

## **Informal document submitted by Norway**

### **Measurements of particulate matter (PM) emissions from residential wood combustion are an important basis for developing emission inventories that account for condensables in a consistent and transparent way**

Particulate matter (PM) is a major risk for human health, and exposure to fine particulate matter (PM<sub>2.5</sub>) is one of the most important environmental causes of premature death. Residential wood combustion is a significant source of PM<sub>2.5</sub> emissions in Europe and North America, thus reducing emissions from this source is important.

How to account for the condensable part of PM emissions in emission inventories is on the agenda under the Air Convention because there is a need for including these emissions in a consistent way in PM emission inventories.

The residential combustion source is a key source to PM emissions, and the condensable part of these emissions is often not included in emission inventories. Norway agrees that this topic is important and wants to raise awareness to the ongoing process under the European Committee for Standardization, technical body CEN/TC 295 in relation to the Construction Product Regulation 305/2011 also connected to the Ecodesign Regulation (EU) 2015/1185.

Emissions from solid fuel space heaters, such as wood stoves, are regulated in the Ecodesign Regulation (EU) 2015/1185 and emission limits will apply from 1 January 2022. The Construction Product Regulation 305/2011 regulates wood stoves as a construction product. There is currently no harmonised test method for PM emission measurements in Europe, and the Ecodesign Regulation allows manufacturers to select one of three different measurement methods with corresponding limit values, including the Norwegian standard NS 3058/59 which is derived from the US Environmental Protection Agency method 5G. When a harmonised test method is agreed upon under CEN, this method is presumed to replace the three methods. In the revision of mandate M/129 under the Construction Product Regulation, the test method EN-PME-TEST is proposed as a harmonised test standard for measuring PM.

Norway welcomes the development of a single harmonised test method in Europe, however, we are concerned as the suggested test method, EN-PME, in its current state does not measure the actual PM emissions from wood stoves. The method does not measure the condensable part of the emissions nor does the test design sufficiently reflect real-life conditions and will therefore underestimate total PM emissions. The example of NO<sub>2</sub>-emissions from diesel cars serves as a recent example of how testing that does not reflect real life emissions may disguise

emissions. Emission data from such a test will be a poor base for development of PM emission factors.

The ongoing process to develop a harmonised standard for measuring PM emissions under CEN/TC 295 should contribute to low-emitting wood stoves and provide a base for development of emission factors that includes actual PM emissions, also the condensable part. Thus, making sure that these emission factors can be used as input to Air Quality or Health Impact models and as input in prioritisation of emission mitigation measures and policy instruments.

Further work is needed to ensure a satisfactory method that measures actual emissions from wood stoves, and also as a base for developing emission factors for emission inventories under the Air Convention. We encourage European Convention Parties to follow the ongoing process under CEN/TC 295 to ensure that a new method also includes the condensable part of PM emissions.