

”

“ ”

2009 -2011 5.2 “

” 225

3

10

3

76830 “

3 ”

2022 7 22

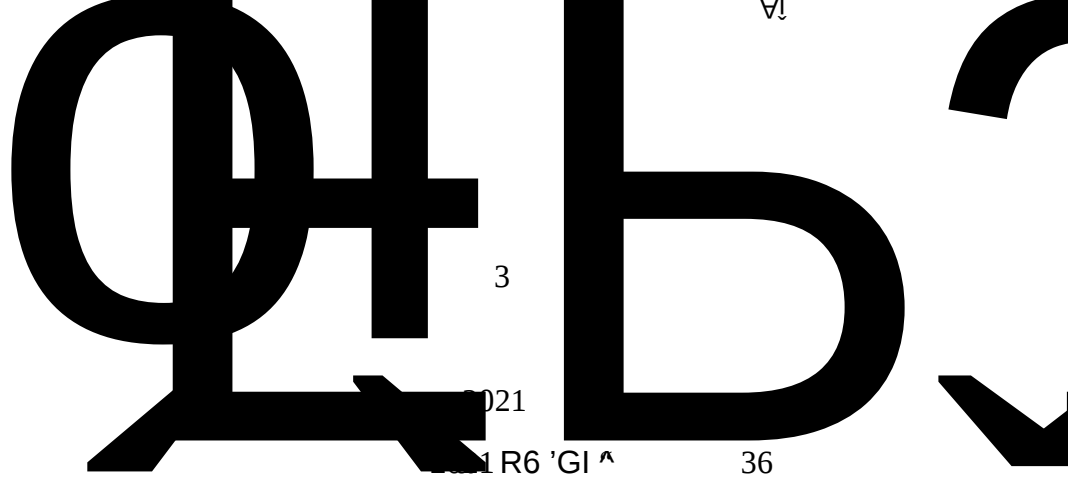
1970 2007 1

2010 10

6 100%

MPV 568 9.24

M3/M4/M5/M6 10



3

2021

1 R6 'GI ^

36

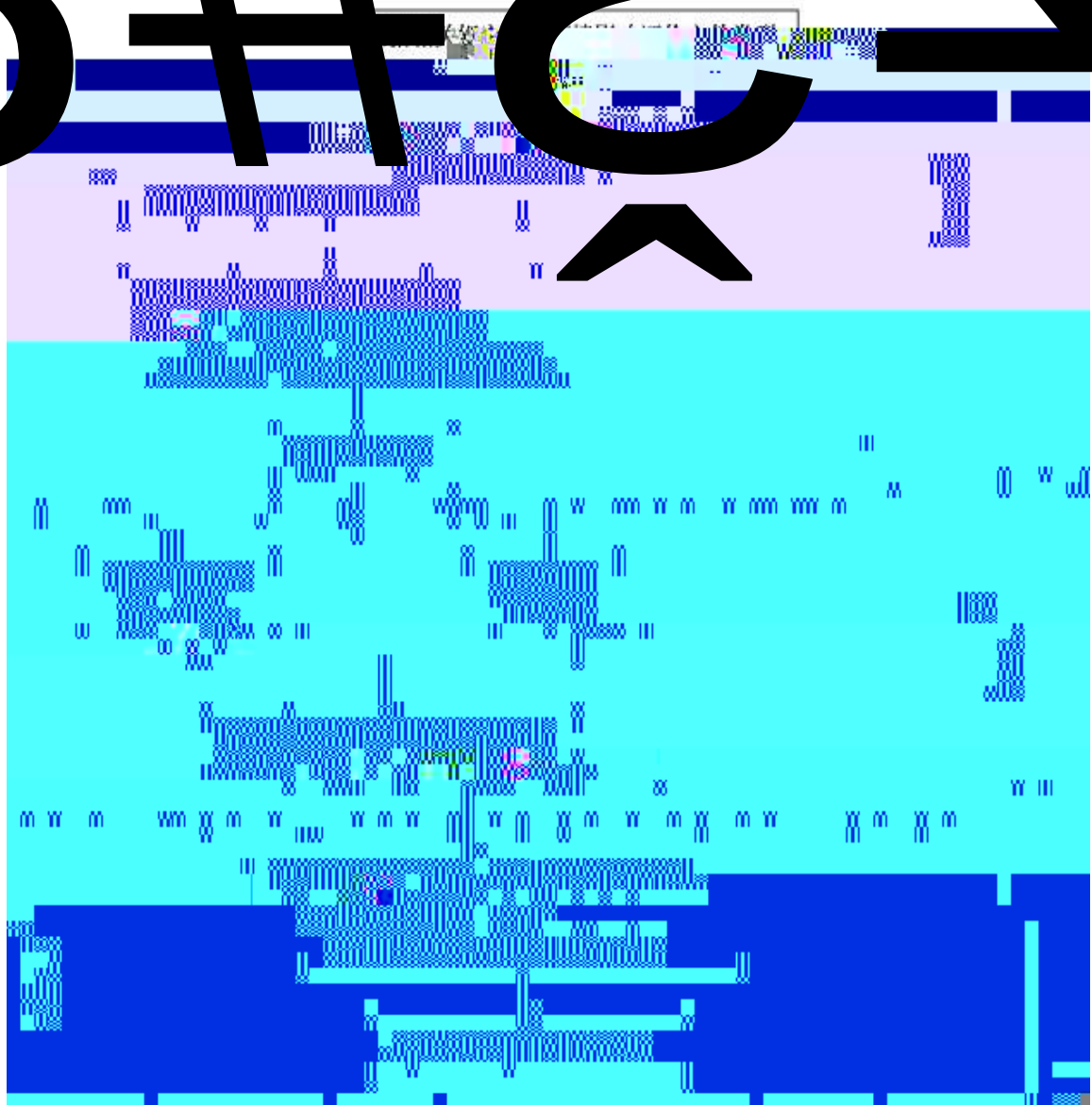
—361

10

”

2022 □ 70

“



2019

2016-2030

C3612

C36

“

”

“

”

1

“

”

2

3

4

2012-2030

2016-2030

2016-2030

1.4-1

1				2014	4	24		2015	1
2				2018	12	29			
3				2018	1	1			
4				2018	10	26			
5				2018	12	29			
6				2019	1	1			
7					2020	4	29		
2020	9	1							
8				2012			2012	7	1
9				2019	4	23			
10				2018	10	26			
1									
2012	98		2012	8	8				
2								2013	37
2013.09.10									
3								2015	17
2015.04.16									
4								2016	31
2016	5	28							

5

2016 150 2016.10.26

6

682	2017	10	1
-----	------	----	---

7

2017 84 2017 11 14

8

4 2019

1 1

9

2019 53 2019 6 26

10 2019 29

2019

2019 10 30

11

2019 56

2019

7 1

12 <

$$>$$

2020	65	2020	12	17
------	----	------	----	----

13 (2021

16 2020 11 30 ~~2020~~ 2021 1 1

14 $\Sigma\Sigma\Pi$ 2021 15

2020 11 25

2018 11 31

2018	1	1
------	---	---

2015 12 29

2013 12 30

11

2016 21

2017 7 1

2 8

18				——	(HJ971-2018)	
2018	9	28				
19				——	HJ1097-2020	
2020	3	1				
20				——	HJ1086-2020	
2020	1	6				
21					HJ 1181-2021	2021
5	12					
22					2019.12.20	
23						
			2020	3	31	2021 2 1
24					GB24409-2020	
25						
26					GB38508-2020	
27					GB33372-2020	
1						
2					3	
					2022	4
3					15	
			2012	1040		
4					15	10
					[2016]1205	
5					913416225606913997001Q	
6					3416222020QY006	
3						
					2018.12	
4						

[2012]1576 2012.12.31

5

[2013]135 2013.7.23

6

[2019]158

1.2-1

		—	--	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—
		—	-L1DCR	-L1DCR	—	—	—	—	—	—
		-L1DCR	—	—	—	—	—	—	—	—
		—	—	—	—	-L1DNCR	—	—	—	—
		—	—	-L1ICR	-L1ICR	—	—	—	—	—
		-S2DCR	-S2DCR	-S1ICR	-S1ICR	—	—	—	—	—

