P78 PRODUCTION SHIFT REPORT

Date : **1 Maret 2025 (Saturday)**
Reported by : **Ade Kurniawan / Banariyanto / Agus Mustofa**

TIME	DESCRIPTION	REMARK
	Process Safety and Environment Information	
20-Nov	Reading accumulation CEMS at DCS is higher than accumulation at CEMS dashboard. It will evaluate calculation at DCS and comparison Flue gas flow rate Unit7	Update calculation on DCS Waiting Unit Shutdown
09:00(27-Peb)	One of fire sprinkler was actuated at U8 Mezzanine floor, suspect from steam exposure leakage 8BS-SMV-104. Temporary plugged.	Information

Limit	NOX		CO	SO2		Particulate	Mercury (Hg)
	550 mg/Nm³	35,500 kg/d	44,000 kg/d	550 mg/Nm³	5,064 kg/d	100 mg/Nm³	0.03 mg/Nm³
Unit 7	304.4	7832.3	517.4	173.3	3001.9	6.01	0.00164
Unit 8	373.6	15643.9	7858.2	161.4	4668.2	20.49	0.00017

Discharge Canal Temperature at DC max= 38.9°C
Scrubber basin Outlet PH (DCS) Min/Mx: 6.51 / 6.91
WWTP equalization basin: level A/B: 16% / 46%

U 7 Technical Generation Losses	***U 8 Technical Generation Losses***
Total: 0 MWH	**Total: 0 MWH**

07-Feb	Declare U7: 640 NMW.
09:15(27-Peb)	Declare U8: 630 MW, U7:640 MW (Station: 1270 MW)

Unit # 7: ***Days of continues operation: 49 Days.***
Last Maintenance Outage (MO) 10-Jan 2025, @14:54 SWGR-A 13.8 trip

Last Sync Sunday, 10-Jan-2025 @19:56

U7 load Max: 633 MW(GROSS) ; Min: 357 MW(GROSS) ; Average: 411 MW(GROSS)
U7 load Max: 598 MW(NET) ; Min: 325 MW(NET) ; Average: 381 MW(NET)
NPHR Target / Achieved: 2682/ 2776(Loss: 3.51%), Eta Pro:2688/ 2767 kcal/kWh (Loss: 2.94%)
Un-burn carbon Fly ash and Bottom ash= 0.17% (25-Feb) and 2.80% (25-Feb)
Furnace temperature at load 381 MW(Gross) average 1005 °C (max: 1063 °C at inspect. hole #15)
Minimize R/H spray. Average MS/RH steam temperature 535 / 521 °C
Turbine 8X vibration max 31 µm at MS/RHT 536 / 526 °C load 376 GMW at 05:52
Average vibration 8x / 7X for 24 hours were: 25 / 59 µm
U7 Frequency of transfer: A:4;B: 5 ;C: 0;D: 5;E: 0;F: 2
500KV GSUT DGA max / average was 16.6 / 16.4 ppm
Make up:830 tons (open continuous blowdown valve 5 turns)
Soot blower: **74** tons, SW pyrites: **201** tons.
Soot blower skip*:* 537(jammed 50%).
Sootblowers special operations: 420, 421, 422 / 470, 471, 472 (Screen tube), 427/477-428/478-429/479-430/480 (LTSH Cavity) run every 1st and 15th days of the month (2 times/month).
Clinker Condition at Hole No. –

C1	C2	W	10	11	12	13	14	15	16	17	18	E	C3	C4
C	C	C	-	1	C	1	4	2	2	1	-	C	C	C

***1**: Spotty, **2**:<5 cm, **3**: 5>10 cm, **4**: >10<15 cm, **5**: >15cm, **C**: Clean*

Coal Burn IOL

23:00	05:00	11:00	17:00
CLHV+ADR+ CH3SF	CLHV+ADR+ CH3SF	CMHV+BAS+ CH3SF	CMHV+BAS+ CH3SF
4675	4675	4675	4675
29.46	29.46	29.46	29.46
4.82	4.82	4.82	4.82
0.43	0.43	0.43	0.43
49	49	49	49

Coal Transfer Plan

23:00	5:00	11:00	17:00
CLHV50% + CH3SF20% + CMHV30%	CLHV50% + CH3SF20% + CMHV30%	CLHV50% + CH3SF20% + CMHV30%	CLHV50% + CH3SF20% + CMHV30%
4726.9	4726.9	4726.9	4726.9
30.24	30.24	30.24	30.24
3.79	3.79	3.79	3.79
0.39	0.39	0.39	0.39
51.1	51.1	51.1	51.1

