

## **Abstract**

In this diploma project presents an analysis of the impact of the Almaty CHP-2 on the environment after its expansion with the installation of combined-cycle plants. Prerequisites for writing the project were modern problems associated with uncontrolled growth of environmental pollution.

In the main part, the calculation of emissions of harmful substances released into the atmosphere by energy boiler units of Almaty CHP-2 was carried out. An analysis was made of emissions of harmful substances before and after the expansion of the station.

In the economic part, an estimate of the cost of expansion of the Almaty CHP-2 and its payback period is given.

In the "Life Safety" section, the calculation of the ventilation of the turbine workshop of the stations was carried out.