1.2-1

1.3-1

	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	CO	O ₃	TSP	PM _{2.5}	PM ₁₀	

TSP	NOX	NH ₃	H ₂ S			NO ₂		SO ₂
							NO _x	VOCs
pH	COD	BOD ₅	NH ₃ -N	SS	TP			

		60
2	24	150
	1	500
		40
2	□□□□□□□□	

30 5-2012

0.05

0.05

0.005

CaCO₃

≤450

≤0.01

≤0.005

≤0.3

≤0.1

≤1000

≤250

≤250

≤3.0

≤100

≤3.0

≤0.02

≤

17	1,2-	78-87-5	5
18	1,1,1,2-	630-20-6	10
19	1,1,2,2-	79-34-5	6.8
20		127-18-4	53
21	1,1,1-	71-55-6	840
22	1,1,2-	79-00-5	2.8
23		79-01-6	2.8
24	1,2,3-	96-18-4	0.5
25		75-01-4	0.43
26		71-43-2	4
27		108-90-7	270
28	1,2-	95-50-1	560
29	1,4-	106-46-7	20
30		100-41-4	28
31		100-42-5	1290
32		108-88-3	1200
33	+	108-38-3 106-42-3	570
34		95-47-6	640
35		98-95-3	76
36		62-53-3	260
37	2-	95-57-8	2256
38	[a]	56-55-3	15
39	[a]	50-32-8	1.5
40	[b]	205-99-2	15
41	[k]	207-08-9	151
42		218-01-9	1293
43	[a,h]	53-70-3	1.5
44	[1,2,3-cd]	193-39-5	15
45		91-20-3	70
46	C ₁₀ -C ₄₀	/	4500

GB8978-1996

GB18918-2002

A

			GB8978-1996		
1	pH	6-9	/	6-9	/
2	COD	320	500	320	50
3	BOD ₅	160	300	160	10
4	SS	180	400	180	10
5		3			

		27m			11.79	
	NOx	15m		240	0.77	0.12
		18m			1.09	
		20m			1.3	
		27m			3.47	
			15m		70	
	18m		1.42			
	20m		1.7			
	27m		4.64			
		15m		120	10	4.0
		18m			14.2	
		20m			17	
		27m			42.2	
		/		30	/	/
	SO ₂	/		200	/	/
2014	GB13271-3			20	/	/
	SO ₂			50	/	/
2020	NOx			50	/	/
GB37822-2019			1h	/	/	6
				/	/	20
GB14554-93	NH ₃	15m		/	4.9	1.5
	H ₂ S			/	0.33	0.06

1.3-9

	(mg/m ³)			
	6	1h		GB37822-2019
	20			

GB 12523-2011

GB12348-

GGTB(

	max<1%
--	--------

1%<Pmax<10%-

HJ2.2-2018

1996

GB8978-

HJ2.3-2018

		Q/ m³/d W/
		Q≥20000 W≥600000
A		Q<200 W<6000
B		/

B

B

3

3dB(A)

HJ2.4-2009

HJ610-2016

A “73

” “

”

	I	II	III

HJ/T169-2018

IV IV +

III

II

Q Q

1

- HJ964-2018

HJ19-2011

HJ2.3-2018	Bm	5km
”		“

10 5000

2020 2021 73.6% 70.5%
70%

61%

3%

10000 /a 5000

“ ”

“ ”

“ ”

2021-2035

[2017]53

“

2014 7 21

[2014]35 “ m” đ Adđ

[đ

“

”

“

”

“

”

[2015]16

2022 7 22

2207-340000-
04-01-652703

	\ N©	

2019 53 2019

+

80%
VOCs

90%

1.1

VOCs

VOCs

VOCs

2.1.4-

1

VOCs

VOCs

GB/T38597-2020

08-2020

GB33372-2020

VOCs

“

VOCs

VOCs

”

VOCs

		() () ()	“ ”	
2	[2020]38	“ ” 15 ” “1 5 “ ”	60 “1 5 15 ”	

1964

1

2

3

80%

GB24409

HJ2537



100% 100%

30%

2018

2018~2030 65.9km²

GB3095-2012

GB3096-2008

2 3

GB/T15190 8.3

4a

GB36600-2018

GB/T14848-93

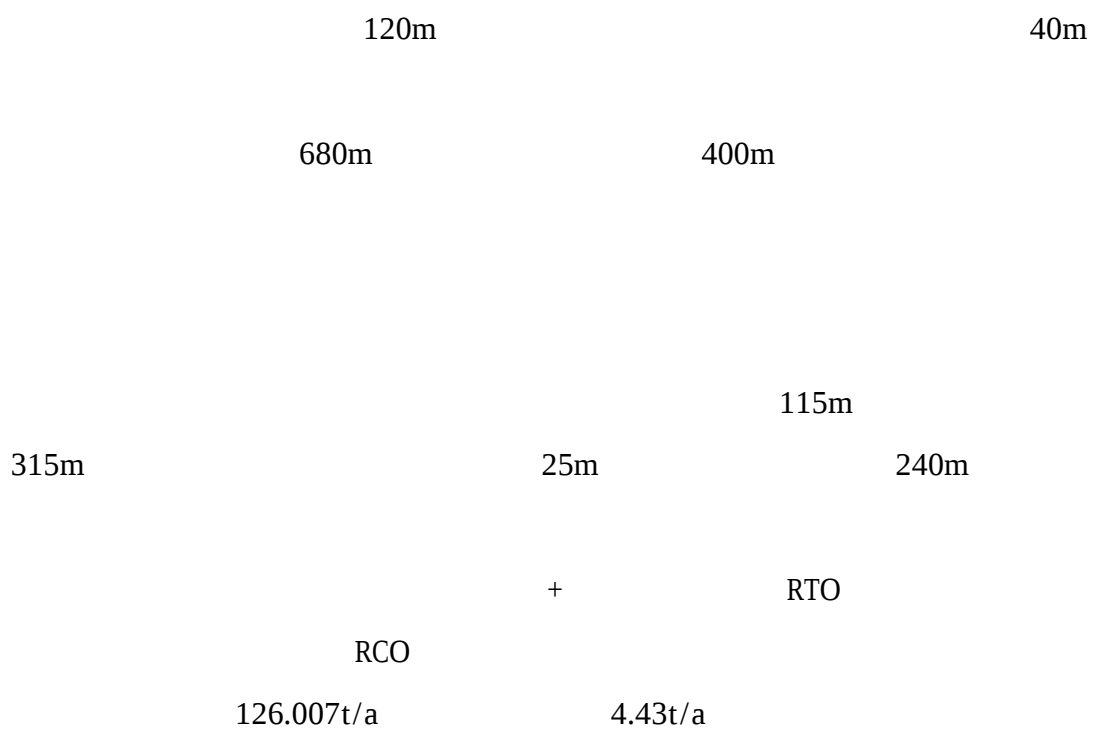
(GB3838-2002)

GB18918 2002

A

		2021
2	2	3
	10	2.5

2021
30 5-2012



/m

(m)m

m)

3		-676	-135	W	693	
4		-1062	39	W	1046	
5		-985	-541	SW	1090	
6		-1216	-830	SW	1295	
7		-328	-985	SW	743	
8		-560	-1390	SW	1186	
9		-830	-1351	SW	1257	
10		-1197	-1390	SW	1705	
11		-1757	-1197	SW	2019	
12		-618	-1776	SW	2337	
13		-1042	-1757	SW	1864	
14		-1332	-1718	SW	1999	
15		-1950	-1622	SW	2348	
16		-1718	-2008	SW	2548	
17		-1737	-2239	SW	2767	
18		-2027	-2027	SW	2765	
19		-1062	-2162	SW	2156	
20		-695	-2162	SW	2014	
21		-2123	-2432	SW	3120	
22		2317	-869	SE	2135	
23		2336	-1139	SE	2181	
24		560	946	N	510	
25		1062	849	NE	902	
26		-309	907	NW	897	
27		-541	560	NW	958	
28		-714	811	NW	1	
29		-1042	985	NW	2	
30		-1660	232	W	1482	
31		-1776	-174	SW	1791	
32		-1969	-425	SW	1661	
33		-1757	-888	SW	1839	
34		656	1641	N	1729	
35		1216	1564	NE	1910	
36		2432	541	NE	2 8	

37	-193	1873	NW	1849
38	-676	-125	W	600
39	-1776	1448	W	2252
40	2258	354	NE	2855
/	--	--	S	

3

3.1-1

C3611

C2612

76830

1642

242

89340m²

1300

1216

250

8

242

3

3

3.2-1

1

1

2

3

1F

207m*73m*18.5m

16215m²

15940m²

1F

3F

207m*74m*16m

15318m²

15903m²

1F

+

292m*66m*17.5m

22560m²

21576m²

/

/

/

1

PBS

2

3

1

2

2.8MW

TNV

RTO

567.6m³/h

227.04

m³/a

2.1.7-2

1

1

0.6MPa

m³/

.