UNIT 7 PROBLEMS

16-Sep	1. Analyzer Transmitter (OXYGEN) A, 7BG-AT-562A often Alarm Deviation (XMTR A < B deviation more than 1.5%).	Under Investigation by performance team
18-Sep	2. **Found load decrease disruption when conducted closure test at CRV#2**. Load drop from 628 GWM to 407 GWM due to IV#1 & RSV#1 suddenly closing when test completed for RSV#2 & IV #2	**SR113756** (under investigation Engineering) CRV#2 **postpone** when RPT TG01
06-Nov	3. 7ID-MOV-729A Dilution Pump MOV found gear box crack	Waiting material/WO. 2409051037
06-Nov	4. Found SAH 7A motor drive vibration IB axial side show increase indication. Info by CBM team Replace Fluid Coupling and perform Motor solo run test during unit shutdown.	Monitoring WPCOND/WO.2411071521
22-Nov	5. **PA fan 7B vibration motor I-B bearing has increasing value (1,7 Mils), the event is same time with U8 trip**. @**12:00 (01-Jan)**, try to Bias PAF 7B until (-60%) at Load 250 NMW, the Demand of PAF 7A/B still (85/22 %); air Flow (109/43); air Press (8,4/8,7 kPa, **trip point** = 6,25 kPa); PA to furnace DP = 8,8 kPa, **trip point** = 5 kPa, delay 5 sec; with Coal Properties TM=27.3%, and CV=4803 kcal/kg. (70% CMHV + 30% CHHV). @09-Jan Fan bearing inspections	Monitoring **Trip point**: 3.0 Mils
05-Jan	6. **Found Net MW indication on DCS intermittently hunting.** @**please also monitor CV#1 ripple when Low Load (350 NMW) at position 35% opening (last LVDT CV-1 cleaning 8-Jan-2025).** 05-Feb Perform closure test, stop the test due to Found CV#1&2 ripple, CV#1 effect load drop until 30 MW CV#2 effect Fuel master drop 62 to 55 % and load decrease 594 Nmw to 531 Nmw 19-Feb Replace LVDT CV-1 done, If CV test give interval until press stable.	WO.2412171022
04-Jan	7. **Sea water leaks at condenser outer loop inletside**. @ Daily check the leaks rate by Chemist. Leakraate: 2.8 liter per hour. @ **11:40 (22-Feb)** Open continuous blowdown valve 3 turns, BB cat conductivity 1.2 Us/cm.	Monitoring Closed Blowdown valve when BB cation cond 0.5 uS/cm
24-Dec	8. **FGD Operation issue:** • 26-Jan Restart U7 FGD use Absorber Pump C Flow FGD max 6500t/h (suspect pump performance has degraded). • *26-Jan.CFC-MOV-802 hard to open during Absorber pump B start (SR117345)*	Monitoring/Waiting plant condition WO.2501281011
31-Jan	9. **Found Pulverizer seal air Fan 7A (7BF-FAN-620A) high vibration.** Running test result after regreasing and adding shim between Outer and house bearing, the fan vibration is still high. (put as Emergency Standby). Bearing spare available, plan repair on unit shutdown due damper passing.	

Runtest
Vibration (RMS)(mm/s)

	6/1/2025	31-01-2025
Fan IBV	3.8	3.4
Fan IBH	3.1	3.8
Fan OBV	9.2	8.1
Fan OBH	6.4	5.7
Fan OBAX	6.7	10.5

