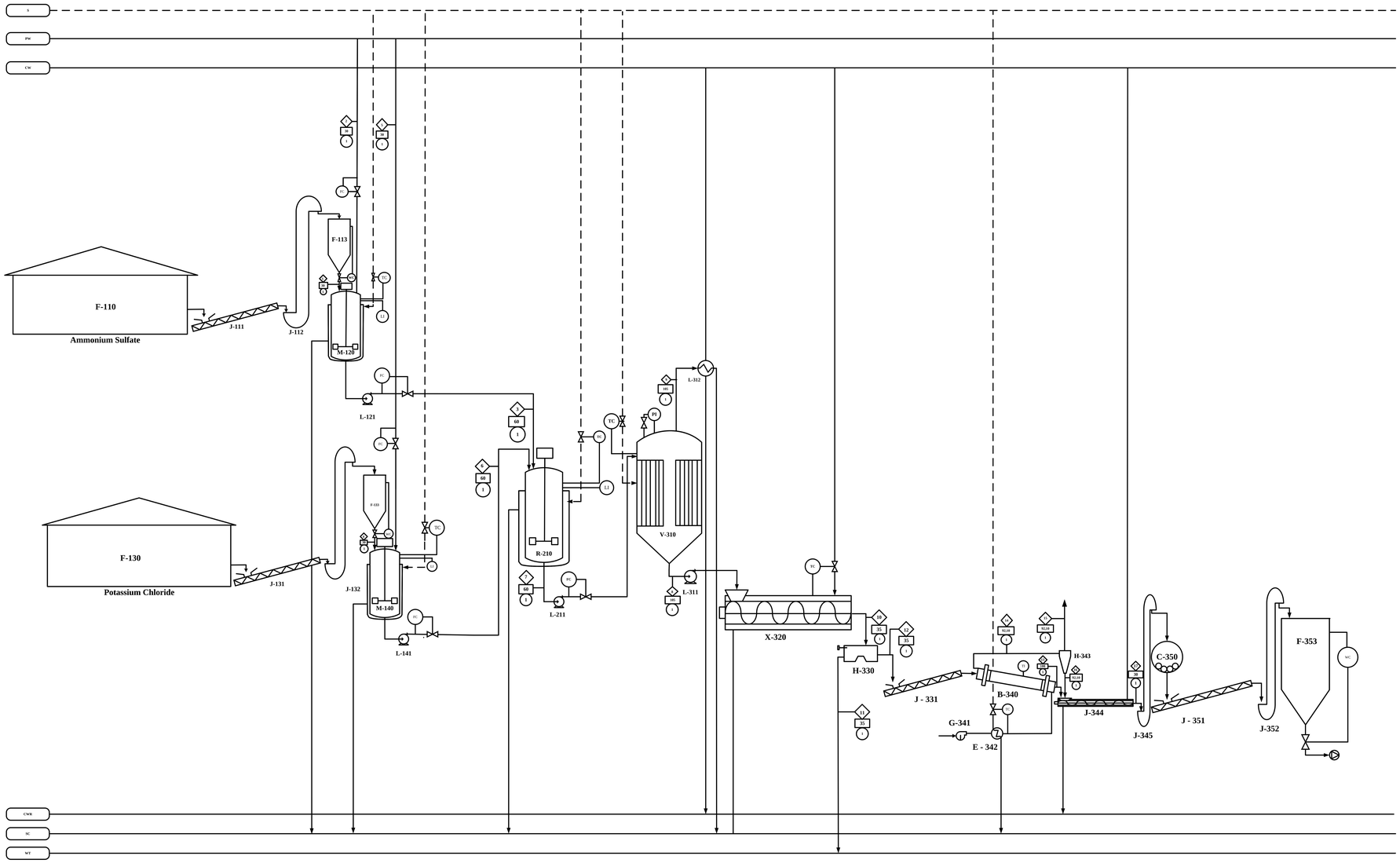
PRA RENCANA PABRIK POTASSIUM SULFATE DENGAN PROSES DEKOMPOSISI POTASSIUM CHLORIDE DAN AMMONIUM SULFATE



S	Steam	SC	Steam Condensate
CW	Cooling Water		Pressure
PW	Process Water		Aliran
CWR	Cooling Water Return		Temperature
WT	Waste treatment		

