

ABSTRAK

Studi Analisis Kerusakan Stator Winding Generator Unit#1 Pada PT. PJB UBJOM PLTU Indramayu

PLTU atau Pembangkit Listrik Tenaga Uap Indramayu merupakan proyek percepatan energi 10.000 MW Tahap 1, pembangkit dengan bahan bakar batu bara mempunyai kapasitas terpasang 3 x 330 MW, terletak pada desa sumur adem, kecamatan sukra kabupaten indramayu, jawa barat. Unit yang sudah beroperasi setelah *FYI* (*First Year Inspection*) pada tahun 2011 hingga sekarang.

PLTU Indramayu telah mengalami beberapa kegagalan peralatan dalam beroperasi, namun yang terbesar adalah peralatan utama yaitu *Generator* pada *Main Turbine Generator*. Salah satu permasalahan yang terjadi pada *Generator* adalah kerusakan *stator winding*, kerusakan *stator winding* terjadi akibat *over heating*, sehingga *generator* proteksi bekerja dengan sinyal *generator earth fault* (64S).

Temperature *stator winding* mempunyai batas nilai sebesar 65°C, gagalnya sistem pendinginan di *stator winding* bisa terjadi dengan adanya penumpukan material asing atau *fouling* pada *line cooling stator winding*. Data tersebut didapatkan dengan studi analisis kerusakan serta melakukan pengujian peralatan pada *stator winding*, dengan dilakukan *Visual cek*, *HV Test Assement*, dan *Flow rate* pada *line stator cooling generator*. Hasil dari analisa ini ialah *Life Cycle Cost* dalam *retrofit stator winding generator*

Kata Kunci : *Stator Winding, Over Heating, Studi Analisis*

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ABSTRACT

Damage Analysis Studies Generator Stator Winding Unit # 1 At PT. PJB UBJOM PLTU Indramayu

Power plant fired power plant in Indramayu an acceleration of energy projects of 10,000 MW Phase 1, power plants with coal fuel has an installed capacity of 3 x 330 MW, located in the village wells cool, sub Shukra indramayu district, West Java. Units already operating after FYI (First Year Inspection) in the year 2011 until now.

Indramayu have experienced some failure of equipment to operate, but the biggest is the main equipment in the Main Generator Turbine Generator. One of the problems that occurred in the generator stator winding is damage, damage to the stator winding caused by over-heating, so that the generator protection worked with earth fault signal generator (64S).

Stator winding temperature limit has a value of 65°C , the failure of the cooling system in the stator winding could occur with the buildup of foreign materials or fouling in cooling the stator winding line. The data obtained by the study analysis of the damage as well as testing equipment in the stator winding, with Visual checks carried out, HV Test assesment, and Flow rate in line generator stator cooling. The results of this analysis is the Life Cycle Cost in retrofit generator stator winding

Keywords: Stator Winding, Over Heating, Study Analysis

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