KAWASAKI STEEL TECHNICAL REPORT
No.11 (March 1985)

Development of Ore Yard system in Total Ironmaking System at Mizushima Works

Shin-ichiro Yamana, Seisuke Nigo, Hiro shi Obata, Takumi Fukagawa, Noboru Morinaga, Masahiro Ukita

Synopsis :
The total ore yard system has been develope d as a part of the totalized ironmaking system at the Ironmaking Department of Mi zushima Works. Many kinds of information can be summarized by process computer through an optical fibre cable network, and stored in business computer for improvement on the departmental management level. The system consists of several functions, namely, the ore handling schedule plan, operation guidance for ship unloading and ore treatment in the yard, electric utility management, bed quality control for sinter , and dynamic hopper level control. This system has brought about large profits, saving in labour and energy and quality improvement in the blended ore bed.

The body can be viewed from the next page.

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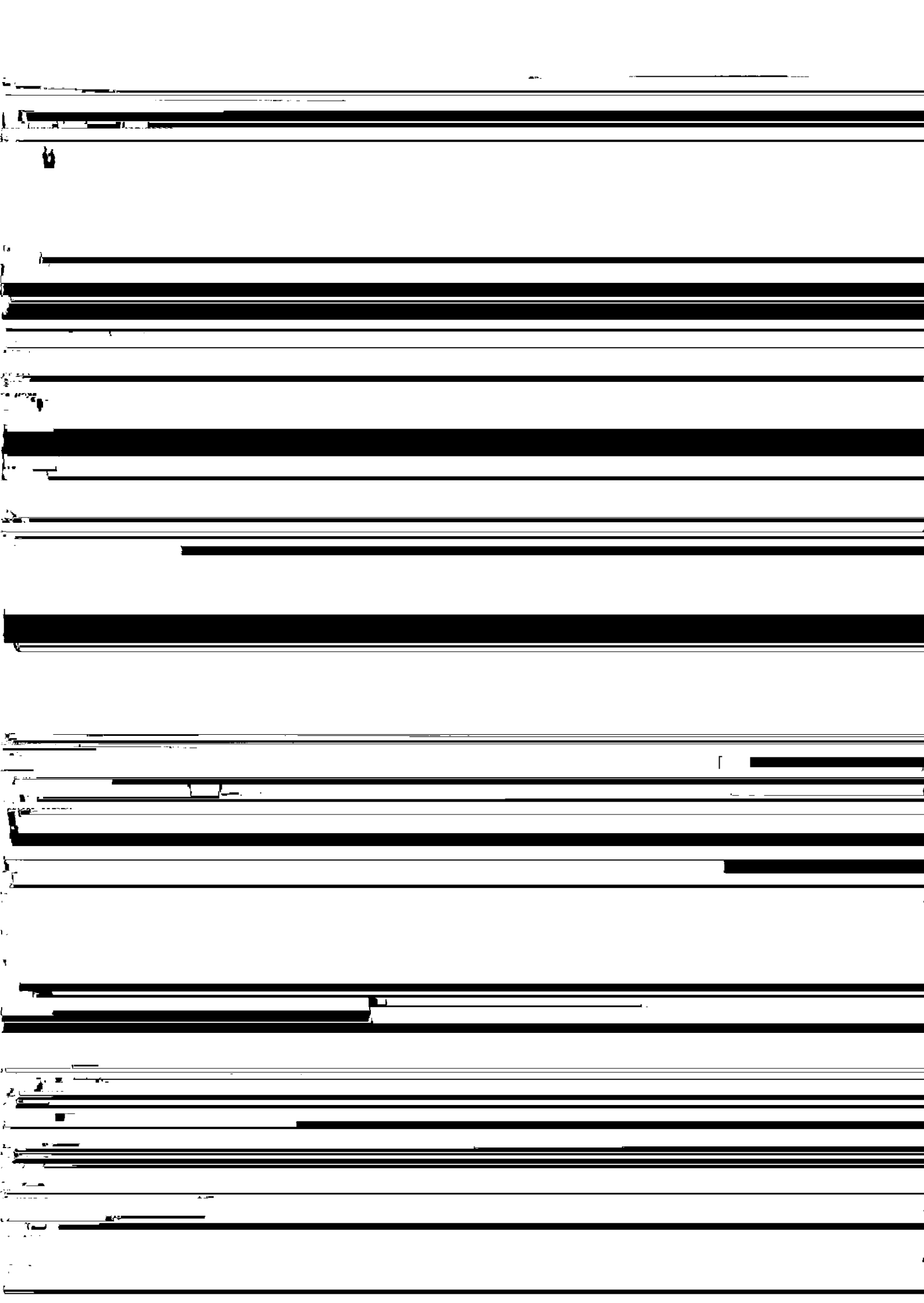
1 Introduction

