



Sasol Limited

Media Release

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Sasol submits appeal to Minister of Forestry, Fisheries and Environment on National Air Quality Office decision on alternative load-based emission limit application

- Sasol submits appeal to Minister of Forestry, Fisheries and Environment on National Air Quality Office (NAQO) decision declining Sasol's application for Secunda boilers to be regulated by an alternative load-based emission limit for sulphur dioxide.
- Sasol seeking appropriate legal mechanism on which to be regulated, not exempted from compliance, regulation or ambient air quality improvement.
- Sasol proposing multi-project integrated emissions reduction solution that will reduce certain pollutants by 30% by 2030.
- More than R7 billion invested over the last five years on emission reduction projects, achieving minimum emissions standards compliance for 98% of emission sources at its operations.
- Significant capital committed to deliver projects included in this integrated remission reduction solution.

Johannesburg, South Africa – Following the National Air Quality Officer (NAQO) declining Sasol's application, in terms of Clause 12A of the Minimum Emission Standards (MES), to be regulated on an alternative emission load-basis for the sulphur dioxide (SO₂) emissions from the boilers at its Secunda Operations' steam plants from 1 April 2025 onwards (Sasol's 12A Application), Sasol has submitted its appeal of the decision to the Minister of Forestry, Fisheries and the Environment, as provided for in the National Environmental Management Act (NEMA) of 1998. The appeal process allows the Minister to consider Sasol's 12A application afresh.

Seeking ongoing compliance, not exemption from regulation

Clause 12A of the MES permits existing plants to be regulated on an alternative emission load, as opposed to the current concentration-based limit (the mass of pollutant per cubic metre of air emitted) specified in the MES. As part of its Clause 12A application, Sasol has proposed an integrated air quality and greenhouse gas (GHG) reduction solution ("integrated emission reduction solution") to reduce SO₂ and GHG emissions by approximately 30% by 2030. This is contingent on SO₂ emissions from the boilers at the steam plants of its Secunda Operations being regulated on an alternative load-based emission limit instead of the concentration limit currently being prescribed in the MES from 1 April 2025 onwards.



Illustrative example of load-based emissions limit vs concentration-based emissions limit (see attached graphic)

For illustration purposes on Sasol's 12A application to be regulated by a load-based emission limit rather than a concentration-based limit from 1 April 2025, sugar and caffeine consumption in a cup of coffee analogises this process. The coffee cups represent Secunda Operations' boilers, sugar represents SO₂ and caffeine represents particulate matter (PM) and nitrogen oxides (NO_x).

A person drinks six cups of coffee everyday with two teaspoons of sugar in each cup. Their total consumption is 12 teaspoons of sugar (6 cups x 2 teaspoons per cup).

Reduce sugar intake to only consume 6 teaspoons of sugar daily can be done by either:

- a) Reducing the amount of sugar in each cup of coffee to only 1 teaspoon per cup making the total number of teaspoons of sugar equal to 6 teaspoons (6 cups x 1 teaspoon per cup); or
- b) Reducing the number of cups of coffee consumed each day to only 3 cups bringing total number of teaspoons of sugar equal to 6 teaspoons (3 cups x 2 teaspoons per cup). As the cups of coffee are reduced, the caffeine intake is also reduced.

The reduction in sugar via scenario a) is a concentration reduction and the reduction in sugar and caffeine intake via b) is a load reduction.

Sasol is requesting that instead of reducing the SO₂ per boiler (concentration), it will reduce (turn down) the total number of boilers (load) to achieve the same or better result. In addition, a reduction in caffeine, in other words a further reduction of PMs and NO_x will be achieved through an emission load reduction, which would otherwise not be achieved via a concentration-based approach.

Sasol's proposed integrated emission reduction solution will achieve double the reductions on SO₂ emissions (load-based) than would have been achieved when compared to an equivalent concentration as provided for in the MES. In addition, there will be further reductions in PM and NO_x on a load-basis. These further reductions will result in an improvement of ambient air quality within the local airshed over-and-above MES compliance. Furthermore, Sasol's request to be measured on a load-based emission limit instead of a concentration-based limit is not unique and well in line with international standards. For instance, its US operations are also measured on a load-based basis.

