ABSTRACT

Optical fiber splicing can affect the security and quality of fiber optic communication networks. The resulting attenuation value is influenced by various things, one of which is the effect of the splicing on the optical fiber itself. Influences such as the position of the Fusion Splicer that is not appropriate or vibrating, uneven core surfaces, and dirt on the optical fiber core that is visible on the Fusion Splicer tool can affect the quality of the splicing results, therefore optical fiber splicing activities need to be carried out properly. A test scenario was created by taking measurements and comparisons after the splicing of the TAN - MRY fiber optic link. After comparing the measurement data after the splicing with the previous data, it was found that there was a difference in attenuation on the link. From the measurement results on the core 35, 36, 37, and 38 at optical fiber link TAN - MRY with the highest attenuation after splicing is 9,88 at core 37, it can be concluded that there is an effect of the resulting splicing even though it is not that significant, this is due to the standardization of the company PT Telkom Indonesia (Persero) and internationally from ITU-T related to the maximum attenuation of Fusion Splice and maximum attenuation per KM of an optical fiber core that needs to be applied for adequate transmission security.

Keywords : Splicing, Fusion Splice, Attenuation, FO Cut.