

Aurubis Richmond, USA

Setting new high standards in environmental protection

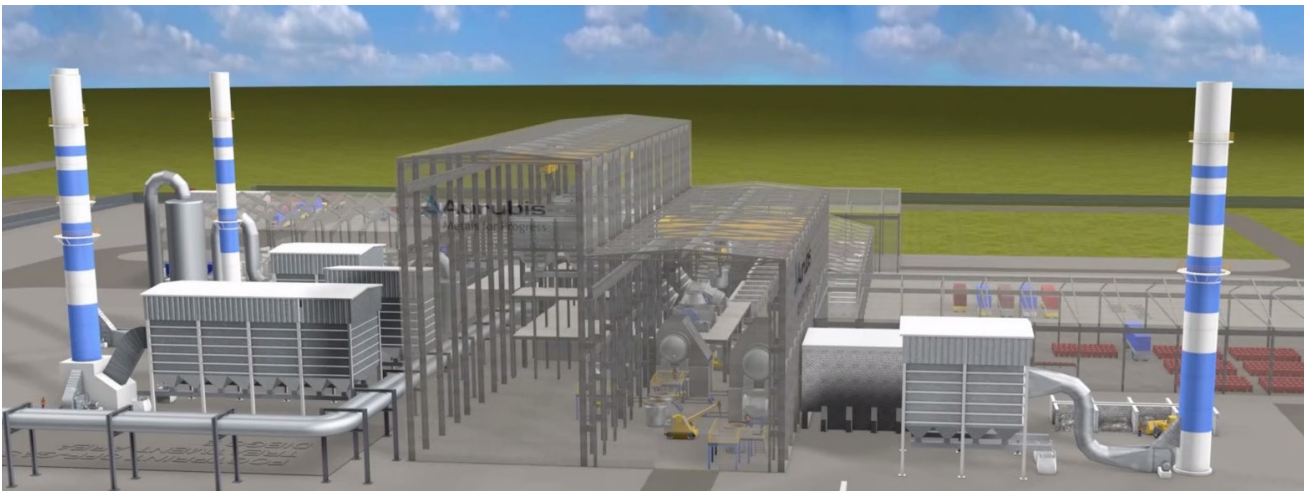
As a **global industry leader in environmental protection**, Aurubis relies on modern, energy-efficient plant technology that meets high environmental protection standards. With a commitment to being a responsive corporate citizen, the company provides metals that are essential for a wide range of products – from smartphones to stainless steel appliances to vehicles to golf clubs – that help shape daily life.

Embodying the pioneering spirit central to the company for more than 15 decades, **Aurubis is bringing to Augusta a new recycling plant that will advance a sustainable future** by specializing in multimetal

recycling. With a more than € 300 million investment (approx. \$ 320 million), Aurubis is building the **first secondary smelter for multimetal recycling in the US**. The state-of-the-art facility will process complex recycling materials that otherwise would be exported or go to landfill.

Aurubis Richmond will have a very low impact on the air quality in the region (less than 0.2 % share of dust emissions in Richmond county*).

* estimation based on the actual emissions at the Aurubis recycling site in Germany.



Treatment of exhaust gases

The recycling plant Aurubis Richmond will set new high standards in environmental protection. **Aurubis will equip the facility with the latest technology, including exhaust emission control systems** that meet Federal and State regulations. The Georgia Environmental Protection Division classifies the plant as a “synthetic minor source”. The environmental impacts will be well within quality environmental standards.

How is the primary off-gas cleaned?

Aurubis safely destroys pollutants in the primary off-gas through sophisticated and effective off-gas cleaning technologies, which include, for example, post-combustion, SNCR (Selective Non-Catalytic Reduction) and an off-gas scrubber. The installation of an advanced fine particle filtration system at the plant will complement these technologies. This will also reliably capture and treat dust emissions from auxiliary equipment, the treatment of raw materials, and emissions under roof.

Aurubis will continuously monitor the environmental protection equipment as part of its commitment to safely operate the plant.

How does Aurubis treat fugitive emissions?

Maximizing more than 150 years of experience, Aurubis remains committed to safe operations, which includes **focussing on avoiding fugitive emissions**. For example, in 2021 Aurubis provided a specially developed exhaust air system with modern ultra-fine filters for its primary copper smelter in Hamburg for more than € 85 million. In Augusta, Aurubis will equip its new facility with a highly developed air exhaust system.

Aurubis Richmond will **store dusty materials under roof**. To counteract emissions from buildings, the company operates automatic high-speed doors, activated only when vehicles enter or exit the building. Fogging devices supplement the high-speed doors and operate at the gates to reduce emissions when the doors are open.

Additionally, wheel-washing systems for trucks and internal transport vehicles are another important measure. This helps to reduce dust from vehicles and limits dust spread throughout the vicinity of the plant.

Water

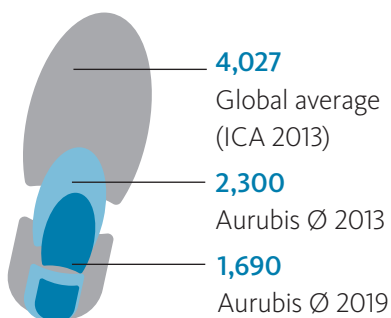
In line with its commitment to conserve water resources, Aurubis relies on consistent treatment and **recycling of process wastewater and use of site rainwater**.

The Aurubis Richmond facility is designed to achieve zero effluent discharge. It will also use onsite water treatment to recover wastewater in direct contact with production materials. Once treated, Aurubis will reuse the wastewater, as well as collect the rainwater from the factory premises to reuse it.

Environmental Profile of Aurubis Copper

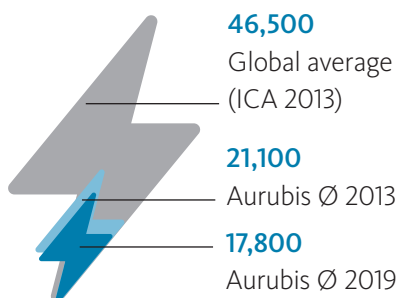
CO₂ savings

Carbon footprint savings of Aurubis cathode copper in comparison to the global industry in 2013 (in kg CO₂ eq./t Cu)



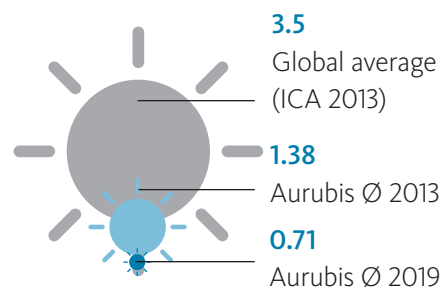
Energy savings

Primary energy demand from non-renewable sources of Aurubis cathode copper in comparison to the global industry in 2013 (in MJ/t Cu)



Summer smog

Photochemical ozone creation of Aurubis cathode copper in comparison to the global industry in 2013 (in kg ethene eq./t Cu)



At a Glance – Environmental Protection Aurubis Group

Investments of ~ € 730 million in environmental protection measures since 2000	Reduction of dust emissions in copper production of 96 % since 2000	Reduction of CO ₂ emissions of more than 100,000 t/y since 2012
50 % recycling materials in Aurubis copper cathodes until 2030	Reduction of Scope 1 and 2 emissions by 50 % until 2030 in comparison to 2018	Clear target of climate neutrality well before 2050

Contact

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