TC13 ENVIRONMENT

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SUMMARY

TC13 is the environment committee of ICG. All environmental issues affecting the glass industry are covered. Members are drawn from industry, consultancies and glass federations. The TC13 meets twice a year and produces extensive minutes detailing the many topics addressed. Subjects range from characterising and controlling glass furnace emissions to understanding the impact of new regulations on the different sectors of the industry. The TC13 regularly produces briefing papers and journal articles and is a source of important expertise for the industry.

All members actively contribute during the meetings. Minutes and Annual Reports are written by the secretary. Reports and external publications are written by the secretary and jointly authored.

TC13's own website, kindly hosted by CelSian, houses an extensive collection of data and is regularly updated with useful information on the work of the TC. http://www.celsian.nl/TC13/ (Note that the bulk of the documents are in a members-only password-protected area.)

ACTIVITIES IN 2019

The first meeting of 2019 was hosted by AGC at Louvain-La-Neuve, Belgium. The meeting had a full agenda and the thirteen participants (including one invited guest) discussed many important environmental and health issues associated with the manufacture of different types of glass.

The meeting started with ICG business, which included discussion on expanding the committee membership to include more representatives from container glass, management of the website and Project ICG 2030.

SO_x emissions and the difficulty meeting the BREF limits with current abatement technologies was then discussed, which led to a later presentation on the Sorb Saver system from America which can help improve absorption efficiency.

It was confirmed that the TC13 work on respirable crystalline silica in sand had been published in the Glass Worldwide, January/February 2019 edition. The committee then reviewed the REACH dossier for glass and decided that it should be updated to include new information.

The committee then covered the topic of furnace emissions, which included discussion on methods for SO_3 measurement and a comprehensive presentation on comparative tests, which demonstrate the suitability of FTIR for measurement of HCl, SO_2, NO_x and NH_3. There was discussion on PCB measurements and how results close to and less than the blank value should be reported. Results of emissions measurements of boron and mercury from container glass were also presented. These highlighted a potential issue in Germany where new draft limits have been proposed.

The second meeting of 2019 was hosted by Saint Gobain at their German and Eastern Europe headquarters in Aachen, Germany. The meeting had a full agenda and the sixteen participants (including three invited guests) discussed many important environmental and health issues associated with the manufacture of different types of glass.

The committee first discussed ICG issues which included changes to membership and potential new members, improvements to the TC13 websites hosted by ICG and Celsian and the proposal to make 2022 the United Nations International Year of Glass for 2022.

There was a presentation on the design of an abatement system to remove boron from the waste gas emissions of a tableware furnace. The factors affecting the removal efficiency were discussed as well as the recycling of the boron filter dust into the furnace.

The group then considered the revision of the TC13 leaching method which is used to determine whether a glass substance requires registering under REACH. The group agreed to revise the paper as long as further information becomes available on limits for boron leaching and examples of where the method has been used.

The committee then addressed emissions from glass furnaces. This included discussion on the formation of condensable particulate after a ceramic catalytic filter, a presentation on the Sorb Saver system and a summary of NO_x emissions limits in the Italian glass industry. There was also a comprehensive presentation on measurement of dioxins and PCBs and discussion on quality control requirements and treatment of the blank values.

The group then went on to discuss ceramic candles filter elements and the different methods of manufacture.

The meeting concluded with a round table on regulations and new abatement plants.

PLANS FOR 2020

There are two meetings planned for 2020. The first will be in hosted by Schott in Germany on 24th and 25th March. The second will be held in the Autumn and will be hosted by either Guardian or Sisecam.

The rolling assessment of environmental issues addressed at each meeting will continue. This will include discussions on the recycling of flue gas filter dust, the REACH leaching method,

emissions measurement techniques, conversion of SO_2 to SO_3 in SCRs, measurement of dioxins and PCBs and the performance of new abatement systems.

The committee plans to publish a paper discussing the calculation of flue gas volume flow and may also publish an update to its paper on the TC13 REACH leaching method.