



STRATEGIES FOR VERIFICATION OF SELF-MONITORING AND REPORTING ON AIR EMISSIONS WORKSHOP

Self-monitoring and reporting on air emissions: Finnish experiences

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* IMPEL *

- Background and juridical aspects
- Operation in practice
- Experiences



Background and juridical aspects

- Legislation compatible with EU directives
- Self-monitoring in the Environmental Protection Act (527/2014)
 - Section 6 Knowledge requirement: Operators shall have knowledge of the environmental impacts and risks of their operations, and of the management of these impacts and risks and ways to reduce adverse impacts
 - Section 8: the operator shall, --- ensure and verify the following in order to prevent environmental pollution: --- the emissions caused by the activity and their impacts are monitored and the authorities are provided with the necessary information about these emissions
 - Principle of caution and care and principle of best environmental practice are taken into account



Background and juridical aspects

- Necessary regulations on the monitoring of emissions and operations are given in the environmental permit
 - In addition, the permit shall include regulations on measurement methods and frequency of measurements
 - It shall also specify how the results of monitoring and control are assessed and submitted to the supervisory authority
- The operator shall regularly submit to the supervisory authority the results of emissions monitoring and other information necessary for supervision, as provided by the environmental permit in more detail
 - Information on the results of the monitoring of the emissions of an installation covered by the IED, and other such information on the compliance of the installation covered by the directive with the permit that is necessary for supervisory purposes shall be submitted to the supervisory authority at least once a year



Diagram of the operation in practice





Permitting or supervisory authority's assessment on the monitoring plan

 components, methods, qualifications, reporting mechanisms



Operator's measurements done by specialised laboratories



Supervisory
authority's
evaluation of
results
possible further
actions





- Regarding measurements of emission to air all measurements are done by the operators, i.e. self-monitoring principle is put into practice
- Use of accredited methods is a basic requirement
- Need of maintaining and improving skills to measure low concentration levels
- Several intercomparison emission measurements during past years in Finland, last one in 2019 (Waste incineration plant)
 - Some measurement teams have accreditation according to SFS/EN ISO/IEC 17025 to a large amount of components, some laboratories are smaller and have accreditated few components
 - Capability of correct processing of results is vital
 - ► For example verification of calculation procedures according to SFS-EN 14181 in 2019
 - Feedback by the VTT Technical Research Centre of Finland Ltd
- Quality assurance is the main issue here



Finnish experiences

- Although a permit for an IED installation shall be applied electronically emission measurement data is not transferred to authorities as such but in reports
- Operators do their yearly reporting on emissions electronically and the data is stored in a national database
- Reporting mechanisms may vary, but supervisory authorities have great confidence in laboratories' measurement results
- Emission monitoring is done for both to ensure compliance and to gather data for PRTR reporting