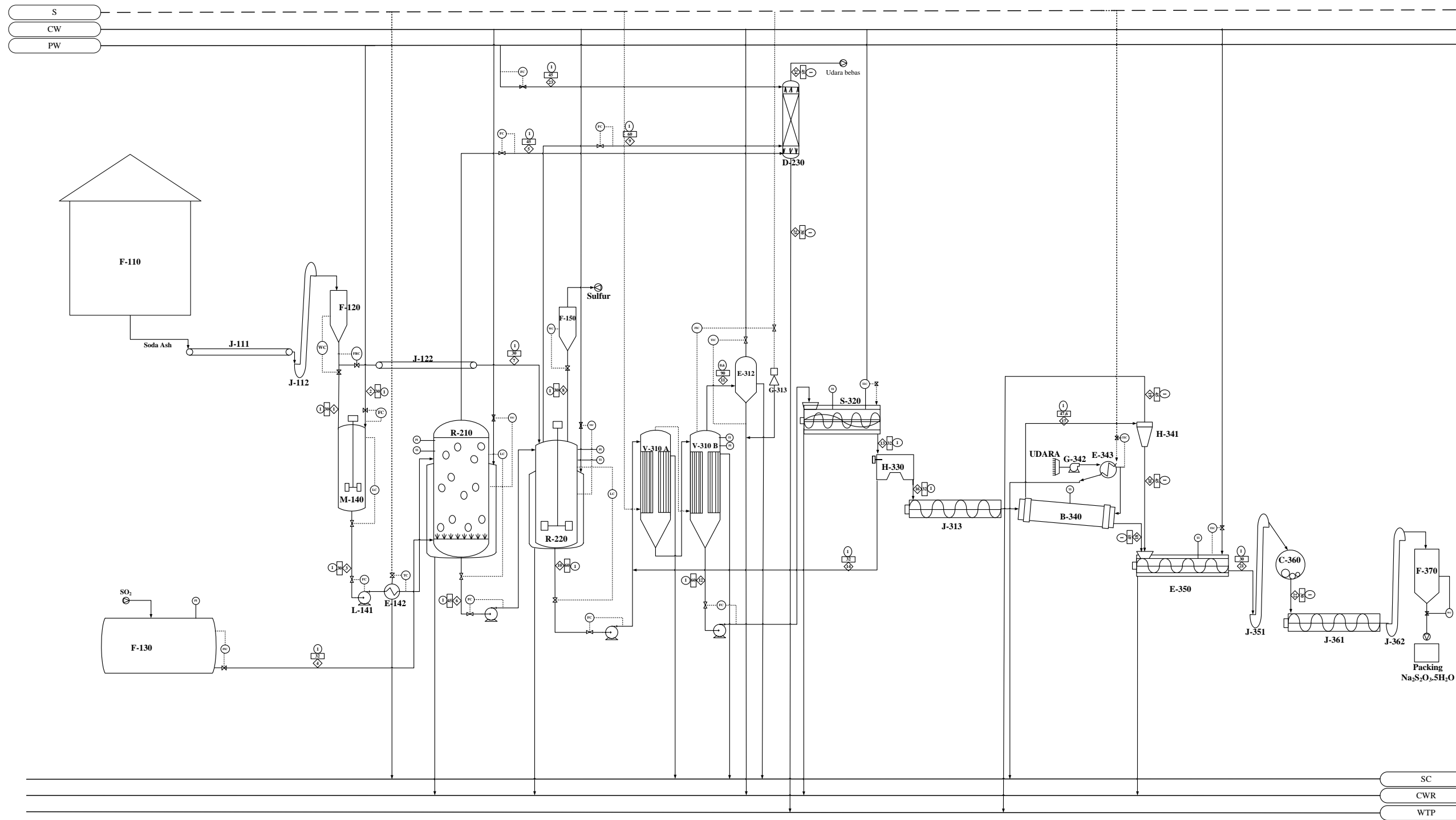


FLOWSHEET PRA RANCANGAN PABRIK SODIUM THIOSULPHATE PENTAHYDRATE DENGAN PROSES AERASI (REAKSI SULFUR DIOKSIDA)

SKALA = 1 : 275



Keterangan :

	Temperature : °C
	Aliran massa : Kg/jam
	Tekanan : atm
	Steam : 148 °C
	Steam Condensate
	Cooling Water
	Cooling Water Return
	Process Water
	Water Treatment Plant

