

1. Heat recovery technologies at waste incineration treatment facilities

Figure 1 shows how heat generated by the incineration of waste is utilized.

A boiler is used to recover steam from the high-temperature part of the exhaust gas and a generator converts this steam into electric energy, or alternatively it is used to make hot water or hot air.

A heat exchanger is used to recover warm air from the medium-low temperature part of the gas, and this air can be used for the incineration or to re-heat the exhaust gas.

There is also a heat exchanger for recovering heat and making hot water from this heated air.



Figure 1 Method of utilizing the residual heat generated during waste incineration

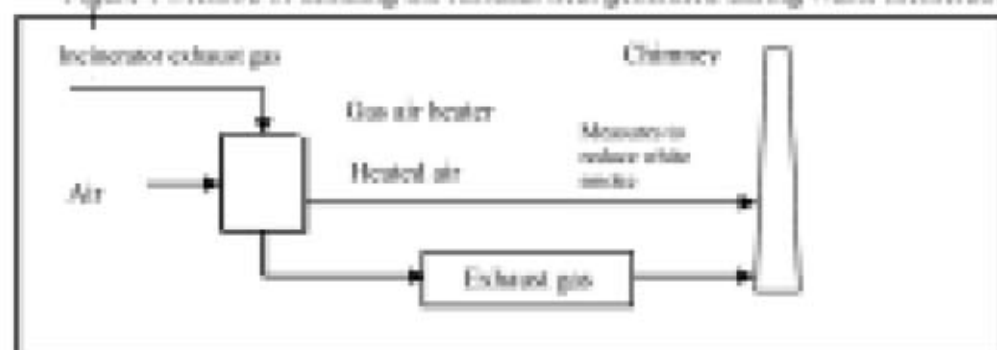


Figure 2 Example of heat recovery

Generally, small-scale incinerators that do not recover heat from exhaust gas in the form of steam use a heat exchanger for the hot part of the exhaust gas and recover heat in the form of water and air. This heated air is used for various purposes, such as to reduce white smoke and to treat the exhaust gas, and the concept is shown in Figure 2.