**Prevention of contamination of natural water basins with cyanotoxins**

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Cyanotoxins are the products of the secondary metabolism of blue-green algae (cyanobacteria), intensively developing in natural water basins during the vegetation perod due to their anthropogenic contamination with inorganic derivatives of nitrogen (ammonia, nitrates, nitrites). As the result of the formation of highly toxic cyanotoxins in these aquatic ecosystems, these water basins cannot be used anymore as the sources for preparation of drinking water, fishing and swimming.

There were several approaches to overcome these problems based either on the absorption of cyanobacteria with various absorptive materials or physico-chemical degradation of cyanotoxins in natural water basins with various chemical reagents. We think that in both types of approaches, in which the additional chemical materials are added into the contaminated water basins, they may become even more contaminated.

This is why we prefer to use the alternative approach, based on the discovery by N.I. Bogdanov (1), who showed, that introducing into the natural water basin before and during the vegetation period the specific type of *Chlorella vulgaris,CFR-111, which* utilizes the inorganic nitrogen derivatives so efficiently, that cyanobacteria do not perform the effective development. And, consequently, there is no intensive contamination of this aquatic ecosystem with cyanotoxins.

We were performing in 2012-2014 the research and pragmatic works on Barvikha ponds, Glukhov pond and Nicol’sky pond in the Moscow region, using *Chlorella vulgaris CFR-111* for the correction of algocenosis in these water basins. The results obtained (2) allow to hope that this approach will be efficient also for the bigger natural water basins.

References.

1. Bogdanov N.I., The Russian Federation Patent, №1751981, **1997** Bulletin *№4.*

2. Petrosyan V.S., Shuvalova E.A., Lukhtanov V.T., Kul’nev V.V., Ecology and Industry of Russia, **2015,** 19(4),36-41.