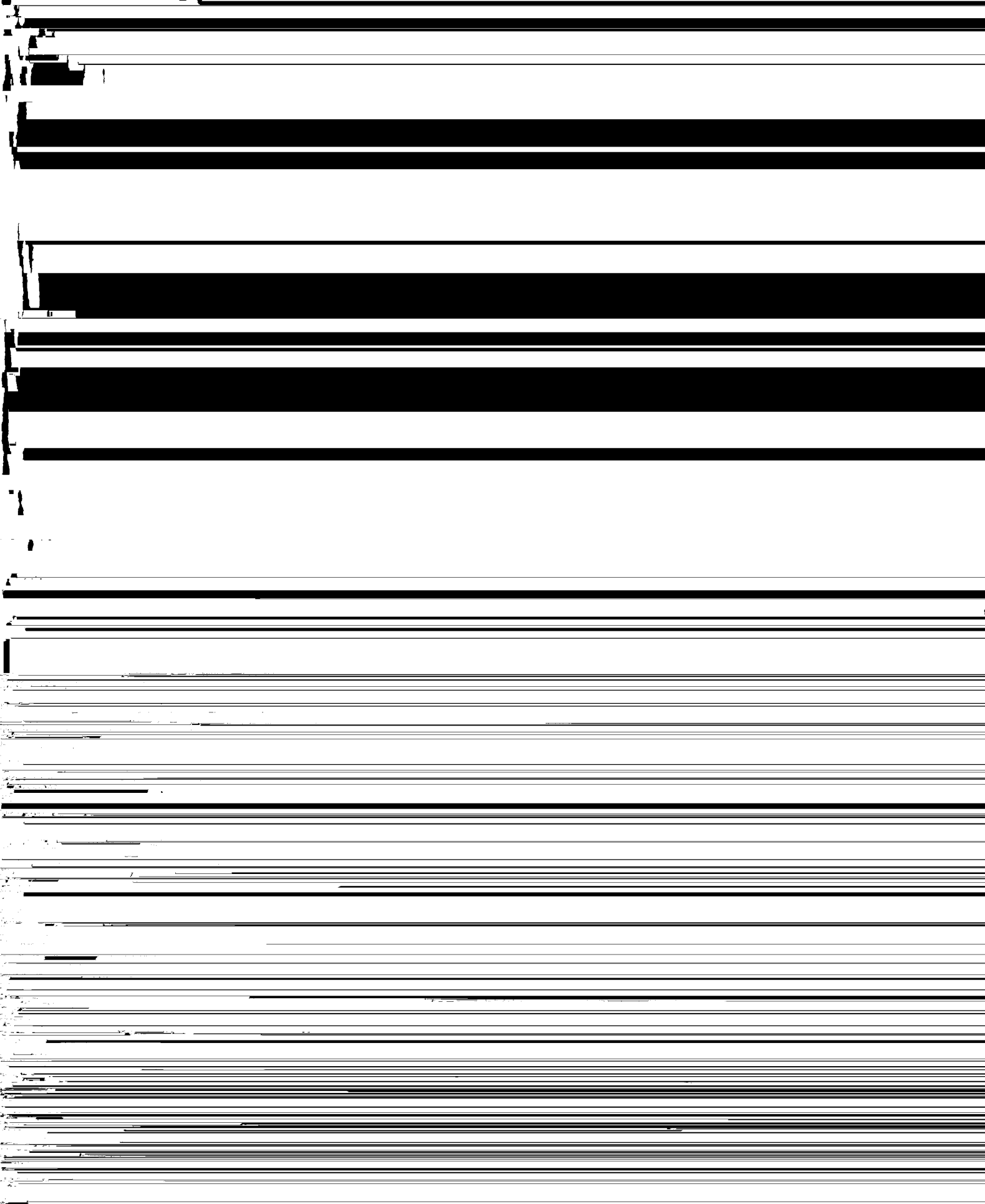