2 Outline of the Ore Yard System in Total Ironmaking Svstem



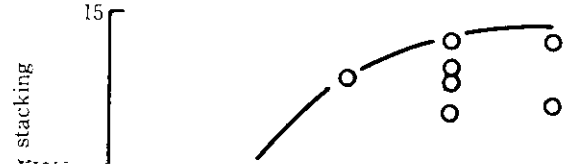
(2) Operation and control

sizing, ore bedding, ore charging into blast furnace and

level.

known that variations in chemical composition during

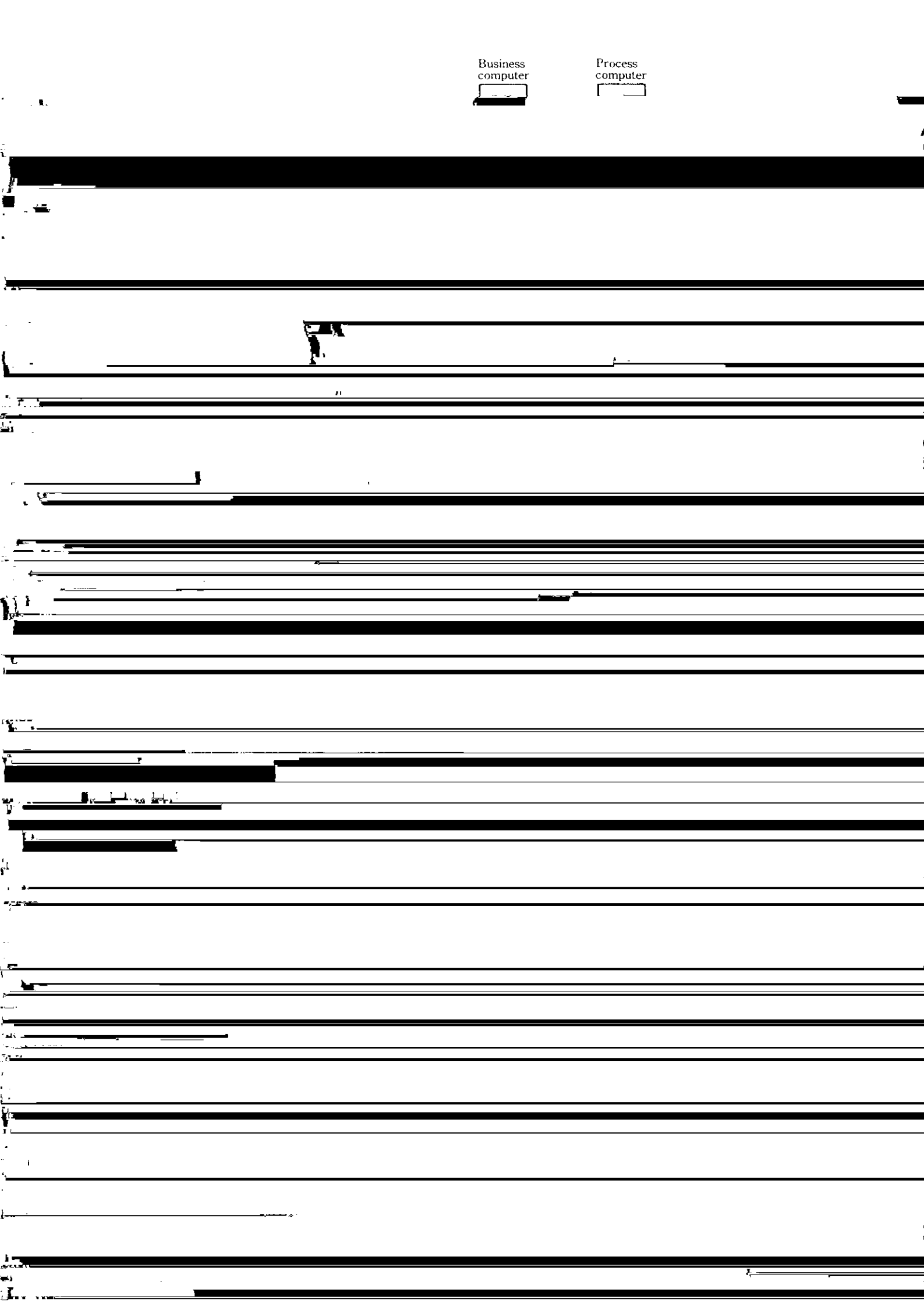
ing feeder (VVVF control). Compared with the con-

