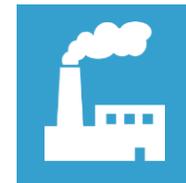




European Union Network for the Implementation
and Enforcement of Environmental Law



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

Enforcement of breaches from self- monitoring data in Italy

Romano Ruggeri

Sardinian Environmental protection Agency

11/10/2021

Inspectors vs IED installations: an unequal challenge

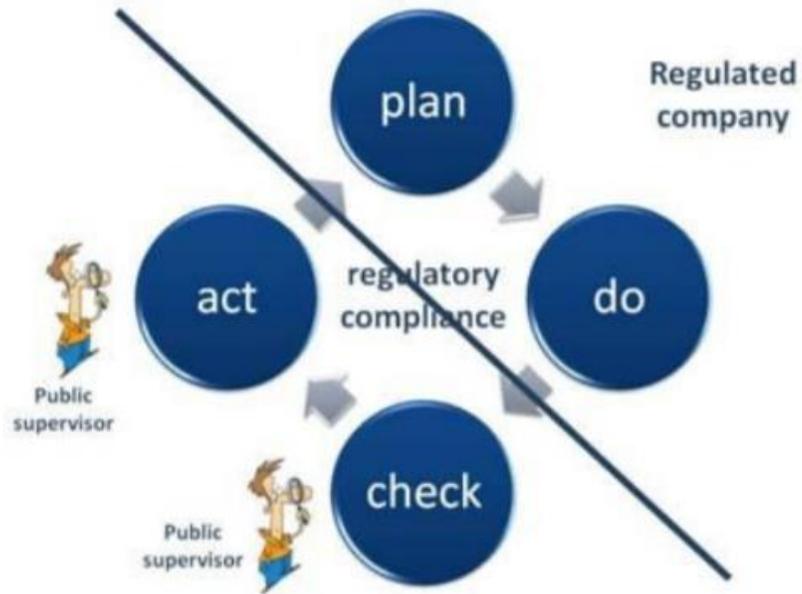


In 2017, 2,022 inspections were carried out out of 6,285 IED installations (32.2%).

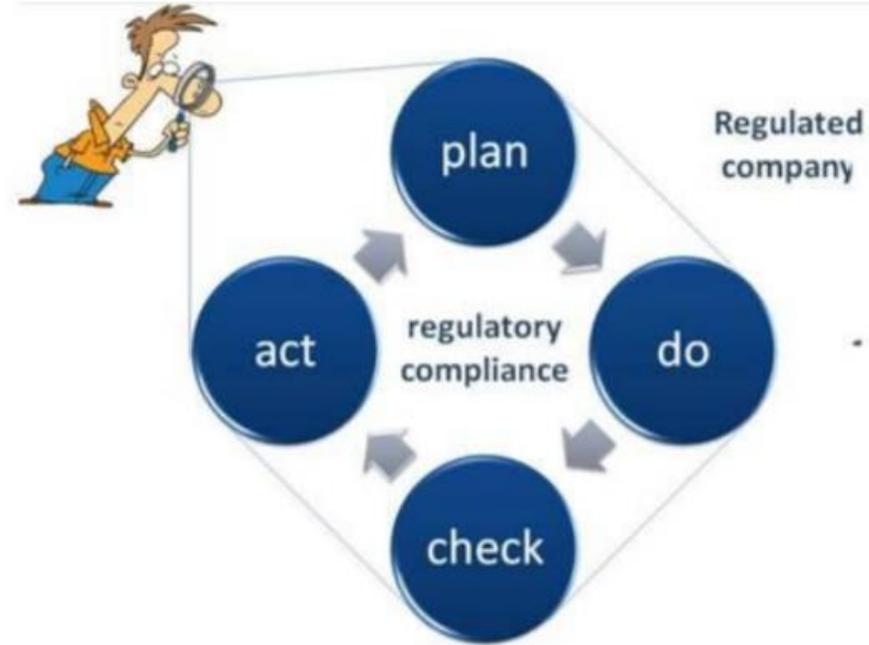
In 2018, 2,065 inspections were carried out out of 6,302 AIA installations (32.8%).

