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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 16297-1996

Replacing GB 4276-1984

Integrated emission standard of air pollutants

大气污染物综合排放标准

Issued on: April 12, 1996 **Implemented on: January 1, 1997**

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1 Subject content and application scope

GB 16297 is the general air emission standard of China: the one that applies to any stationary source not covered by a standard of its own, which makes it the most widely cited emission standard in the country and a normative reference in dozens of other GB documents. It sets, for thirty-three pollutants, the maximum allowable emission concentration, the emission rate as a function of stack height, and the limit on unorganised fugitive emissions at the plant boundary, distinguishing existing from new sources, together with the monitoring requirements and the rules for implementation. Issued on 12 April 1996, in force since 1 January 1997. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the edition it replaces are taken from there. The clause text, the tables and the numeric limits are not reproduced on this page - they are in the document itself, which is delivered in full in English translation.

1.1 Subject content This standard specifies the emission limit for 33 kinds of air pollutants. And it also specifies various requirements for executing this standard.

1.2 Application scope

1.2.1 In current Chinese national air pollutants emission standard system, and based on the principle that the integrated emission standard AND industry emission standard are not carried out crossly - boiler uses GB13271-91 "Boiler Air Pollutants Emission Standard"; industrial furnace uses GB9078-1996 "Industrial Furnace Air Pollutants Emission Standard"; thermal power plant uses GB 13223-1996 "Thermal Power Plant Air Pollutants Emission Standard"; coke furnace uses GB 16171-1996 "Coke oven Air Pollutants Emission Standard"; cement plant uses GB4915-1996 "Cement Plant Air Pollutants Emission Standard"; foul-smell substance emission uses GB 14554-93 "Foul Smell Pollutants emission Standard"; automobile emission uses GB14761.1 - 14761.7-93 "Automobile Air Pollutants Emission Standard"; motorcycle emission uses GB 14621-93 "Motorcycle Emission Gas Pollutants Emission Standard"; the other air pollutants emissions

all use this standard.

1.2.2 After execution of this standard, if the industry air pollutants emission standard is re-issued, the pollution source stipulated by applicable scope shall not follow this standard.

1.2.3 This standard is suitable to the current pollution source air pollutants emission management; as well as environmental impact evaluation, design, environmental protection facilities, completion acceptance of construction project; and air pollutants emission management after it is put into operation. 2. Quoted standard The articles contained in the following standards, through reference by this standard, have become the articles of this standard. GB3095-1996 Environment Air Quality Standard GB/T16157-1996 Detection of exhaust Grain matter of fixed pollution source and sampling methods of gaseous state pollutants. 3. Definition This standard adopts the following definitions.

3.1 Standard state It means such state - temperature is 273k, and pressure is 101 325Pa. Each standard value stipulated in this standard is based on dry air under the standard state.

3.2 Maximum allowable emission concentration It means that the average value of concentration for any one hour of pollutants in exhaust tube after treatment facilities must not be over limitation; or the average value of concentration for any one hour of pollutants in exhaust tube under non-treatment facilities must not be over the limitation.

3.3 Maximum allowable emission rate It means the mass of emission pollutants for any one hour in exhaust tube at specific height must not be over the limitation.

3.4 Non-regulated emission It means the emission of air pollutants which does not pass through the exhaust tube. Emission of low and short exhaust tubes belongs to regulated emission, but under certain conditions, it can create the same consequence as non-regulated emission. Therefore when the indicator of "Non-regulated emission surveillance and control concentration limit" is executed, the concentration of surveillance and control point pollutants caused by low and short exhaust tubes shall not be excluded (deducted).

3.5 Non-regulated emission surveillance and control point On the basis of the stipulation of annex C in this standard, it is an established surveillance and control point, in order to distinguish if the non-regulated emission is over the standard's requirements.

3.6 Non-regulated emission surveillance and control concentration limit It means that the average value for any one hour of pollutants concentration of surveillance and control point must not be over the limitation. 4. Indicator system This standard defines the following 3 indicators.

4.1 The maximum allowable emission concentration of pollutants which passes through exhaust tube emission.

4.2 The pollutants which pass through exhaust tube, based on the maximum allowable emission rate at specified exhaust tube height. Any exhaust tube must comply with above 2 indicators simultaneously. If there is 1 item which exceeds the limit, it is deemed as over-indicator emission.

4.3 For pollutants exhausted in non-regulated way, it shall specifies the surveillance and control point of non-regulated emission, and the corresponding surveillance and control concentration limit. 5. Standard grades of emission rate Maximum allowable emission rate specified in this standard is divided into - for present pollution sources. grade I, II and III; for new pollution source. grade II and III. According to the classification of functional area of environmental air quality at where the pollution source is located, relevant grade emission rate shall be executed. That is. For pollution source located at class I area, it shall execute grade I standard (At class I area, it prohibits to have new pollution source or to expand the existing pollution source. When the existing pollution source located at class I area is built, it shall execute grade I standard of current pollution source); 6. Standard value

6.1 For polluting source (Herein after referred to as "existing pollution source") which is set up before January 1, 1997, it shall execute the standard value listed in Table 1.

6.2 For polluting source (Herein after referred to as "new pollution source") which is set up before January 1, 1997 (including new construction, extension and reconstruction, it shall execute the standard value listed in Table 2.

8.1 Distributing points

8.2 Sampling time and frequency The 3 indicators specified in this standard refer to that the average value per any one hour shall not exceed the limit. When sampling, it shall meet.

8.2.1 Sampling of waste gas in the gas discharge pipe The average value shall be obtained in the continuous one hour; or 4 pieces of samples are taken in one hour at equal time. And average value is calculated.

8.2.2 Sampling at monitoring point of non-regulation discharge For sampling at monitoring point and reference point of non-regulated discharge, the average value shall be calculated and based on the samples taken in continuous one hour; If concentration is at low-side, sampling time can be extended when it is required; If the sensitivity of the analysis method is high, and when it only needs a short time to collect the sampling, it shall use equal-time interval to collect the sample.

8.2.3 Sampling time and frequency under the special condition If discharge of gas discharge pipe is intermittent, and the discharge time is less than one hour, continuous sampling in discharge time period shall be taken. Or 2-4 samples shall be sampled by equal-time interval in discharge time period. And calculate the average value;

8.3 Requirements for monitoring cases

8.3.1 During day-to-day monitoring of polluting source, the cases in sampling period shall be the same as cases in operation period. The personnel of pollution discharge organization and personnel of monitoring execution shall not change the operation case at that time at will.

8.3.2 Requirement for the completion acceptance cases for the environment protection facilities of the construction projection shall be in accordance with the completion acceptance monitoring methods for the environment protection facilities of the construction project prepared by the State Environment Protection Bureau.

8.4 Sampling and analysis methods

8.4.1 The analysis methods of pollutants shall be in accordance with the regulations specified by the State Environment Protection Bureau.

8.4.2 The sampling methods of pollutants shall be in accordance with the standard GB/T 16157-1996 and related parts of the analysis methods as specified by the State Environment Protection Bureau.

8.5 Measuring of gas discharge amount The monitoring of gas discharge amount shall be carried out together with sampling and monitoring of discharge concentration. 9. Standard execution

9.1 If the pollutant source is located at the acid rain control area or sulphur dioxide pollution control area as approved and specified by the State Council, the sulphur dioxide discharge shall be executed in accordance with the control standard of the total discharge amount, except this standard.

9.2 The competent department of the people's government's environment protection administration of the province, autonomous prefecture, municipalities shall decide whether non-regulated discharge monitoring concentration limit in this standard is carried out in its area, and report to the environment protection administration competent department of the State Council for the record.