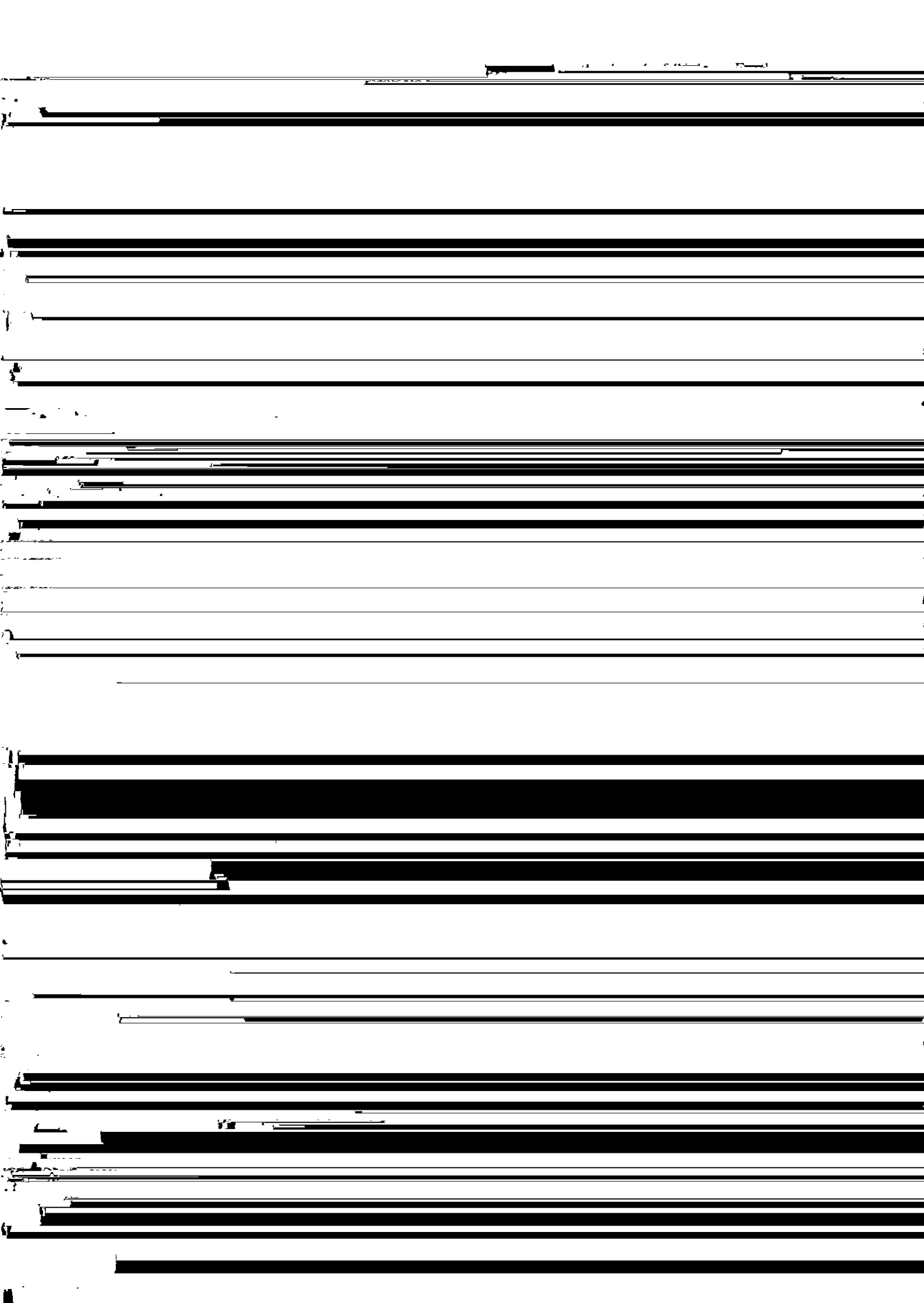


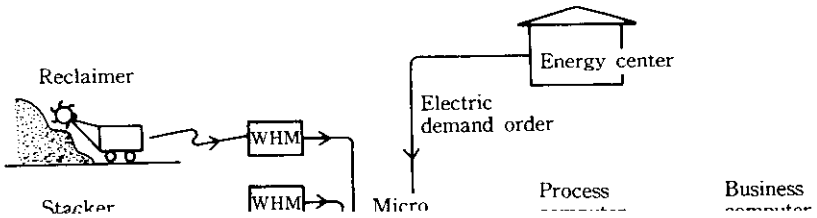
of construction cost at the same feeding accuracy.

(2) End-point bedding control

When multiple brands of ore are continuously stacked, the conjunction between two different brands occurs randomly in the longitudinal direc-


Business computer
Process computer




Reclaimer
Energy center
Electric
demand order
WHM
WHM
Stacker
Micro
Process
Business