32	(F - 370)	Silo Sodium Thiosulfate
31	(J - 362)	Bucket Elevator- 3
30	(J - 361)	Screw Conveyor- 2
29	(C - 360)	Ball Mill
28	(J - 351)	Bucket Elevator- 2
27	(E - 350)	Cooling Conveyor
26	(E - 343)	Heater- 2
25	(G - 342)	Blower
24	(H - 341)	Cyclone
23	(B - 340)	Rotary Dryer
22	(J - 313)	Screw Conveyor- 1
21	(H - 330)	Centrifuge
20	(S - 320)	Crystallizer
19	(G - 313)	Steam Jet Ejector
18	(E - 312)	Kondensor
17	(L - 331)	Pompa- 4
16	(V - 310)	Evaporator
15	(D - 230)	Scrubber
14	(L - 221)	Pompa- 3
13	(R - 220)	Reaktor
12	(L - 211)	Pompa- 2
11	(R - 210)	Bubble Reaktor
10	(E - 142)	Heater- 1
9	(L - 141)	Pompa- 1
8	(M - 140)	Tangki Pelarutan
7	(F - 150)	Silo sulfur
6	(F - 130)	Tangki Gas Sulfur Dioxide
5	(F - 120)	Silo Soda Ash
4	(J - 122)	Belt Conveyor- 2
3	(J - 112)	Bucket Elevator- 1
2	(J - 111)	Belt Conveyor 1
1	(F - 110)	Gudang Soda Ash
No.	Kode	Nama Alat

FLOWSHEET
PABRIK SODIUM THIOSULPHATE
PENTAHYDRATE DENGAN
PROSES AERASI

NAMA : AYU SEPTIYAFANI
NPM : 19031010092

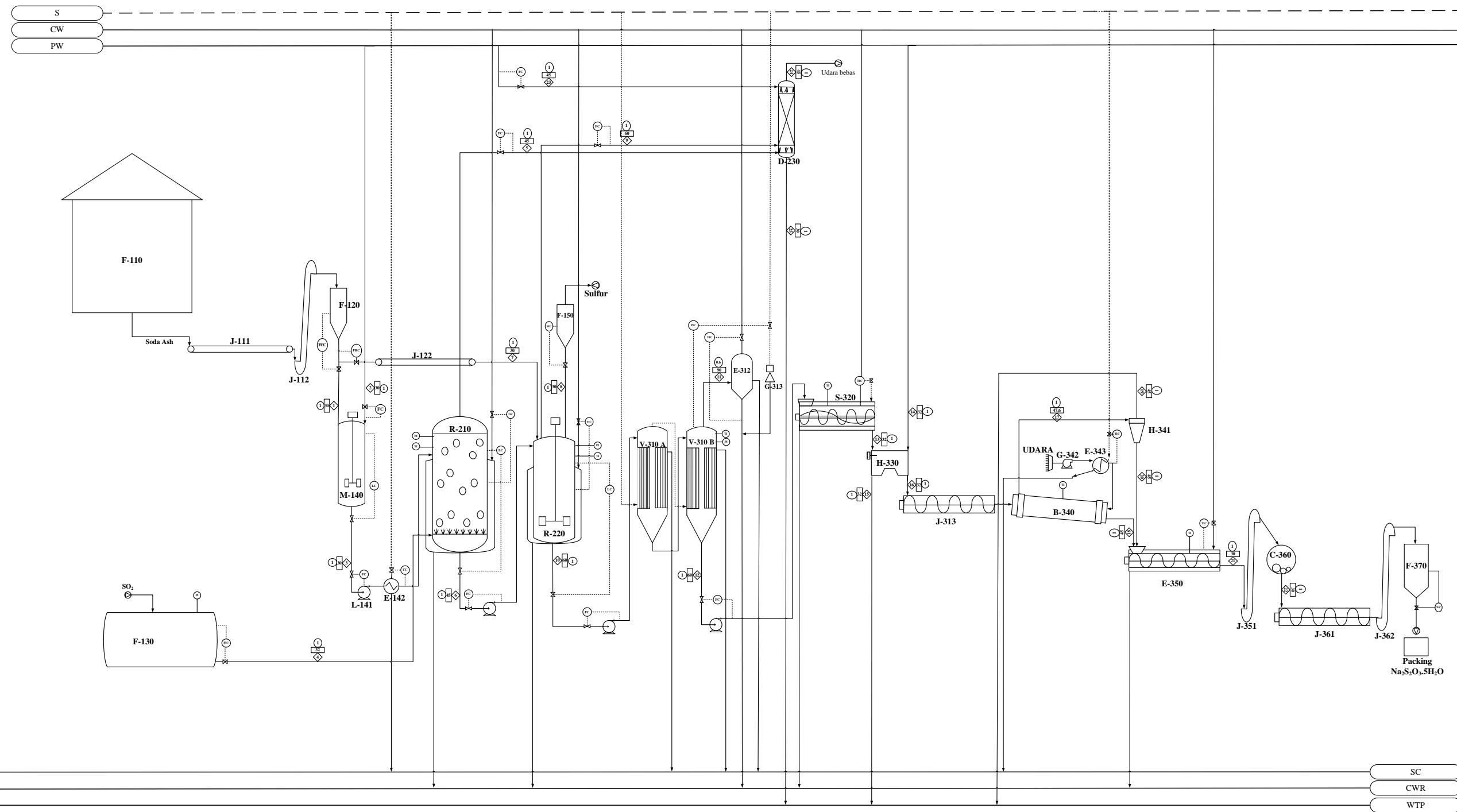
DOSEN PEMBIMBING : TTD :
Dr. T. Ir. Dyah Suci P., M.T

