## ABSTRACT

Education and Training Center for Mineral and Coal is the only government institution in Indonesia that provides education and training services in the field of mineral and coal technology. So Education and Training Center for Mineral and Coal should keep the institution's image by maintaining and improving the trust of customers for business continuity.

In order to maintain and improve its service quality, Education and Training Center for Mineral and Coal is now implementing post-training evaluation with use of questionnaires. From the results of post-training evaluation in 2009, there were assessment that state "Less Good" and "No Good" on technical training. In addition, there are also suggestions and criticisms gained from training participants. Therefore, it is necessary to do an improvement of technical training quality service to overcome the problem, particularly acquirement training and competency assessment for beginner operational supervisor in mining activities

Lean Sigma is a method used in this research in order to find and reduce factors that cause waste, so it can improve the quality dramatically to get the best efficiency (lean) and six-sigma levels of performance (six sigma). This research consists of Define, Measure, Analyze, and improve phases.

Based on the research, the critical waste found in the technical education and training services are waste defect and EHS (Environmental, Health, and Safety). The sigma levels achievement of these two critical wastes are defect's waste sigma level at 2.2 and EHS's waste (Environmental, Health, and Safety) sigma levels at 2.07. The performance achievement of technical education and training are still relatively low because of the achievement levels are still far from six sigma. The cause of those critical waste is the incompatibility between modules with instructors delivery, cleanliness of the homestead is less, and others. Technical training services has an efficiency of existing processes at 94.1%.

Improvements given as corrective actions include repairing the process using streamlining the process of training in class and re-registration process and the opening ceremony of training. In addition, by conducting a follow-on training evaluation results regarding the availability and suitability of training modules and provide direction and supervision of cleaning staff homestead.

Key words: quality, service, lean sigma, critical waste, sigma level.