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Condition Of Transportation At Large Intersections

Sherko'zieva G.F., Bakhriddinova M.N., Egamberdieva Z.Z., Toshpulatov B.M., Abdurashidova D., Boysariyeva M.R., Rasulov R.S
Tashkent Medical Academy Tashkent, Uzbekistan

Annotation. This article provides information about vehicles, one of the main pollutants of atmospheric air, which is one of the environmental factors on major urban highways, and their specific aspects. At the same time, the level of pollution of the air basin with vehicle exhaust gases at major urban intersections was studied using a calculation method.

Keywords:*motor vehicle, atmospheric air, hygienic standard, highway,*

Relevance: The increasing number of vehicles, the creation of powerful mechanisms and their widespread use have a negative impact on the generous nature, including atmospheric air, causing its deterioration. From 2010 to 2018, the amount of pollutants emitted into the atmosphere increased by 1.3 times and amounted to 2.442 million tons in 2018. Of this, 65% or 1 million 560 thousand tons are accounted for by motor vehicles. In Tashkent, this figure is 80%. Over the past 5 years, the number of private cars has been growing sharply, in particular, according to the State Statistics Center, in 2015 - 2,109,185; -2,191,231 (3.8%) in 2016; 2,273,419 (3.7%) in 2017; -2,440,276 (7.3%) in 2018; -2,580,133 (5.7%) in 2019. In large cities, 95% of carbon monoxide, 65% of carbohydrates and 30% of nitrogen oxides are emitted from cars. In addition, many carcinogenic substances such as benzene, formaldehyde, benzapyrene, as well as lead and other heavy metals are released into the air. If we take into account that each car releases an average of 10 kg of rubber dust per year, then in cities this amount is 1.5 times, because in urban conditions there is a lot of wear of tires and brake pads as a result of frequent stops and changes in speed. According to data, more than 80% of air pollution in the cities of Tashkent, Samarkand, Bukhara, and Fergana is caused by motor vehicles. The share of transport in air pollution is also increasing in 23 other major cities of Uzbekistan.

Inspection methods and object: The state of atmospheric air pollution on highways with intensive traffic is monitored at stationary and directional monitoring posts. The assessment of the level of atmospheric air pollution on highways and adjacent areas is carried out by determining the main pollutants of exhaust gases (carbon monoxide, nitrogen dioxide, hydrocarbons, formaldehyde, 3,4 benzopyrene, sulfur and lead compounds). As a result of the monitoring, the distribution of concentrations of mixtures (maximum and single) was determined, that is, in residential areas, in the pre-motorway areas, in the residential area.

Test results: Tashkent is one of the largest cities in Central Asia by population. According to 2021 data, the population of Tashkent is 2,694,400, or about 8% of the population of Uzbekistan.One of the main factors polluting the air in Tashkent is motor vehicles. Currently, Tashkent has a fairly dense network of motor roads. The total length of the motor road network in our republic is 184 thousand km, of which 42,654 km are public roads, and 2,755 km are highways. Currently, at more than 65 intersections in Tashkent (more than 30 according to 2010 figures), traffic jams are observed from 8:00 to 9:00 in the morning, from 12:00 to 13:00 in the afternoon, and from 17:00 to 19:00 in the evening for 10-15, sometimes up to 20 minutes. The level of atmospheric air pollution by vehicle exhaust gases also depends on its operating mode, vehicle speed, vehicle traffic intensity, street width and terrain, wind speed, the share of freight and buses in the total traffic flow, and other factors.

The total number of vehicles passing through the intersection of "Beruniy" in Shaykhantohur district of Tashkent city per hour was 4212 (100%), of which the number of light vehicles was 3948 (93.7%), the number of freight vehicles was 96 (2.2%), the number of buses was 120 (2.8%), the number of special vehicles was 30 (0.7%) and the number of other vehicles was 20 (0.5%). On "Navoiy" street, the total number of vehicles passing through the intersection per hour was 7224 (100%), of which the number of light vehicles was 6168 (85.3%), the number of freight

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vehicles was 248 (3.4%), the number of buses was 712 (9.8%), the number of special vehicles was 56 (0.7%) and the number of other vehicles was 20 (0.5%).

The results above show that in terms of the number of cars passing through major intersections within an hour, the Mirzo Ulugbek and Durmon intersections had the highest number of cars passing through.The total number of vehicles passing through the intersection of "Mirzo Ulugbek and Dormon" per hour was -8664 (100%), of which the number of light vehicles was -8248 (95.1%), the number of freight vehicles was -160 (1.8%), the number of buses was -192 (2.2%), the number of special vehicles was -40 (1.4%) and the number of other vehicles was -24 (0.5%). The largest number of buses passing through Navoi Street per hour on major roads in Tashkent was -712, while the smallest number of buses was recorded on Chashtepa Street, i.e. -120. The total number of motor vehicles that passed on Amur Temur Street in one hour was 4212 (100%), of which the number of light vehicles was 3948 (93.7%), the number of cargo vehicles was 96 (2.2%), the number of buses was 120 (2.8%), the number of special vehicles was 30 (0.7%) and other vehicles were 20 (0.5%). The total number of vehicles that passed through the Karasaroy intersection in one hour was -5894 (100%), of which light vehicles -5516 (93.5%), cargo vehicles -119 (2.0%), buses -175 (2.9%), special vehicles -84 (1.7%) and other vehicles -20 (0.5%). The total number of vehicles passing through Choshtepa Street per hour was 4,212 (100%), of which 3,948 were light vehicles (93.7%), 96 were freight vehicles (2.2%), 120 were buses (2.8%), 30 were special vehicles (0.7%), and 20 were other vehicles (0.5%). When analyzing the number of freight vehicles passing through the monitoring areas per hour, it was found that, similar to the number of buses, the largest number of vehicles passed through Navoi Street, namely 248, while the smallest number of freight vehicles passed through Choshtepa Street, namely 96 vehicles.

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