PROGRAM STUDI TEKNIK KIMIA
FAKULTAS TEKNIK DAN SAINS
UNIVERSITAS PEMBANGUNAN NASIONAL
"VETERAN"
JAWA TIMUR
2024

Komponen	Aliran (Kg/Jam)																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
N ₂ S ₂ O ₃ ·5 H ₂ O													5144,3113		5144,3113	51,4431	5092,8682	0,5144	50,9287	5143,7969	5143,7969				
Na ₂ S ₂ O ₃										3285,9403		3285,9403	65,7188	65,6668	1,3144	0,0131	1,3012	0,0001	0,0130	1,3142	1,3142				
NaHSO ₃						2276,7342				113,8367		113,8367	113,8367	220,8887	2,2767	0,0228	2,2540	0,0002	0,0225	2,2765	2,2765				
Na ₂ CO ₃	1221,3250		1221,3250			61,0663	1051,5914			10,4118		10,4118	10,4118		10,4118	0,1041	10,3077	0,0010	0,1031	10,4108	10,4108				
NaCl	2,4500		2,4500			2,4500	2,1095			4,5595		4,5595	4,5595		4,5595	0,0456	4,5139	0,0005	0,0451	4,5591	4,5591				
H ₂ O	1,2250	4761,8873	4763,1123			4566,0872	1,0548	0,6662		4754,9819	1259,3007	3495,6812	1571,5915	1571,1617	31,4318	28,8762	2,5556	28,8762		2,5556	2,5556	952,6001			952,6001
SO ₂				1415,0778	14,0107																				14,0107
CO ₂					481,6168					457,5360														0,2817	938,8711
O ₂				1,4165	1,4165																			1,4165	
S										665,5069															
TOTAL	1225,0000	4761,8873	5986,8873	1416,4943	497,0440	6906,3376	1054,7556	666,1731	457,5360	8169,7303	1259,3007	6910,4296	6910,4296	1857,7172	5194,3055	80,5049	5113,8006	29,3925	51,1124	5164,9130	5164,9130	952,6001	1,6982	1905,4819	

FLOWSHEET PRA RANCANGAN PABRIK SODIUM THIOSULPHATE PENTAHYDRATE DENGAN PROSES AERASI (REAKSI SULFUR DIOKSIDA)

SKALA = 1 : 275



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	Steam Condensate
	Cooling Water
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4	(J - 122)	Belt Conveyor- 2
3	(J - 112)	Bucket Elevator- 1
2	(J - 111)	Belt Conveyor 1
1	(F - 110)	Gudang Soda Ash

No.	Kode	Nama Alat
FLOWSHEET PABRIK SODIUM THIOSULPHATE PENTAHYDRATE DENGAN PROSES AERASI		
NAMA : AYU SEPTIYAFANI		
NPM : 19031010092		
DOSEN PEMBIMBING :		TTD :
Dr. T. Ir. Dyah Suci P., M.T		
PROGRAM STUDI TEKNIK KIMIA FAKULTAS TEKNIK DAN SAINS UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" JAWA TIMUR 2024		

Komponen	Aliran (Kg/Jam)																									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
N ₂ S ₂ O ₃ ·5 H ₂ O													5040,3710			5040,3710	50,4037	4989,9673	0,5040	49,8997	5039,8670	5039,8670				
Na ₂ S ₂ O ₃										3285,9403		3285,9403	65,7188		64,4044	1,3144	0,0131	1,3012	0,0001	0,0130	1,3142	1,3142				
NaHSO ₃						2276,7342				113,8367		113,8367	113,8367		111,5600	2,2767	0,0228	2,2540	0,0002	0,0225	2,2765	2,2765				
Na ₂ CO ₃	1221,3250		1221,3250			61,0663	1051,5914			10,4118		10,4118	10,4118			10,4118	0,1041	10,3077	0,0010	0,1031	10,4108	10,4108				
NaCl	2,4500		2,4500			2,4500	2,1095			4,5595		4,5595	4,5595			4,5595	0,0456	4,5139	0,0005	0,0451	4,5591	4,5591				
H ₂ O	1,2250	4761,8873	4763,1123			4566,0872	1,0548	0,6662		4754,9819	1259,3007	3495,6812	1675,5317	1466,0903	3078,7896	62,8324	60,3283	2,5042	60,3283		2,5042	2,5042	952,6001		952,6001	
SO ₂				1415,0778	14,0107																				0,0000	14,0107
CO ₂					481,6168					457,5360															0,2817	938,8711
O ₂				1,4165	1,4165																				1,4165	
S											665,5069															
TOTAL	1225,0000	4761,8873	5986,8873	1416,4943	497,0440	6906,3376	1054,7556	666,1731	457,5360	8169,7303	1259,3007	6910,4296	6910,4296	1466,0903	3254,7540	5121,7659	110,9176	5010,8483	60,8342	50,0834	5060,9317	5060,9317	952,6001	1,6982	1905,4819	