
POSITION PAPER

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Comments regarding the 1st draft of the LCP Questionnaire

1 Introduction

In preparation of the kick-off meeting for the review of the Large Combustion Plants Best Available Techniques Reference Document (LCP BREF) the EIPPC Bureau has developed a questionnaire that will be used to collect plant-specific environmental performance data.

EUROMOT welcomes this initiative as it believes that a sound, transparent and reliable data base is key for determining BAT Associated Emission Levels and reaching BAT Conclusions. This paper will provide comments focussing on improving the data collection process regarding Stationary Engine Power Plants.

2 General Comments

EUROMOT believes that a LCP Questionnaire needs to take into account the specific requirements of the various techniques and also plant sizes. This could be achieved either by separate questionnaires for different techniques (e.g. for Stationary Engines or Turbines) or by adjusting the questions on the spreadsheet according to the previous answers given.

In its current form, the draft LCP questionnaire asks for very specific detailed information at plant level, obviously with a focus on big coal fired power plants, EUROMOT believes that this level of detail is not needed for reaching BAT conclusions for Stationary Engine Plants and that it will make data collection unnecessarily burdensome for engine manufacturers, plant

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operators and also BREF authors. A further risk is that fewer stakeholders will be willing to provide information. EUROMOT therefore proposes to simplify the questionnaire for stationary engine plants and also for combustion plants below 100 MWth, which are not required to have continuous monitoring according to the IED. On the other hand, the draft LCP questionnaire neglects certain aspects important for Stationary Engines. The following section provides recommendations on how to improve the various sections of the LCP Questionnaire.

3 Comments regarding the different sections of the questionnaire

Combustion steam cooling

- Low pressure natural gas Dual Fuel engines are missing in the “type list”. This engine type is neither a “pure” compression ignition nor a “pure” spark ignition engine type as this depends on the fuel mode the engine is operating in.

EUROMOT proposes adding Dual Fuel engines as a separate category in the “type list”.

- Primary NO_x abatement methods are missing for internal combustion engines (paragraph 6.1.2 and 6.1.3 seem to have been drafted for boilers only).

EUROMOT proposes adding following stationary reciprocating internal combustion engine (RICE) aspects:

For Compression Ignition RICE:

- Low NO_x combustion concept (including higher compression ratio, etc.)
- Injection retard
- “water methods”
- Others

For Low Pressure gas and DF (dual fuel) RICE:

- lean burn concept
- Others
- In paragraph 6.3.1 the air radiator seems to be missing. Furthermore, adding an option “dry” with fans should be considered.
- In the section referring to “closed circuit” is the “wet mechanical draught” = “cooling tower”?

Air emissions

- This sheet seems to have been developed for large plants with CEMS. For small plants (below 100 MWth) without CEMS, EUROMOT recommends simplifying the data collection sheet. This will ease the burden on contributors to the data gathering process and will help to raise participation. Air pollutant data in general should be asked for once/twice per year and the average value of the measurement results is compared to the emission limit. Air emission data shall be in accordance to relevant European or national emission regulations, valid for the power plant asked. It should be avoided that an operation has to make two separate emission measurements, one for the authority and one for to satisfy this questionnaire.
- In section 7.2, oxidation catalysts are missing in the list of abatement equipment for CO and VOC.
- In section 7.3.3, EUROMOT recommends asking for input on “pollutants” for different operating conditions only at nominal load (praxis). As far as we are aware, emission measurements are **not** reliable at transient start-up/shut-down, etc., there are no available and repeatable test methods or procedures for measuring the emissions during transient conditions! The emission component list is also too comprehensive for smaller/medium sized plants and should be shortened (e. g. HF, HCl, TOC, CH₄, Cd +Ti, Hg, Sb + As + Pb + Cr + PCDD/PCDF should be taken out).
- EUROMOT believes that the “particle size distribution” asked for in paragraph 7.3.4 will be difficult to obtain from Stationary Engine Plants as this is very rarely analyzed in normal emission measurements. The reason for this is that it is a relatively complicated measurement to undertake and expensive. EUROMOT recommends removing this item from the questionnaire.
- Section 8: Some smaller/medium power plants have only following water discharges:
 - Bleed off water from the boilers, cooling towers, reject water from the make-up water treatment plant, sewage. Thus there is a need to make simplifications of the proposed list.
- Section 8.3.3 (“Water pollutants”): Min, average, max, daily average, monthly average, uncertainty, CEMS data looked for. EUROMOT recommends reducing this list to reflect the requirements in existing standards.
- It is unclear to us how the emissions from incinerator burning wastes at the plant are treated. In EUROMOT’s view this should not be treated as part of the primary combustion process but should be handled separately.
- EUROMOT believes that in general ventilation and cooling air should not be part of air emissions. This should be clarified in the questionnaire

General Operating Information

- In EUROMOT's opinion, media for internal processes should not be included in the Questionnaire. Only media, which are exported ("crossing the border fence") for external use should be determined. EUROMOT recommends clarifying this point.
- How are high pressure, medium pressure, and low pressure steam defined? It is unclear to us why it is necessary to distinguish between different pressure levels. Possibly, this could be simplified.

Fuels

- Fuels specification of one fuel type may change over one year. A clarifying remark only to consider the fuel used most of the time would therefore be helpful.
- In the case of Stationary Engine Plants, fuel characteristics will be provided by the fuel suppliers and what standards the fuels fulfil. EUROMOT doubts whether the fuel supplier will be able to provide an ultimate analysis or that a heavy metal analysis is available for liquid fuels. Ash chemical analysis for liquid fuels is by far too detailed to ask for in this questionnaire.
- Combustion Steam Cooling: Gas turbines can also be single fuel or dual fuel. This should be taken into consideration.
- Radiator cooling is missing for combustion engines.

Water Emissions

- Regarding water emissions, only waste water discharge leaving the plant should be considered in the questionnaire. Sources shall be given for information, but waste water analysis for each source cannot be provided.
- Waste water data provided should be in accordance to relevant European or national emission regulations, valid for the power plant in question. It should be avoided that an operation has to make two separate emission measurements, one for the authority and one in order to satisfy the Questionnaire. Water pollutant data in general shall be asked for once per year.

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