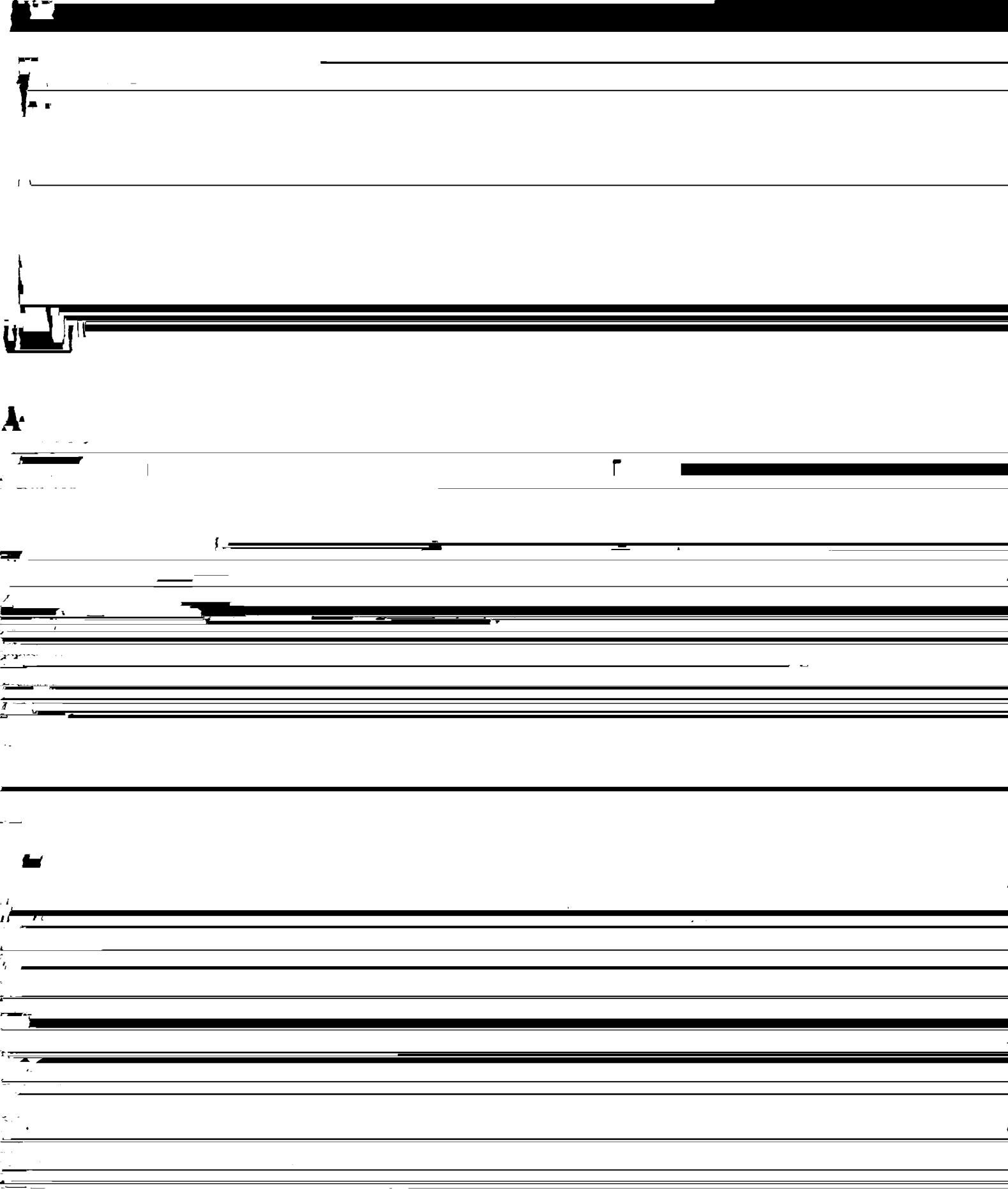
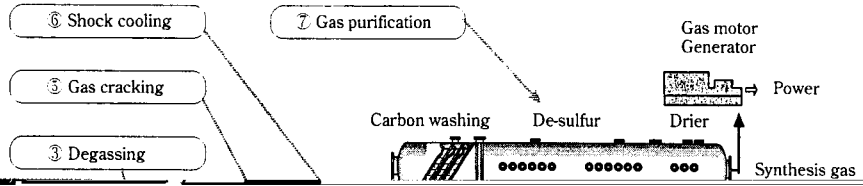


