

Transforming a sector – N₂O abatement in nitric acid production

Declaration on N₂O Mitigation in Nitric Acid production

The international community has agreed to the common goal of keeping global warming below a threshold of 2°C. Countries and stakeholders are working on measures in all sectors. However science tells us that we are still facing a mitigation gap of 8-10 Gt in 2020. That is we need an additional 8-10 Gt of emission reduction to remain on a 2° consistent pathway.

In view of the climate change challenges, we cannot allow emissions that can be avoided with moderate efforts to continue.

N₂O emissions in nitric acid production can be abated relatively easily and at a low cost. Abatement technology is available and can be installed quickly in existing plants.

Nitric acid is primarily a raw product for nitrogen fertilizers. Nitrous oxide (N₂O) is created as an unwanted by-product in nitric acid production and frequently vented to the atmosphere without any treatment. It has a GHG effect 264 times that of CO₂. A rough estimate puts the currently unabated GHG potential from nitric acid production at above 200 million tons of CO₂ equivalents until 2020. Abatement technology is however available and can be installed quickly in existing plants.

However a significant part of the nitric acid producing installations world wide, especially but not only in developing countries and economies in transition, are not abating yet – or even stop once started N₂O destruction due to ongoing costs for abatement.

The signatories affirm their commitment to help ensure abatement of N₂O from nitric acid production with the aim to globally phase out these emissions by 2020.