Multi-project integrated reduction solution to reduce emissions

The integrated emission reduction solution comprises the implementation of multiple projects targeting energy efficiency, reducing coal usage, turning down boilers and integrating 1 200 MW of renewable energy.



1. Turn down boilers

The Secunda facility, by design, is a highly integrated facility. The boilers at the steam plants produce process steam to produce synthetic fuels and chemicals (through Sasol's coal-to-liquid process), while surplus steam is generated to produce electricity. Process steam is essential for day-to-day operational activities

The integrated reduction solution involves the turning down (through boiler capacity-reduction, including reduced coal use) of boilers. This will result not only in the reduction of SO₂ emissions, but also in the reduction of GHGs and other pollutants emitted from the boilers. The overall mass of SO₂ (and other pollutants) emitted, per day and per final product, will be reduced. In this manner, Sasol anticipates achieving a 30% total load reduction in SO₂ emissions by 2030. This is significantly more than what would otherwise be achieved under the applicable concentration limit (equivalent load), set in the MES and in line with Sasol's commitment towards people and the planet.

2. Renewable energy

The Secunda facility will still require electricity and other energy solutions to operate. To turn down the boilers, Sasol has identified alternative energy sources. These include renewable energy and energy efficiency projects, introduction of additional gas, and a fine coal solution. Sasol has already procured more than half of the 1 200MW renewable energy target to give effect to its emissions reduction targets, making Sasol the single largest private procurer of renewable energy in South Africa. This renewable energy is expected to become available in 2025.

The suite of energy efficiency projects is highly integrated into the existing facility and to date, energy efficiency interventions have delivered material improvements in air quality and reductions in GHG emissions.

3. GHG reduction

Sasol has, as part of its voluntary GHG reduction commitments, defined a clear roadmap and goal to reduce its scope 1 and 2 GHG emissions by 30% by 2030 and, in doing so, contribute to South Africa achieving its Nationally Determined Contribution (NDC). The 30% reduction is greater than the ~27% proportional requirement estimated for Sasol.

Sasol's integrated reduction solution paves the way for the company to significantly transform its operations and progress towards its net zero ambitions by 2050. This significant reduction in emissions will be achieved by transitioning its feedstock in a systematic manner to lower-carbon alternatives and repurposing existing assets to produce products, such as green hydrogen, green ammonia and green methanol.

Journey to improving air quality



Since 2015, Sasol has progressed its air quality improvement journey with several projects implemented at Secunda, Sasolburg and Natref to comply with the MES. Sasol has invested more than R7 billion over the last five years on emission reduction projects and has achieved MES compliance for 98% of its emission sources at these operations. By April 2025, a further R4 billion will be invested to achieve compliance to new plant standards for the remaining sources, which excludes the proposed solution from SO₂ in question.

Over the past 17 years Sasol has invested nearly R250 million to explore various technical alternatives to reduce SO₂ emissions from its Secunda Operations steam plant towards compliance with the MES, involving nearly 200 experts. Numerous technical, engineering and environmental studies have been undertaken in this time and included abatement technology investigations and consultations with leading global and local experts. Various technologies have been investigated, and were found to be practically infeasible to install in Sasol's existing plants and demonstrated unwanted, indirect negative consequences to the environment.

Timeframe required

As a result of the complexities, the magnitude of the scope and implementation timeframes that exist at Secunda, it warrants a phased and carefully executed plan running to 2030. In this period, Sasol will turn down boilers, implement renewable energy and enhance further energy efficiencies.

Further, additional enabling energy infrastructure, including an industrial scale substation to import additional electricity reliably and safely to the Secunda facility, is required to turn down the boilers. Sasol will invest approximately R1,4 billion to build this substation, which will be undertaken by Eskom. The project is on track and expected to be online towards the latter part of 2028 and will enable Sasol's 1 200MW import of renewable energy.

