

ABSTRACT

PT XXY is a company engaged in manufacturing and is one of the cement manufacturers in Indonesia. PT XXY has several projects, one of which is the Additional Bag Filter Bin#3 project. In the implementation, the project experienced delays in the fabrication phase due to the identification of risks that were not explained in detail for each activity. Risk is anything that has uncertainty so that it has an impact.

The purpose of this final project is to design a risk register and risk response on a project using a qualitative method. The project manager provides a risk assessment of the probability for risk occurrence and risk impact based on aspects of time, cost, quality, safety & security, and project objectives. The risk is then processed using a probability impact matrix to determine the severity of each risk. Risks with medium and high severity include in risk priority and then processed using sensitivity analysis, represented in the form of a tornado diagram to determine the risk that has the most influence on one of the project objectives, namely cost. Prioritized risks will be given a contingency reserve in the form of time or cost allocation to reduce the impact of significant risks. A risk response plan also gives to every risk that exists in the project.

The identified risks are 110 risks with 106 negative risks (threat) and 4 positive risks (opportunity). The processing resulted in 21 risks with low severity, 63 with medium severity, and 26 with high severity. There are 91 risks out of the 110 that have been identified that have been given a mitigate response. The design of the risk register and risk response can help the project team to minimize the occurrence of risks in each project activity and increase the success of other similar projects.

Keywords: Risk Register, Qualitative Method, Sensitivity Analysis, Plan Risk Response, Contingency Reserve