

CHAPTER 6

CONCLUSIONS



The major findings may be summarized as follows:

1. It is impossible to model all the conditions which affect the temperature distribution in a cooling water discharge. If other conditions, such as wind effect and evaporation, were taken into consideration, the smaller mixing zone would be resulted. Thus the present investigation overestimated the mixing zone.
2. The ocean current affects the hot water plume. The slower the ocean current is, the greater the area of the plume.
3. The relation between the mixing zone and current speed for a given nozzle size is linear.
4. From this investigation, it can be deduced that the worst condition (the greatest area of hot water plume) occurs when the ocean current is stationary.
5. It appears that the 4 m. nozzle diameter gives the best dilution in comparison with the 3 m. and 5 m. nozzle diameters.