ABSTRAK

Penanganan saat terjadi gangguan Circulating Water Pump (CWP) pada PLTU Rembang dilakukan secara manual oleh operator yang bertugas, karena CWP tidak termasuk dalam logic runback. Rawan berdampak unit trip jika penanganannya tidak cepat dan tepat, karena terjadi ketidak seimbangan antara media yang akan didinginkan (uap yang masuk ke condenser) dengan pendinginnya sendiri (condenser).

Runback berfungsi sebagai proteksi unit, pada saat unit running tiba-tiba mengalami suatu permasalahan dan ada salah satu peralatan unit trip maka runback akan aktif, untuk menstabilkan keseimbangan sistem yang mengalami penyimpangan karena ada salah satu peralatan vital yang mengalami gangguan dan menyebabkan trip. 5 peralatan yang menjadi pokok terjadinya runback di PLTU Rembang, diantaranya : Induced Draft Fan (IDF), Forced Draft Fan (FDF), Primary Air Fan (PAF), Mill dan Boiler Feedwater Pump Turbin(BFPT) / Boiler Feedwater Pump Motor (BFPM). Penambahan runback CWP pada sistem runback PLTU Rembang menambah kehandalan sistem runback PLTU Rembang, karena sistem runback akan secara otomatis menyeimbangkan sistem yang terjadi gangguan.

Penambahan runback akan membantu menstabilkan sistem secara cepat agar terhindar dari unit pembangkit trip yang akan berpengaruh ke kinerja unit, kesempatan memproduksi energi listrik, dan juga pengeluaran biaya start unit. Unit jika trip dengan nilai hitungan 911 rupiah/kwh(Kementerian Energi dan Sumber Daya Mineral, 2017)*, maka nilai produksi yang hilang sebesar* ***273,3 juta/jam*** *untuk 1 unit yang dapat memproduksi 300 MW, dan jika unit runback maka nilai produksi yang hilang 50% (****136,8 juta/jam****) dari unit trip.*

Kata kunci : Runback, Circulating Water Pump (CWP), Kehandalan unit PLTU Rembang

ABSTRACT

Handling in the event of interference Circulating Water Pump (CWP) at the Rembang power plant is done manually by the operator on duty, because CWP is not included in the logic runback. Prone to impact the trip unit if the handling is not fast and precise, because there is an imbalance between the media to be cooled (steam entering the condenser) with the cooler itself (condenser).

Runback functions as a unit protection, when the unit running suddenly experiences a problem and there is one unit trip equipment, the runback will be active, to stabilize the balance of the system that has a deviation because there is one vital equipment that is experiencing interference and causing trip. 5 equipment that became the main cause of the runback at the Rembang power plant, including: Induced Draft Fan (IDF), Forced Draft Fan (FDF), Primary Air Fan (PAF), Mill and Turbine Feedwater Pump Boilers (BFPT) / Boiler Feedwater Pump Motor (BFPM)). The addition of CWP runback to the Rembang PLTU runback system increases the reliability of the Rembang PLTU runback system, because the runback system will automatically balance the system that is interrupted.

The addition of a runback will help stabilize the system quickly so as to avoid trip generation units which will affect the unit's performance, the opportunity to produce electricity, and also the start unit cost. If the unit trips with a calculated value of 911 rupiah / kwh (Ministry of Energy and Mineral Resources, 2017), then the lost production value is 273.3 million / hour for 1 unit that can produce 300 MW, and if the runback unit is the production value lost 50% (136.8 million / hour) of unit trips.

Keywords: Runback, Circulating Water Pump (CWP), Rembang power plant unit reliability