No	Kode	Nama Alat
1	F-110	Gudang Ammonium Sulfate
2	J-111	Screw Conveyor Ammonium Sulfate
3	J-112	Bucket Elevator Ammonium Sulfate
4	F-113	Hopper Ammonium Sulfate
5	M-120	Tangki Pelarut Ammonium Sulfate
6	L-121	Pompa Larutan Ammonium Sulfate
7	F-130	Gudang Potassium Chloride
8	J-131	Screw Conveyor Potassium Chloride
9	J-132	Bucket Elevator Potassium Chloride
10	F-133	Hopper Potassium Chloride
11	M-140	Tangki Pelarut Potassium Chloride
12	L-141	Pompa Larutan Potassium Chloride
13	R-210	Reaktor
14	L-211	Pompa Reaktor
15	V-310	Evaporator
16	E-312	Kondensor
17	L-311	Pompa Evaporator
18	X-320	Kristalizer
19	H-330	Centrifuge
20	J - 331	Screw Conveyor
21	B - 340	Rotary Dryer
22	G - 341	Blower
23	E-342	Heater Udara
24	E-343	Cyclone
25	H-344	Cooling Conveyor Rotary Dryer
26	J-345	Bucket Elevator Rotary Dryer
27	C-350	Ball Mill
28	J-351	Screw Conveyor II
29	J-352	Bucket Elevator Potassium Sulfate
30	F-353	Silo Potassium Sulfate

Nomor / Komponen	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
$(NH_4)_2SO_4$	7626.559	-	7626.559	-	-	-	533.8592	533.8592	-	533.8592	523.182	10.67718	10.57041	0.106772	0.001067718	0.105704	10.67612
H_2SO_4	2.292323	-	2.292323	-	-	-	2.292323	2.292323	-	2.292323	2.246477	0.045846	0.045388	0.000458	4.58465E-06	0.000454	0.045842
KCl	-	-	-	8550.991	-	8550.991	598.5694	598.5694	-	598.5694	586.598	11.97139	11.85167	0.119714	0.001197139	0.118517	11.97019
NaCl	-	-	-	230.3894	-	230.3894	230.3894	230.3894	-	230.3894	225.7816	4.607788	4.56171	0.046078	0.000460779	0.045617	4.607327
MgCl2	-	-	-	44.30565	-	44.30565	44.30565	44.30565	-	44.30565	43.41954	0.886113	0.877252	0.008861	8.86113E-05	0.008773	0.886024
CaCl2	-	-	-	4.430565	-	4.430565	4.430565	4.430565	-	4.430565	4.341954	0.088611	0.087725	0.000886	0.000009	0.000877	0.088602
H_2O	12.22572	8666.545	8678.771	31.01396	18793.39	18824.40	27503.17	4317.629	-	4317.629	4231.276	86.35257	9.328453	77.02412	77.02411733	0	9.328453
K2SO4	-	-	-	-	-	-	9349.469	9349.469	-	9349.469	30.34391	9319.125	9225.933	93.19125	0.931912465	92.25933	9318.193
NH4Cl	-	-	-	-	-	-	5695.653	5695.653	-	5695.653	5581.74	113.9131	112.7739	1.139131	0.011391307	1.127739	113.9017
$H_2O_{(g)}$	-	-	-	-	-	-	-	-	23185.54	-	-	-	-	-	-	-	-
Udara panas	-	-	-	-	-	-	-	-	-	-	-	-	-	37173.78	37173.78156	-	-
Total	7641.077	8666.545	16307.62	8861.13	18793.39	27654.52	43962.14	20776.6	23185.54	20776.6	11228.93	9547.667	9376.03	37345.42	37251.75181	93.66702	9469.697

