

## Reducing our environmental footprint continued

### AIR QUALITY MANAGEMENT

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

#### Highlights



- Completed the installation of a new flash dryer at Impala Rustenburg, which meets the latest (2020) minimum emissions standards and improves air quality at the operation and for surrounding communities. The project was initiated in November 2020 at a cost of R343 million
- Impala Refineries commissioned a project to remove particulate matter and another to remove ammonia from plant emissions. These projects cost an estimated R217 million and will help the operation meet the latest minimum emissions standards in South Africa
- No air quality-related incidents reported at our managed operations or surrounding communities.

#### Lowlights/challenges



- Delay in completion date of best-in-class Implats sulphur dioxide (SO<sub>2</sub>) abatement plant due to capital constraints. The project was due for completion in June 2026 but will now be completed by June 2028.

#### Performance against key indicators



- Direct sulphur dioxide emissions:** 29 426 tonnes (2023: 31 057 tonnes)
- Air quality-related environmental incidents at site and from surrounding community:** 0 (2023: 2) against a Group target of zero.

The most significant air quality issue for the Group relates to the sulphur dioxide (SO<sub>2</sub>) emissions from our smelting operations at Implats. Our Impala Rustenburg smelter and coal-fired boilers at Impala Refineries both employ effective SO<sub>2</sub> abatement technologies.

Our operations also monitor particulate matter (PM) in line with regulatory requirements and best practice. Our highest-priority particulate emissions remain those classified as PM10 and PM2.5 (PM of less than 10 and 2.5 microns, respectively). This relates to PM from unit operations or dust from tailings dams and stockpiles. We also disclose the indirect emissions of SO<sub>2</sub> and nitrogen oxide (NOx) associated with using grid electricity generated from coal (see [pages 104 and 105](#)).



R343 million flash dryer plant at Impala Rustenburg

# Reducing our environmental footprint continued

Our operations have extensive ambient air quality monitoring networks as well as dust fallout monitoring systems to measure SO<sub>2</sub> and particulate matter (PM) in line with regulatory requirements and best practice.

Impala Rustenburg, Impala Refineries and Impala Bafokeng are located in air quality priority areas and, as such, are mandated to establish air quality management plans to achieve and maintain compliance with ambient air quality standards. As part of our activities related to complying with the National Environmental Management Air Quality Act (NEMAQA Act 39 of 2004), our South African operations report all air emissions (listed activities and/or mining activities) on the National Air Emissions Inventory System by March of every year.

Impiats records all air quality incidents and complaints, and develops appropriate mitigation and corrective measures.

As drought conditions persist in Zimbabwe and extreme weather conditions continue in southern Africa, we implement dust suppression initiatives including revegetating tailings storage facilities. We also pave roads in host communities to reduce dust levels in the air (see [page 62](#)).

Our air quality commitments are to:

- Operate within country-specific legal standards
- Strive towards international air quality standards
- Design projects and new mines to eliminate air pollution from the start
- Apply the mitigation hierarchy to reduce air pollution.

Our 2025 air quality goal is to ensure emissions are within legislated standards, as a minimum, and for the South African operations to meet NEMAQA minimum emission standards.

Over the next five years, we plan to spend approximately R2.6 billion on air quality improvement projects.

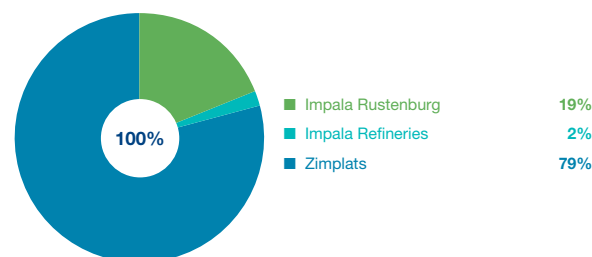
## Key developments towards our 2025 goals

<b>Impala Rustenburg</b>	Installation of a new flash dryer, which meets the minimum emissions standards, is complete. The project was initiated in November 2020 at a cost of R343 million. A further project to improve air quality from the operation's older dryer plants was approved in September 2023 and will involve installing flue gas conditioning equipment, with particulate emissions below 20mg/Nm <sup>3</sup> predicted, which is below the minimum emissions standards. Hot commissioning is scheduled for November 2024.  Impala Rustenburg's smelter employs industry-leading SO <sub>2</sub> abatement technologies, such as the SulfAcid catalytic conversion and Dynawave wet lime forced oxidation processes. In June 2024, we initiated a R56 million project to replace the activated carbon catalyst in one of the operation's two acid plants. The catalyst is instrumental in converting up to 27 tonnes of SO <sub>2</sub> per day into acid, which is used in other processes. The plants form a key part of our air quality compliance programme. The project is due for completion towards the end of the 2025 calendar year.
<b>Impala Refineries</b>	Completed two projects to address particulate matter emissions at its ammonium sulphate plant (R184 million) and ammonia emissions at its cobalt plant (R33 million), in line with the minimum emissions standards. The projects were commissioned in June 2024.
<b>Zimplats</b>	Implementation of the R4 billion smelter upgrade project, which includes the installation of a SO <sub>2</sub> abatement plant at Zimplats, commenced in 2022. The project will bring SO <sub>2</sub> emissions at the operation well below the South African legislated limits for point-source emissions of 1 200mg/Nm <sup>3</sup> . The project was initially planned for completion in June 2026, however, due to capital constraints it will now be completed by June 2028.

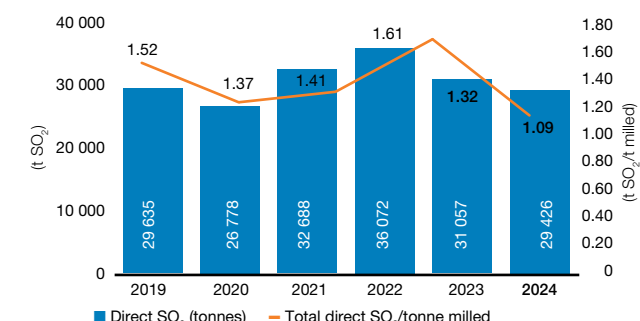
Impala Bafokeng and Marula in South Africa, and Impala Canada, do not require any significant capital spend to meet their country-specific air emissions requirements.

In 2024, direct Group emissions of SO<sub>2</sub> were 29 426 tonnes (2023: 31 057 tonnes). Zimplats operations contributed 79% (2023: 78%) (smelter with no SO<sub>2</sub> abatement equipment) of total direct SO<sub>2</sub> emissions, while Impala Rustenburg and Impala Refineries contributed 21% (smelter with SO<sub>2</sub> abatement equipment and coal-fired boilers with SO<sub>2</sub> abatement equipment, respectively) (2023: 22%).

## Direct SO<sub>2</sub> emissions



## Air quality as at 30 June 2024



\* Indirect SO<sub>2</sub> and indirect NO<sub>x</sub> emissions for the Group (emissions associated with electricity derived from coal) are detailed on [pages 104 and 105](#) in the Appendix.