

Normative and Legal Regulation for Implementing the Best Available Technologies in Russian Heat-and-Power Engineering

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Abstract—New legislation in the field of best available technology (BAT) has provided an incentive for the introduction of resource-efficient and environment-protecting technologies in the Russian thermal power industry. Switching to BAT is based on the principle of a successive achieving of the best economic and environmental efficiency indices of enterprises by means of a gradual displacement of obsolete technological and technical solutions to replace them by modern ones. In the framework of the implementation of the BAT Implementation federal project, the switching to such technologies is considered not only as an improvement of the environmental situation, which is very important in itself, but also as a comprehensive modernization of the entire industrial production linking economic and environmental goals to provide a balanced solution to the problems of sustainable economic growth and environmental improvement. The legal, scientific, technical, and financial problems that arise in the course of real BAT implementation at thermal power facilities with the greatest negative impact on the environment are described. Technological indices of pollutant emissions to the atmospheric air by thermal power plants have been compared with similar standards adopted in the European Union, the United States, and Kazakhstan. It is shown that the proposed technological emission indices do not promote any radical modernization of the industry and any real decrease in the negative impact on the environment. The reasons are considered and the need for the accelerated updating of the information-and-technical reference book ITS 38-2017 is argued. The analysis of the energy equipment of Russian thermal power plants has been carried out, and it has been proven that BAT implementation in order to ensure the technological indices established in ITS 38-2017 is not a technical or financial problem. The risks of the embodiment of the Implementation of BAT federal project are analyzed. It has been noted that continuing education programs in the field of BAT implementation is of importance.

Keywords: best available technologies, heat-and-power engineering, information-and-technical reference books, pollutants, emissions, technological indices, objects of negative environmental impact, boiler plants, thermal power plants

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