

**EVALUATION OF PERFORMANCE OF OIL REFINERY WASTEWATER  
TREATMENT INSTALLATION IN SEPARATION OF OIL AND FAT AT  
PUSDIKLAT MIGAS (OIL AND GAS EDUCATION AND TRAINING  
CENTER) CEPU AND ITS IMPACT TOWARD THE QUALITY OF RIVER  
WATER OF BENGAWAN SOLO**

**(Karangboyo Village, Cepu City, Blora Regency, Central Java)**

**BY**

**AUXILIADORA DO ROSARIO COELHO .M. DE OLIVIERA  
NIM. 114.080.003**

**ABSTRACT**

Petroleum is of the fossil fuels and chemical substances which are categorized as Hazardous and Toxic Substance, which is why special treatments are essential in handling petroleum. PUSDIKLAT MIGAS (Oil And Gas Education And Training Center) Cepu is of the the State-Owned Enterprises which refine petroleum which produce waste which is then processed at oil refinery wastewater treatment installation before being dumped to environment. The aim of the researcher is to find the concentration of wastewater treatment installation inlet and outlet unit pollutants and the way to treat, and to find the performance of oil refinery wastewater treatment installation and the treatment process.

The method used by the researcher was survey and laboratory analysis methods, the parameter used for whole laboratory analysis that is temperature, pH, BOD, COD, oil and fat, sulfide (as H<sub>2</sub>S), ammonia (as NH<sub>3</sub>-N) and total phenol. All were below quality standard, Based on PerMenLH (Environmental Ministerial Regulation) No.10 year 2010 on wastewater quality standard for enterprise and/or oil and gas, and geothermal activities.

Performance of API 1 (American Petroleum Institute) with elimination of oil and fat of 7.01% to be able to help CPI unit, performance of CPI (Corrugated Plate Inceptor) elimination of oil and fat of 93.84% is still good and performance of API 2 (American Petroleum Institute) in elimination of the oil and fat of 22.22% as a perfection of CPI unit.

**Keywords:** Performance of Oil Refinery Wastewater Treatment Installation, Wastewater Quality, River Water.