

## **SUMMARY**

*The research was conducted at PT Banyan Koalindo Lestari in the CCP (Coal Crushing Plant) area which has 2 stockpiles, namely ROM stockpile and product stockpile. The purpose of the research was to determine the technical stockpiling and unloading in the stockpile area, the application of the FIFO (First In First out) principle based on the amount of coal (in and out) and stockpile capacity, as well as efforts to improve stockpile management and efforts to minimize the occurrence of self-ignition.*

*Based on the research results in February and March 2023, coal in ROM stockpile exceeded capacity by 49.69% in February and 56% in March from the stockpile capacity of 60,000 tons. In the product stockpile, coal fills less than 60% of the stockpile capacity, which is 150,000 tons. The stockpile in ROM stockpile has the highest height of  $\pm 14$  m, the stockpile in Product stockpile has the highest height of  $\pm 12$  m, with the angle of repose of the stockpiles of both stockpiles still exceeding the angle of repose of coal which is  $38^\circ$ . In both stockpiles, the outgoing coal value is less than the incoming and stockpiled coal, thus causing longer coal stockpiling time. The pattern of coal stockpiling and unloading is not running well. The FIFO principle cannot work and tends to apply the LIFO (Last In First Out) principle. These things cause self-heating and self-burning in coal stockpiles.*

*Based on these problems, improvement efforts were made by improving the dimensions of the stockpiles in ROM and product stockpile with an angle of repose  $\leq 38^\circ$  and a maximum height of 8 m. The capacity after improvement was obtained to be 48,666.06 tons for ROM and 78,189.85 tons for product stockpile. In addition, the pattern of stockpiling in both stockpiles is in the direction of stockpiling to make it easier to distinguish between old and new stockpiles and minimize wind exposure to the stockpile. Strive for the FIFO principle to always be implemented to avoid stockpiling coal for a long period of time. To overcome overcapacity in ROM, it is necessary to rehandle old coal stockpiles to be crushed and stockpiled by optimizing the capacity of the product stockpile area. In order to optimize capacity, it is necessary to arrange product stockpiles using excavators and bulldozers. Efforts to minimize self-ignition are carried out by compacting the stockpile after stockpiling and dismantling activities. In addition, regular temperature checks are also carried out to monitor changes in coal stockpile temperature.*