

Automatic Emission Control: Experience with Predictive Systems

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The analysis of international legislative practice of application of predictive emission monitoring systems (PEMS) in environmental activities was carried out. It is shown that PEMS as specialized tools of mathematical simulation and continuous assessment of pollutants released represent a reasonable alternative to the instrumental systems in cases when the relationship between a limited number of controlled variables of the state of technological processes and the concentration of the pollutants in emissions is scientifically justified. It has been found that while regulatory approval of PEMS differs from country to country, there is a trend towards the adoption of emission simulation technologies. To stimulate the integration of mathematical models that predict concentrations of emissions into continuous emission monitoring systems, it is advisable to take measures to improve the current legislation governing the implementation of automatic emission control at facilities related to BAT application areas.

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