

TEXTE 26/00

Research Report 360 11 002
UBA-FB 99-084/e

Procedure and Results of a Systematic Comparative Round Robin Estimation of the Uncertainties of Emission Measurements

in Germany and Switzerland
during the summer and fall 1998

by

Janusz Stanislaus Morkowski
Dübendorf/Schweiz

ENVIRONMENTAL FEDERAL AGENCY

August 2000

Summary

During summer and fall 1998, 75 sample takers and 20 employees of laboratories of 26 institutes measuring emissions in Germany and Switzerland estimate the uncertainty of measuring results of 5 selected VDI-standard emission measuring methods. The applied method of systematic comparative estimation showed that the estimated total uncertainties U_T of the investigated measuring methods range between 12% and 21%. The results of the round robin estimation for one of the methods (dust measuring 2066 Part 7) with $U_T = 15.4\%$ are equal to those of the system for simulation of emissions (HLfU Kassel) with 15.5%. This confirms the expectation of the initiators of the project that the systematic comparative estimation is useful for the characterization of test methods and hence for the validation of methods.