50m³/min



1745.4m³/d

m³/

1

10m³/h

94%

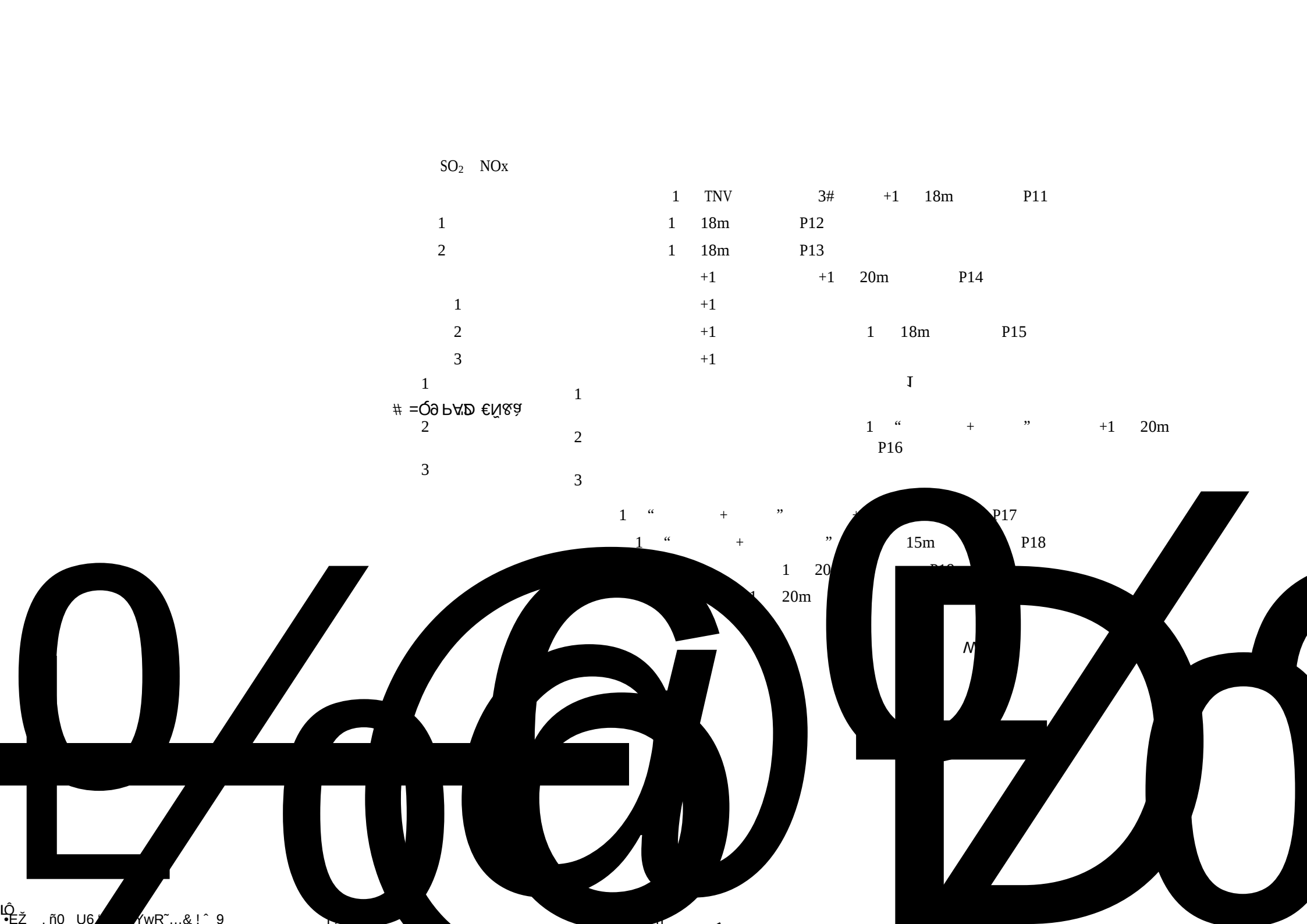


			900m ³ /h	2	4801m ³ /h 1633m ³ /h	44.072m ³ /h 635m ³ /h	1
					913.848m ³ /d		UPVC
					DN200		
					GB18918-2002	A	
					17767kW	1802.6	kWh·a
			3.2-8				
							3.2-8
				4F	5F	207m*12m*23m	26082m ² 107328m ²
				1			
				1			
					440.87m ²		
					110		
					440		
				1			
				1	1		
				“	”		
			1		2m ³ /h	“	+ + ”

2				30m ³ /h	“	+	+	”
3				15m ³ /h	“	+	+pH	”
4	45m ³ /h	“	+pH	+	+A/O+	+	+ ”	
							GB8978-1996	4

+1 20m P1

+1



SO₂ NO_x

1 TNV 3# +1 18m P11

1 1 18m P12

2 1 18m P13

+1 +1 20m P14

1 +1

2 +1 1 18m P15

3 +1

1 J

= Ó ð Þ γ Δ € ¼ ¤ §

1

2 2 1 “ + ” +1 20m

P16

3 3

1 “ + ” +1 P17

1 “ + ” 15m P18

1 20m P19

1 20m

M

			440.87m ²		
		1	2	1	

7m

12m

4.2-1

	4	9000	
	5	6000	
		9000	
	6	6000	
	/	30000	/



4



5



6

mm	5050×2080×2395
mm	2960
/ mm	195
L	80
kg	2265
	6 /MT
(ps/rpm)	190/5000
(N·m/rpm)	360/1515 ~ 5



	mm	5300×2080×2160,2395
	mm	3360
	/ mm	190
	L	80
	kg	2250
	kg	1385
		6 /MT
	(ps/rpm)	139/4000
	(N·m/rpm)	310/1800-2800
		5.6L
		≥150

	mm	5990×2098×2645
	mm	3570
	/ mm	170
	L	80
	kg	2840
	kg	1795
		6 /MT
	(ps/rpm)	153/3200
	(N·m/rpm)	355/1800-2600
		6.5L
		≥130

			t/a		
1		/	5.4	0.45	/
2		/	0.6	0.05	/
3		CL-65 2	120	10	/
4		/	8	0.67	/
5	CO ₂	/	5.85	0.5	/
6		CY-6E	69	1.36	250kg/ 0.4KG/
7		CY-1	12	0.24	430G/
8		CY-2	19	0.38	430G/
9		5016C GP 310ML	5	0.16	370G/
10	A	FC-E2091LMC	16	0.32	25kg/
11	B	FC-E2091LBC	6	0.12	25kg/
12		CT-8005CM	35	0.7	25kg/
13	K ⁺	A CT-8005C	35	0.7	25kg/
14		B CT-8005C	8.5	0.17	25kg/
15	pH	AJ-4762			

20		/	/	0.03	0.0024	/	/	
21			TEROSON PV 8255Q	306	1.224	250kg/		
22		3C2B	FV8H-OD9A	78.3	0.31	180kg/		
23		2C2B	FH82-0A1A	136.1	0.54	180kg/		
24			FU8B-7B6A	214	0.856	180kg/		
25			SPO	83.214	0.33	180kg/		
26			SV08047A THINNER	7.236	0.03	180kg/		
27			LACS L805	3	0.2	25kg/		
28			SV13013A/160K-C1	30	0.12	180kg/		
29			SV99016A/170K-C1	30	0.12	180kg/		
30			AC 1000 J	18	0.36	180kg/		
30			/	60000L	1200L	1000L/		
31			/	354000L	7080L	1000kg/		
32			DOT4	30000L	600L	200L/		
33			ATF-	36000L	720L	209L/		
34			R134a	45	1	500kg/		
35			AUS32	360	7.2	1000kg/		
36			/	405000L	8100L	/	/	
37			/	405000L	8100L	/	/	

Socioeconomic and Environmental Indicators					
Indicator	Unit	2010	2015	2020	2025
Population (millions)	Millions	1.2	1.5	1.8	2.1
GDP (billions USD)	Billions USD	150	200	250	300
Urbanization (%)	Percentage	65	72	78	85
Renewable Energy (%)	Percentage	10	15	20	25
Forest Cover (%)	Percentage	35	32	30	28
Water Stress (days/year)	Days/year	15	20	25	30
Air Quality (PM2.5 index)	Index	100	120	140	160
Healthcare Access (per 1000)	Per 1000	50	60	70	80
Education Enrollment (%)	Percentage	85	90	95	98
Gender Equality Index	Index	0.75	0.80	0.85	0.90

A 4x4 grid of 16 black squares of varying sizes, arranged in a pattern that suggests a larger, partially obscured image. The squares are of different dimensions, creating a sense of depth and perspective. The overall arrangement is somewhat symmetrical, with larger squares in the center and smaller ones towards the edges.

