

DEVELOPMENT OF A MODEL FOR CALCULATING

Siddhartha Biswas, Dr. Kenneth Peaslee

ABSTRACT

Improving energy efficiency has been a major concern for the steel foundries in recent times. To calculate energy efficiency and finding a user friendly way of determining options of improvements are the prime goals of this study. A spreadsheet model in Microsoft Excel is developed and will be provided to the steel foundries to evaluate their respective energy situation. On the basis of this evaluation, possible options for improving energy efficiency will be suggested and the effect of the changes will be monitored for further improvement of the model. The operating conditions and parameters are different in every steel foundry and this effort tries to take all of them into account. In this model, Statistical analysis of historical data and industrial measurements are used for the calculations and predictions. The statistical calculations were performed by using STATGRAPHICS commercial software.