
GOVERNMENT NOTICES GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM DEPARTEMENT VAN OMGEWINGSAKE EN TOERISME

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ADOPTION OF REVISED GUIDELINES FOR SULPHUR DIOXIDE IN TERMS OF THE ATMOSPHERIC POLLUTION PREVENTION ACT OF 1965

BACKGROUND

South Africa is a coal based economy, and as such has high concentrations of air pollutants emanating from the industrial and domestic combustion of coal, such as sulphur dioxide, particulate matter and oxides of nitrogen. The pollution problem is even more pronounced in areas where there is a high concentration of industries such as the Vaal Triangle, the Durban South Industrial Basin and Milnerton in Cape Town. In these areas the levels of pollution are made worse by the existence of toxic organic pollutants associated with the petro-chemical refining industry and other sources such as motor vehicles.

These high levels of pollution impact negatively on the health of the communities, especially those who live close to these industrial areas. An evaluation of the pollution levels in these areas reveals that while industries may well be complying with permit conditions, in many instances still cause pollution that is detrimental to the health and well-being of the communities around them. It is therefore clear that the South African Air Pollution Guidelines currently in force in terms of the Atmospheric Pollution Prevention Act (APPA), (Act No. 45 Of 1965) are not stringent enough to ensure the protection of health of individuals and the environment. This view is supported by various research studies carried out in recent years.

It is in view of this fact that the Department of Environmental Affairs and Tourism has embarked on a process to review these guidelines so as to curb excessive pollution of our atmosphere by industry and to ensure that the health of people is protected. Given the fact that 80% of air pollution emanates from the combustion of coal, heavy oil and other fossil fuels, the department decided to target sulphur dioxide (SO₂) as the first priority pollutant for review. This initiative should be viewed as a means to fast-track the implementation of these guidelines by dealing with the key challenge of SO₂. The other pollutants such as **particulate matter, benzene, and carbon monoxide, oxides of nitrogen and ozone** have been identified as important national priority pollutants, and are under review. This review will be finalized in the near future.

THE REVISED GUIDELINE FOR SULPHUR DIOXIDE

In June 2001, the department published a reviewed SO₂ guideline for comment in the Government Gazette, together with a Technical Background document outlining the scientific justification for proposing the guideline ambient limits. The comments received from a wide variety of stakeholders overwhelmingly supported the adoption of the guideline. It is in the light of this that the Department has decided to publish the adoption of the revised guideline in accordance with the provisions of

section 12 of the Atmospheric Pollution Prevention Act of 1965, thereby repealing the current guidelines for SO₂. The current guideline, which is hereby repealed, is outlined in Table 1

TABLE 1: SOUTH AFRICAN AMBIENT AIR QUALITY GUIDELINES FOR SO₂
(Issued by Department of Environmental Affairs and Tourism)

| Guideline | Instantaneous | | 1 Hour average | | 24 Hour average | | Annual average | |
|-----------|-----------------------------|-------------------|----------------|-------------------|-----------------|-------------------|----------------|-------------------|
| | ppm | µg/m ³ | ppm | µg/m ³ | ppm | µg/m ³ | ppm | µg/m ³ |
| DEAT | 0.600 (3 min average) | 1 716 | 0.300 | 858 | 0.100 | 286 | 0.030 | 86 |

The revised guideline, which is adopted by the Chief Air Pollution Control Officer, is shown in Table 2.

TABLE 2: Recommended Guideline for SO₂

| Maximum Allowable Concentrations of ambient SO ₂ | | | | | | |
|---|------------------------------|-------------------|-----------------|-------------------|----------------|-------------------|
| Guideline | Instantaneous | | 24 Hour average | | Annual average | |
| | ppm | µg/m ³ | ppm | µg/m ³ | ppm | µg/m ³ |
| REVISED NATIONAL GUIDELINE (Recommended) | 0.191 (10 min average) | 500 | 0.048 | 125 | 0.019 | 50 |

It is important to note that these revised guidelines will be used as an interim measure to enable the revision of current registration certificates for industrial processes by the Chief Air Pollution Control Officer (CAPCO). These measures are of a temporary nature only, as a complete revision of the applicable legislation is currently underway. This will include standards, permitted number of exceedences, time for compliance and other relevant factors. The process will encompass the various processes of development and consultation to ensure that the legislation is both acceptable and effective in safeguarding public health from air pollution from all sources.

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