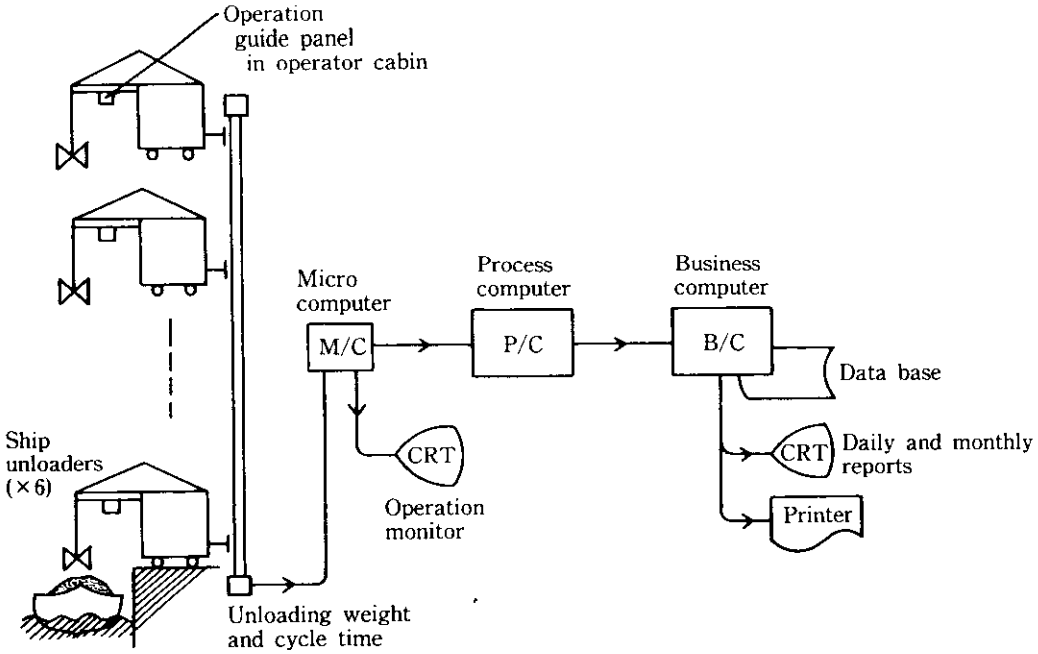
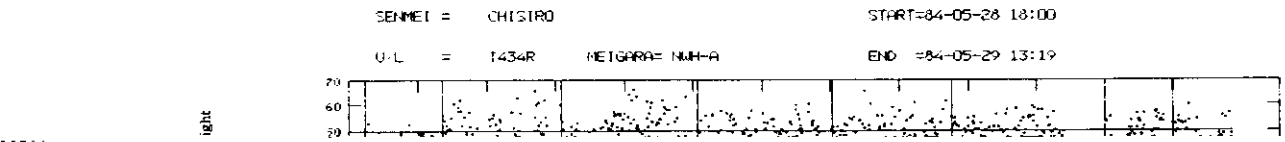
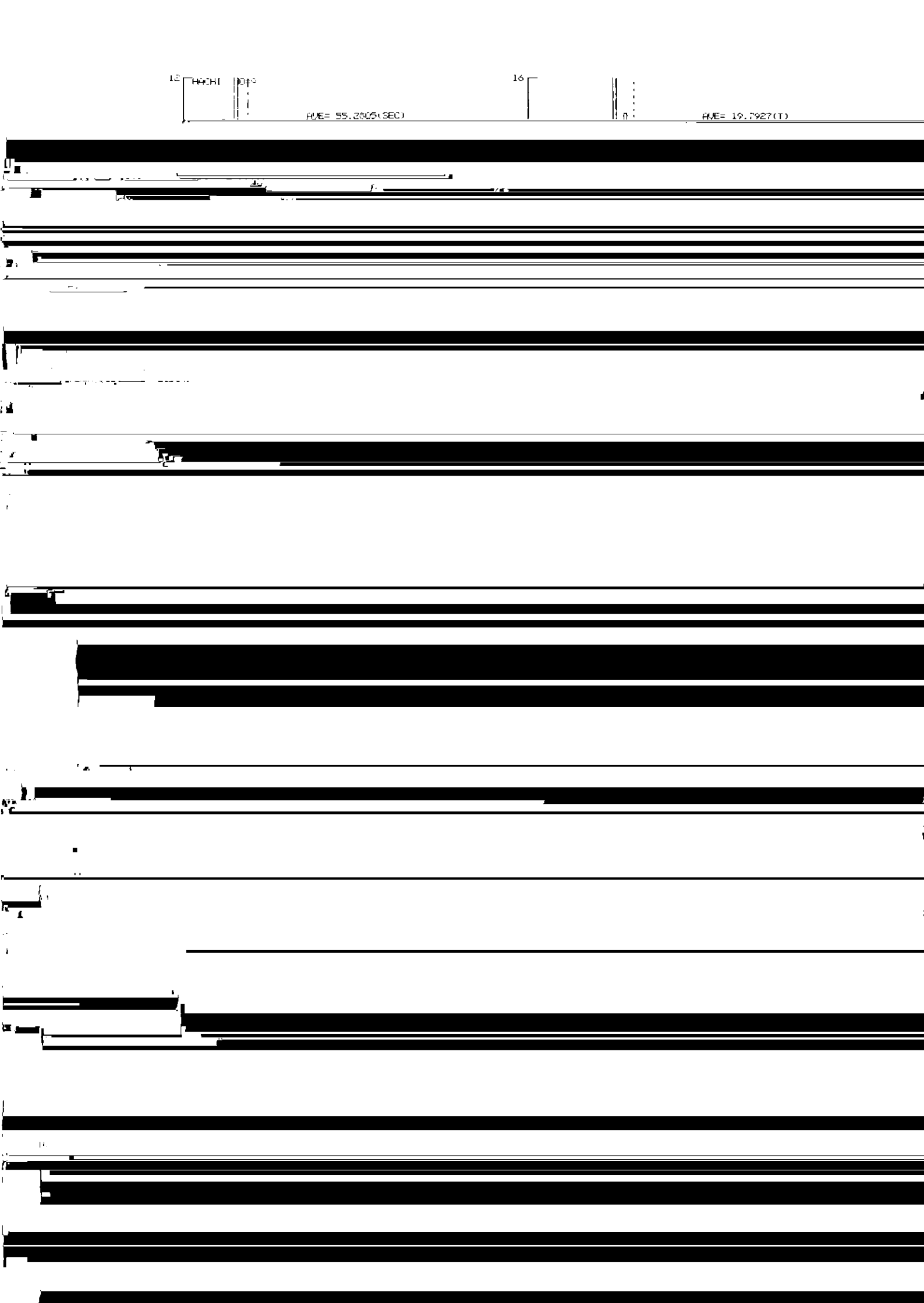


Fig. 12 Ship unloading management system




12
HACHI
AVE= 55.2805(SEC)
16
AVE= 19.7927(I)

The labor and economic environments of the steel industry are expected to become increasingly severe in the future and substantial rationalization is required also in the ore yard department of steelworks. To cope with

tion extended in the electrical and instrumentation phases in the construction of this system.

References