Sasol intends to turn down the equivalent of one boiler to assist in already reducing SO₂ emissions by 4% from 2025, resulting in an early improvement in ambient air quality while implementing the other projects. From 2030, due to the committed turndown of further boilers, SO₂ emissions will reduce by 30%, giving double the benefit that the load-based equivalent concentration reduction requirement of the MES concentration limit would have delivered.

By reducing the SO₂ emissions from its steam plants' boilers through the implementation of the integrated emission reduction solution on a load basis, significantly more health benefits to the surrounding communities will be achieved than what would have been achieved from reducing these same emissions on a concentration basis. Health benefits from reducing PM_{2.5} through the integrated emission reduction solution are more than double than that



which would have been achieved on a concentration basis and provides the best long-term health benefits for the surrounding communities.

Conclusion

Given the scale and significance of Sasol's Secunda Operations' contribution both in terms of the economy and energy security for the country, the integrated emission reduction solution has been developed to reflect the triple bottom line principles contained in its long-term strategy of "people, planet, profit", which is also aligned with the Best Practicable Environmental Option enshrined in law. Sasol is one of the country's largest taxpayers (R52,6 billion in direct and indirect taxes) and employers, with nearly R2 billion invested in financial year 2022 on skills development and socio-economic activities. Based on recent economic modelling, it is estimated that Sasol's contribution to the national economy (taking direct, indirect and induced economic contributions into account) is approximately R323,57 billion (>5%) towards South Africa's Gross Domestic Product (GDP). It further enables employment for nearly 450 000 people (>3%) of South Africa's total employment.

Sasol's unique Fischer-Tropsch (FT) technology allows for Secunda to be transformed to utilise sustainable feedstocks for the production of sustainable products as part of Sasol's 2050 net zero ambitions.

Sasol has committed further capital to deliver projects included in this integrated emission reduction solution. In addition, the procurement of affordable gas and evaluation of alternative supply options are continuing at pace. The company is also investing over US\$1bn over the next few years to secure additional gas from its own reserves in Mozambique and has extended the gas plateau to 2028 in order to reduce its dependence on coal.

"We are taking full accountability and responsibility to transition our business away from being fossil-fuel-dominant, to using sustainable feedstocks and thereby reducing our environmental footprint, to not only benefit our business, but the country. However, this requires time, effort, and capital. The implementation of the integrated reduction solution would enable Sasol to meet both air quality and GHG targets and maintain its contributions to the economy," said Simon Baloyi, Executive Vice President for Sasol Energy Operations and Technology.

End

Note to editors:

Air Resource Management (Pty) Ltd (ARM), an independent environmental consulting company, appointed to manage Sasol's 12A Application, notified all interested and affected



parties (I&AP's) on 31 July 2023 of the appeal, as per applicable regulatory requirements. The appeal submission and associated documents are available as follows:

- Electronically on the following Dropbox link:
 - <https://www.dropbox.com/sh/5r26xw3q6mnvxfp/AABEavLWHunOmj5ahRDHxICQa?dl=0>
- Copies can be requested from ARM via email (comments@arm-air.co.za) or telephonically (010 009 5336).
- Additionally, an electronic version of appeal documents will also be made available on the ARM website: <https://arm-air.co.za/documents/>.

Issued by:

Alex Anderson, Senior Manager: Group Media Relations and External Communication
Direct telephone: +27 (0) 10 344 5000; Mobile: +27 (0) 71 600 9605;
alex.anderson@sasol.com

Matebello Motloun, Manager: Group Media Relations
Direct telephone: +27 (0) 10 344 5000, Mobile: +27 (0) 82 773 9457
matebello.motloun@sasol.com

About Sasol:

Sasol is a global chemicals and energy company. We harness our knowledge and expertise to integrate sophisticated technologies and processes into world-scale operating facilities. We strive to safely and sustainably source, produce and market a range of high-quality products in 22 countries, preserving and creating value for stakeholders.