KAWASAKI STEEL TECHNICAL REPORT
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# Sintering Energy Control System Using Carbon Analysis of Waste Gas and Hot-Zone-Ratio Measurement of Sinter Cake

Yutaka Sasaki, Motoo Yasuda, Minoru Watanabe, Hiroyasu Takahashi, Akira Kato, Katsuyuki Miki

Synopsis :
Kawasaki Steel has developed a new sintering energy control system, SECOS, which can detect and control the thermal energy level rapidly within an allowable range. The system is applied to No.3 and No.4 sintering plants in Chiba Works. It uses two parameters. One is a carbon quantity of sinter mix which is burnt on pallets. This is calculated through carbon balance by detecting the waste gas volume and composition. Another is a hot zone ratio of the sinter cake cross section at the discharge end measured by an ITV camera. The system executes overall evaluation of the thermal energy level with these two parameters and controls the level within an allowable range by adjustment of the coke blending ratio. This contributes to reducing the fluctuation of sinter quality and productivity.

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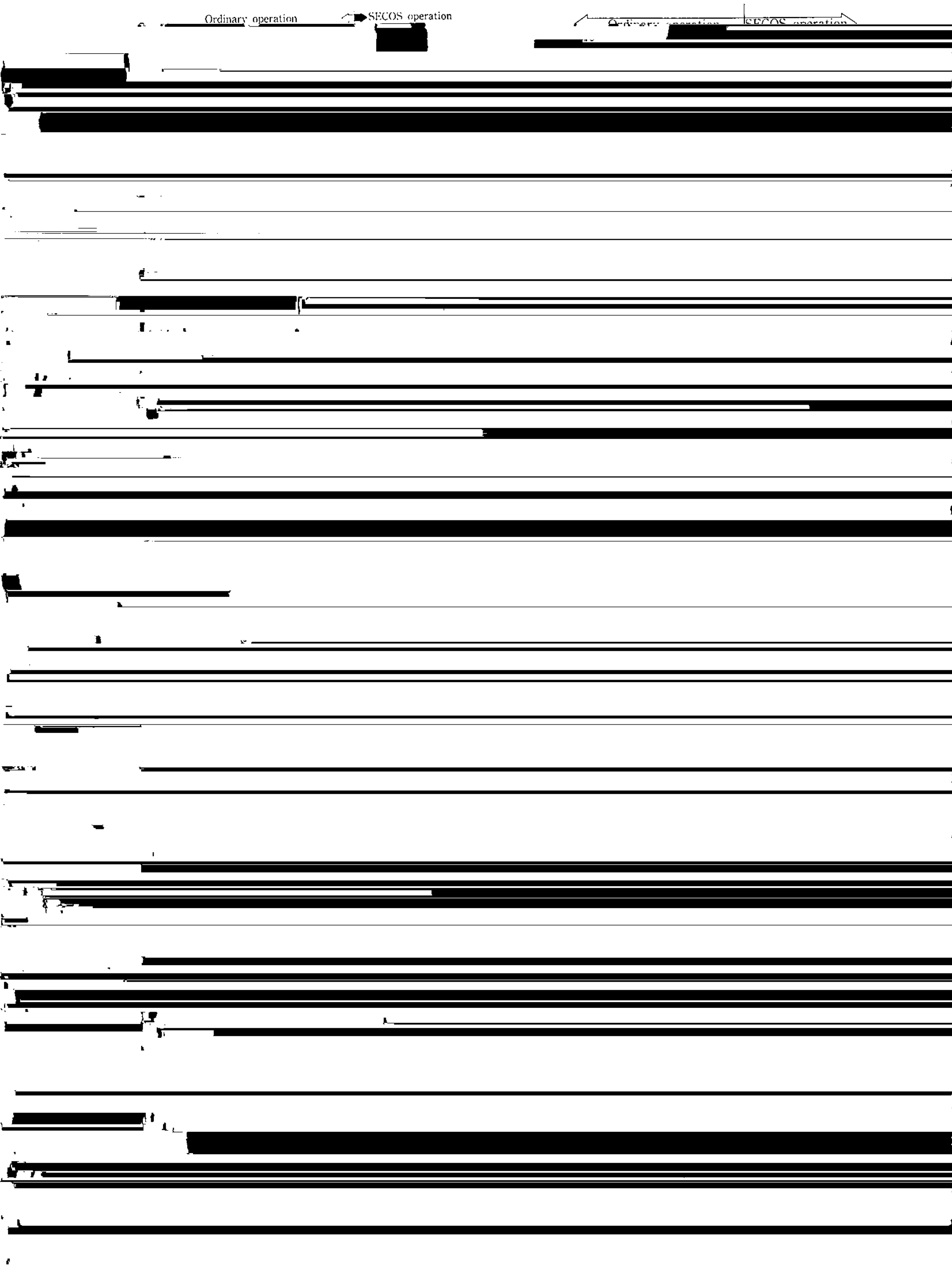
greatly required because of the effect of

sists of two functions, real carbon (RC) and hot zone ranks. The sintering thermal energy level is evaluated RC and HZR action matrix.

(2) Based on these synthesized evaluation results, an

| Plant / Analysis | No. 3 Sinter Plant | No. 4 Sinter Plant |
|---|---|---|


Ordinary operation
SECOS operation
Ordinary operation
SECOS operation