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LAMPIRAN

Lampiran 1. Laporan Kerusakan

INDONESIA POWER

LAPORAN GANGGUAN / KERUSAKAN PEMBANGKIT UNIT 1

Tanggal 25 November 2021

Merek	: Nanjing Turbine & Electric Machinery	Daya mampu	: 50 MW
Tipe	: QFW-60-2	JSMO/MI/SE	:
Nomor seri	: 200902004	PLTU	: Barru
Daya Terpasang	: 50 MW	Sektor/Area	: Tello

1. Waktu Kejadian Gangguan : 25 November 2021 pukul 09:00 WITA

2. Urutan Kejadian Gangguan : * 25 November 2021 pukul [08:05] unit 1 beroperasi normal dengan parameter operasi sebagai berikut :

Beban Bruto	: 41.9 MW
Feed Water Flow	: 217.43 t/h
Main Steam Flow	: 182.86 t/h
Main Steam Pressure	: 8.76 MPa
Main Steam Temperature	: 539.7 'C
Upper Pressure Furnace	: -82.93 Pa
Temp. Furnace Side A	: 896.9 'C
Temp. Furnace Side B	: 916.6 'C
Pressure Windbox Furnace	: 13.2 kPa

* 25 November 2021 pukul [09:00] upper furnace pressure hunting ke + 700 Pa, disertai terjadi kenaikan pemakaian air, selisih antara *feed water flow* dengan *main steam flow* sebanyak 35 t/h dengan parameter operasi sebagai berikut :

Beban Bruto	: 41.9 MW
Feed Water Flow	: 217.43 t/h
Main Steam Flow	: 182.86 t/h
Main Steam Pressure	: 8.76 MPa
Main Steam Temperature	: 539.7 'C
Upper Pressure Furnace	: + 700 Pa
Temp. Furnace Side A	: 896.9 'C
Temp. Furnace Side B	: 916.6 'C
Pressure Windbox Furnace	: 13.2 kPa

* 25 November 2021 pukul [22:00] beban diturunkan perlahan guna mengamankan parameter operasi, namun perbandingan feedwater flow dan main steam flow mencapai 33 t/h, dengan parameter operasi sebagai berikut :

Beban Bruto	: 23.98 MW
Feed Water Flow	: 147.64 t/h
Main Steam Flow	: 114.64 t/h
Main Steam Pressure	: 7.37 MPa
Main Steam Temperature	: 515.9 'C
Upper Pressure Furnace	: -80.1 Pa
Temp. Furnace Side A	: 846.2 'C
Temp. Furnace Side B	: 883.0 'C
Pressure Windbox Furnace	: 13.1 kPa

* 25 November 2021 pukul [23:22] unit 1 lepas parallel

3. Indikasi Gangguan : * Kenaikan pressure upper furnace dari -66.29 Pa ke +2189.91 Pa
* Penurunan pressure windbox dari 12.7 kPa ke 13.7 kPa
* Selisih flow feedwater dengan flow main steam hingga 42.7 t/h
* Level hotweel dan deaerator drop karena pemakaian air tinggi

4. Penyebab Gangguan : Kebocoran air di furnace

5. Peralatan yang terganggu/rusak : Boiler

6. Usaha-usaha pemulihan : Stop unit untuk perbaikan di area boiler

7. Lama pemulihan : 12 hari

8. Akibat gangguan terhadap sistem : Supply daya ke sistem jaringan terganggu, sehingga sistem kekurangan daya

9. Kerugian akibat gangguan : Produksi listrik Unit 1 terhenti (Tidak dapat men-*supply* daya ke sistem jaringan)

Supervisor Operasi PLTU Barru OMU	**Manager Unit PLTU Barru OMU**
Ari Adi Sasmita	**Atry Pribadi**

