## **ABSTRACT**

Mechanical and Electrical Installation Project in PT. AHM New Plant Cikarang include electricity installation and pair of water tube installation. PT. AHM chooses a contractor to build it, which is PT. Indah Yamamitra Persada. Based on the agreement between PT. AHM as an owner and PT. Indah Yamamitra Persada as contractor, cost of the project were Rp 6.183.000.000,00 and project must be finished match time duration which had been agreed that is for 37 days. At project implementation, there are some risks threaten for achieve project objective, well risk threaten schedule, cost, and performance. Besides risk, to reach the target PT. Indah Yamamitra Persada must be do the project as well as it can and the process must be control to avoid something that make it unmatching between plan and realization. A Simple evaluation that had been done by PT. Indah Yamamitra Persada, still under estimated, so in this final project, arranger makes a project evaluation design based by project risk management analysis and performance analysis method.

Generally, there are several things to perform within that trouble-shooting in five phases, that are identifying phase, researching phase, data processing phase, analyzing phase and project controlling, and conclusion and suggestion phase. Identifying phase includes determining problems and goals which want to be reached. Literature and object research study are held in researching phase. Data processing phase includes data collecting and project data processing. The next phase is analyzing and project controlling phase, analysis weekly using variance and performance analyzing, risk management, and project evaluation design. After finishing analysis, the next phase is conclusion and suggestion phase.

At this research, risks are identified by interview method to project manager afterwards that risks are quantified using risk frequently and risk impact. Result from this processing resulting risk point that will certain risk ranking. As a kind of risks controlling are made Project Risk Management Plan. Performance Analysis Method is done by comparing plan value (BCWS) with realization value (ACWP), and there is BCWP value which is an achievement value match with finished work to provided budget in time and cost aspect. The comparison is started by counting of variance and performance one by one in every week on every sub location (CV, SV, CPI, SPI), then analyze counting result. Analysis is also based by observation from project progress by S curve, network diagram and gantt chart. The results of variance analize that happen been basic arranging the steps of controlling risk management until Project Risk Management Plan is renewed every week.

Conclusion that is obtained from this research is this project had profit efficiency with total profit efficiency is Rp.767.401.448,00. The material aspect is most dominant in this project, because resource had the biggest value, therefore material had a big influence to project performance. Delay which is happened in every week is caused by some factors. There is material delay factor, resource amount is not match with what is planned, or amendment changes. At weeks after happen late, PT. Indah Yamamitra Persada make covering for cover up this weakness, with increasing or overtime work employees and increase material.

Keywords: Project Evaluation, Project Risk Management, Variance Analysis, Performance Analysis, and Project Risk Management Plan.