

ABSTRAK

Sistem proteksi pembangkit ataupun transmisi harus bekerja sesuai syaratnya diantaranya cepat bereaksi jika terjadi gangguan, selektif, peka/sensitif terhadap gangguan, andal/reliability, stabilitas dan ekonomis. Jika syarat tersebut tidak terpenuhi, maka akan mempengaruhi kinerja pembangkit.

Dengan menganalisa besar arus gangguan dan hasil pencarian data gangguan baik di sisi GIS 150 kV maupun sisi PLTU 2 banten labuan. Diharapkan diketahui penyebab gangguan di Transmisi 150 kV Saketi dan proteksi apa yang menyebabkan pembangkit trip. Kehandalan suatu pembangkit sangat penting karena jika terjadi gangguan akan menyebabkan pembangkit kehilangan kesempatan produksi dan untuk start kembali membutuhkan waktu dan biaya yang tidak sedikit.

Berdasarkan analisa dan data, gangguan disebabkan oleh hubung singkat 3 fasa. Tetapi PLTU 2 Banten Labuan trip bukan dari proteksi relay di transmisi, Pembangkit trip karena boiler trip terlebih dahulu oleh sinyal kehilangan semua bahan bakar atau semua coal feeder trip kemudian turbin trip karena sinyal MFT dan generator trip oleh *reverse power relay*. Perlu evaluasi kerja dari proteksi rele jarak yang menyebabkan PMT 5AB4-5B3-5B4 bekerja tapi agak lambat.

Keywords: Analisa, Hubung Singkat, Proteksi, Bahan Bakar.

ABSTRACT

Power Plants or Transmission protection system should work according to the conditions of which react quickly in case of disturbance, selective, sensitive / insensitive to disturbance, reliable / reliability, stability economical. If conditions are not met, it will affect plants performance.

By analyzing the results of the fault current and disturbance data search both on the 150 kV GIS and the Power Plants. Expected to know the cause of disturbance in the 150 kV Transmission Saketi 2 and protection of what caused the plants trip. Reliability of a plants is very important because if an interruption occurs will cause the plants to lose of opportunity to production electricity and to start again takes time and no small cost.

Based on the analysis and data, disturbance caused by the 3-phase short circuit. But PLTU 2 Banten Labuan trip instead of the protection relay in the transmission, Plant trip due to boiler trip in advance by the signal loss all fuel or all of coal feeder trip then the turbine trip due to MFT and generator trip signal by the reverse power relay. Need to evaluate the work of the distance protection relay that causes PMT 5AB4-5B3-5B4 work but somewhat slow.

Keywords : Analysis, Short Circuit, Protection, Fuels.