

Sensitivity Analysis of Operation Conditions Using Carbon Dioxide Reutilization Process in Coke Oven Gas Treatment Process

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Steel industry has a major duty of reducing CO₂ gas in response to CO₂ emission reduction trend. CO₂ reutilization process can be a solution and is that waste CO₂ is added in coke oven gas so that CO₂ is reduced into CO to be reused as an energy source by reaction with carbon. It is needed to examine an effect of applying CO₂ reutilization process over the conventional process of steel industry. In this study, it is intended to develop a simulation to study problems to be expected over COG treatment process. Standing on this base, operating conditions of COG can be manipulated so that sensitivity analysis using CO₂ reutilization process over COG treatment process would be examined. This study can be utilized not only to minimize expected problems possibly happening in COG treatment process when CO₂ reutilization process is applied but also to conduct process effect evaluation when operation condition in coke oven varies.