10:26 (02-Feb)	10. **Generator Hydrogen Leakage** Shut Valve 7HG-ISV-120A/B, 7HG-ISV-130 to check leak rate H2 (Initial Pressure Generator 5.094 Bar, Purity 98.457%) & CHG-V-537 Initial Press H2 Vessel 6.2 Bar. @ **20:00** found H2 leakage at **7GH-RV-300** waiting material expected end of April 2025 (**WO : 2502071118**, ST014412)	SR117476 (RTV-310B)
17:00 (11-Feb)	11. **Mill-7C HAG passing** Stop Mill 7C for PdM but fail isolation due to HAG fail to shut. Found suspect HAG passing. Temporary action force opening of CAD from 5% to 19% for additional cooling when mill in standby (currently reading MOT decrease from 111 degC to 89 degC) @13:30 join observation result: HAG passing @14:02 restart Mill 7C after ensure no Blockage from feed pipe, see from Light glass @15:30 Strategic Operation, recommended to Standby Mill 7C (as result Meeting – 13 Feb)	Information
01-Mar	12. Found Valve 7CM-MOV-455 discrepancy alarm, Status WPCond for repair.	WO.2501141017/ WPCond
	13. **Unit 7 High Priority Alarm:** • None	
	U7 HEAT RATE OPTIMIZATION	
	1. Opening sofa damper C# 1&2 wider than C#3&4 for direct the combustion to the center.	
	2. Condenser Vacuum improvement and leak investigation (drain valve inspection).	PIC: pak Sapto PPE
	3. Supply seal water U#7SSCC Bottom Ash some reuse Effluent Water.	
	UNIT 7 ACTIVITIES	
24-Jan	1. Open continuous blowdown valve 3 turns, BB cat conductivity 1.2 Us/cm. @11:40 (22-Feb) Add opening continuous blowdown valve 5 turns.	Monitoring, Req by Chemist
09:00 (26-Peb)	2. Change over MT EH oil due oil filter 7A high DP alarm.	Waiting spare
00:30-14:00	3. Found leakage at casing condenser water box innerloop (south side). DONE, install additional plate	Call out, Complete
08:00	4. RPT Record Gas SF6 at 150 kV and 500 kV, lower press = 0,52 Mpa	Complete
16:30	5. Pdm cleaning Feeder 7E (clean).	
00:30	6. Pdm cleaning feeder 7A (clean)	
01:00	7. Pdm cleaning feeder 7D (clean)	
03:00(02-Mar)	8. 500 KV phase A (0%), B (0%) and C (0%) arching.	Information
05:00(02-Mar))	9. Fill all of Coal Silo with CLHV50% + CH3SF20% + CMHV30%	Information
	Unit # 8: ***Days of continues operation: 04 Days*** *Last forced/ Planned outage/ Trip: 24-Feb-2025. @ 21:44 Unit Trip due to Furnace Draft press High High active, due to FGD Trip, all Damper Closed and Hydraulic Oil Skid Trip at Load 550 NMW found all FGD instrument bad quality indication.Investigation result found Digital Output Module fuse was blown.*	*Last Sync Tuesday, 25-Feb-2025 @02:13*
	U8 load Max: 653 MW(GROSS) ; Min: 357 MW(GROSS) ; Average: 532 MW(GROSS) U8 load Max: 619 MW(NET) ; Min: 329 MW(NET) ; Average: 501 MW(NET) NPHR Target / Achieved: 2561 / 2605 (Loss:1.72 %), Eta Pro:2560/ 2567 kcal/kWh (Loss: 0.27%) Un-burn carbon Fly ash and Bottom ash= 0.17% (25-Feb) and 2.20% (25-Feb) Furnace temperature at load 642 MW(Gross) average 1087 °C (max: 1148 °C at inspect. hole #13) Minimize R/H spray. Average MS/RH steam temperature 532 / 532 °C Turbine 3X vibration max 85 µm at MS/RHT 534 / 532 °C load 605 GMW at 12:26 Average vibration 3X for 24 hours were: 80 µm U8 Frequency of transfer: A:3;B: 6 ;C: 5;D: 6;E: 0;F: 0 500KV GSUT DGA max / average was 32.2 / 32.1 ppm Make up: **552** tons, Soot blower: **173 t**ons, SW pyrites: **336** tons. **Sootblowers special operations:** 420, 421, 422 / 470, 471, 472 (Screen tube), 427/477-428/478-429/479-430/480 (LTSH Cavity) run every 1st and 15th days of the month (2 times/month). Clinker Condition at Hole No. –	

C1	C2	W	10	11	12	13	14	15	16	17	18	E	C3	C4
C	C	C	-	C	C	1	1	1	1	1	-	C	C	C

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3.79	3.79	3.79	3.79
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	UNIT 8 PROBLEMS
24-Peb	1. Unit Trip due to Furnace Draft press High High active, due to FGD Trip, all Damper Closed and Hydraulic Oil Skid Trip at Load 550 NMW found all FGD instrument bad quality indication.Investigation result found Digital Output Module fuse was blown, replace DO module and Fuse.done (apply trap logic). >>Monitoring @ 26-PEB/ 10:07 Drop5 FGD fuse blown, some of FGD status fail.
25-Feb	2. 8FW-ISV-130A handwheel gearbox was broken.WO.2502251044 Status WAMTL.
25-Feb	3. 8BS-SMV-104A Superheater 8 Outletmain Steamsample V/V A gland packing leak. Wo.2502251062 .(Waiting DI)
27-Feb	4. Main filter Stator cooling dp:16.6 kPa (High/HH sp alarm:8/20 kPa) Wo.2502271046
28-Feb	5. Found oil leak from seal guide bearing Primary Air Heater, monitoring.Wo.2502281015
	6. 8BS-TI-241A 2ry Superheater outlet temperature element < than 8BS-TI-240 A (deviation >14 degC). SR118223 7. 500 KV SF6 gas leak at)ring gasket phase B 8GD4B1. (Rate leak 0.01 MPa/day, (current Press: 0.50 MPa) SR118224 8. Put bias demand FD Fan 8A to -5% for balance flow with FD Fan 8B (Re-adjusting blade waiting plant condition).
	9. **Unit 8 High Priority alarm** • None
	UNIT 8 ACTIVITIES
08:30–20:00	1. U8 Reabilty test at load 610NMW
08:00 (28-Feb)	2. Manual dumping FA-Economizer hopper B and C Done