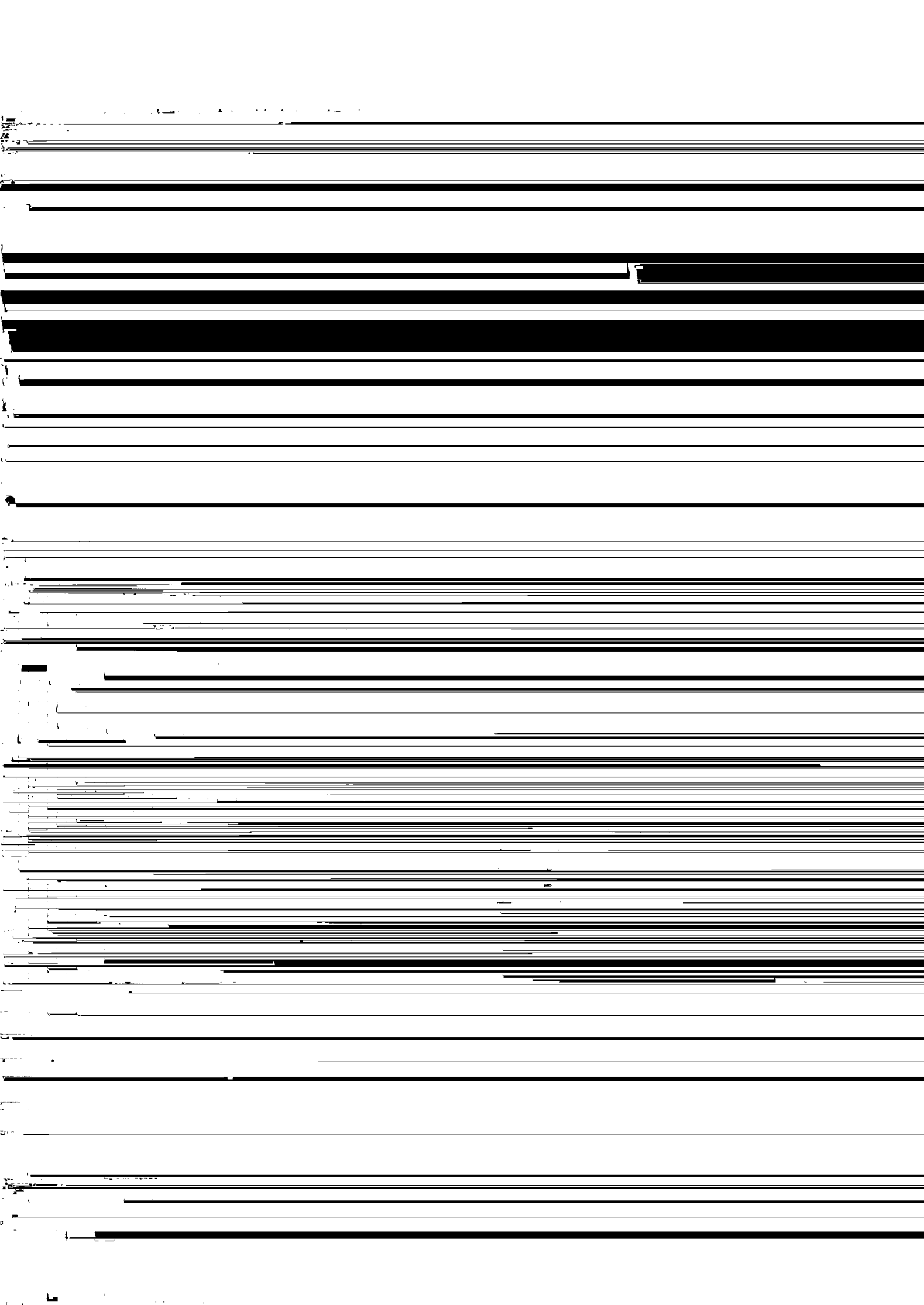


