

REQUIREMENTS FOR THE DEGREE OF WASTEWATER TREATMENT OF TEXTILE ENTERPRISES OF THE REPUBLIC OF UZBEKISTAN

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***Abstract.** Technological processes at textile industry enterprises in the Republic of Uzbekistan are very diverse, and therefore the concentrations of impurities contained in industrial wastewater and their qualitative composition can vary widely. Waste water is formed during the processing of raw materials (wool, flax, cotton), bleaching and dyeing of fibers, their reinforcement with adhesives, chemical processing and finishing of fabrics, etc.*

***Keywords:** wastewater, reagent, dyes, textile, coloring technology.*

Waste water from textile industries contains fiber residues, dirt particles, reagents, surfactants, dyes. The amount of pollutants in wastewater depends on the type of fabrics produced (natural or synthetic), coloring technology, solubility of reagents and dyes in water. The volume of wastewater generated depends on the raw materials, the finishing technologies used, as well as the availability of repeated and recycled water supply. In this regard, the specific parameters of wastewater formation are very average. Thus, in the production of acrylic fabrics, about 35 m³ of wastewater is generated per 1 ton of fabrics, woolen fabrics — 70 m³ per 1 ton of fabrics, cotton - 100 m³ per 1 ton of fabrics.

The requirements for the degree of wastewater treatment of textile enterprises are determined primarily by the type of wastewater receiver. The requirements for the degree of purification of wastewater discharged directly into a water body (direct drainage), according to the main parameters, are set out in annex SanPiN No. 0350-17 Sanitary norms and rules for the protection of atmospheric air in populated areas of the Republic of Uzbekistan.

Permissible concentrations of other pollutants are determined by calculations based on the costs of discharged wastewater, water quality standards of a water body, the concentration of a pollutant in the background, the assimilating ability of water bodies, in the manner prescribed by sec. SanPiN No. 0350-17

When wastewater is discharged into the sewage system of a locality, the requirements for the degree of purification and permissible concentrations of pollutants in them are established:

1) contracts between textile enterprises and organizations operating sewage systems of settlements (water utilities, housing and communal services enterprises). The establishment of permissible concentrations of pollutants in industrial wastewater of enterprises when they are discharged into the system of household sewerage of settlements should be based on ensuring the required degree of urban wastewater treatment necessary to ensure the normal operation of urban wastewater treatment facilities and compliance with environmental requirements when discharging treated wastewater into water bodies;

2) a decision of local authorities, which establishes the conditions for receiving industrial wastewater in the sewage network of the settlement, as well as a list of pollutants in wastewater and their permissible concentrations for a particular enterprise that discharges wastewater into the sewer;

3) the provisions given in the annex of the SanPiN No. 0350-17, establishing general requirements for the content of pollutants in industrial wastewater of enterprises diverted to the system of household sewerage of settlements;

4) appendix SanPiN No. 0350-17, which contains requirements for the content of pollutants in industrial wastewater of textile enterprises. Thus, when wastewater is discharged into the domestic sewage system of settlements, the concentrations of pollutants in the industrial wastewater of textile production and textile processing enterprises should not exceed:

- adsorbed organically bound halogens (AOX) — 0.1 mg/dm³;
- sulfide ion — 1.0 mg/dm³;
- total chromium — 0.5 mg/dm³;
- copper — 0.5 mg/dm³;
- nickel — 0.5 mg/dm³;
- zinc — 2.0 mg/dm³;
- tin — 2.0 mg/dm³.

When reusing treated wastewater in the production water supply, the required degree of purification is determined by the requirements of technological processes for the supplied water.

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