

Computer Control System for Ore Yard Operation at Mizushima Works*



Synopsis:

At Mizushima Works, ore yard control systems of electric equipment were renewed. This is the second step of iron making department information system. New belt conveyor control for energy-saving and staking control for quality improvement have been applied. Control technologies such as knowledge engineering, fuzzy control, and

2 Outline of Ore Yard Electric Control System

ther, it has become possible to decrease the burden of operation and maintenance work supporting stable

A composition diagram of the ore yard electric con- tion

trol system is shown in Fig. 1. As controllers, a two-

As a result of improvements in the control function, the kind of control has been expanded with

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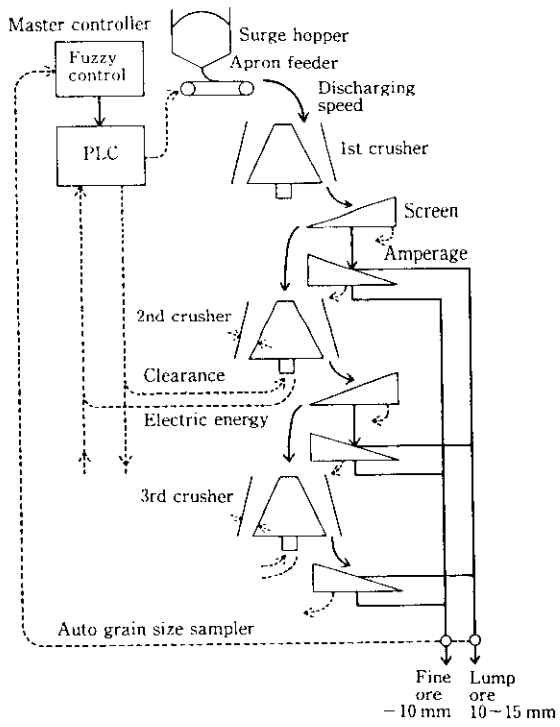


Fig. 6 Remote control system of sizing plant

decided to apply fuzzy control.

In general, fuzzy control is carried out in the follow-

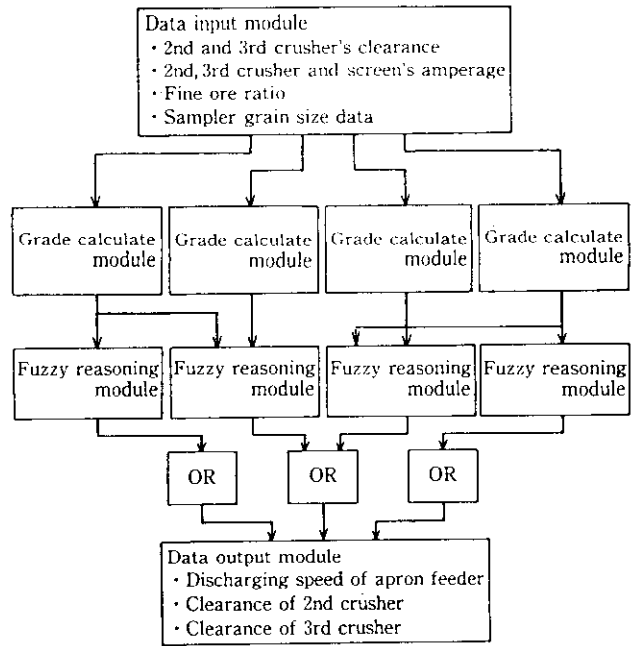
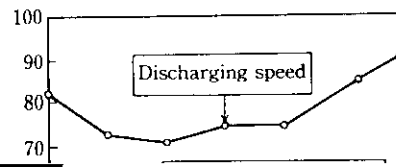


Fig. 7 Example of fuzzy module combination



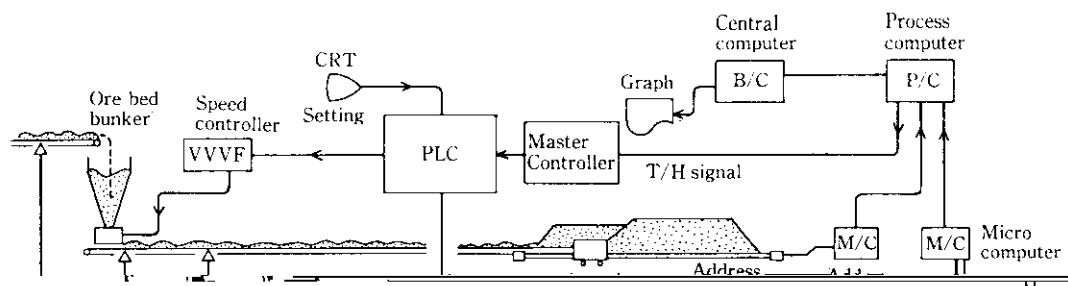
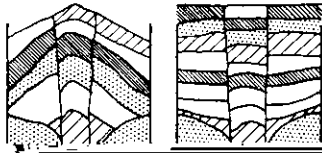
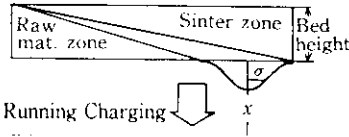


Fig. 9 Bed quality control

First-order lag



One Point Charging



$\sigma_{\text{min}} : 3.0\%$
Productivity : $1.30 \text{ t/m}^2 \cdot \text{h}$

Running Charging

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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