1



L"

6				6.0 0 100 94 1.03±0.05g/cm³.		1- -2- 427700mg/kg 2- 141400mg/kg
7				pH 1.1 1.1 27		LD50 1400 mg/kg LD50 3654 mg/kg LD50 204 mg/kg LD50 370 mg/kg LD50 EUCLP 1- 2 LC50 0.79-1.915 mg/L(1h) LD50 68 mg/kg LD50 EUCLP 3- 4 LC50 EUCLP 2- 3
8		A		pH 1.5 0 7		LD50 68 mg/kg LD50 EUCLP 3~ 4 LC50 EUCLP G~ i LC50 0.17mg/L(4h) LC50 0.22mg/m³(4h) LC50 0.16 mg/L(4h) LC50 0.16 mg/L(4h)
9		B		pH 2.2 0 7		LD50 3654mg/kg LD50 204mg/kg D50 70mg/kg

10

pH

pH

122

$$1 = 1$$

kPa

5.5mg/Hg

$$=1$$

HNO₃LC50 67 ppm/4hr

11

1

 1.5g/cm^3

2000.000mPa.s

LD50>5.000mg/kg

12

14

B

LD50

LD50

LD50

1870mg/kg

273mg/kg

2000mg/kg

:

:

:

2

5()

3

26

1

2-(glypropylene)

:

:

:

5()

5()

5()

15

3C2B

pH

199.00

100.00-

100

1.190g/cm³

7.9-8.3

100.00-

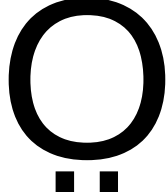
100

1.190g/cm³

/

8*

lyc



: 4
: 5()

1- -2-

: 3
: 5()

2-()

: 3
: 3(-)
: 4()
: 4()



pH 8.0-8.5

100.00-

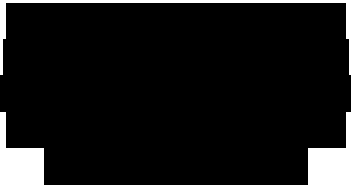
199.00

63

1.250g/cm³

0

[REDACTED]

				36g/cm ³		
23				pH 8.0 1000 61 20 0.950g/cm ³		(): 4,396mg/kg 2-() (): 1,183mg/kg 1- -2- (): 3,300 mg/kg 2-() (): 6.1mg/l 1641 ppm 4 h (): 2,764mg/kg
24				1.26-1.32g/cm ³ 6700000mPa.s		-4,4'- LD50> 2,000 mg/kg LD50 > 9,400 mg/kg 1- -2-[(4-)] LD50> 2,000 mg/kg LD50 > 9,400 mg/kg

MSDS

PVC

VOCs

1

1

“ ” 1.54g/cm³

“

	100	0-5	2.5	
1.060-1.260g/ml	1.16g/ml			1.16g/ml
	VOC		409g/L	
35.3%				
monocoat				
monocoat			1-3%	2%
1.10-1.30g/cm ³	1.2g/cm ³			
1.2g/cm ³		VOC		272g/L
	22.7%			
○		VOC		152g/L
1.275g/ml		11.9%		
		11.5:1		
		11.5:1		
(VOC)	432g/L		0.90-1.00g/cm ³	
0.95g/cm ³	0.882g/cm ³			
0.94g/cm ³	45.96%			
	VOCs			GB24409-
2020	480g/L	MSDS		0.91-0.97g/cm ³
0.94g/cm ³		VOCs		51.09%
				VOCs
850g/L				
	MSDS	90-100		
0.950g/cm				

2% VOCs 28g/L
MSDS >97% 1.35g/cm³
97% 3% VOCs
40.5g/L
VOCs
MSDS

		g/cm ³	%	VOCs g/L
		1.54	1.2	18.48
		1.53	0.4	6.12
		1.43	0.9	12.87
		1.16	1	11.6
		1.1	3.09	34
		1.16	35.3	409
	monocoat	1.2	22.7	272
		1.275	11.9	152
		0.94	45.96	432
		9.4	51.06	480
		0.86	100	850
		0.950	21.9	208
		1.40	2	28
		1.35	3	40.5

3.1.4.4.2

VOC

“2.1.4.4.1

”

VOC

3.1-5

VOC

		VOCs	GB24409-2020		GB/T38597-2020	GB38508-2020	GB33372-2020	
		34	≤250	≤250	≤200	/	/	
		409	≤530	≤530	≤420	/	/	
	Monocoat	272	≤530	≤530	≤420	/	/	
		152	≤350	≤350	≤300	/	/	
		432	≤500	≤550	≤480	/	/	
		480	≤480	/	/	/	/	
		208	/	≤300	/	≤300	/	
		850	/	≤900	/	≤900	/	
		28	/	/	/	/	≤250	
		40.5	/	/	/	/	≤250	

$$m = \rho \delta s \eta \times 10^{-6} / NV \cdot \varepsilon$$

m—	t
ρ—	g/cm ³
δ—	μm
s—	m ²
η—	%
NV—	%
ε—	%

- E
VOCs

3.1-6

s		ρ	μm	δ	NV	ε	t/a
m ² /	m ²	g/cm ³			%	%	
:45				20		99.5	
:63	540	1.1		10	21		332.6
:72				8			
52	78	1.16	15		28-35		

6			0	1	
7			0	1	
8			0	1	
9			0	10	
10			1	0	
11			0	1	
12			0	2	
13			6	10	
14			9	25	
15			0	1	
16			0	1	
17			0	1	
18			0	1	
19			0	1	
20			0	1	
21			0	3	
22			0	1	
23			0	1	
24			0	1	
25			0	1	
26			0	3	
27			0	1	
28	AUDIT		0	1	
29			0	1	
30	/		0	1	
31			0	1	
32			16	77	
1		+	0	1	
2	1 /2	8m	0	1	
3	1 /2	7m	1	0	
4		8m	1	0	
5	OK	8m	1	0	
6	1		1	0	
7		6.3m	1	0	

2.1.7-2

		m ³ /h	
1	1	900	32/37
2	2	3266	32/37
3	1	635	



2.1.7-3

1				
2				
3				
4				
5			RTO	
6			TNV	

3.3.5

3.3.5.1

567.6m³/h 227.04 m³/a

2.1.7-4

	m³/h	H	m³/a	
	290*2	4000	116*2	2
TNV				
q				
1	25			

1218kw

CO₂ O

	mm	mm	mm
	5990	2098	2645
	6900	2500 2350	2800

3C2B

	m ² /	μm/	m ² /	μm/
	45	18-22 8-12 6-10	40	35
	63		12	3C2B 15
	72			2C2B 40
	180	/	52	40
				/

3.1.3-2



[illegible]

	S2-1		
	S2-2		
	S2-3		

1

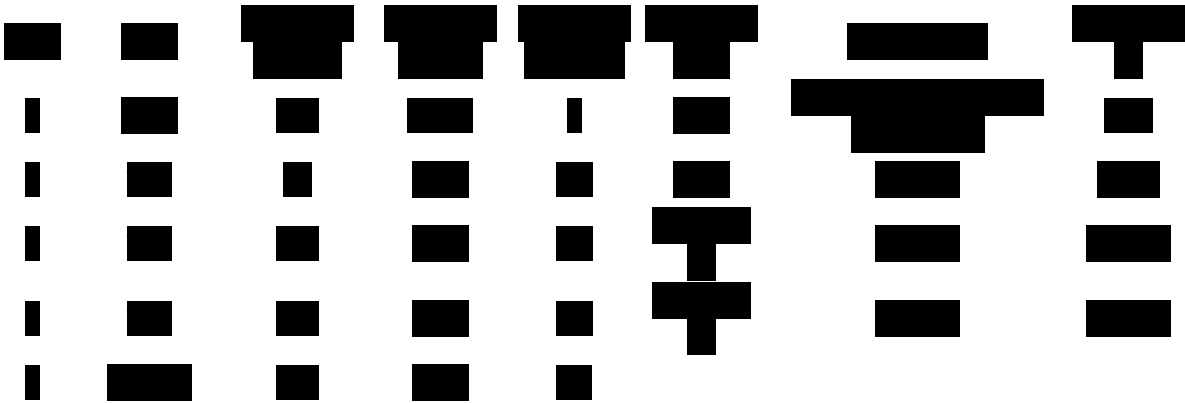
UF

4

4.5-6

4.5-6

3.1.3-4



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[Redacted]

4.1-9

4.4-8

[Redacted]

[Redacted]

