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Information Systems

Production Control Systems at Steelworks

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Synopsis :
Kawasaki Steel has refurbished its producti on control systems in steelworks. The main objective is to establish the plan-oriented production control and pursue the continuation and synchronization of steel ma nufacturing processes. Weekly scheduling system provides a production schedule of each facility, integrating all products and all processes. The aim of this system is to shor ten lead-time and keep a balance of material flows among facilities. As to steel-makin g, hot-rolling and cold-rolling systems, the level-up of all functions including functions of material handling and quality control has been realized in concert with the rationa lization of equipment of production and material transportation. In addition, th e newly developed standards management system helps the staff to maintain and apply the standards of production. The systems described above are being operated smoothly, and our purposes of refurbishment have been accomplished. This paper describes the whole aspect of the production control systems, focusing on sheets and strip and illustrating the systems in Chiba and Mizushima Works.

The body can be viewed from the next page.

Production Control Systems at Steelworks*



Synopsis:

Kawasaki Steel has refurbished its production control systems in steelworks. The main objective is to establish the plan-oriented production control and pursue the con-

functions has also been extended to the area of staff support

products.

[redacted]

2.2.3 Simplifying and expediting of material flow

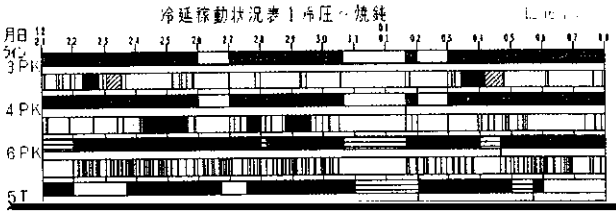
Ideally, two or more processes should be integrated into a single continuous process. It is also desirable to

3 Weekly Scheduling System

3.1 Necessity of System Building

essential to establish a new weekly scheduling system

and the large operational cycle of the works [redacted] priority in the [redacted]



4 Execution Control and Operation Control

4.1 Necessity of System Building

This part of the production control systems, which covers activities from daily scheduling to operational

response to the operational synchronization and continuation, a highly automated operation support system for

control systems for billets and integrated production control system for cold-rolling went on-stream as a first

