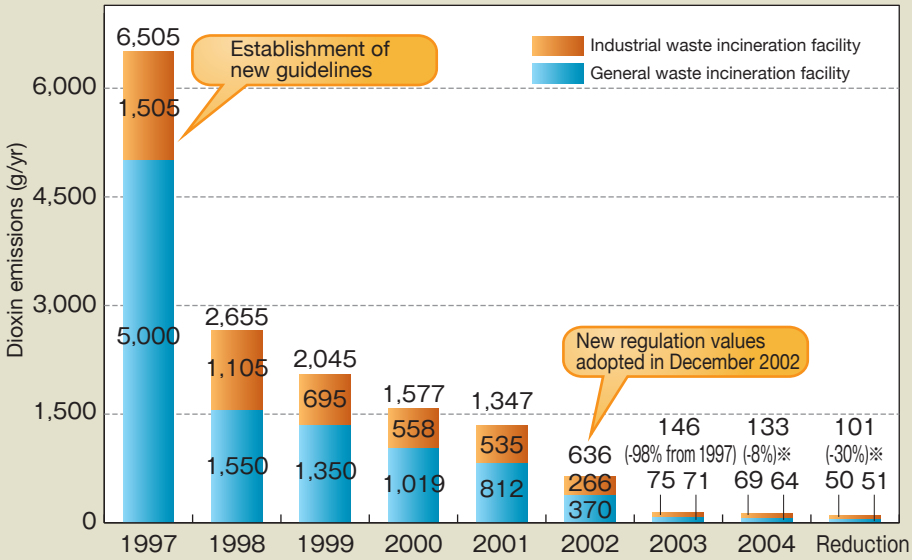
Solution to poisonous gas and dioxin emissions

It is known that incineration plants for municipal waste generate SOx, HC1, NOx, smoke and dioxin. From the perspective of environmental preservation and to obtain approval from people residing near the plant, harmful substances in the exhaust gas must be sufficiently reduced. In response to this need, many studies have been conducted by public and private institutes, where many countermeasure technologies were developed and improvements have been made on operation technology.

Studies have shown that dioxin is produced by incomplete combustion of waste, and measures have been taken to prevent and reduce dioxin generation with complete combustion in the furnace. Other countermeasures taken includes exhaust cooling to prevent the resynthesis of dioxin, application of bag filters to thoroughly eliminate dioxin contained in smoke, and the development of activated coal, which adsorbs and eliminates dioxin in exhaust fumes and a catalyst that decomposes dioxin. Based on the above-mentioned studies, structural and maintenance management standards for the incineration plants were established, as illustrated below. The standards apply not only to new facilities but also to existing facilities, where improvements have been achieved. Methods of control for dioxin and other poisonous gas emissions that have been employed by the private and public sectors are as shown in the figure, and problems related to dioxin from incineration have been nearly resolved.

Sufficient environmental measures are also taken for SOx, HC1, NOx and other substances.

Reduced dioxin emissions by 98% compared to 1997 from incineration plants in Japan



Note: ※The value for 2004 and reduction target are expressed in percent to the 2003 value

Source: Ministry of the Environment

Structural and Maintenance Management Standards