This graduation thesis named "feasibility study of CHP-3 construction in Astana city" describes thermal calculations for efficiency rate determination of boiler unit. In practical part of the thesis the calculation, choose and installation procedure of supplemental equipment for fuel-handling and ash utilizing facilities are described. Part of the thesis named "economical" is to provide alternative solution for energy supply in electricity market. In last part of the thesis "life safety" the amount of atmospherics emissions of pollutants is calculated.