Environmental Compliance Assessment

Traditional supervision on output



Supervision on a meta level



Shared responsibility: the operator



Environmental Management System (Batc n.1)

Compliance management system (CMS)

Part of the EMS aimed at ensuring that the organization meets the necessary conditions for environmental compliance

Self Monitoring

Plan: tool for compliance assessment

Shared responsibility: the inspection authority



IED Directive

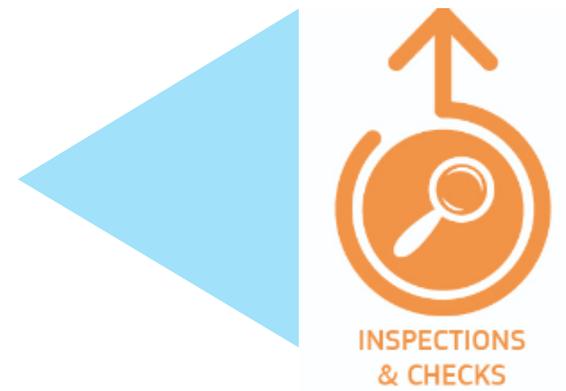
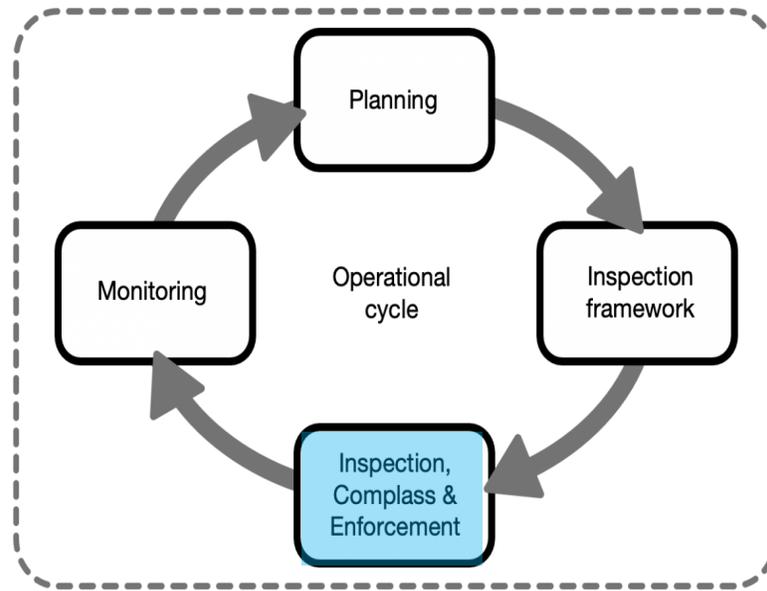
‘environmental inspection’ means all actions, including site visits, monitoring of emissions and checks of internal reports and follow-up documents, **verification of self-monitoring**, checking of the techniques used and adequacy of the environment management of the installation, undertaken by or on behalf of the competent authority to check and promote compliance of installations with their permit conditions and, where necessary, to monitor their environmental impact