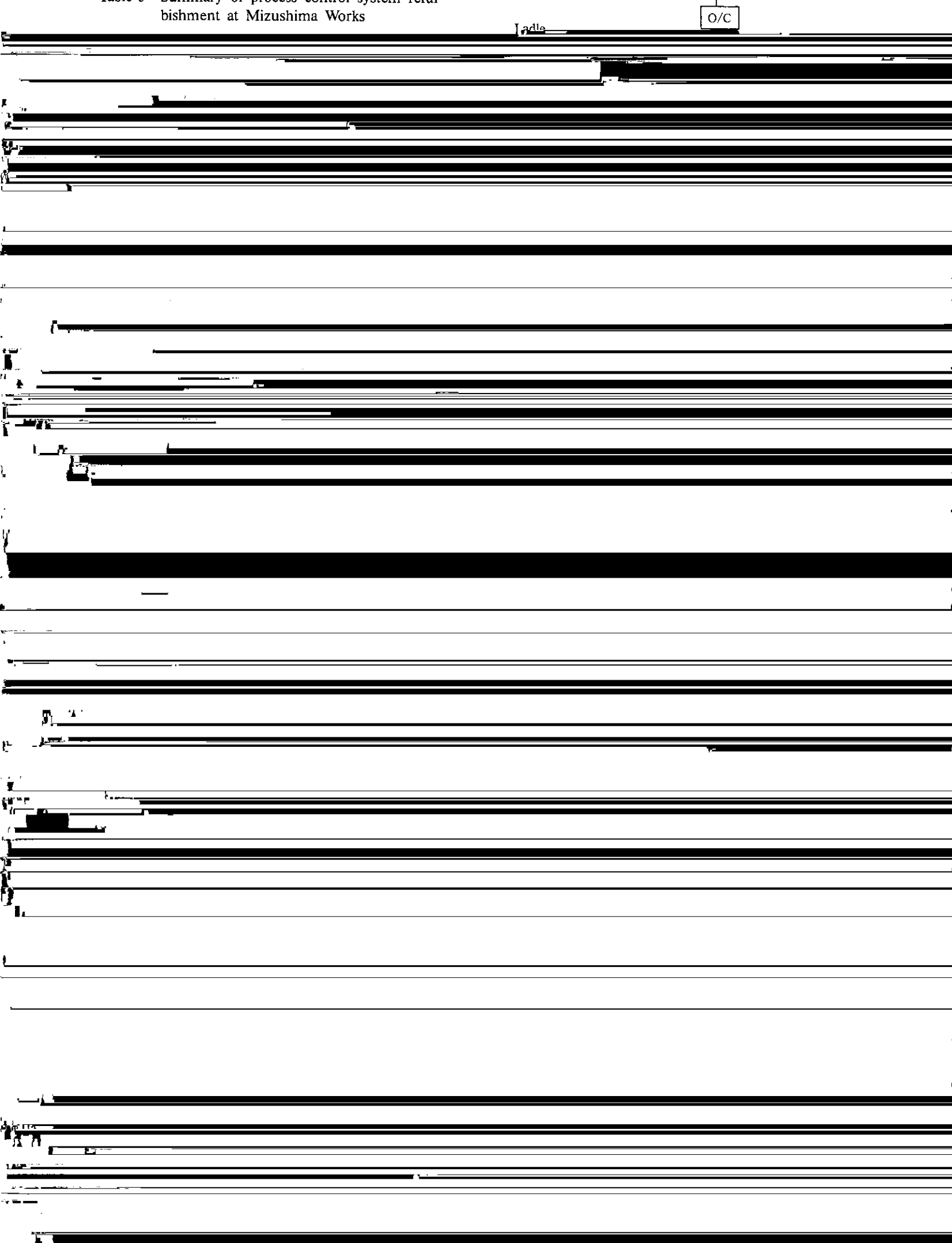
4.3 Functions of Daily Scheduling and Manufacturing Instruction

ing—cold rolling—cleaning—annealing, which is a major production sequence, can be scheduled and instructions given in unit form, based on weekly scheduling infor-

to quickly restore the original scheduling by changing [redacted]

ration appropriate to characteristics of each yard ... at the steelworks, the design of the necessary items for

Table 3 Summary of process control system refurbishment at Mizushima Works



[redacted]

5.3 Outline of the System

As a part of the refurbishment of production control systems, a standards control system was developed. The objectives of this system are high efficiency and an upgrading of standards control tasks, with a guarantee of

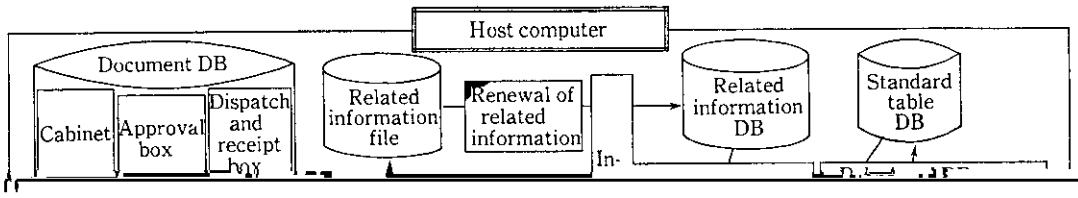
standard tables as a principal concept. To attain this goal, the following functions have been realized:

(5) Composition of standards tables and documents (editing and printing).

5.4.2 Standards table management

This function supports the preparation and revision of standards tables and their reflection in each of the

duction control activities. Operational efficiency has


Host computer
Document DB
Cabinet
Approval box
Dispatch and receipt box
Related information file
Renewal of related information
In-
Related information DB
Standard table DB

(2) Based on a concept of schedule oriented manage[illegible] and the growth of inf[illegible]