

## **Annotation**

The purpose of this diploma project is to review the project for the construction of a geothermal thermal power plant in the area of Aktau, Mangistau region. In this diploma project, the choice of the working medium, the heat scheme was based, the heat scheme was calculated, and a geothermal turbine was developed that uses thermal water in a wide temperature range of 100-200°C, with a capacity of 8 MW.

In the economic part, the efficiency indicators of TPP operation, economic efficiency, and fuel replacement costs in General are calculated.

In the section life Safety, organizational and technical measures for labor protection were analyzed. The ventilation system has been calculated.