MATHEMATICAL MODELING OF DEFORMATION PROCESSES OF THE MAIN TECHNOLOGICAL EQUIPMENT OF THE CHAMBER RECEIVING AND STARTING THE CLEANING AND DIAGNOSTIC MEANS (PPC SOD) OF THE MAIN PIPELINE

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The article discusses the possibility of using mathematical modeling to assess the state of the main technological equipment of the chamber for receiving and launching cleaning and diagnostic tools (PPC) to predict possible changes in the position of equipment elements from the corresponding design values. Based on the completed planned cycles of geodetic observations, based on the measurement results, calculations were made to build predictive mathematical models for the subsequent study of the deformation processes of the main technological equipment of the chamber for receiving and launching cleaning and diagnostic tools. The mechanisms of sequential processing of the measurement results for the sample belonging to the law of normal distribution by an approximate method and further data preparation by forming statistically homogeneous groups of process implementations in order to build predictive mathematical models are shown. According to the prediction results, deformation marks were identified, for which the process of deformation proceeds with a higher rate of upsetting in comparison with other marks. Recommendations for further geodetic observations are proposed.

Keywords: geodetic observations, main technological equipment, mathematical modeling, predictive model, deformation process

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