

**National Environmental Advisory Forum Subcommittee on Pollution and Waste
Management meeting 23 October 2006.**

**Topic for discussion: Critical Challenges in the implementation of the NEM Air
Quality Act.**

**National Association for Clean Air (NACA) Inputs
– presented by Yvonne Scorgie**

**1. What the priority areas should be for implementation. eg should it be the
declaration of "hot spots" or the setting of emission standards, or the national
framework?**

Various components are considered urgent and can be put in place in parallel given that (i) relatively little additional effort is required and (ii) different persons are responsible for the work required.

Components to be fast-tracked:

(a) Air Quality Standards

Air quality standards provide the target to be achieved in an effects-based regulatory framework and should be finalized as a matter of urgency. These standards must include monitoring, information management and reporting methodologies, timeframes for exceedance, permissible frequencies and margins of tolerance. Work undertaken for the State of Air can inform the setting of these additional fields. Where uncertainty exists on the potential for standards being met, less ambitious timeframes and permissible frequencies can initially be set given that provinces could issue more stringent limits and international experience supports the tightening up of permissible frequencies over time.

In the setting of norms and standards for **air quality monitoring and information management, account should be taken of** what municipalities, provinces and other parties are doing on the ground. Reference must be made to varied 'monitoring' methods depending on local circumstances and air pollution levels, including direct and indirect methods of monitoring. Direct methods ranging from passive, manual measurement to continuous, automated monitoring. Indirect methods incorporating integration of emissions inventory and air dispersion modeling. Guidance given for implementation of tiered cost-optimised monitoring for broad baseline air quality characterization and, if required, detailed compliance monitoring.

Municipalities and provinces are currently purchasing monitoring systems and services. Timely guidance on differentiation in monitoring approaches based on local circumstances and on the use of emission inventories and modeling is therefore imperative.

(b) National emission limits for listed activities

This process should be initiated immediately with industrial sectors being asked to put together emission limits (and associated emission monitoring and reporting protocols) for their sectors. The proposed tender process should be initiated with project team able to develop national emission limits being put in place as soon as possible.

The draft “list of activities” should be tested against information gathered during the APPA RC Review project regarding unscheduled industries which result in complaints.

Different approaches exist for the promulgation of national emission standards for listed activities, for example:

- Issue of comprehensive set of emission limits and control measures for all significant pollutants for a selected number of listed activities; or
- Issue emission limits for only one or two pollutants for all listed activities

It is recommended that a comprehensive set of emission limits and controls be issued for the industrial sectors included in the APPA RC Review project with work from this project being integrated into the emission limit setting project. Furthermore, that emission limits for the remaining listed activities be specified for just the most pertinent pollutant(s) to expedite the process.

(c) National Framework

This process was initiated with the 18 Oct 2006 Workshop and should continue with the proposed tender process being initiated as soon as possible and the appropriate project team for national emission limit development established.

In the development of the NF reference must be made to AQM & Planning efforts already underway (including experience of municipalities and provinces in setting up monitoring networks and air quality management plans). There should be strong collaboration between the NF and Vaal Airshed AQMP project teams.

(d) Establishment of an Air Quality Management Support Group for Monitoring and AQMP Development Support, Alignment and Review

Currently significant funds are being spent by municipalities & provinces on hiring consultants to compile their AQMPs. This process is not cost-effective and do conducive to sustainable air quality management practices.

It is recommended that an air quality management support group be established comprising: national, provincial and local government personnel with experience in AQM, and other persons knowledgeable on subject (environmental NGOs, science, academia, industry, consultants, etc.).

This group would work through the national-provincial and provincial-municipal structures and aim to support municipalities and provinces to compile their own emissions inventories, establish their own monitoring networks, establish and populate dispersion models if required, compile air quality management plans (etc.). Support could be providing in the form of direct training, workshopping products, trouble shooting support (etc.). The group could be responsible for assisting in the review of the AQMPs compiled.

Alternatively, separate support groups could be established in each province and attached to each provincial-municipal structure.

PLEASE NOTE THAT THE ABOVE RECOMMENDATION NEEDS TO BE REVISED TO TAKE INTO ACCOUNT THE AIR QUALITY MANAGEMENT PLANNING PROJECT FOR WHICH DEAT HAS JUST PUT OUT AN INVITATION FOR BIDS (TOR TO BE FORWARDED WITH THIS SUBMISSION, CLOSING DATE FOR BIDS 10 NOV)

(e) Declaration of new Priority Areas

It is recommended that focus be placed on ONE national priority area first, with two provinces being encouraged to declare priority areas to act as additional pilots. (Preferably provinces who have some AQMP experience. For provincial pilots areas likely to draw on the same resources as Vaal Airshed AQMP process should be avoided – including national and provincial government personnel, environmental NGOs, consultants and advisers.)