Alizing et al. Environment Control of Steel Mill *





activities (TG activities), which are carried out in the form of small group and have also incorporated energy saving activities. These activities have earned an excellent evaluation for their social contribution, including numerous awards from the National Center

2.3 Measure to Prevent Global Warming

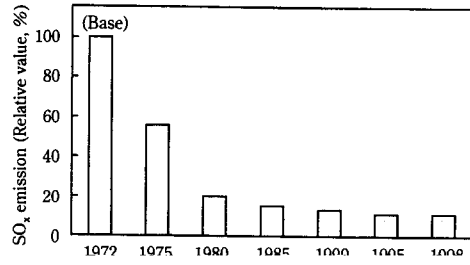
2.3.1 Voluntary action plan of steel industry

From an early date, the steel industry has

ence on Outstanding Examples of Energy Saving, which is sponsored by the Energy Conservation Center (foundation).

positive efforts to realize more efficient energy use, and achieved a total energy saving of approximately 20% between the 1st Oil Crisis and the present. The Japan Iron and Steel Federation strongly recognizes the impor-

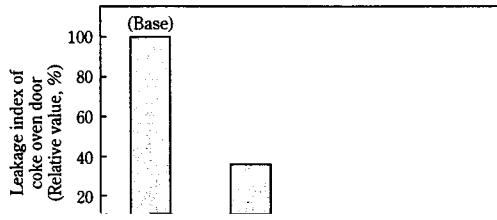
ence), refers to the so-called international flexibility mechanisms of joint implementation, the clean development mechanism (CDM), and emission trading. At present, the establishment of rules for the Kyoto Mechanism is in a fluid condition. However, Kawasaki Steel has positively expanded its overseas technical cooperation, taking advantage of technologies that are useful for global environment preservation, such as energy saving projects.



the company has developed over the course of many years. Examples include the implementation of

Fiscal year
Fig. 2 Reduction in SO_x emissions

energy saving model projects sponsored by NEDO



now focused on global scale environmental problems. At Kawasaki Steel, a Global Environment Administration Committee was set up in 1991, and a policy entitled "Action Guidelines and Outline of a Plan for Protection of the Global Environment" was established in 1993.

(2) EMS Certification

out research and development of technologies to fur-

internet and the creation of an explanation system and

PRTR (pollutant release and transfer register) is a system which promotes voluntary reductions of emissions. Under this system, companies report to the national government the amount of releases of substances of unconfirmed toxicity into the environment. Although reporting will become mandatory in FY 2002, Kawasaki Steel is making voluntary efforts to investigate the amount of releases in advance of that

in the future.

4 Building a Recycling Society

4.1 Zero Waste Activities at Steel Works, Activities and Results to Date

4.1.1 Results of zero waste activities

date.

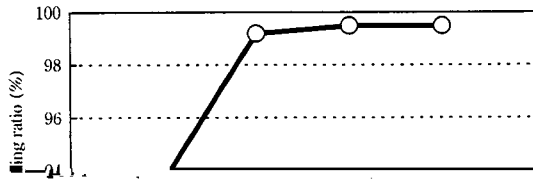
In preparation for future conditions in which plants exist in closer proximity to residential areas, beginning with Chiba Works, where redevelopment of the former site of the East Plant is under study, the company is carrying out a multi-faceted study of dust, odor, etc., including a survey of facilities with such efforts, relocation of equipment, and detailed technical development for improvement.

