TO THE ISSUE OF IMPROVING THE SAFETY OF EXPLOITATION OF OIL TRANSPORTATION SYSTEMS

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Ukraine has a great oil transportation system, an extensive network of pipelines which covers almost the entire territory of the country and is able to provide as a transit transfer, and delivery of hydrocarbons to domestic consumers. Today, as a result of various factors, the system is not working at full load. In addition, much of the oil pipelines that were put into exploitation in the sixties and eighties of the twentieth century have already worked out a depreciation period. In this regards, increasingly there is a need for repair works, transferring of the pipelines in safe retention mode, in the absence of cargo streams of the respective directions, or utilization of decommissioned pipeline systems, which remains in the soil, are bring potential environmental hazard. The technology of these exploitation provides for the release main transport systems from process oil and the further cleaning of the internal cavity of the pipeline from paraffin deposits and oil vapor, which under certain conditions, can cause the formation of explosive mixtures [1]. One of the conditions for the prevention of explosions and, accordingly, for the organization of safe work is the dilution of the gas-air mixture with inert gases or water vapor until its ability to engage and cause an explosion is completely eliminated.

So, conducting experimental and theoretical research of energy parameters and criteria assessment of factors that may influence the processes of gas-air mixtures formation and their ability to explode under exploitation conditions of oil transportation systems, is not only appropriate but urgently needed to develop safe technologies, improvement of the corresponding legal documentation and proper organization and carrying out of gas hazardous and emergency works on the objects of main pipeline transportation of oil or products of its processing. After all, human safety during the exploitation of objects of oil and gas companies largely depends on proper implementation of regulatory requirements, compliance with job descriptions and possible ways to implementation in the production processes of scientific achievements, which is a guarantee of timely warning and consequently avoidance of emergency situations.

References

1. NPAOP 0.00-1.21-07. Safety rules for exploitation of main oil pipelines: valid from 2007-05-23 – K.: State committee of Ukraine on industrial safety, labor protection and mining supervision, 2007.– 97 p.