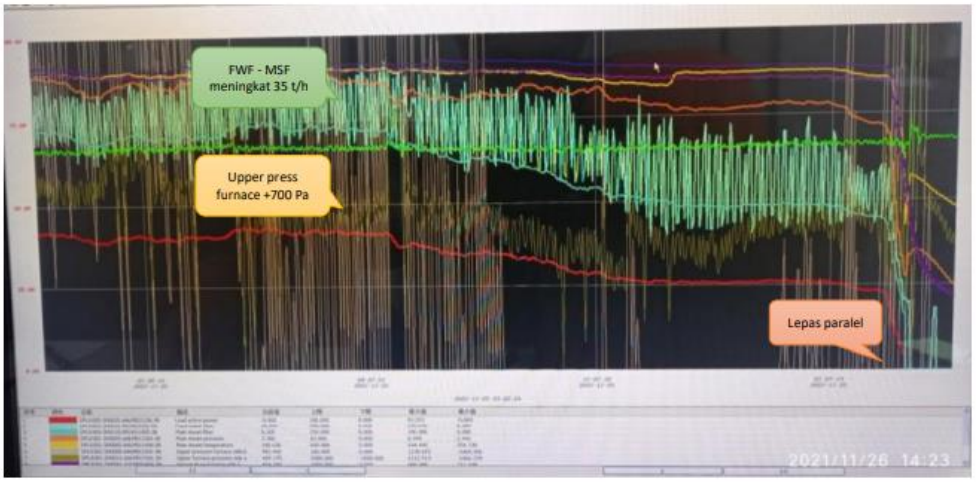
INDONESIA POWER

LAPORAN GANGGUAN / KERUSAKAN PEMBANGKIT UNIT 1

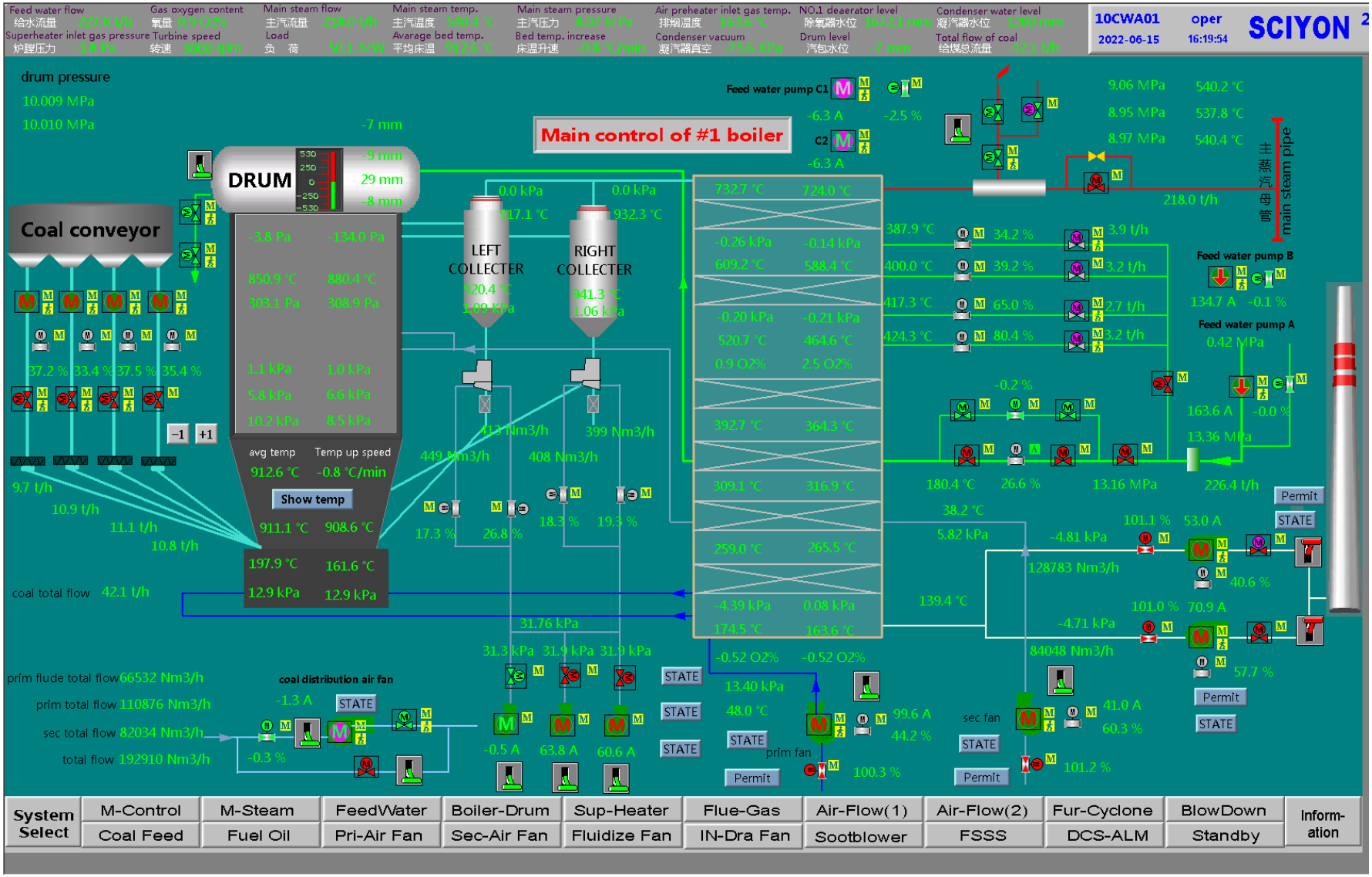
Tanggal 25 November 2021

Merek	: Nanjing Turbine & Electric Machinery	Daya mampu	: 50 MW
Tipe	: QFW-60-2	JSMO/MI/SE	:
Nomor seri	: 200902004	PLTU	: Barru
Daya Terpasang	: 60 MW	Sektor/Area	: Tello