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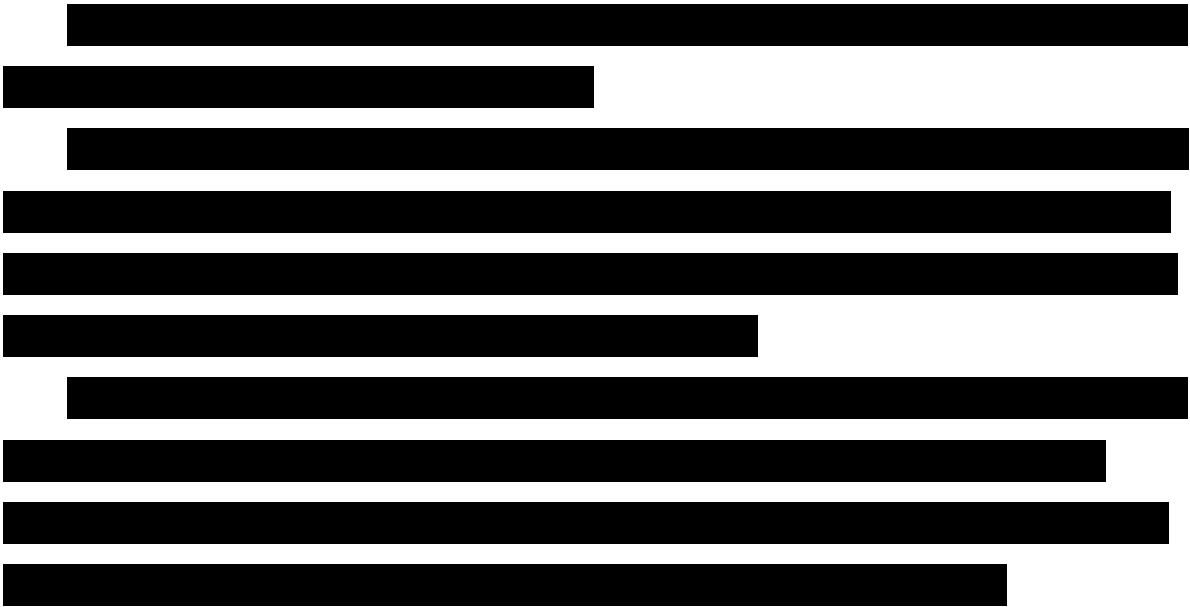
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

NA' ~~OVER~~ \$



G5-1	“	”
	+18m	
G5-2	“	”
	+18m	
G5-3		
G5-7	+	
	+	
G5-8	+RTO+27m	
G5-10		

				“ + ”	
				+18m	
	G5-14				“ +18m ”
	N		75- 90dB A		
	S5-1				
	S5-2				
	S5-3				
	S5-4				
	S5-5				
	S5-6				
	S5-7				

4.5-10

24						70%
25						14%
26						15%
27					0	
28					70%	
29					30%	

		3.2.2-2		m³/h				

[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

3.2.2-3

3

/a

t/a

t/a

t/a

307.78

54.249	1.839
12.733	51.264
40.018	2.158
90.45	0.722
48.879	31.5

78.3		78.3			2.202
		24.665			3.005
		27.64			102.501
		25.996			4.316
		214			1.107
		108.498	RTO 91.8% TNV 98%		42
		25.466			88.828
		80.036			48.35
		90.45			
		48.879			
		41.57			
		30			
		6.57			
		23.43			
		30			
		13.77			
		592.6			592.5

3.2.2-6 t/a

		t/a			t/a
		1			0.221
		0.49			0.00264
	VOCs	0.511			0.05
					0.00441
					0.0102
			“ ” 99% 90%		0.262
					0.45
		1			1

3.2.2-7 t/a

		t/a			t/a
		2			0.441
		0.979			0.00528
	VOCs	1.021			0.1

					0.00881
					0.0204
				“ +	0.523
				9	0.9
	2				2

G1-2

G1-3

G1-1

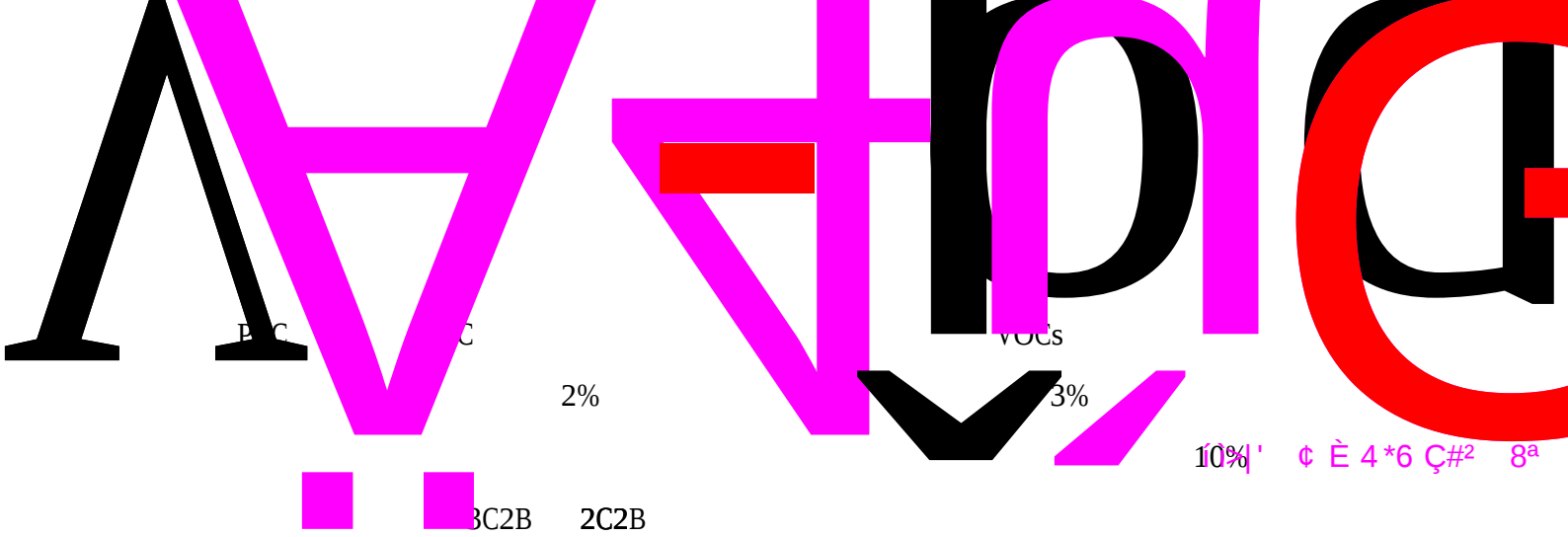
							t/a
		4.2	10000		0.039	95% 20m	97% 1 0.0011

C

						2.19 / -
--	--	--	--	--	--	----------

3.3.1-33

t/a	m ³ /h	t/a		t/a	Gy t/a
2310	12000	5.05	PVC	0.04	
			99% 1		
			20m		



3.3.1-9

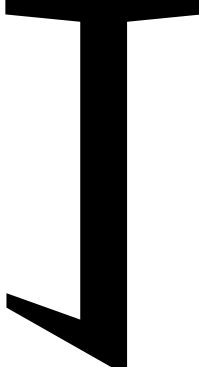
			t/a	m³/h		t/a		(t/a)
			612	45000		1.53	“ ” + 98% 90% 1 18m V	0.15
			/	/		13.77		/
			/	/		0.0306	/	0.0306

3

monocoat

3C2B4

v



3.3.1-10

m³/h

t/a

(t/a)

9600

0.84

“ ”

0.0823

9600

0.416

90%

98%

RTO

0.0407

Mžb"

0.6806

98%

+

98%

+

161865

“ ”

95%

7.907

93%

1.079

RTO

98%

1 27m

99



			/		0.99		0.99
			/		0.164	/	0.164
			/		0.499	/	0.499
			/		0.88		0.88
			/		0.219	/	0.219
			/		0.682	/	0.682
			/		0.324	/	0.324

2

3

18% 0.25m²/

2t

HJ1097-2020

“ ” “3.2 ” “ ”

3.3.1-11

			(m ³ /h)		(t/a)		(t/a)
	1		44550		0.34	” “ + 98% 99% 90% 1 18m	0.017
					0.18		0.00088
		2	44550		0.34	” “ + 98% 99% 90% 1 18m	0.017
					0.18		0.00088
		3	44550		0.34	” “ + 98% 99% 90% 1 18m	0.017
					0.18		0.00088
		/	/		0.0204	/	0.0204
					0.00881		0.00881

3

MSDS VOCs 0.5%

18t/a

3.3.1-12

(m³/h) (t/a)



‘ NQÂ™G+XLÖD5™+PVC EYH f LÖÄ

2021 24

“ ”

