

Remarks/Comments from the national expert of Belgium M. Meulepas on the background document of the refinery sector – Notes of the meeting held on the 11th of July 2006 in CONCAWE offices, Brussels.

Notes of the meeting

- With regard to boilers, it was agreed that the same approach should be used for boilers in refineries and boilers in other sectors. There is no (little) reason for having a different approach for boilers in refineries. This means that the (LCP) approach that is proposed for the combustion installations in the energy sector, transformation sector and industries should also be applied for the boilers in the refineries. The background documents for combustion installations from 50 to 100 MW, 100 to 300 MW and 300 to 500 MW are however still under development (as input for RAINS the detailed data on boilers can be aggregated again).
- For refinery furnaces, the reference installations as proposed (gas 50 MW, fuel 50 MW) could be maintained, but some link with the boiler approach is appropriate; there was some discussion whether further distinction between existing and new furnaces is necessary. It was suggested to use some retrofit factor for existing installations. The principle to follow: fit for purpose (no more detail than necessary)
- The background document should clearly mention how costs related to 50 MW installations are scaled up or down to larger or smaller thermal capacities. The same explanations have to be given for the up or downscaling of costs for the cat crackers and sulphur recovery units.
- Fuel switch is mentioned as abatement measure in the background document for PM and SO₂. Fuel switch as measure is important / relevant for the three pollutants (PM, SO₂ and NO_x). At the moment however this type of measure can not be implemented in RAINS (fuel switch is reflected in the energy scenarios) (is implementation in GAINS possible?).
- The background document should make clear whether the reference capacities refer to stack or installation level, considering that some measures are taken at installation level (primary) and other measures can be taken at stack level (end-of-pipe measures).
- The background document should give clear guidance to national experts on how to proceed with the available data. A paragraph on how to use national and Primes energy scenarios in the background document would therefore be useful. Explanation should be given on which sector data are applicable for the boilers and furnaces (and CHP gas turbines) in refineries (CONV, PP).
- ConcaWE will check (based on its work for the sulphur survey) whether the measure “cleaning sulphur containing refinery gases” is still relevant.
- FCCU: the use of deep desulphurised feed should be considered as an abatement measure (or considered in an other way: definition of a second reference installation...)
- Besides FCCU and sulphur recovery units it was agreed during the meeting that it would be necessary to define a third (rest) category for the ECODAT database to capture the emissions of the flares, bitumen and other process units within the refineries (? up to 20 % of total refinery SO₂ emissions).
- To tune into the current structure (data) of RAINS it was suggested that regarding the refinery process emissions the current throughput activity levels in RAINS could be kept but adjusted with some factor for the FCCU and the sulphur units.
- One of the (main) objectives of the EGTEI work is to enhance the transparency on cost definition for the RAINS (GAINS) database.

Additional remarks / questions:

- On contrary to what is mentioned in EGTEI note with remarks on the background document (Nov 2005), feed throughput figures for the FCCU units and sulphur production figures for the sulphur recovery units are available to EGTEI now.
- For FCCU: the indirect impact of wet scrubbers on the PM emission of FCCU should be taken into account as well in the background document (the installation of a wet scrubber on one of the Belgian FCUU units is currently considered).
- Could CHP be considered as measure for refineries (specifically for NEC purposes; thus on top of climate policy)? It reduces energy consumption and emissions. Or is it assumed that all CHP are included in CP energy scenarios? (Problem: shift from fuel to gas).