VI. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

In this study a model of the construction planning for the placing of large quantities of concrete is proposed. The study of the concreting in practices is necessary in order to generate as many as possible alternative solutions for the problems.

The availability and capacity of supply of ingredients is the important criteria for choosing the method of placement for the large quantities of concrete.

Though the continuous placement method is a preferable alternative for dense concrete, but it is still not widely used due to some limitations such as: the supply of ingredients, technological capabilities and restrictions of working spaces.

Concreting for the Dao Khanong bridge pile caps in Bangkok had obtained great advantages of using continuous placement method, in terms of the production rates and the man hour needed. In contrary, concreting for BNI-46 raft foundation in Jakarta using the discontinuous placement suffered a lot of difficulties and inconveniences during concreting works because of construction joints, water stops etc.

From this study it can be concluded that the continuous casting method is a better alternative for foundation work, while for dam and underground work, the traditional practice is still acceptable. However, it should be kept in mind that placing a large amount of concrete by continuous casting method is critical, thus the presentation of the planning should be very clear so that all parties involved can coordinate to reduce the problems as few as possible.

6.2. Recommendations

In order to avoid the inconveniences during concreting work, structural engineers are urged to seriously consider the configuration of designing the reinforcing steel to facilitate the mixing, placement and compaction accordingly.

There are some possible areas for further study on the large concreting work such as a more intensive investigation on specific applications of the continuous placing method for particular types of projects i.e. concrete dam, underground and underwater structures as well as mass foundations etc.

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