Mpumalanga airshed should only be declared as a priority area when the NF and Vaal Airshed AQMP development processes are close to completion. Resources will then be freed up to work on this in terms of government, industry associations, environmental NGOs and air pollution monitoring and AQ management consultants.

(f) National Air Quality Advisory Committee

Should be established as soon as possible to offer guidance during the intensive regulatory development and roll-out period.

(g) Atmospheric Impact Reports

Draft template for atmospheric impact reports should be published as soon as possible (as is proposed). This will allow industry to prepare itself (do its homework) for the air quality management planning and atmospheric emissions license processes.

(h) Declaration of Controlled Emitters

Could be done relatively easily for vehicles and boilers. This would send out the message that government is not only targeting large industry.

(i) Declaration of Controlled Fuels

Should be used in the short-term only in support of priority area air quality management planning, informed by the assessment of significant sources selected for mitigation based on their impact.

(j) Pollution Prevention Plans

The need for and nature of these should be informed in the short-term by priority area investigations and should be required in support of priority area AQMPs.

2. Whether the focus on emission standards should be industry or area specific and if so which industries merit priority? What constraints are there on setting industry wide emission standards and how could these be overcome?

Minimum limits should be sector-based to ensure a level playing field. Emission limits should be phased in with provision being made for variations in emission limits given the age / remaining life of existing industrial operations.

Following the stipulation of national minimum emission limits, more stringent emission limits could be implemented in specific areas for specific industries.

National minimum emission limits should be informed by: (i) best available technologies, (b) acceptable air quality limits and (c) existing industries performance with regard to its emissions (specifically for setting of emission limits for existing industries). It is noted

that requirements pertaining to control measures will need to be stipulated for fugitive emission sources such as fugitive dust releases, evaporative emissions.

Constraints in emission limit setting include:

- Variations in types and complexities of industries. Recommendation is that the industrial sector be left to work it out and advise.
- Tolerances & implementation times. Industrial plants, given their different technologies and ages, hold the potential of implementing significant interventions at different times. Recommendation – firm, informed and flexible stance must be adopted to ensure that emission reductions are maximized at least cost and that opportunities for realizing significant reductions are not missed.
- Potential for impacting negatively on the competitive advantage of SA industries by applying stringent international standards. This should be considered.

3. What are the capacity constraints for monitoring and implementation and how can these be most cost effectively addressed?

Uncertain as to the type of monitoring implied (performance monitoring, compliance monitoring, emission monitoring, air quality monitoring etc.).

Most effective ways of realizing capacity building and effective use of resources include:

- Development of an air quality management support group(s) (as discussed previously); REVIEW OF THIS RECOMMENDATION REQUIRED GIVEN NEW DEAT PROJECT PROPOSED
- Provision of detailed guidance on monitoring (as discussed previously) including emission, air quality, compliance (etc.) monitoring. Guidance to include reference to screening tools and methods to ensure cost-optimised use of resources; and
- Building of public-private partnerships to support monitoring.

4. How permit reviews should best be conducted in relation to the management of specific air sheds and how should the public be involved in the process?

APPA RC Review Project:

- Publication of Atmospheric Emissions License Template for public comment prior to initiation of registration certificate review component of project.
- Publication of draft Atmospheric Emission Licenses for individual industries for public review and comment.
- Possibly holding of workshops by metropolitan, region or province (?) to present and discuss draft licenses for listed activities in those jurisdictions.

5. What are the challenges and potential for positive outcomes in managing hotspots?

The terms “hotspots” and “priority areas” should not be confused.

The benefits of implementing effective air quality management within non-compliance areas are obvious and include: improvements in the health and welfare of communities, reductions in property damage and pressure on sensitive environments. Also holds the potential for enterprises to operate in a firmer but more flexible regulatory environment where their risks of facing litigation is lowered if they behave responsibly.

The major challenges in managing such areas include:

- Effective baseline air quality characterization and implementing systems for on-going progress tracking.
- Ranking of source significance based on the contribution of such sources to impacts (not simply to total emissions).
- Effecting real emission reduction for sources which are difficult to manage, e.g. household fuel burning and vehicles.
- Aligning policies and strategies to ensure integration of air quality considerations into energy, transportation, housing and land use planning. Furthermore, to take socio-economic considerations into account in costing air pollution interventions.

6. Any other issues that you consider important.

Potential for emission trading (impact trading) to be rigorously investigated during the Priority Area AQMP.

Exceedances of air quality standards should be shown to be a trigger for action by local authorities and not for litigation (in most cases). Given this approach, actions to be

taken could include the setting of stricter emission limits for industries suspected of contributing or being responsible for exceedances and monitoring of their emissions to assess compliance with such limits. Emission limit exceedances in countries with efficient emissions licensing and monitoring systems are a very good basis for securing successful prosecutions of negligent industries.