

STATISTICAL PROCESS CONTROL APPLIED TO MONITORING AND PH WATER TURBIDITY NO SUPPLY CAMPINA GRANDE- PB

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- **ABSTRACT:** *The hydrological cycles have been significantly altered due to human activities. As a consequence, it has been observed a significant drop in the quality of surface water for human consumption, which impairs the survival and quality of life. To get an assessment so efficient and fast parameters that classify water techniques of statistical process control were used. This work arose from the need for continuous monitoring of some parameters related to water supply provided in the city of Campina Grande. That legislation should be under the Ministry of Health, Ordinance No. 2914/2011 laying down procedures for control and surveillance of water for human consumption. Thus, employed temporal Series models to acquire a structure without the presence of autocorrelation, later applying graphs and individual control Shewhart, exponentially weighted moving average (EWMA), cumulative sum (CUSUM). Avoiding the occurrence of false alarms is important to note that the EWMA chart performed better in water quality monitoring, because of its efficiency, it is sensitive to small variations in the reduction or increase in the levels of pH and turbidity. Analyses were performed using the R software package to aid the forecast.*
- **KEYWORDS:** *Statistical control; CUSUM; EWMA; water quality.*

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