was filtered and reacted with red radish seeds for 96 hours at a liquor ratio of 1:5 and 20 °C temperature .The control sample contained distilled water.

At the second stage of the research as a bioassay system used is simple – ciliates Colpoda steinii .The method is based on the extraction of the studied products of different fractions of toxic substances polar and nonpolar nature with subsequent exposure to the culture extracts ciliates Colpoda steinii according to GOST 13496.7-97.

For the third phase of the experiment as a bioassay-organisms used animal cells.

The method is based on the ability of methylene blue to attach the hydrogen that is separated from sub-strate oxidation (animal cell) during respiration and is recovered in a colorless leuco form in accordance with MR 2.1.7.2279-07 1.1.037-95 MU. The experiment included the exposure of methylene blue solution in svezhevzyatyh cell of sodium chloride with a drop of animal origin in 37 °C environment.

At the end of the experiment, we can conclude that the degree of toxicity of wastewater samples of bakery companies after purification by anaerobic digestion varies within 2–10 %, which indicates that their safety. The most toxic is the sample of wastewater prior to purification.

A comparative study of the toxicity of wastewater samples bakeries before and after purification by anaer-obic digestion using the bioassay systems belonging to different taxonomic groups. These results confirm the pat-tern of toxicity of the samples with different classes bioassay systems, and, consequently, the ability to use the lat-ter as a bioassay-organisms in determining security wastewater bakeries.

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ANALYSIS OF ANTHROPOGENIC INFLUENCE ON THE ENVIRONMENTAL COMPONENTS DURING THE DEVELOPMENT OF CONIFEROUS OIL DEPOSIT IN THE TOMSK REGION

U. Kucheryavchenko

Tomsk State University,
Tomsk, Russian Federation
Ulyana018@mail.ru

In connection with the planned expansion of the cluster site at the Khvoynoye oil field in the Tomsk Re-gion of the Aleksandrovsky District, a short-term local environmental forecast was compiled. Due to negative anthropogenic impacts on environmental components during construction, a list of environmental measures has been compiled, and proposals have been developed for an environmental monitoring program.

Keywords: oil field, environmental forecast, environmental monitoring.

Large-scale anthropogenic environmental quality changes in Western Siberia are inextricably linked with the development of the oil and gas industry. In the north of the Tomsk region, in the Aleksandrovsky district, the Coniferous oil and gas field is located, the development of which began in 2005 [1].

Analysis of gross emissions of pollutants into the atmosphere on the territory of the Tomsk region according to the State report «On the State and Environmental Protection of the Tomsk Region in 2017» showed that the Ale-ksandrovsky district takes the leading place among all regions of the region and its share is 12.7 % of total emissions [2].

During the expansion of the cluster site, the maximum anthropogenic impact will be directed to vegetation and soils, namely to the destruction of the integrity of the soil and vegetation cover, which entails a detrimental ef-fect on the hydrosphere of the region, namely, a change in the volume of wastewater and the chemical composition of water.

For environmental control, it is necessary to draw up a program for environmental monitoring of atmospher-ic air, surface and groundwater, soil, flora and fauna.

For periodic observation of gas pollution in the air at the territory of the Khvoynoye oil field, it is recommended to create a mobile post. To establish observation of the most informative component of the ecosystem - the soil cover. In order to control the level of pollution or the degree of land degradation, the scale of the effect on soils, it is recommended to test on the planned construction site along the upper fertile soil layer up to 15 cm.

To diagnose the suitability or unsuitability of water for drinking water supply, hydrological observations are required. On the oilfield territory and construction site, it is recommended to take samples from the surface waters of the river. Koltogorskaya is higher, as close as possible to the piece sites and below the oil pipeline in spring, summer and autumn.

When monitoring vegetation and objects of the animal world, it is recommended to use an observation sys-tem that includes an assessment of changes in the species composition of the original plant community and faunis-tic complex, as well as taking into account the state of plant and animal species listed in the Red Book of the Rus-sian Federation.

An annual adjustment of the environmental monitoring program is required.

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CONTENT ASSESSMENT OF INORGANIC SUBSTANCES IN THE AMBIENT AIR OF THE STERLITAMAK CITY IN 2010–2012

E. Kulakova, A. Safarov

Ufa State Petroleum Technical University,
Ufa, Russian Federation
kulakova87@list.ru

To control atmospheric air in cities with a high level of technogenic impact, automatic air control stations (ASKAV) are installed in the residential area in order to provide the population with favorable living conditions. The cost of introducing ASKAV is quite high. The review provides an analysis of changes in the concentration of inor-ganic substances, the sources of pollution of which can be various industrial enterprises, mobile sources of pollution, in order to solve the urgent problem of the effectiveness of the funds spent on the ASKAV installation.

Keywords: automatic ambient air monitoring station, ammonia, sulfur dioxide, pollutant, ozone, carbon monoxide, maximum permissible concentration, hydrogen sulfide, average value.

In this work, we use data from ASKAV, located on the street. Furmanova, 33 cityof Sterlitamak. The station performs continuous automatic measurement, processing, registration of the results of measuring the concentra-tions of 25 types of chemicals, including carbon monoxide, ozone, ammonia, nitrogen oxides, sulfur dioxide, hy-drogen sulfide. The meteorological parameters are also identified, such as the strength and direction of the wind, pressure, humidity, air temperature, and the amount of precipitation.

The content of carbon monoxide (II) for 2010–2012 predominantly did not exceed the MPC. In 2010, the concentration of CO above the maximum permissible value was observed in 3 % of days, in 2011 – 4 %, in 2012 – 3 %. The content of carbon monoxide above the MPC is observed mainly in the period from 9–11 am. During the study period, a decrease in the CO content in the atmospheric air of Sterlitamak by 25 % is noted (Fig. 1).

The average annual value of ozone concentration for 2010–2012. above MPC. Due to the fact that the presence of ozone in the air is an indicator of air pollution, the quality of air in Sterlitamak for 2010–2012. worsens. In 2010, the O_3 content exceeded the maximum permissible value of 36 % of days, in 2011 – 42 %, in 2012 – 40 %.

A significant increase in the concentration of ammonia in the atmospheric air of Sterlitamak was observed in the spring of 2011, when the substance content reached 3.5 MPC. The rest of the period, the NH3 concentration is close to zero.