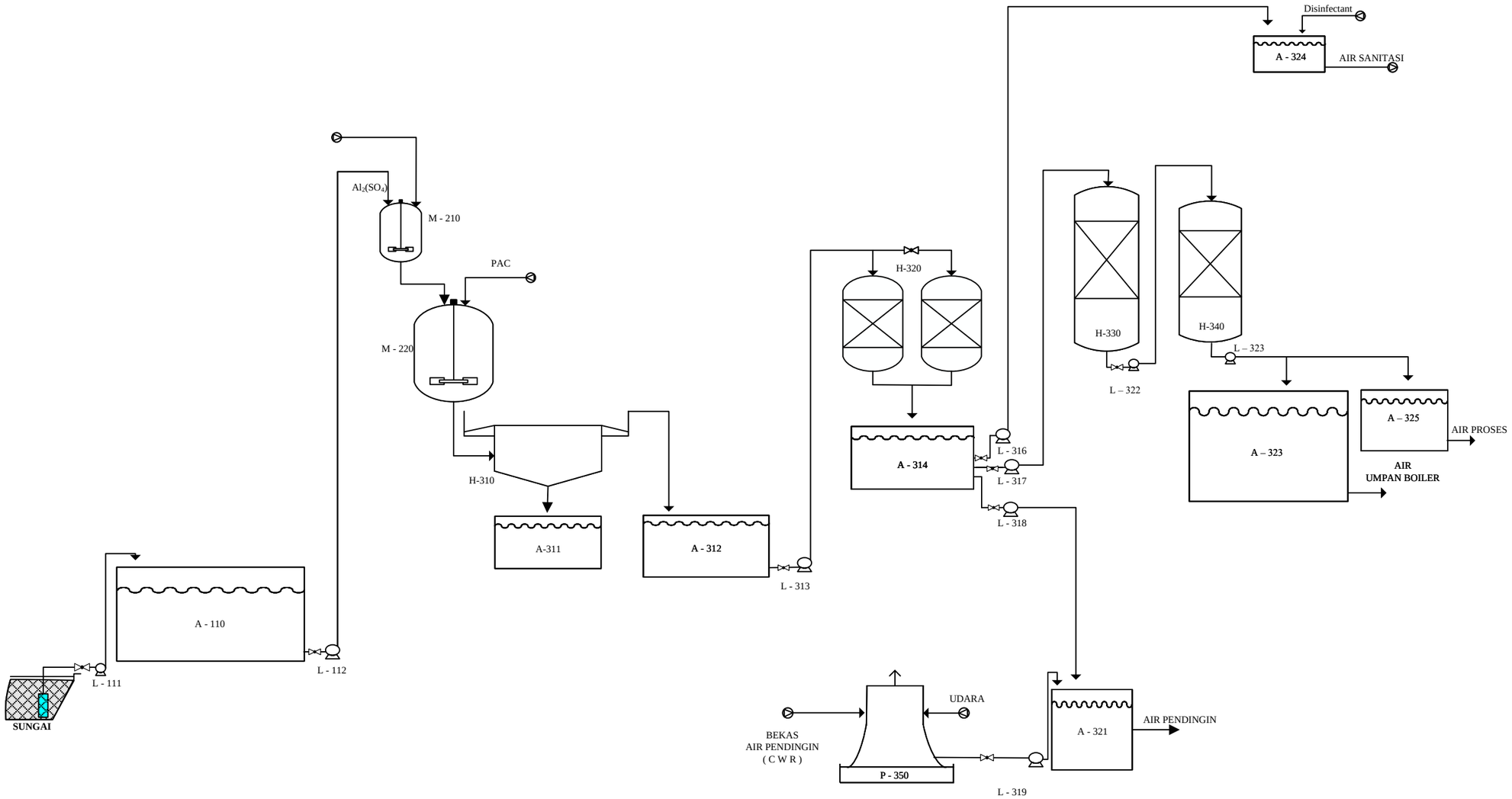
Nama : Masykuri Latief
NPM : 19031010068
Dosen Pembimbing : Ir. Isni Utami, MT.

Mengetahui :

FLOWSHEET PRA RENCANA PABRIK POTASSIUM SULFATE DENGAN PROSES DEKOMPOSISI POTASSIUM CHLORIDE DAN AMMONIUM SULFATE

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

FLOWSHEET UTILITAS PRA RENCANA PABRIK POTASSIUM SULFATE DENGAN PROSES DEKOMPOSISI POTASSIUM CHLORIDE DAN AMMONIUM SULFATE



23	A - 325	BAK PENAMPUNG AIR PROSES
22	A - 321	BAK PENAMPUNG COOLING WATER
21	L - 319	POMPA COOLING TOWER
20	P - 350	COOLING TOWER
19	L - 318	POMPA BAK C W
18	A - 323	BAK AIR UMPAN BOILER
17	H - 340	ANION EXCHANGER
16	L - 322	POMPA ANION EXCHANGER
15	H – 330	KATION EXCHANGER
14	L - 317	POMPA KATION EXCHANGER
13	A - 324	BAK PENAMPUNG AIR SANITASI
12	L - 316	POMPA AIR SANITASI
11	A - 314	BAK PENAMPUNG AIR BERSIH
10	H - 320	SAND FILTER
9	L -313	POMPA KE SAND FILTER
8	A - 312	BAK PENAMPUNG CLARIFIER
7	A - 311	BAK PENAMPUNG FLOKULAN
6	H - 310	CLARIFIER
5	M - 220	TANGKI FLOKULASI
4	L - 112	POMPA TANGKI KOAGULASI
3	M – 210	TANGKI KOAGULASI
2	L - 111	POMPA AIR SUNGAI
1	A - 110	BAK PENAMPUNG AIR SUNGAI
NO	**KODE**	**NAMA ALAT**

FLOWSHEET UTILITAS
PABRIK POTASSIUM SULFATE

Digambar Oleh : Masykuri Latief
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