O27. A THREE-DIMENSIONAL MODEL OF DISCHARGED COLD WATER JET IN COASTAL AREA

Yasuo Niida¹, Norikazu Nakashiki¹, Shinichi Sakai¹, Takaki Tsubono¹

¹Central Research Institute of Electric Power Industry, Japan
niida@criepi.denken.or.jp

In this study, a three-dimensional numerical model for cold water jets in the coastal region is developed for the calculation of not only the initial mixing but also horizontal dispersion above the seabed. The computed velocities and temperatures were compared with the measurements obtained in the scaled hydraulic experiment. The good agreement with measurements confirms the model provides appropriate results for cold water dispersion. Our numerical results indicate that coastal topography is the most important factor in determining areas influenced by discharged cold water.