

Method Statement for the Monitoring of Air Emissions from Autoclave's Stack

1. Introduction

Autoclave operations at the TTF in Marsa, previously permitted under IPPC permit IP 0007/07/B, shall recommence in Q1 2023. The process entails the loading of shredded ABP material in an autoclave vessel in which the said material is rendered. The rendering takes place via steam which is generated via the heating of water. The heat exchange to raise the temperature of the water takes place in a boiler. Heat in the boiler comes from the ignition of LPG. LPG is a clean fuel source so only the products of combustion are expected to be present in the exhaust. The exhaust is directed to air via a stack. Details of the stack are given below:

Stack Element	Detail
Location	North: 35° 52'39.79" ; East: 14° 29' 56.08"
Orientation	Vertical
Type	Circular
Internal Diameter (cm)	55

2. Typical Emission Profile

In the case of emissions from a boiler, it is recommended to monitor the exhaust for the following pollutants: Carbon Monoxide, Total Particulate Matter and Oxides of Nitrogen. For a meaningful result, at point of discharge, the following parameters are noted: Oxygen Content, Flue Velocity, Flue Gas Volume, Flue Gas Temperature and Flue Gas Pressure.

3. Methodology

The test method for each parameter is tabulated below.

Parameter	Standard Method (or equivalent)
CO	EN 15058
TPM *	EN 13284-1
NOx *	EN 14792
Flue Gas Flow Rate, Temperature & Pressure	EN ISO 16911-1
Humidity	EN 14790
Oxygen	EN 14789
* All concentrations shall be corrected to 273K, 101.3 KPa, dry gas volume and to an oxygen content of 11%.	

Analysis shall be carried out at a laboratory which is accredited to ISO 17025.

4. Frequency

Emission testing shall be carried out on a yearly basis. Results shall be submitted to the Authority at the end of the first upcoming quarter.
