ABSTRACT

THE EFFECT OF HORIZONTAL FORCE TOWARD HARBOUR STABILITY

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In the construction of the power plant takes a jetty (pier) to facilitate distribution of coal as the primary fuel a steam power plant . Era of human development requires good and adequate infrastructure. Electricity is the most basic of human needs at this time, therefore, the construction of the power plant is needed to support the human need for social activities.

The methodology that we used to calculate the lateral force on pile foundations where Broms method, whereas to calculate the deflection that occurs due to horizontal forces we used the conventional method, Broms method. Before calculating the lateral loads and deflection, firstly should calculate whereas the pile category included in long pile or short pile and fix headed pile or free headed pile.

From the result of the plan we got horizontal force on Bromsmethod Hu was 91,204 ton and 2409,56 tm for Mmax. Deflection that occurs on conventional method, the pile deflection was 0,2112 m. The Broms method for fine-grained soil, the pile deflection was 0,086 m and for coarse-grained soil was 0,347m.

Keywords : Pile Fondation, load bearing capacity of foundation