At the enterprise the source of hot water supply is its own boiler room.

The collection of rain and industrial wastewater is carried out by three issues in the network of the managing company of the holding BELAVTOMAZ. The domestic waste water is transferred to the management company of the holding company BELAVTOMAZ.

The volume of water consumption in 2016 amounted to 931,1 thousand m3, which is 34,0 % less compared to 2012 (1411,6 thousand m3). Reducing the volume of water consumption with increasing production volumes indicates an improvement in water use in the enterprise.

In 2016, the quality of drinking water was monitored for compliance with organoleptic microbiological indicators. Laboratory studies have confirmed that the quality of drinking water meets the requirements of SanPin 10-124 RB 99 "Drinking water. Hygienic requirements for water quality of centralized drinking water supply systems. Quality control".[1]

Accounting for water consumption and sanitation. Presentation of state statistical reporting 1-water (MNRE). Accounting for the number of water, wastewater and wastewater taken out is carried out in accordance with the agreement on the provision of services for the reception of drains into the rain water drain of JSC "MAZ" and their water disposal from the organization.

The organization with the participation of the managing company of the holding "BELAVTOMAZ" compiled an act of the boundary of the balance and operational belonging between OJSC "MZKT" and the management company of the holding "BELAVTOMAZ" for water supply and sanitation.

Based on the forms of the primary accounting documentation for the use of water, the main power engineering department compiles the "Report on the use of water" in the form of the state statistical reporting 1-water (MNRE) and until January 20 of the next year it is presented by the report of the Ministry of Natural Resources. [2]

The total gross discharge of pollutants was carried out within the established limits. The amount of pollutants allowed to discharge is: permanganate oxidation – 3,76 mg / dm3, suspended substances – 7,88 mg/dm3, petroleum products – 0,04 mg/dm3, BOD-5 – 2,95 mg/dm3.

Discharge of pollutants, exceeding the maximum permissible concentration, was eliminated through the implementation of the following measures: cleaning of wastewater discharge pipelines, grease traps and sedimentation tanks for catching fats and suspended solids.

For purification of the water withdrawn at the enterprise, a gas oil separator with an integrated sand catcher WMOK 20 DN 200 is installed. It is designed for sewage treatment from suspended solids and petroleum products. The oil and gas separator is installed underground.

For underground installation, technical wells and manholes are used. To improve the quality of wastewater treatment in 2017 an oil trap for the primary purification of oil emulsion effluents is planned. [3]

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SELECTION OF MODEL TREES OF SCOTS PINE TO OBTAIN DENDROCHRONOLOGICAL INFORMATION

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The paper discusses the rules that must be followed while selecting a planting model trees for the purpose of subsequent removal of dendrochronological samples (drill cores).

Keywords: Scots pine, dendrochronology, model trees, the annual ring width, radial growth

The individual characteristics of the growth of individual trees are caused by a wide range of micro-climatic, phytocenotic, forest pathology, forestry, recreational impacts on local plants and their habitat. In this way, radial

growth of individual trees, for example, that are affected by pests and diseases during their growth, or experienced severe oppression under the canopy of the forest, may significantly differ from the growth of the whole plantations. For example, cutting trees for forest care different, sometimes even opposite reactions of the growth of trees of different classes of Kraft, and the cutting of technological corridors affects only trees directly adjacent to the roads. [1] Obtaining exact dendrochronological series from growing trees is achieved by averaging the parameters of the annual layer of 10 – 30 trees that is a sufficient sample size in different literary data. Naturally, with the increase of the number of trees increases the sampling accuracy, but increase labor costs, therefore, many researchers propose to differentiate the sample size in specified range according to the variation of the width of the annual ring.

In the selection of model planting trees for getting dendrochronological information you should choose well developed plants of the first tier of the upper classes of Kraft (the dominant and co-ruled).

In order to reduce the variation of the width of the annual layer in the sample and to increase the accuracy of dendrochronological information, you have to refuse the selection of the material from the following trees:

- that having signs of chronic diseases on the trunk and branches (cancer sores, growths, hollow, dry tops of trees, dry branches in the middle and upper parts of the crown, etc.);
- with open or overgrown mechanical damage on the trunk, broken branches and top, or traces of such breaks in the past;
- that tilted, deformed in cross section or curved in the area available for sampling;
- which trunks rotten;
- located on the peculiarities of the microrelief (lowlands and hills, slopes, mounds, trenches, etc.) or close to them;
- close to which there are large stumps, deadwood;
- that are located closer than 25 m to the forest edges and large gaps (power lines, major highways, etc.);

That are located closer than 10 m to the forest roads, clearings, fire prevention breaks. Considering the width of the annual ring in cross section, it is recommended to measure the current annual growth on the radius of each tree in two directions, which are oriented on the sides of the world. Samples of wood were selected perpendicular to the longitudinal axis of the tree trunk on the height of 1,0–1,3 m from the ground surface.

Thus, careful observance of all these rules on the selection of model trees of Scots pine will allow to avoid many mistakes in obtaining and using dendrochronological information.

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RADIATION PROTECTION IN RADIATION THERAPY

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The issues of radiation protection of personnel and patients during radiotherapy in oncological institutions are considered. The appearance of new high-tech linear electron accelerators in radiological clinics posed new tasks for the radiation protection of patients and personnel. At the present time pre-radial preparation of patients has been substantially complicated, aimed at selecting conditions for irradiation of tumors with reduced absorbed doses in the surrounding normal tissues and critical organs. It was required a high accuracy of dose adjustment to tumor sites, verification of dose distributions. Complicated quality control procedures for accelerators used to irradiate patients. Correspondingly, the procedures for radiation control of patient exposure were complicated.

Keywords: radiation therapy, medical exposure, radiation protection, personal, patient, dose.

Medical exposure makes the main contribution to the collective dose of all anthropogenic exposure of the population of all countries. It is a complex kind of medical activity in which, along with physicians, medical physicists, engineers and technicians and specialists in the field of radiation safety participate.

Radiation therapy differs from other types of medical exposure with high values of absorbed dose received by the patients, the most complicated technique for preparation and implementation of irradiation, a more developed system of quality assurance and quality control for gamma-therapeutic devices, medical electron accelerators, simulators and tomographs. Very high requirements are imposed on the accuracy of dose dispensing to patients. More