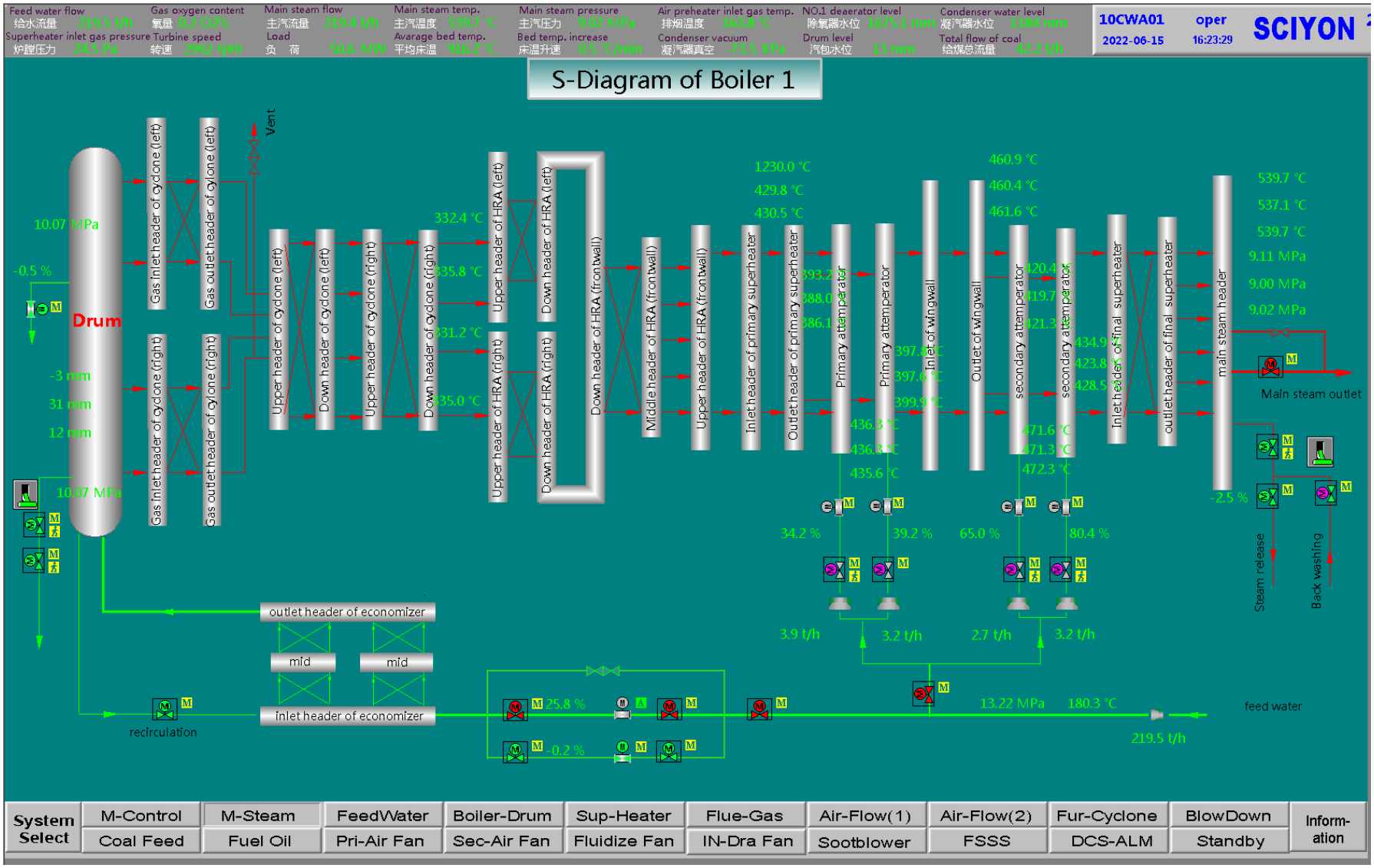
Lampiran Saat operasi tanggal 25-26 November 2021 pukul 00.00 wita hingga pukul 00.00 wita



Lampiran 2. Diagram skema *Boiler* dan parameter normal operasi di beban Maksimal 50 MW



Lampiran 3. Skema Diagram Main Steam *Boiler* dan parameter normal operasi di beban Maksimal 50 MW



Lampiran 4. Line Pipa *Boiler*