3.3.1-32

3.3.1-33

		t/a	m ³ /h		t/a		t/a	t/a
		7635	55440		13.3	+PVC 98% 18m 99% 1	0.13	0.27

2

2

\p

3
7.5m×5.5m *3

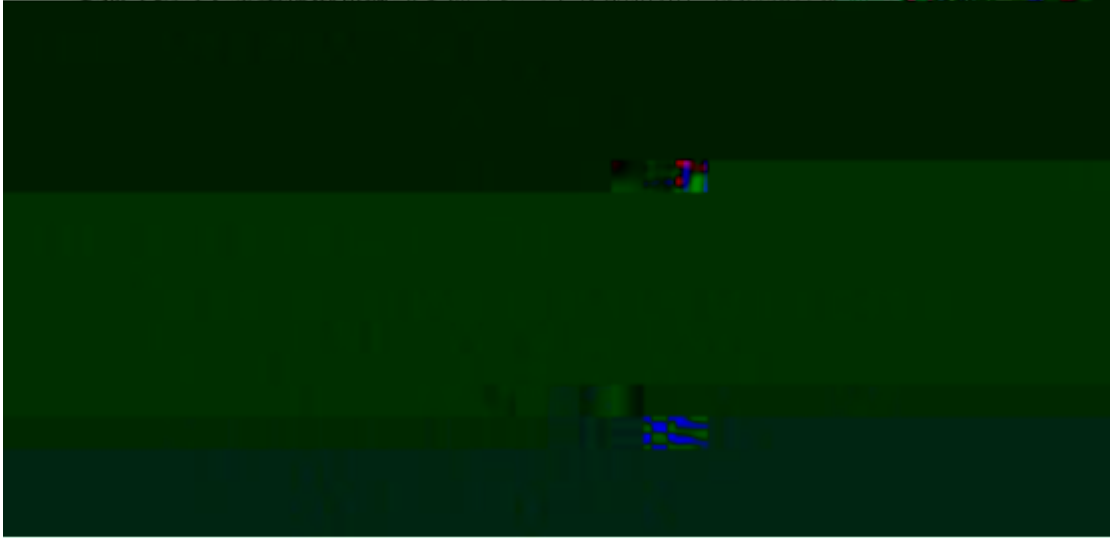
+PVC

2021 24

“ ”

3.3.1-32

3.3.1-33



8% 1.0m²/
2t

HJ1097-2020

“ ” “3.2 ” “ ”

3.3.1-13

			(m ³ /h)		(t/a)		(t/a)
			20000		1	“ ” “ ” + 98% 99% 90% 1 15m	0.00528
					0.528		0.1
			/		0.0204	/	0.0204
					0.00881		0.00881

HJ1097-

2020 15 16

	Rk g/kW·h	γ	S	P kW	T h
	8.0	0.40	20000	190	0.025

		t/a			
		NOx			
P22		0.304	0.2	0.014	15m 15000m ³ /h

HJ971-2018 11

3.3.1.4

1

RTO TNV

NO_x

HJ953-2018 ”

3.3.1-48

/			2.86	/
				-
/			0.025	/
				-
		9.36	/	-
				HJ953-2018

NO_x

HJ953-2018 ”

3.3.1-50

/ /			2.86 / -	HJ953-2018
			0.02S / -	
			9.36 / -	

3.3.1-51

3.3.1-51

	(t/h)	()	(m3/a)	t/a	SO2 t/a	NOx t/a	(m³/h)	
	4	2	232	0.66	0.928	2.17	6960	P

440.87m²

577

8

0%

3.3.1-54

m³/h		/	mg/m³	kg/h	t/a			mg/m³	kg/h	t/a	h	mg/m³	kg/h
10000	P1	H:20m Φ:0.5m	1.95	0.0195	0.039	+		0.055	0.00055	0.0011	2000	120	5.9
						95%	1						
													97%



5A_{TM}

98%

Δ0%

500

·9 E1 Δ

119

2#TNV				SO ₂	4.32	0.0475	0.19				4.32	0.0475	0.19	200	/
				NO _x	10	0.11	0.44				10	0.11	0.44	50	/
					7.61	0.0168	0.067				7.61	0.0168	0.067	30	/
2200 P9 H:18m Φ:0.24m				SO ₂	10.68	0.0235	0.094				10.68	0.0235	0.094	4000 200	/
				NO _x	25	0.055	0.22				25	0.055	0.22	50	/
					7.5	0.0075	0.03				7.5	0.0075	0.03	30	/
1000 P10 H:18m Φ:0.16m				SO ₂	9.4	0.0094	0.0376				9.4	0.0094	0.0376	4000 200	/
				NO _x	22	0.022	0.088				22	0.022	0.088	50	/
					331	3.972	15.888								
12000 H:18m Φ:0.5m					3.375	0.0405	0.162				3.375	0.0405	0.162	4000 30	/
				SO ₂	4.79	0.0575	0.23				4.79	0.0575	0.23	200	/
				NO _x	11.04	0.133	0.53				11.04	0.133	0.53	50	/
					11.85	0.0825	0.33				11.85	0.0825	0.33	20	/
1 3480 P12 H:18m Φ:0.3m				SO ₂	16.67	0.116	0.464				16.67	0.116	0.464	4000 50	/
				NO _x	38.97	0.27	1.085				38.97	0.27	1.085	50	/
3480 P13 H:18m Φ:0.3m															

								98%								
								99%								
1	14850	P15	H:18m Φ:1.0m		117.34	1.74	6.97	1 +PVC	1	2.4	0.105	0.42	4000	120	5.04	
								98% 99%								
2	14850				117.34	1.74	6.97	2 +PVC								
								98% 99%								
3	14850				117.34	1.74	6.97	3 +PVC								
								98% 99%								
1	44550	P16	H:18m Φ:1.8m		0.0025	0.111	0.167	1	“ + ”	0.25	0.033	0.05	4000	120	14.2	
					1.32	0.059	0.088	98%								
2	44550				0.0025	0.111	0.167	2								
					1.32	0.059	0.088	98%								
3	44550				0.0025	0.111	0.167	3								
					1.32	0.059	0.088	98%								
								90% 99%								
	31680	P17	H:18m Φ:1.0m		0.71	0.0225	0.09	98% 1 “		0.069	0.0022	0.0088	4000	120	14.2	
								” 90%								

20000	P18	H:15m Φ:0.7m	33.3	0.67	1	98% ” 1 “ +	0.176	0.003520.00528	120	10
			17.6	0.352	0.528		3.33	0.067 0.1	1500 120	3.5
15000	P19	H:20m Φ:0.6m	1.87	0.028	0.014					

				Φ 0.7m	H ₂ S	0.41	0.0082	0.041	95%	90%	0.05	0.001	0.0039	5000	/	0.33	
4.02t/a					9.806t/a	SO ₂	4.61t/a	NO _x	5.511t/a	NH ₃	0.0646t/a	H ₂ S	0.0039t/a				

4.6-29

3.3.1-55

			m	m	m	h			
								t/a	kg/h
3			207	73	18.5	2000		0.0185	0.00925
						4000		1.097	0.27
4						4000		0.101	0.025
0.12t/a						1.097t/a			
9			207	74	16	4000		0.072	0.018
10						4000		0.134	0.0335
						4000		0.27	0.0675
						4000		0.0306	0.00765
13						4000		0.0168	0.0042
14						4000		0.00832	0.00208
15						4000		1.092	0.273
16						4000		0.99	0.25
						4000		0.164	0.041
19						4000		0.499	0.12

20
21
24

0

4000
4000
4000

0.88 0.22
0.219 0.055
0.6 Å $\neq$

(

00 1 $\bar{y}$ x (' L
00

0'e $\bar{y}$ " 9 $\bar{r}$ (B
'S " 9 $\bar{r}$ (' 0 $\bar{r}$
0 $\bar{r}$

3.3.1-56 P

[REDACTED]

“3 / ”

■

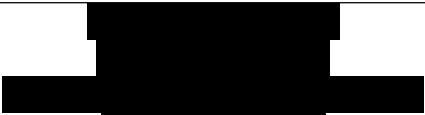
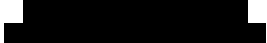
■

