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NEW APPROACHES TO IMPROVE THE ENVIRONMENTAL SAFETY LEVEL OF PETROLEUM PRODUCTS STORAGE AND TRANSPORTATION IN TANKS

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ABSTRACT

The issue of environmentally safe transportation of petroleum products is urgently important. The experience of past environmental disasters and accidents during the petroleum products transportation proves the possibility of large-scale consequences, which manifest themselves not only in the form of significant economic losses, but also in the destruction of ecosystems and threats to human health.

According to the study, traditional methods of petroleum products storage and transportation do not meet modern environmental requirements and the introduction of innovative technologies is critically important to minimize the negative impact on the environment. It is necessary to assess the impact of petroleum products on the environment under different transportation conditions. As practice shows, the use of modern tank condition monitoring systems and automated storage parameter control systems allows for timely detection of deviations and prevention of emergency situations, which helps reduce the environmental pollution risks [1-2].

It should be noted that the use of new materials with increased corrosion resistance and hermetic tank structures reduces the likelihood of petroleum product leaks and their entry into soil and water resources.

At the same time, it is necessary to emphasize that the implementation of technologies for the utilization and processing of petroleum product waste is also important, which also allows to reduce the volume of hazardous waste and use them as secondary resources [3-4].

Increasing the environmental safety level of storage and transportation of petroleum products in tanks is a complex task that requires an integrated approach. The combination of modern technological solutions will minimize the negative impact on the environment, ensure the sustainable functioning of the oil industry and increase the level of environmental responsibility of enterprises. The implementation of the proposed measures will contribute not only to the preservation of natural resources and public health, but also to increase the economic efficiency of enterprises, strengthening their reputation in the international market and fulfilling Ukraine's international environmental obligations.

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