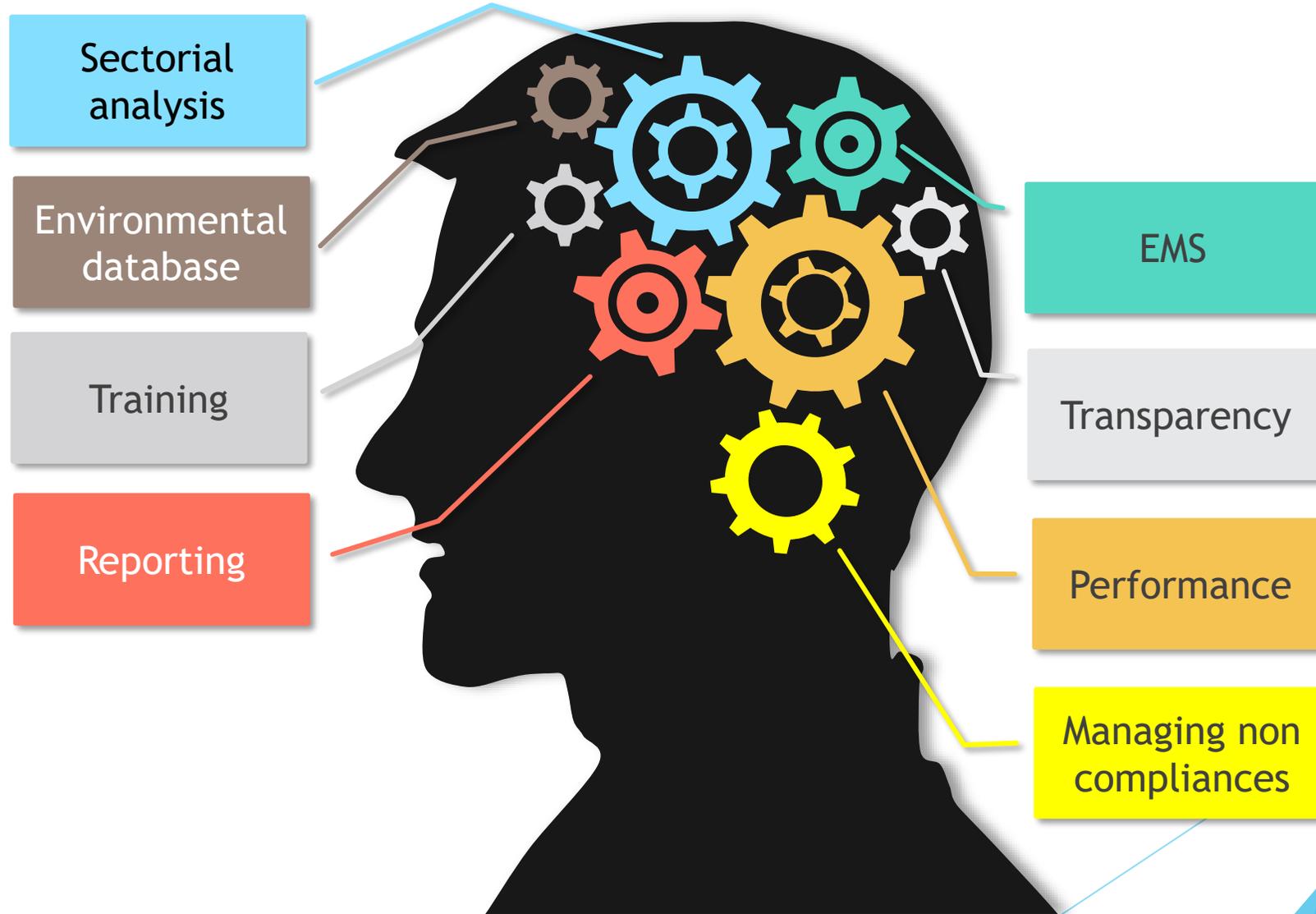
National Environmental Protection Agencies network (Law 132/2016): duties

Control of sources and factors of pollution of environment [...] through sampling, analysis and measurement activities, inspections, **including verification of self-monitoring** as required by current legislation.

Self monitoring: compliance assessment tool



Self monitoring implications



Self monitoring Plan and Reporting



- ❑ **REPORT of self monitoring** should be submitted to the Permitting and Inspection Authorities and must be made accessible to the public.
- ❑ **REPORT of self monitoring** is therefore a tool aimed not only at verifying compliance of the installation with the provisions contained in the permit, but also aimed to gather technical performance of installations to be compared at a regional, national and European level.