■

■

■



5m³/

30m³/



1.25m³/h

23.5m³/d

2

50m³

50m³/

10m³/d

2500m³/a

CODcr100mg/L

2

1

2.1.7-2

Qm=QeN/ N-1

Qm—

Qe—

N—

5-6

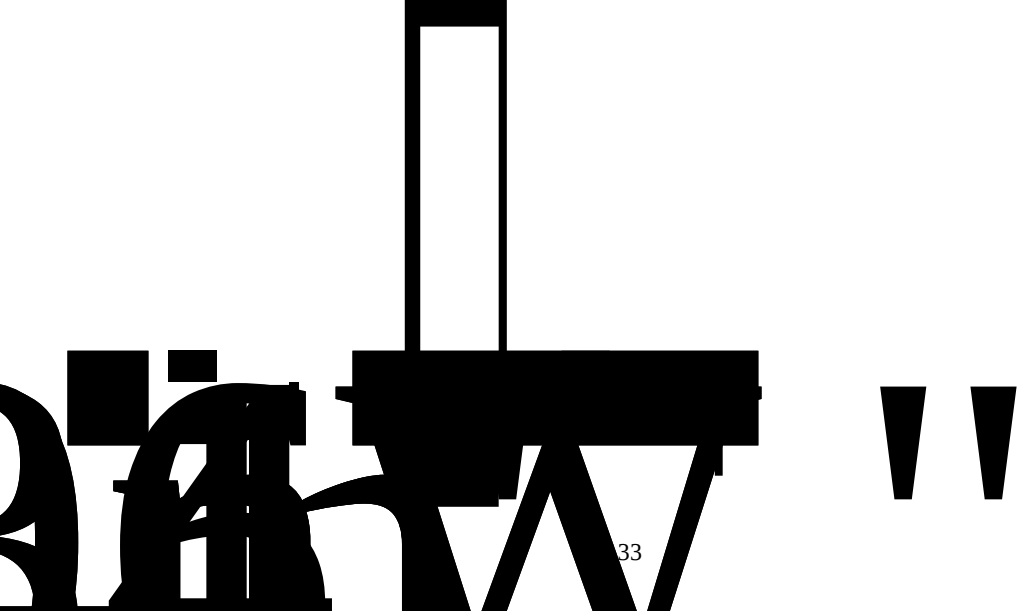
$$Q_w = 0.1\% Q$$

$$Q_w =$$

$$Q_e = K \cdot t$$

Q	(L/s)	q	(L/S·ha)	φ	0.9
F	(hm ²)				
			34500m ²		

[REDACTED]



		m ³ /d	pH				mg/L				
			pH	COD _{Cr}	SS	TN	Zn	LAS			
W2-1		30	7-11	1500	300	/	/	/	/	500	40
W2-2		2.13	9-12	5000	1000	/	/	/	/	1000	60
W2-3		0.33									
W2-4/5	/	66	7-11	2200	250	/	/	/	/	500	40
W2-6		65									
W2-7		17.14									
W2-8		0.33	4-6	3000	600	/	100	40	100	/	/
W2-9/10		86	4-6	1500	400	/	50	20	20	/	/
W2-11		18.57									
W2-12		57.5									
W2-13		8									
W3-1/2		0.5	5-6	8000	5000	/	/	/	/	60	/
W3-3	UF1	0.02	6-7	1000	300	/	/	/	/	40	/
W3-4	UF2	0.02									
W3-5	UF2	0.02									
W3-6/7		206									
W3-8		8	7-10	3000	1000	/	/	/	/	/	/
/		23.5									
/		4.36									
/		124.4									

W6-1			10	7~9	200	100	/	/	/	/	10	/
/			40.768	6-9	80	60	/	/	/	/	10	/
/			2.56	6~9	80	60	/	/	/	/	/	/
/			140.4	6-9	400	200	45	/	/	/	/	/
/			2.3	6-9	500	400	/	/	/	/	40	/
t/a			913.848	6-9	152.96	35.79	0.936	1.62	0.65	0.65	18.069	1.354

1 900m³/d 45m³/h 20h

1

“ + + ” “ +
+ ”

2

“ + +pH ”

3

“ +pH + +A/O+ + +
”

GB8978-1996

3.3.2-9

				pH		mg/L
m ³ /d	pH	COD _{Cr}	SS	TN	Zn	LAS

/		140.4	7~9	400	200	45	/	/	/	/	/	20
/		2.3	7~9	500	400	/	/	/	/	40	/	/
/		4.36	6~9	80	60	/	/	/	/	/	/	/

HJ2047-2015

HJ2006-2010

HJ2007-2010

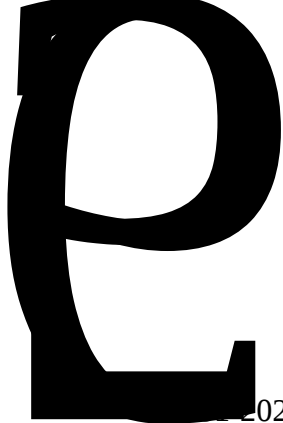
HJ2009-2011

3.3.2-10

m ³ /d	pH	COD _{Cr}	SS	pH		mg/L	
				TN	Zn	LAS	
26.46	7-11	3280.					

/			4.36	6~9	80	60	/	/	/	/	/	/	/
/			124.4	6~9	80	60	/	/	/	/	/	/	/
/			2.56	6-9	80	60	/	/	/	/	/	/	/
/			40.768	6~9	80	60	/	/	/	/	/	/	/
		t/a	228462 m ³ /a	6-9	57.3	11.63	1.57	1.12	0.06	0.2	2.2	1.5	0.73
GB8978-1996		/	/	6-9	320	180	30	/	5.0	20	20	20	100

GB8978-1996



3.3.3-1

		(/)	(dB A)			dB A
		85	70-80			55-65
		10	65-75			55-60
		4	75-90			50-55
		8	75~85			55-65
			75~90			50-55
			75~90			50-55
		8	75~85			55-65
		3	80~95			50-70
			100-120			60-70
			75~90			50-55
			75~90			50-55
		2	75~85			55-65
		1	80-85			65-70
		7	75-90			60-65
		/	75			60

65-80dB A

3.4.4.2

3.3.4-5

3.4.4.3

RO

RO

3.3.4-5

1

180kg/

180kg

3316

20kg



O

18t/a

4



6.079t/a

5

0.3kg/kg

102.501t/a

8kg

12813

38t/a

140.9t/a

70%

6.079t/a

26.3t/a

8~9kg

3kg

102.501t/a

6

1 “^

0\$AÑÂt hLtGy4Ö

“

Vi=100Q	C1-C2	/Pi	100-X	·10 ³				
Vi—				m ³ /d				
Q—		m ³ /d			741.76m ³ /d			
C1	C2—			kg/m ³				
			553mg/L	48.83mg/L				
X—		%			97	3mg	g	g

3.15	HW13	900-014-13
0.3	HW49	900-041-49
0.6	HW49	900-041-49
0.2	HW08	900-209-08
9	HW06	900-404-06
9	HW06	900-404-06
189.94	HW49	900-041-49
140.9	HW49	900-041-49
0.3	HW49	900-041-49
26.3	HW49	900-041-49
1	HW49	900-041-49
76	HW49	900-041-49
1	HW08	900-249-08
3.9	HW49	900-041-49
0.07	HW13	900-014-13

HW 13

b

12	18	HW06 900-404-06	0
13	191.24	HW49 900-041-49	0
14			

3.3.4-3

			t/a						
2	HW08	900-249-08	1	/				1	T I
3	HW08	900-249-08	76					1	T I
4	HW13	900-014-13	3.34					1	T
7	HW17	336-064-17	19.2			Al	Al	1	T/C
8	HW49	900-041-49	1.25					1	T/In
9	HW49	900-041-49	0.6					1	T/In
10	HW08	900-209-08	0.2					1	T I
11	HW49	900-041-49	0.3	/		/			T/In
12	HW06	900-404-06	18					1	T I R
13	HW49	900-041-49	191.24					1	T/In
14	HW49	900-041-49	140.9						T/In
15	HW49	900-041-49	30.2					3	T/In
16	HW49	900-041-49	1					3	T/In
18	HW08	900-210-08	4.2					1	T I
21	HW17	336-064-17	88.5	9 jwG1109-j%v3816:	9 jwG1109-j%v3816:	9 jwG1109-j%v3816:	/		T/C

HJ/T293-2006

HJ/T293-2006

3.5.2-1

1

0.10

a

b

c

a

b

2

-

0.10

a

b

0.53



95%

				GB/T
6	0.05	GB/T 24001	24001	
7	0.05			
8	0.05			
9	0.05			
10	0.05	“ ”	“	

/ “

3.5.2.4

2

III

I

II

III

3

I

I

YI

YI 85

I

YI 85

2

II

II

YII 85

II

YII II

YII 85

3

3

III

YIII

YIII=100

III

III

YIII 100

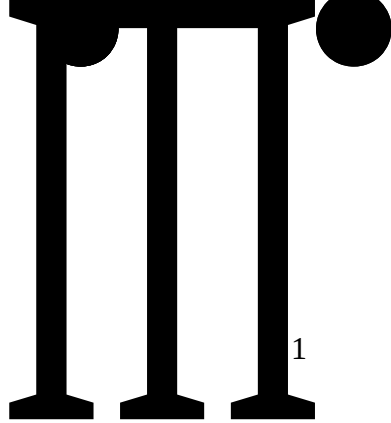
I	

RTO
SO₂ NO_x
NO_x
SO₂ NO_x

						98%
					/	
				SO ₂		
				NO _x		
			H:18m Φ:1.0m		+ 98%	1 “2#TNV ” 98%
					/	
				SO ₂		
				NO _x		
		P9	H:18m Φ:1.0m		/	
				SO ₂		
				NO _x		
		P10	H:18m Φ:1.0m		/	
				SO ₂		
				NO _x		
			H:18m Φ:1.2m		+ 98%	1 “3#TNV ” 98%
					/	
				SO ₂		
				NO _x		
	1	P12	H:18m Φ:1.0m		/	-
				SO ₂		
				NO _x		
	2	P13	H:18m Φ:1.0m		/	-
				SO ₂		

