



Uhde GmbH, D-44128 Dortmund

CARBON CLIMATE PROTECTION GmbH
Mr. Ferdinand Heilig
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AUSTRIA

Your ref.	Our ref./ Name	Date	Direct dial / E-mail	Direct fax
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Changes in EnviNOx[®] System Performance during interruptions in Monitoring

Dear Mr. Heilig,

The Uhde EnviNOx[®] system for the abatement of N₂O and NO_x emissions, especially from nitric acid plants, is characterised by the stability of its catalysts. Our observations from work in the miniplant in Linz, Austria and in the commercial scale reactors that have been in operation for some time indicate that, after a possible initial activation phase which may last for up to a few days, any change in the activity of an EnviNOx[®] catalyst – if it takes place at all – occurs slowly and monotonically.

If the catalyst in an EnviNOx[®] system has been delivering a certain, monitored performance (i.e., rate of destruction of N₂O), the performance monitoring is then stopped while the inputs of reducing agent and other operating conditions including temperature, pressure and composition of the inlet gas are not changed, the monitoring then resumed after a period, of say several weeks and the performance found to be unchanged from that before the interruption in performance monitoring, there is nothing in our knowledge of the properties of the EnviNOx[®] catalysts which could lead us to suspect that the performance of the catalyst in the period without monitoring could have been different from the performance before and after the break in monitoring.

Yours sincerely,

– Dr. Dirk Köster –
Head of Design and Project
Management Department,
Hydrogen & Nitrates Division

– Michael Groves –
Senior Process Engineer,
Hydrogen & Nitrates Division

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