the objectives of the AQA.

    77.2. The onus should be on the polluter to monitor emissions of pre-cursors of these pollutants.

Section 5.3.3: Identifying and prioritising emitters of concern

78. Where there is reason to believe that additional standards are needed in specific areas with heavy industry, then the burden of proof must be on the polluter to show that they are not emitting a dangerous pollutant – and where it is found that they are, such emitters must be subject to an ambient air quality standard. The review should make provision for this.

Section 5.3.4: Identifying and prioritising areas of concern

79. It is not clear exactly which amendments are envisaged here.

80. It is proposed that, before an area is declared a priority area – which can potentially be a time-consuming process – certain actions should be taken; for instance:

    80.1. establishing a multi-stakeholder task team with the role of investigating why ambient air quality standards are being exceeded;
    80.2. determining emissions inventories and associated activities; and
    80.3. preventing further deterioration of ambient air quality.

81. It is submitted that in the Waterberg, for example, ambient air quality standards are being exceeded, but due to a lack of routine ambient air quality monitoring, the extent of this problem is unknown. Once Eskom's Medupi power station is complete, ambient air quality is likely to deteriorate markedly. This will be exacerbated by additional industrial activities proposed by Sasol and Eskom. It is therefore important for the Framework to address the situation meaningfully and timeously, without having to wait for the priority area Air Quality Management Plan.

Section 5.4.2: Awareness-raising

82. While the Framework accepts the obligation to raise public awareness through publications and workshops, it does not reflect a coherent strategy that will inform these awareness-raising activities, nor does it list specific deliverables and timeframes against awareness-raising activities. We strongly recommend that the Framework incorporates activities (and implicitly allocates resources) aimed at, in the first instance, developing a strategy (with appropriate public input) to raise public awareness of air quality and air pollution issues. Particular emphasis should be placed on raising awareness at school level. In the second instance, an implementation plan should be developed.

83. We particularly recommend that a special module is incorporated into the SAAQIS, aimed at providing air quality and air pollution information at the primary and secondary school levels. The module should not only provide information at an appropriate level, but should facilitate teachers' setting of school projects based primarily (although not exclusively) on information found on the SAAQIS website. There are examples and models of similar modules in other jurisdictions, for example in the United Kingdom.

Section 5.4.3: Standard setting

84. It is not clear exactly which amendments are envisaged here.

85. We propose that the following principles be incorporated in the Framework:

    85.1. the committee should meet regularly – initially, three times annually;
    85.2. the committee be mandated to review existing standards. This, with the background that some of the standards fail to meet the criteria required to protect public health – based on the international peer-reviewed evidence base; and
    85.3. the committee be mandated to recommend amendments to existing standards; including: emission limits for listed activities and ambient air quality standards; and the addition of substances requiring air quality and emission standards and additional activities to be listed in terms of section 21 of the AQA.

86. The Framework should elucidate the definition of "frequency of exceedence" contained in the National Ambient Air Quality Standards to make it clear in which circumstances exceedences are permitted. During the drafting of the Standards, our clients' understanding was that it was acknowledged that some allowance had to be made for random variations in the measured values, and that there was therefore 1% leeway given in this regard. In other words, there is still compliance with the Standard if there are exceedences of it 1% of the time. However, given the poor compliance monitoring and enforcement, this creates uncertainty in compliance monitoring and enforcement.

87. For example, if the 24 hour average value exceeds the 24 hour Standard thrice within a week, the likelihood is that the concentrations **were** in excess of the standard, and that the exceedences were not due to random fluctuations. But, in terms of the "allowable exceedences", four such high 24 hour values over a period of a year are to be regarded as within the standard. The fourth value may occur some days or weeks later, but by that time the opportunity to take corrective action would have passed; and, more importantly, the population exposure (with its health implications) would already have occurred. The same is true for hourly average values, where a much larger number of exceedences is currently allowed. Against a background of poor compliance monitoring and enforcement, this translates into a licence to pollute with impunity, because no action is taken at the time of the exceedence. Admitting or accepting that non-compliance had taken place at a later date - when the accumulated number of exceedences exceeds the allowable number - does not constitute enforcement. In addition, we are already halfway through the first transition period (Figure 5 of the 2007 Framework), two years beyond the first review date.

88. In the circumstances, we propose that the allowable frequency of exceedences of the 24 hour average standard be reduced to zero, and that, for the hourly standard and 10 minute averages, the allowable frequencies be reduced to 9 and 53 respectively. It is not acceptable for members of the public to be exposed to harmful pollution, and this proposal will be more in keeping with the objects of the AQA. It would also be more in line with the revised 2005 WHO Guideline – whereas the current Ambient Air Quality Standards are based on the outdated WHO 2000 Guideline.

89. As indicated above, the review should also make provision for stringent compliance monitoring and enforcement.

Section 5.4.4: Regulations

90. Is this section to be deleted in its entirety?

Section 5.4.6: Air Quality Management Plans

91. The review should make clear which departments have failed to produce the required plans; the reasons for such failure; and how this will be addressed.

Section 5.4.6.3: AQMPs for other National Government Departments

92. Does the review propose to delete everything in this paragraph from "air quality information"?

Paragraph 5.9.1.3: Establishment of a national air quality reference group

93. Is it proposed that this paragraph replaces the entire paragraph 5.9.1.3 in the Framework?

Section 5.9.2.4: Technical capacity development
Helpdesk

94. It is not clear whether the second paragraph of this section is proposed to be deleted.

Section 7.1: Background to the National Framework review process

95. It is submitted that it would not be prudent to complete the 2nd Generation Framework by September 2012. This is a crucial process and it is more important that it be properly undertaken than that the deadline be reached. In any event, the AQA requires that, before publishing an amendment to the Framework, the Minister must follow a consultative process in accordance with sections 56 and 57. In addition to consultations with all Cabinet members whose areas of responsibility will be affected by the exercise of the power; and with the MEC responsible for air quality in each province that will be affected by the exercise of the power, the Minister is required to allow at least 30 days for comment by members of the public. It is submitted that, given the importance of this review, a longer period than 30 days be afforded to members of the public for this purpose. The 90 day period required in the National Water Act, 1998 for the review of the National Water Resources Strategy is more appropriate.

Section 7.4: Independent review of the National Framework

96. When is this review envisaged to take place?

97. Our clients require an opportunity to participate in this review and to receive a copy of it.

98. We thank the Department for the opportunity to comment on the review, and hope that our concerns can be addressed. Kindly keep us informed regarding progress on the review.

Yours sincerely
Centre for Environmental Rights
per:

Robyn Hugo
Staff Attorney