Reducing our environmental footprint – Air quality management

We minimise our air quality impacts by optimising our processes and installing best-in-class abatement technologies.

Highlights

- No dust fallout incidents recorded at Impala Rustenburg, Impala Bafokeng and Zimplats
- Impala Refineries' air emissions licence (AEL) successfully granted and valid until February 2030.

Lowlights/challenges

- Delayed completion date – from June 2026 to July 2029 – of best-in-class Zimplats sulphur dioxide (SO_2) abatement plant due to capital constraints
- Technical issues at Impala Rustenburg operations impacted consistent adherence to minimum SO_2 emissions standards
- One level 3 air quality environmental incident recorded at Marula, related to dust fallout exceedance.

Performance against key indicators

- Direct SO_2 emissions: 20% increase year-on-year to 35 424 tonnes following commissioning of Furnace 2 at Zimplats (2024: 29 426 tonnes)
- Air-quality-related environmental incidents at site and from surrounding community: one (2024: zero) against a Group target of zero.

Focus areas for FY2026 and beyond

- Implement SO_2 abatement plant at Zimplats
- Progress application to South Africa's national air quality officer for an alternative SO_2 emissions limit to ensure continued lawful operation at our Impala Rustenburg operation.

Implats is committed to applying the mitigation hierarchy to reduce air pollution, ensuring compliance with country-specific legal standards while striving to meet international air quality benchmarks. Our 2030 objective is to implement continuous air quality improvement programmes across our operations. This commitment is supported by several key initiatives, including:

- Ensuring all air emissions remain within legislated limits, with South African standards serving as the minimum benchmark
- Achieving compliance with the 2020 minimum emission standards outlined in the National Environmental Management: Air Quality Act (NEMAQA, Act 39 of 2004)
- Installing SO_2 abatement equipment at Zimplats to further reduce emissions.

Our mining and processing activities result in the release of various air pollutants, including particulate matter (dust) and SO_2. Additional emissions include nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO_2), and diesel exhaust particulates from underground operations.

Our most significant air quality impacts in the year under review relate to the SO_2 emissions from our smelting operations at Zimplats and particulate matter (PM) emissions from spray drying, as well as SO_2 emissions from the tail gas scrubber at Impala Rustenburg.

The ore smelting processes at the Zimplats smelter are the primary source of SO_2 emissions. At elevated concentrations, SO_2 can pose respiratory health risks, damage vegetation, and contribute to the acidification of water sources. In 2024, we reported a planned delay in the installation of a best-in-class SO_2 abatement facility at Zimplats due to capital constraints. Originally part of the smelter expansion project – which includes the addition of a 38MW furnace (Furnace 2) – the commissioning of the abatement plant has been rescheduled to July 2029. The project involves capturing SO_2-rich primary off-gases from the furnaces and associated equipment and converting them into sulphuric acid. Once operational, the abatement facility will ensure that point source emissions from the stack comply with South African legislative requirements.

Zimplats provides employees with respirators and other personal protective equipment (PPE) to minimise workplace exposure to air pollutants. The operation has implemented comprehensive emergency response plans for air quality incidents, including the installation and evaluation of emergency stack discharge units.

To enhance monitoring capabilities, Zimplats has installed 16 fixed in-plant SO_2-monitoring devices within the smelter. These devices provide both visual and audible alerts when elevated SO_2 levels are detected. Ground-level concentrations (GLCs) of SO_2 are monitored through a network of air-quality-monitoring units (AQMs), which has been expanded from two to five units. Of these, one is located in the operational area, one is mobile, and three are strategically positioned within the surrounding communities. Additionally, the installation of a 160 metre stack facilitates the effective dispersion and dilution of SO_2 emissions, ensuring that GLCs in nearby communities remain well below regulatory thresholds.

In South Africa, the NEMAQA establishes the framework for protecting human health and the environment through the enforcement of National Ambient Air Quality Standards (NAAQS). To support these standards, minimum emission standards are prescribed for various industrial activities. As part of our compliance obligations under NEMAQA, our South African operations report all air emissions – whether from listed or mining activities – via the National Air Emissions Inventory System (NAEIS) by March each year.