A tool for environmental compliance assurance

Guideline: Minimum content of Self Monitoring Plan for IED installations



*** Not official yet**

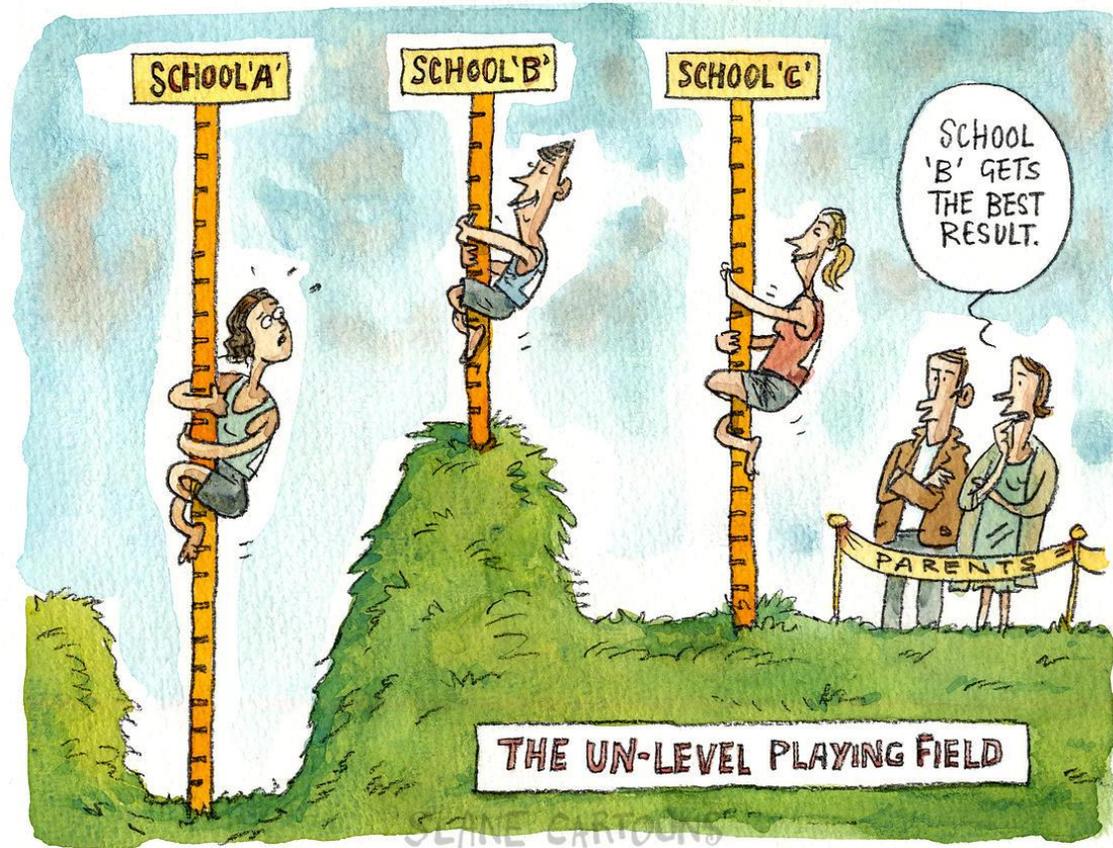
A) Tool for operators (compliance promotion)

B) Tool for inspection authority to check compliance (inspections & checks)

Environmental Compliance Assurance



A guideline for a level playing field



- Parameters
- Frequencies
- Lab methods
- Level of detail



Different economic impact
Different management impact

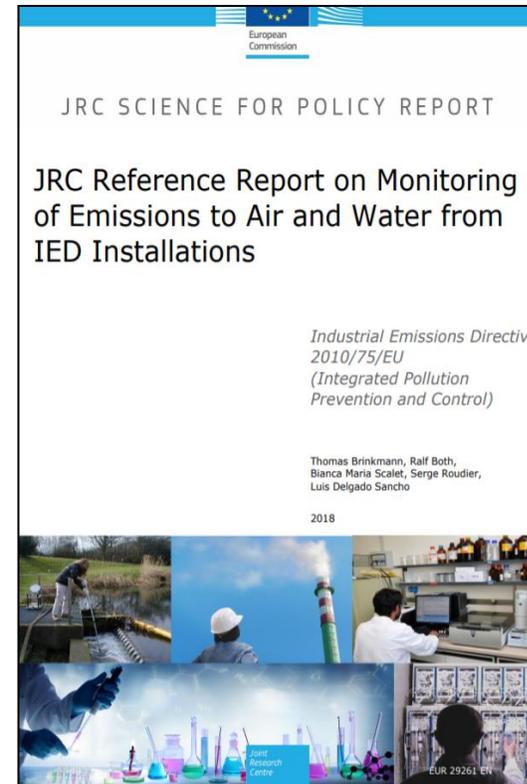
BREF Monitoring

Monitoring is a BAT Conclusion to be applied

Objectives of monitoring

- Assess compliance with permit requirements;
- Report emissions for specific inventories (e.g. local, national and international, such as the E-PRTR);
- Check the performance of abatement systems;
- Provide data for assessing environmental impacts (e.g. for input to models, pollutant load maps, assessment of complaints);

