ABSTRACT

PT. Aneka Banusakti is a manufacture company that produces cylinder liner. As a supplier for well known OEM (Original Equipment Manufacture) company like Mitsubishi, Daihatsu, General Motor, Honda and others, PT. Aneka Banusakti must have a good control system of quality. By control system of quality, PT. Aneka Banusakti could keep the stability of product quality. This research is using 6 sigma approach as a control system of quality on cylinder liner type FE100 for Mitsubishi. 7 Tools is used as a analyzer media to determine defects on foundry and machining processes called critical to quality (CTQ). Brainstorming methods and FMEA are used to gaining cause and preventive/corrective action. On foundry process, porous defect has identified as a major defect, while spot defect is a major defect on machining process. Following corrective action will be focus on both defects. Early sigma point of foundry process (3.5 sigma) and machining process (3.6 sigma) were used as a baseline for corrective actions. The recommendation action is not only will be decreasing the quantity of repair, rework, and scrap but also DPMO as increasing sigma point. The goal of six sigma implementation is to improve sigma point from both process at 3.7 sigma or equally improve value sigma of foundry process as 0.2 sigma and machining process as 0.1 sigma.

Key words: FMEA, Six Sigma, DPMO, 7 tools and CTQ