The implementation of minimum emission standards in South Africa followed a phased approach: initial limits for 'old plants' were to be met by 2015, followed by more stringent 'new plant' limits by 2020. These newer standards have posed challenges for legacy operations, often requiring significant retrofitting of emissions abatement technologies.

To ensure continued lawful operation at our Impala Rustenburg operations, we will be applying to the national air quality officer for an alternative SO_2 emissions limit. Previously, the officer granted a postponement for compliance with the new plant minimum emission standards for particulate matter (PM) emissions from spray drying and SO_2 emissions from the tail gas scrubber, valid until 31 December 2024.

Reducing our environmental footprint – Air quality management continued

As reported in 2024, the operation used this postponement period to implement compliance projects. However, technical challenges – particularly at the sulphuric acid plant designed to remove SO_2 from tail gas – have hindered consistent compliance. These challenges stem from variable sulphur content in feedstock and the degradation of the activated carbon catalyst. In response, a R56 million project to replace the catalyst was initiated, as previously reported.

Given these constraints, the operation proposed an alternative emissions limit that ensures consistent compliance. In accordance with legal requirements, a motivation report was prepared and an independent atmospheric impact report (AIR) commissioned. The AIR assesses the implications of the proposed limit on ambient air quality and potential environmental and health impacts. Both documents will inform the national air quality officer's decision-making process.

As part of the public participation process, the application will be publicly disclosed, with stakeholders notified accordingly. A formal comment period will be held, including an open-house meeting, providing stakeholders an opportunity to engage directly with management and the independent consultants on the motivation report, AIR and the application process. All stakeholder comments will be submitted to the national air quality officer for consideration. Updates on the application process will be communicated.

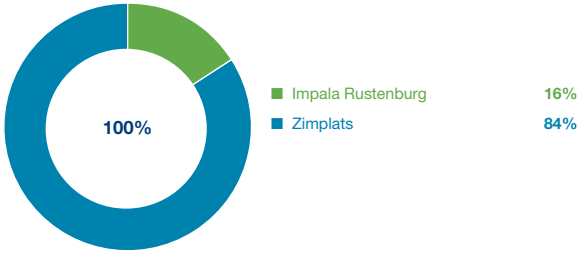
Extensive ambient air quality and fallout dust monitoring networks are in place across all operations, managed through site-specific procedures to ensure ongoing compliance and transparency.

The concentrate drying process is classified as a listed activity under sub-category 4.1 of Section 21 of the NEMAQA. At Impala, flash dryers 7 and 8 currently meet the 2020 minimum emission standards. In 2024, a dryer air quality improvement project was approved to upgrade the two spray dryers. Electrical upgrades were completed in 2025, and commissioning of the flue gas conditioning equipment is underway. These dryers are now operating within the minimum emission standards for particulate matter, with further performance enhancements anticipated.

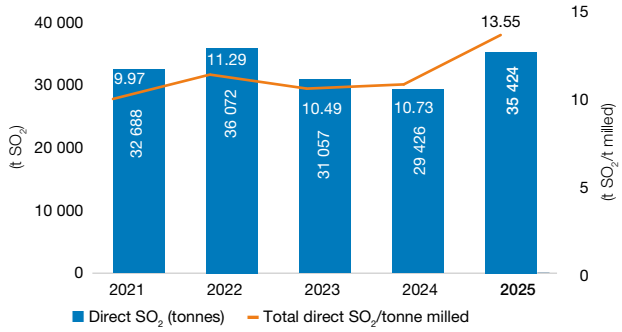
At Impala Refineries, air quality improvement initiatives have successfully brought particulate matter emissions into compliance with minimum emission standards. Two major projects targeting particulate emissions were completed in 2024. Isokinetic sampling conducted in 2025 confirmed that all point-source emissions are compliant with the minimum emission standards.

Following a public participation process, the air emissions licence (AEL) application for Impala Refineries was submitted to the licensing authority in January 2025. The application was approved, and a new AEL was issued, valid until February 2030.

Direct SO_2 emissions



SO_2 emissions



Indirect SO_2 and indirect NO_x emissions for the Group (emissions associated with electricity derived from coal) are detailed on **page 102** in the appendix. The Group's carbon emissions are detailed on **page 101**.

Landscape at Impala Canada