

## Fact-sheet - How to establish an air emissions inventory?



### What is the objective?

The objective is to have a **clear picture of what are the emissions to air generated** by the factory, what are the different **sources of emissions** (point source emissions or fugitive emissions) and what are the **quantities** (exact or estimated) of substances emitted for each source identified in the factory. The air emissions inventory will allow the factory to identify the major sources of emissions to air and to implement actions to **control and reduce these emissions**.



### How to achieve this objective?

**Step 1: Create** a template/format for your air emissions inventory. You can use a template as per the model below.

It is recommended to distinguish these two main categories of emissions:

- **Point source emissions:** emissions from stationary and identifiable sources such as the emissions from the stack of a generator (emitted through a single point source into the atmosphere – vent or stack);
- **Fugitive emissions:** fugitive source air emissions refer to emissions that are distributed spatially over a wide area and not confined to a specific discharge point. They originate in operations where exhausts are not captured and passed through a stack<sup>1</sup>.

Air emissions inventory						
Factory name:			Objective of this document:			
Responsible person:			Identify the sources of emissions to air generated by the factory			
Date of last update:			(date:...) signed by (...).			
1 - Point source emissions						
Activity/Section	Machine	Energy Source	Emission substance name		Quantity (as per test report)	Unit
Area in the factory: boiler(s) and generator(s) shed						
Steam production	Boiler	Coal	PM	Particulate Matter	xxx	mg/m3 or ppm
			SO2	Sulfur Dioxide	xxx	mg/m3 or ppm
			NOx	Nitrogen Oxide	xxx	mg/m3 or ppm
			CO	Carbon monoxide	xxx	mg/m3 or ppm
			...		xxx	mg/m3 or ppm
Energy production	Generator	Diesel				
...						
2 - Fugitive emissions						
Activity/Section	Origin of emissions		Emission substance name		Quantity (estimated or as per test report)	Unit
Production sections						
Fiber production	Dust generated during operation (spinning, winding, etc.)		PM 2.5	Particulate Matter	xxx	µg/m3
			PM 10	Particulate Matter	xxx	µg/m3
Desizing and scouring processes	Organic solvents		VOC	Volatil organic compound	xxx	mg/m3
Printing process	Mineral spirit solvents in print pastes or inks		HC	Hydrocarbon		
			Ammonia	Ammonia		
			VOC	Volatil organic compound		
...						
Effluent Treatment Plant (ETP)						
...						

**Step 2: Appoint a manager** to fill-in and update this document on a regular basis. For each substance emitted in the air, the quantity indicated in this table must be verified cross-checking the air emissions test reports results.



**Add in your template measures to control and reduce the emissions to air** for each source: e.g. exhaust ventilation in the production sections, use of less volatile substances, air pollution control devices such as wet scrubbers, etc.

<sup>1</sup> [General EHS guidelines, air emissions and ambient air quality, IFC \(International Finance Corporation\), April, 2007](#)