

CHAPTER V

CLOSING

A. CONCLUSION

Based on computation and design analysis at chapter 4, the conclusion is as following :

1. Slab analyze of dock at PT. Paxocean refer to master plan already match the engineering requirement. Slab thick 300mm with rebar D20-200 can resist live load $2,5\text{t/m}^2$. Required area of reinforcement 1120 mm^2 meanwhile the reinforcement design D20-200 is 1571mm^2 . The slab can resist live load up to 7t/m^2 with D20-200 two layer.
2. UE-800 Fender System can be resisted the berthing force. The berthing force is 77,06 ton and capacity of fenders is 119,61 ton. Bollard is used to resist mooring force. The bollard is a composite steel pipe with inner diameter 600mm and thick 12mm.
3. Mooring force works for 20.000 DWT is 500kN. The capacity of bollard is 2304,56kN.
4. Sheetpile to be used as retaining wall is KSP IIIA. Sheetpile KSP IIIA can be resisted Moment 315,7kN. The modulus of section is 1520cm^3 .

B. SUGGESTION

1. To keep the durability of fender, the mooring system should be control by set the ship off near the docks and pull the ship by rope. It will holds the fender from a big clash.
2. The loading at slab should be control and do not put the load at the edge slab due to loading is distributed by 45 degrees.