2018 – FINAL DRAFT



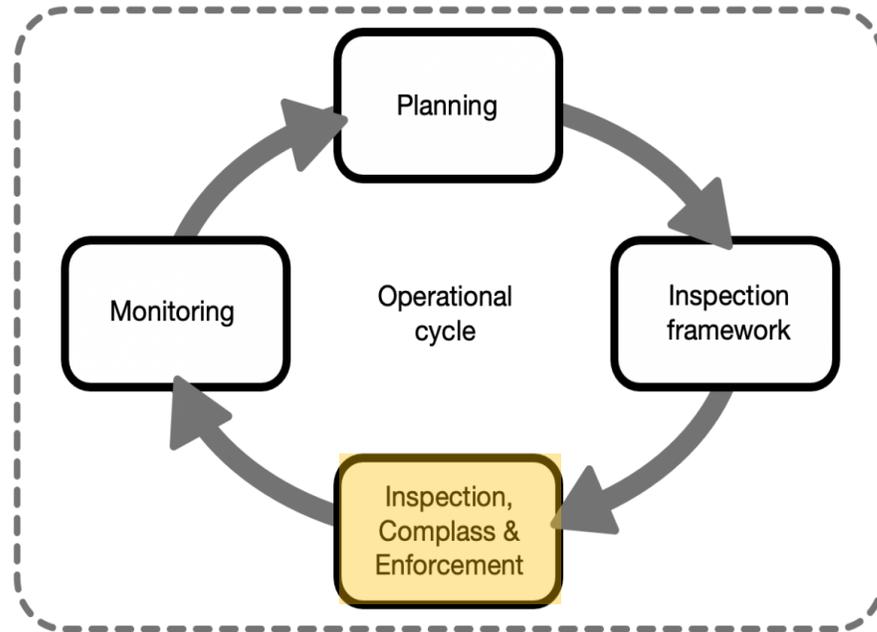
BREF Monitoring (air emission section)

- ❖ **SCOPE**
- ❖ **GENERAL ASPECTS OF MONITORING**
- ❖ **MONITORING OF EMISSIONS TO AIR**
 - *Overview*
 - *Air pollutants*
 - *Continuous/periodic measurements*
 - *Indirect methods*
 - *Diffuse emissions*
 - *Odour*
 - *Biomonitoring*
 - *Costs*

Table 4.3: Generic EN standards relevant for continuous measurements of emissions to air

Standard	Title
EN ISO 9169:2006	Air quality - Definition and determination of performance characteristics of an automatic measuring system (ISO 9169:2006)
EN 14181:2014	Stationary source emissions - Quality assurance of automated measuring systems
EN 15259:2007	Air quality - Measurement of stationary source emissions - Requirements for measurement sections and sites and for the measurement objective, plan and report
EN 15267-1:2009	Air quality - Certification of automated measuring systems - Part 1: General principles
EN 15267-2:2009	Air quality - Certification of automated measuring systems - Part 2: Initial assessment of the AMS manufacturer's quality management system and post certification surveillance for the manufacturing process
EN 15267-3:2007	Air quality - Certification of automated measuring systems - Part 3: Performance criteria and test procedures for automated measuring systems for monitoring emissions from stationary sources

Self monitoring and enforcement



IED inspection authorities in Sardinia (Italy)

IED inspection authority at national level: ISPRA



IED inspection authority at regional level: Provinces



...also making use of (Contract)



Sardinian Environmental Protection Agency

Making use of:



How the inspection activity is performed?



- Analysis of Self monitoring Reports sent on a yearly basis;



- In situ inspection (planned or unplanned)



- Sampling and lab analysis of water emissions, air emissions, waste, groundwater, noise



- Auditing of sampling activities performed by the operator (or by external lab on their behalf), e.g. discontinuous air emissions. Quality checks of Continuous Emission Monitoring System

Non compliances from Self monitoring



- ❑ Enforceable?
- ❑ Hindering building trust?
- ❑ Self denunciation?
- ❑ Need of non routinary inspection?

