

Elena Yarovaya
A.Y. Usenko, research supervisor
I.P. Nikitina, language advisor
Nation Metallurgical Academy of Ukraine, Dnipropetrovsk

Research of Natural Gas Magnetic Treatment on Influence of its Efficiency during its Burning

Questions of energy-savings today are of great importance in industry and in the state as the whole. Natural gas provides around 20% of the world's consumption of energy, and as well as being burnt in power stations, is used by many people to heat their homes. It is easy to transport along pipes, and gas power stations produce comparatively little pollution. But the most important is the problem of decreasing expensive natural gas consumption. There are many variants of this task solving. One of them is the use of magnetic technology for blast of fuel treatment.

This technology is proved to be successive at the use of oil-fuel. For its use with natural gas it is necessary to choose the optimum technological parameters and confirm the efficiency of the offered method.

The purpose of work is to get necessary technological parameters of magnetic natural gas treatment, which will provide maximal efficiency of fuel burning.

In our time power units (power –generating boiler) are the main users of natural gas. Therefore the decline of natural gas consumption exactly in these units possibly will economize on fuel in the whole country. Thus this work is directed on this task solving. Besides the introduction of these units for magnetic treatment do not need considerable capital investments.

Unit consists of 2-drive gas-rings of low pressure, combustion chamber, pipe for waste gases and smoke exhauster. The gas-ring has three water jackets with counters. The data from the counters is transferred to the computer.

Most of all, magnetic technology of fuel treatment can allow to produce little of the emissions associated with urban air pollution and acid deposition, without the need for costly additional controls. So this technology is environmentally friendly.

