## **ABSTRACT**

Mixing Coal PT. Lembuswana Perkasa uses the speed ratio of two crusher units, namely low sulfur crusher and high sulfur crusher which then found the length of time of mixing coal.

In the mixing of coal, there are still criteria that have not fulfilled the demand of 3 consumers ie Korean, Filipino and Chinese consumers. Using the available coal in the stockpile made several alternatives to get mixing results that suit the needs of consumers and high sulfur coals. To achieve all that, need to do Evaluation and improvement in terms of coal establishment. General enlightenment on comparisons found from qm software for windows. Of the total tonnage obtained compared to the two crusher for mixing coal. After the speed can be calculated the length of time of mixing coal to be transported at once using the conveyor belt and poured onto the barge.

The alternative result obtained for Korean consumers is alternative 4 with total water mix (total humidity) of 35,84%, ash content of 4,78%, sulfur content (total sulfur) of 0,49%, and value calories (calorific value) of 4.100 kcal / kg, as well as tonnage used for low A1 TS stitches of 9.393 tons, A2A high CV sutures of 8,33 tons and a high A2B TM suture of 13.959 tons. For low sulfur crusher speed of 1.000 mA and high sulfur crusher speed of 787 mA with mixing and filling time of one barge is for 5 hours 56 minutes.

For Philippine consumer is alternative 4 with mixing result same with Korean consumer but different in tonasenya, for total air content (total moisture) equal to 35,84%, ash content (4,78%), sulfur content (total sulfur) equal to 0,49%, and calorific value of 4.100 kcal / kg, as well as tonnage used for low A1 TS stitches of 10.371 tons, high A2A CV stitches of 9.218 tons and a high A2B TM suture of 15.411 tons. For the speed of crusher low sulfur of 1.100 mA and high sulfur crusher speed of 865 mA with the length of mixing and filling one barge is for 5 hours 5 minutes.

For Chinese consumers an alternative 18 with mixing results for total air content (total humidity) of 34,73%, ash content of 5,56%, sulfur content (total sulfur) of 0,75%, and calorific value (calorific value) of 4.102 kcal / kg, as well as an easy tonnage for A1 medium suture CV of 10.164 tons, A2A medium suture CV of 18.209 tons and A2B high suture TM 21.627 tons. For the speed of crusher low sulfur of 1.100 mA and high sulfur crusher speed of 838 mA with the length of mixing and charging one barge is for 5 hours 10 minutes.