

LAPORAN TUGAS AKHIR

ABSTRAK

EVALUASI DAN PEMELIHARAAN IPA PDAM KOTA MOJOKERTO

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With the increasing demand for water and issues related to the quality of raw water that can be used as a source of clean water, the need for clean water supply to the public is also growing. Furthermore, the remaining problem currently is the lack of clean water supply to the community and reports indicating that the distributed water is not suitable for use. As a result, the quality of drinking water sourced from river water often does not meet the water quality standards established in the PERMENKES RI No. 492 of 2010, and the Regional Drinking Water Company (PDAM) of Mojokerto City is the institution responsible for providing clean water in Mojokerto City. Maintenance work at the Water Treatment Plant (WTP) is crucial for companies handling clean water, especially water treatment companies like PDAM. The maintenance of the pure water treatment installation must be consistently performed to avoid unnecessary costs due to lack of maintenance, prevent significant damage, and ensure product quality. Therefore, the maintenance work for each element must be carefully and accurately planned. This research uses a quantitative approach by testing the quality of raw water and the treated water at the PDAM's Water Treatment Plant in Mojokerto City. Observations and questionnaires were also conducted to determine the standard maintenance of the PDAM's Water Treatment Plant in Mojokerto City. The Water Treatment Process at the Water Treatment Plant includes intake, coagulation, flocculation, sedimentation, filtration, and reservoir units. Based on the water quality test results, the characteristics of raw water from the Brantas River still exceed the specified quality standards, requiring treatment before it can be used for daily activities. The dosage of PAC (Polyaluminum Chloride) used by PDAM Maja Tirta Wates in the coagulation process is 0.0014 L/sec. The quality of distributed water, based on the PERMENKES RI No. 492 of 2010 on the Requirements of Drinking Water Quality, already meets the drinking water standard limits for the physical parameters. The maintenance process of the Water Treatment Plant units already complies with the applicable standards. However, there are still some activities that do not meet the SNI 6775:2008 regarding the Operating Procedures and Maintenance of Packaged Water Treatment Plant Units.

Keywords: Water Treatment Plant, Production water test, Evaluation, and Maintenance.

