Establishing the effects of emissions by major enterprises on the atmospheric air condition in Zyryanovsk(Article)

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Краткое описание

The total emissions of the industrial enterprises located in Zyryanovsk amount to 3,616.2 tons per year. The article analyzes the air pollution data for the city of Zyryanovsk, obtained at the PNZ-1 automated monitoring station of the RSE «Kazhydromet». It is established that the state of the atmospheric air in the city may be characterized as favorable; the wind rose with the preferential south-western and south-eastern directions carries the emission plume of the enterprises away from the residential areas, towards the location of the old mine dumps. The emissions from the boiler-houses of GP Teplo- tsentral and LLP Promteplo in the city amount to approximately 3,250 tons per year, and the value for the concentration plant of the Zyryanovsky mining and processing plant (ZGOK) of Kazzinc LLP is 256.5 tons per year. The harmful substances emission calculations for the concentrating plant of Kazzinc LLP, Kazzinc-Remservis PK, Kazzinc-Trans PK, Promteplo LLP and GP Teplocentral show that the largest contribution to the pollution of the urban atmosphere is made by the heat power enterprises in the form of such substances as nitrogen dioxide (up to 1.12 maximum single MPC portions) and sulfur dioxide (0.48 maximum single MPC portions). The impact of the concentrating plant on the state of the urban atmospheric air is insignificant and manifests itself only at the northern border of its sanitary protection zone in the form of an inorganic dust (up to 2.76 maximum single MPC portions) occurring due to fugitive emission sources; however, this territory has no residential areas. © 2018, "Ore and Metals" Publishing house. All rights reserved.