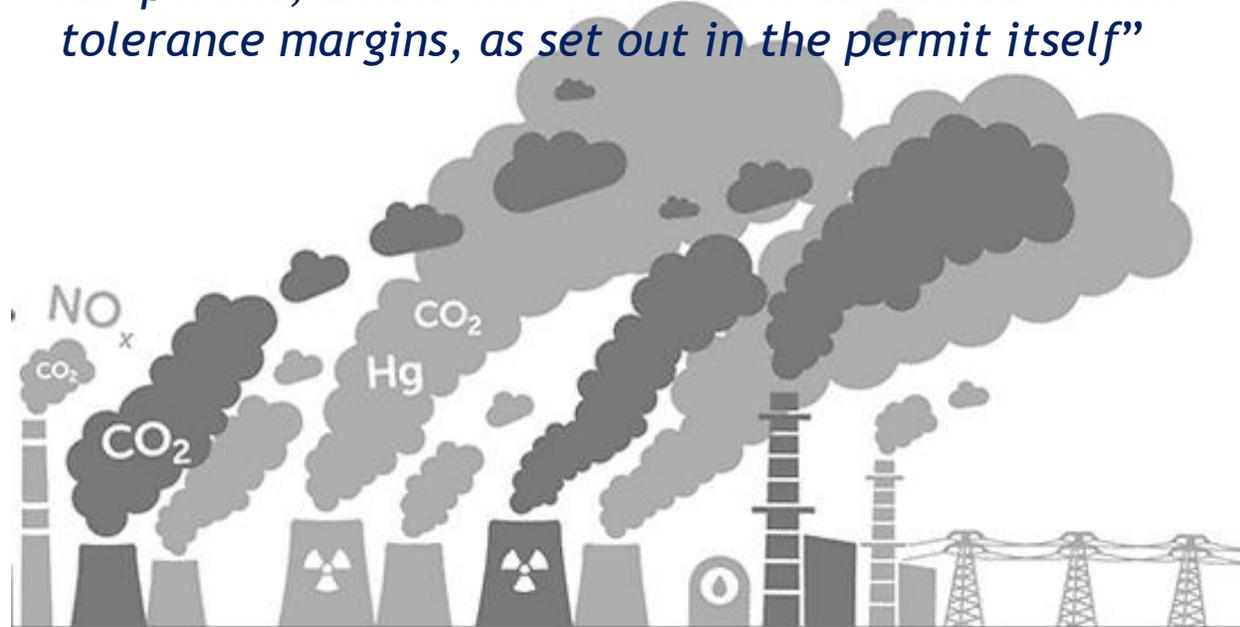
IED sanctions regime according to the Italian law

CRIMINAL OFFENCE



5.000 - 26.000 €

“Violation of the emission limit values, detected during the monitoring activities as requested in the IED permit, unless this violation is contained within tolerance margins, as set out in the permit itself”

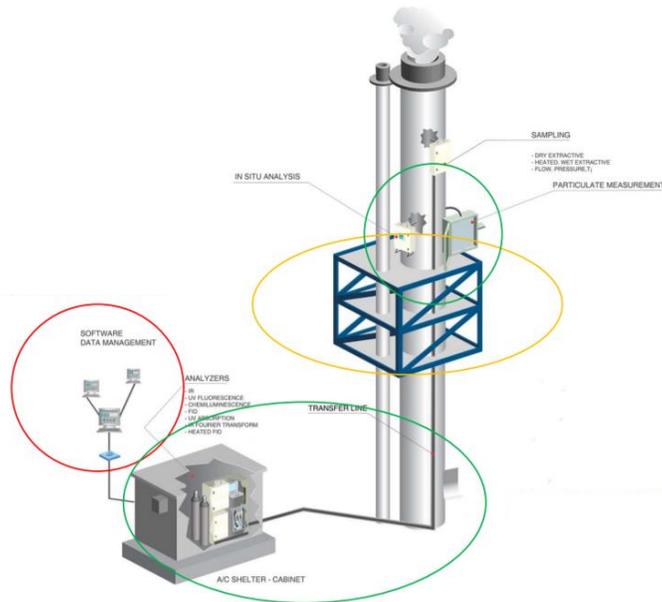


CMS official tool to detect non compliances

INSPECTION AUTHORITY: AIR EMISSION BREACHES OF ELVs

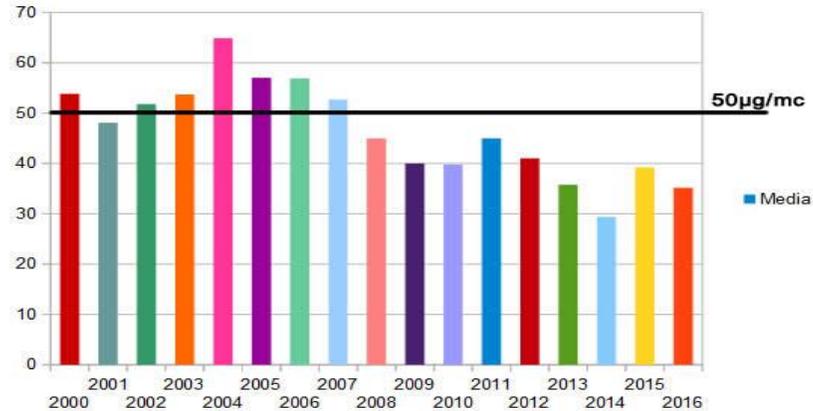
Assessment of the exceedance ELVs can be carried out through a **continuous emission monitoring system (CMS)**:

- 1) compliant to UNI-EN 14181,
- 2) if its installation is required by national or regional legislation or if the authorization provides that this system is also used for the purposes of authority controls.