Environmental Business Contributing to

the Realization of a Sustainable Society*





- 1 Zero emissions
- 2 Efficient utilization of by-products

Municipal waste
Industrial waste

Kawasaki Steel Thermoselect Process

reacted waste and accumulate in the lower portion

Table 1. Characteristics of waste at the 2001

of the high-temperature reactor. When O₂ is blown into the lower portion of the high-temperature reac-

Plant)

By-products	PCDDs/PCDFs (TEQ)	Total emission per 1 t-waste
Synthesis gas	0.000 39 ng-TEQ/m ³	0 000 69 ng-TEQ /t.waste
Slag	0.000 70 ng-TEQ/kg	
Metal hydroxide	0 29 ng-TEQ/kg	

RDF plants have since received attention as refuse disposal facilities that can replace incineration facilities. In 1997, the regulations governing the formation of dioxins were strengthened, with a result that small and medium municipalities where the promotion of regional

heat of reaction by the addition of quick lime (5
wt% relative to the weight of refuse) and steam in

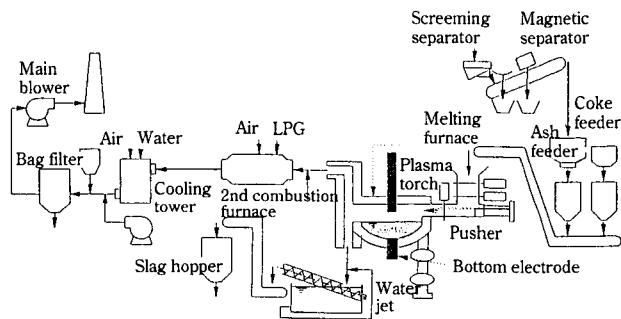
1/2 1

Progress of research and development

Labo plant (Naganuma) Pilot plant (Kitayatu) Actual plant (Kitayatu)

R&D of plasma system using air
(1) Life extension for rear electrodes
(2) No_x reduction to the environmental regulation from air plasma

1988



also vigorously investigated the individual melting of the fly ash from stoker incinerators that contains large amount of toxic substances such as dioxins and has high melting temperatures due to the lime derived from the exhaust gas treatment of incineration facilities. As a result, in 1998 the plasma melting process was adopted as Japan's first process for individual melting of fly ash from stoker incinerators in the soot and dust melting equipment of the Kyoto City Northeastern Waste Incineration Plant (tentative name). The company is pursuing research and development to resolve concerns about the

ing process

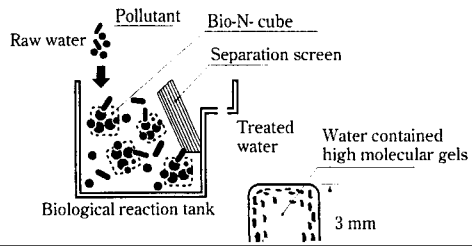
while incorporating the obtained knowledge in the design.

(2) The formation of a high-temperature atmosphere

2.3.3 Future prospects

Table 5 Description of various water treatment facilities

Classification	Client/Authority	General description, market status	Sales of Kawasaki Steel
Rural area sewage treatment plant	Ministry of Agriculture [REDACTED]	Smaller size of sewage treatment plant for rural area Mostly less than a capacity of 1,000 m ³ /d	Applied process is mainly contact aeration method or batch process aeration method



ment tank is unnecessary and the biological treatment tank itself can hold bacteria at high concentrations. Therefore, only 60–70% of the equipment needed with the conventional method is required for the new method. Furthermore, because various types of bacteria can be held at high concentrations, various pollutants can be decomposed, and the treated water passing through 0.1 μm membrane is much clearer than the treated water

thermore, the company considers it important to provide services to surrounding districts by making full use of the infrastructure and equipment of steel works. As a

ni kakawaru Mokuhyou Kijun," Seieihatu Dai 508 gou, 1998 March, 26th
10) Japan Waste Manegament Association: "Gomisyori ni