

Present emission situation of the German glass industry

U. Kircher

Huttenteschn. Verder Deutschen Glasindustrie, Frankfurt, Germany

As an implementation of the European IPPC guideline and the Glass Bref document, in Germany a revised TA-Luft will be established in the year 2002. Compared with the previous TA-Luft of 1986 the different emission threshold limit values for glass melting furnaces will be significantly more stringent, especially for the emission components total dust, heavy metals sulphur oxides (SO_x) and nitrogen oxides (NO_x), whereas the limits for HF and HCl will be not changed. It is known that practically all glass melting furnaces in Germany are equipped with waste gas treatment plants, mostly consisting of an electrostatic precipitator or a bag filter in combination with a dry waste gas scrubbing installation. After a short description of the applied technique, results of official emission measurements will be shown and discussed against the background of the limits of the new TA-Luft. The reported emission measurements have been carried out in the years 1997 until 2000 at 34 waste gas treatment plants with together 59 glass melting furnaces and concern to all the relevant emission parameters of the glass melting process. The results of the measurements show that most of the plants observe their setted limits and also the limits of the TA-Luft 2002 with reference to total dust, heavy metals, HF and HCl. Some of the existing plants observe in the meantime also the new limits for SO_x and NO_x, but special efforts have to be done in the near future especially for heavy fuel oil fired furnaces to meet the SO_x limit and for cross fired regeneratively heated furnaces to meet the new limit for NO_x. The new limits of the TA-Luft 2002 have to be applied for existing plants in the year 2007 apart from NO_x. For NO_x the existing furnaces have to observe the new limit at the latest in the year 2010. This regulation was decided because some of the most effective primary measures to reduce the NO_x emission can only be done during a furnace repair. It has to be mentioned that first of all due to primary measures the NO_x emission of glass melting furnaces in Germany is at the time only around 1/3 of the emission which we had 10 years ago – though the production has increased.