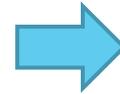
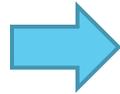
Air emission breaches from Self monitoring

Criteria on IED implementation (2016) Ministry of Environment



- Operators are obliged to carry out monitoring activities on the installation and to report results to competent authorities.
- In case of exceedance of the air emission ELV's, and other potential breaches of the IED permit, the operator has to immediately inform competent authorities.
- Self monitoring results do not in themselves constitute automatic evidence of the violation.
- To assess a non compliance, the operator communication **has to be technically verified** by inspection authority.

Inspection authority technical assessment



NON ROUTINARY INSPECTION

- Does the exceedance refer to OTNOC ?
- Is the exceedance allowed by tolerance margin fixed in the IED permit?
- Was the exceedance due to an unpredictable breakdown or malfunctioning which has been immediately fixed?
- ...

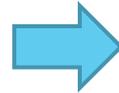
Air emission breaches from Self monitoring



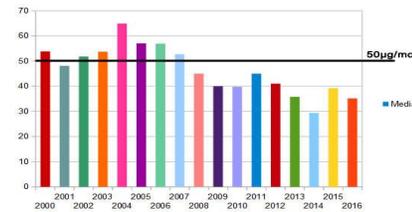
Judgement of Court of Cassation 2019

- Operator has been fined (15,000 €) as for exceedance of the air emission limit values (discontinuous measurements).
- The assessment of the violation of the IED provisions **may well arise from the mandatory communication** by the operator of the results during of self-monitoring activities, as he is required to carry out self-monitoring activities and then forward the results thus detected.
- This does not conflict with the constitutional right of defense on the assumption that an obligation of possible self-denunciation would be imposed on them, as the aforementioned requests derive from specific regulatory obligations.
- The judgement come as a result of an overall assessment which, starting from the self monitoring data analysis and the defensive findings, excluded the margins of tolerance, in terms of frequency and extent, set in the authorization itself.

Air emission Self monitoring exceedance in other than IED installations

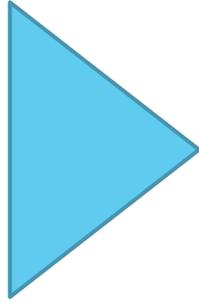


Exceedance of ELVs from self monitoring activities



1. ELV exceedance ascertained in the self-monitoring by the operator must be specifically communicated to the competent authorities (permitting and inspection) within **24** hours.
2. The permit establishes the cases in which to communicate discrepancies in the individual values that contribute to the assessment of the limit values on an average or percentage basis

Air emission Self monitoring exceedance in other than IED installations



Exceedance of ELVs from self monitoring activities

1. Operator to restore conformity as soon as possible;
2. Competent authority to give the operator prescriptions for the restoration of conformity, setting a deadline for compliance, and establishing the conditions for the operation of the plant until compliance;
3. If the operator fails to comply with the prescription within the set deadline, the sanction is applied.



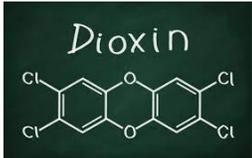
Criminal offence : arrest or fine up to 10.000 €

ELV exceedance assessed by the inspection authority during in situ measurements

ELV exceedance assessed by CEM (compliant with UNI EN 14181)

Operator has not complied with prescriptions within the set deadline, after reporting exceedance from self monitoring

Practical case: waste incineration



- Communication of exceedance of Dioxin ELV during periodic self monitoring
- Technical assessment of the inspection authority:
 - NOC or OTNOC
 - Causes: breakdown, failure
 - Actions taken by the operator
 - Results of following measurement
- Operator was not able to find the cause of the exceedance
- Operator did not take immediate actions
- Dioxin exceedance occurred again in the following measurement
- Violation was assessed and prescription had been set by competent authority (stop of the operation, higher frequency, continuous dioxin measurement system)



Thank you



ARPAS

Romano Ruggeri

Sardinian Environmental Protection Agency (ARPAS)

Tel: +39 070 4042 612

Email: rruggeri@arpa.sardegna.it