05:00-10:00	3. Found economizer hopper drag chain conveyor was broken	Completed
08:00	4. RPT Record Gas SF6 at 150 kV and 500 kV, lower press = 0,52 Mpa	Completed
11:30	5. Found TR/RECT 845A overcurrent trip, back restart trip again. (Hopper level normal).	SR118209
13:35	6. Change over CEP 8C to 8B , Found DO tend increasing if running CEP 8C. CEP B motor winding temperature is higher than other (high load pump B temp about 135 degc if Pump A is about 113 degc).	
23:00	7. Pdm cleaning coal feeder 8A & 8F (clean)	
23:30	8. CAG of mill 8F unable closed by manual (the valve always back open after closed command is completed)	Raised SR118214
00:30	9. Found hydraulic oil press of FGD A outlet damper is lower than others it's about 1900 Kpa (normally above 3500 Kpa)	Raised SR118219
03:00(02-Mar))	10. 500 KV phase A (0%), B (0%) and C (0%) arching.	Information
05:00(02-Mar))	11. Fill all of Coal Silo with CLHV50% + CH3SF20% + CMHV30%	Information
	Balance of Plant	
	CSW / CST (U7/8) Tank Level: 98% (92% / 92%) SWRO A/B product water flow: A/B: 110 m³ - Standby Total caustic soda consumption: 0 ton	
	Balance of Plant Problem	
06-Jan	1. **Retention Basin Pump.** CPD-P- 910A, Pump Unbalance. Recondition submersible pump (Waiting material ST038054 Victaulic ridged coupling 6" è Lead time 40 days.**12-Dec** Install retention basin pump CPD-P-910A (refurbish pump), but motor current still high while first start. 07-jan CPD-P-910C External power cable was burn (SR116712) **>> apply logic for back up pump mode due to pump A&C are not available.**	Progress installation & testing
28-May	2. **U78 Fly Ash System:** **8FA-CMP-103 N/A Knocking on drive gear, not accepted for running. SR116521.** 04-Feb Start 8FA-CMP-103 run test together with vendor. After 48 hrs load test supply to U7.Done **7FA-CMP-103 N/A due to High vibration ~ PR189023** **7FA-CMP-104 Inservice to 7 & 8 (26-Peb/11:00) Monitoring** ***CFA-CMP-103* STAND BY** **Temporary Rental compressor: not available** **Station compressor: Ready standby**	Information
	3. **7FA-DRY-106: not available (compressor, fan cooler no spare) SR116542** **7FA-DRY-107: Inservice to U7&8.** **8FA-DRY-106: Standby** **CFA-DRY-106: Standby.**	Information
26-Aug	4. **CRO-P-100A SWRO supply pump, (Last Condition No Motor)** 28-Aug Solo run test by EIC & CBM, result motor side Normal. Suspect vibration from pump side. ***@ 19-Oct, Remove and replace motor of CRO-P-100A to C done***	Information
27-Nov	5. Need monitoring during CRO-P-910A in service (oil motor leaks) still investigation	waiting material
7-Jan	6. Aeration Fan A not available due to motor swap to Aeration fan C (bearing fan looseness) need bearing replacement. Motor under refurbishment.	SR116728/ est. motor complete on 28-Feb
31-Jan	7. **CRO-P-960C** as internal inspection, stator winding is broken (under PR189325, for rewinding). Done Still has vibration at pump side.	Information
25-Jan	8. Station air compressor A low speed Vibration alarm active after running about 5 minutes. 30-Jan Run Test Air Compressor A still vibration 04-Feb Solo run test and impeller inspection result Ok. Need further discussion between maint & eng team.	WO.2501281044/ PR.189713
	UNIT BOP ACTIVITIES	
19-Peb	1. Found CRO-FV-549 inlet DAF flow CV tracking to close and cause pre-treatment tripped. Temp.action: put manual control operation.	**WO.2502171020**
08:30 – 12:00	2. Repair CRO-P-910B -CB due fail to close during SWRO-Train B in service. done.	Completed
05:00 (01-Mar)	3. Make up DWRO train A reject discharge flow indicator transmitter is bad quality. Temporary force logic and put manual flow control valve.	**SR118205**
	Load scheduled and Activity for next 24 hours:	
	1. U78 Maintain load as PLN requested. U7 Full Load (**≥ 595 NMW**) = 0 hrs. TML = 0 hrs. (350 NMW ≤ 590NMW) = 24 hrs. U8 Full Load (**≥ 595 NMW**) = 13 hrs. TML = 0 hrs. (350 NMW ≤ 590NMW) = 11 hrs.	
	2.	

500 KV BUS-B SF6