(2) Reduction of Environmental Load from Viewpoint of LCA

Responding to environmental problems on a global

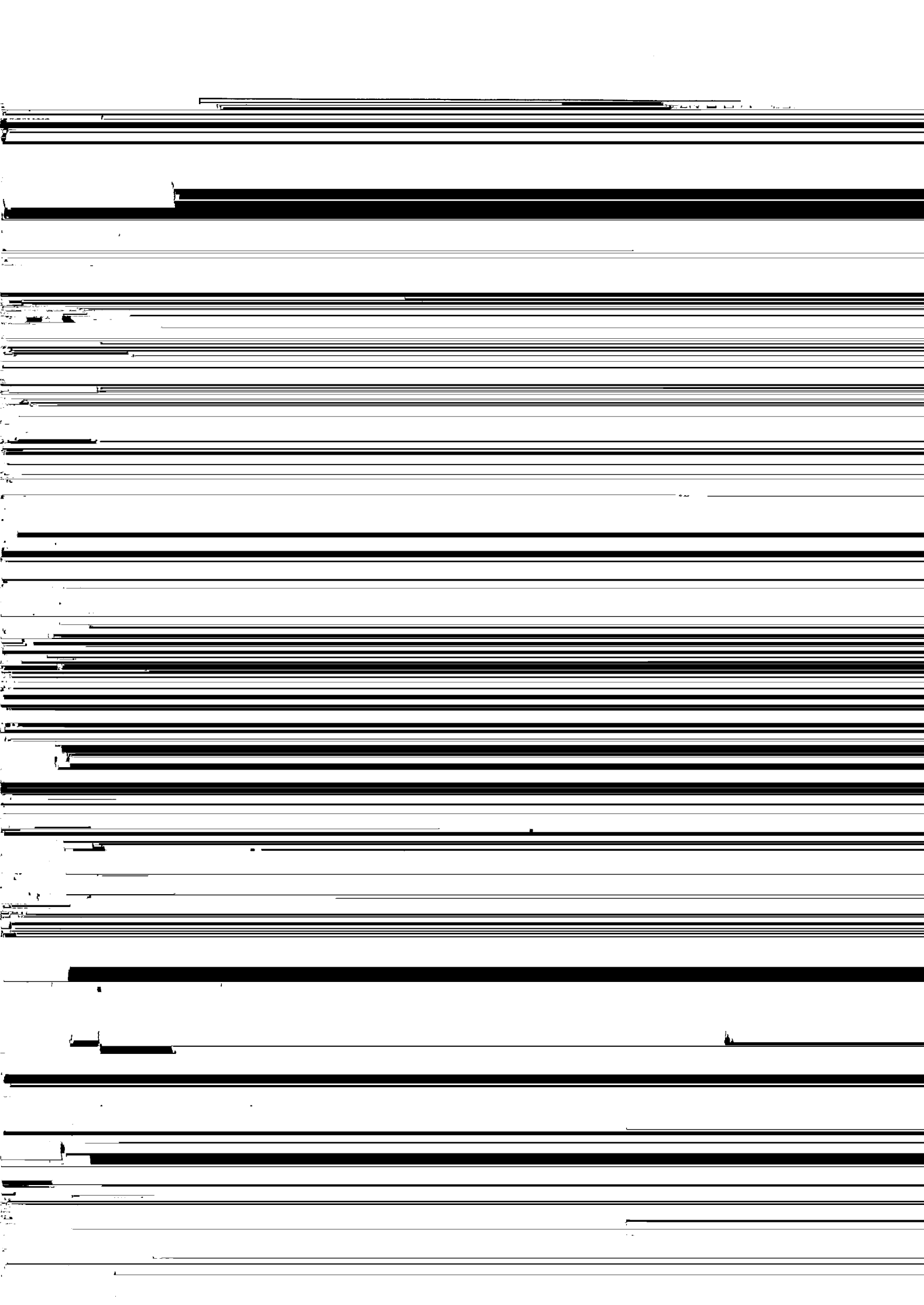
The modern steel works of the postwar era in Japan were constructed in coastal areas. Not only earth and sand dredged from the coast, but also the slag generated by the steel works, were used as reclamation materials for creating the land on which these steel works were constructed. The useful materials contained in generated dust were recycled as an iron source, and substances which were technically difficult to recycle were buried in final disposal sites prepared by dividing off part of the created site.

As land reclamation approached completion around the middle of the 1970s, Kawasaki Steel positively



(2) Dust Recycling Technology

In addition to the conventional method of recycling dust to the sintering process, Kawasaki Steel promoted the use of dust in hot metal pretreatment and developed the STAR furnace (coke packed bed type melting reduction process)¹⁴⁾ for recovering stainless



technology of the Kawatetsu Thermoselect process waste gasification and melting furnace. The steel works will contribute to the construction of a recycling society by coexisting with the region through recycling

- 2) Y. Sasaki, F. Yamamoto, and S. Koizumi: *Kawasaki Steel Giho*, 17(1985)2, 98-103
- 3) H. Takasaki and M. Okishio: *The Energy Conservation*, 40 (1988)7, 35-40
- 4) T. Maegawa, S. Komiyama, S. Nishii, T. Minamoto, and N.