NO_x

		P21	H:20m Φ:0.6m		/	
				NOx		
		P22	H:15m Φ:0.6m		/	
				NOx		
		P23	H 15m Φ 0.9m			1 90%
		P24	H 15m Φ 0.9m	NH ₃	95%	90%
				H ₂ S		



1

CO₂

CO₂

18m 98%

90%

1 TNV 1

18m P3 98% “

TNV ” 98%

18m

98%

90%

P6

2

98% 1 90% RTO

P6

98%

95% 98% 1

1

1 RTO

98% 91.8% 1 27m

98% 1 “RTO ”

98% 1 18m

3 98% 1 “ +

” 90% 99% 18m

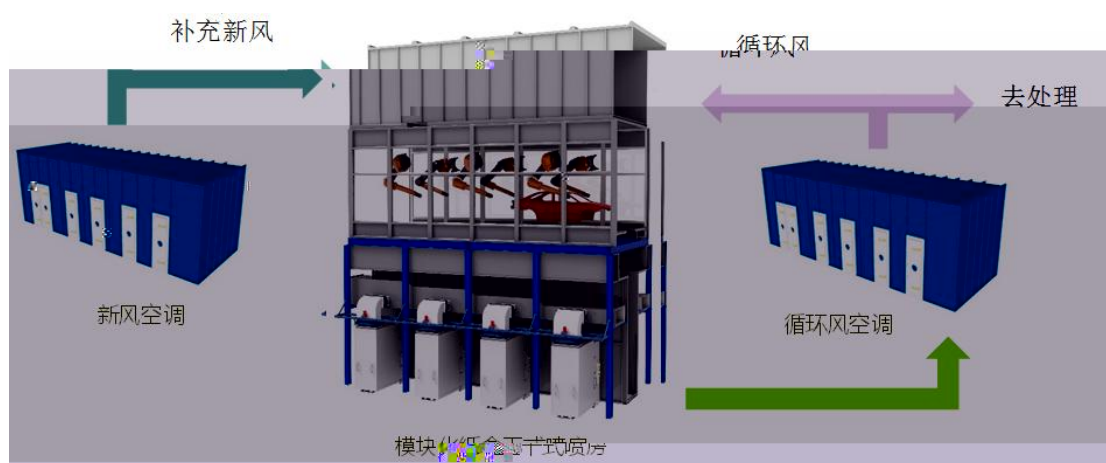
“ ” 98%

1 18m 1 90%
10cm 80% 95%

GB16297-1996
2
PVC 1 +
90% 1 18m

GB16297-1996
3 1 2
1 90%
GB16297-1996
4
1

6.1.2-2



1

2

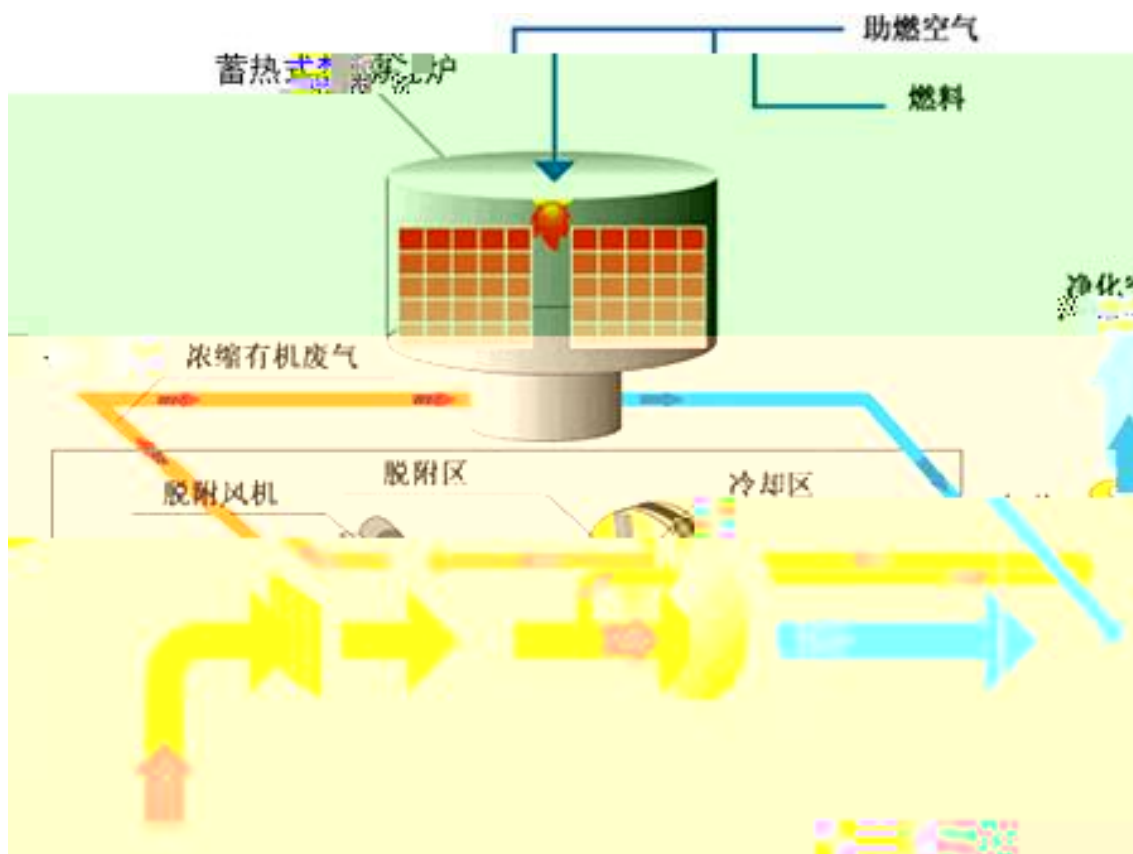
+

1

+1 RTO

1 27

6.1.2-3



VOCs

VOCs

220

25%

HJ2026-2013

1:20

352800m³/h

VOC

93%

VOC

RTO

7%

RTO

VOC

RTO

750

CO₂

H₂O

1 RTO

750-800

90%

120

98%

RTO

PLC

RTO

HJ 971-

2018 25

+

RTO VOCs 9.627mg/m³

0.0392kg/h GB16297-1996

+RTO

98%

TNV

CO2

TNV

3.0 废气 3.0 废气

2016

VOCs

HJ 971-2018

25

6.1.2-1

6.1.2-1

	mg/m ³	kg/h	mg/m ³	kg/h
20			0.40~0.92	0.018~0.043
15		/	~0.25	$\frac{1.39 \times 10^{-3}}{5.62 \times 10^{-3}}$
18		$\frac{1.8 \times 10^{-5}}{1.9 \times 10^{-5}}$	0.64~1.15	0.0155~0.0285
20	1.70~8.07	$\frac{1.46 \times 10^{-6}}{9.96 \times 10^{-3}}$	17~27.5	0.0342~0.0566
6	$\frac{0.144}{1.1}$	0.144~0.346		

90%

GB16297-1996

7

1 18m

90% 1 15m P23

15m P24

24

20m/s

		m	m	m ³ /h		m/s
P1	1	20	0.5	10000		14.1
P2	1	20	0.6	12000		11.8
P3	1	18	0.7	18000		13
P4	1	18	0.5	8500		12.03
P5	1	20	1.2	55440		13.6
P6	1	20	1.0	45000		15.9
P7	1	27	2.2	181065	65	13.2
P8	1	18	0.5	11000	65	15.6
P9	1	18	0.24	2200	65	13.5
P10	1	18	0.16	1000	65	13.8
P11	1	18	0.5	12000	65	16
1/2 P12 P13	2	18	0.3	3480*2	60	13.7
P14	1	18	0.8	23760		13.1
1/2/3 P15	1	18	1.0	14850*3		15.8
1/2/3 P16	1	18	1.8	44550*3	50	15
P17	1	18	0.8	31680		17.5
P18	1	15	0.7	20000	50	14.4
P19	1	20	0.6	15000		14.7
P20	1	20	0.6	15000		14.7
P21	1	20	0.6	15000		14.7

P22	1	15	0.6	15000		14.7
P23	1	15	0.5	12600		17.8
P24	1	15	0.7	20000		14.4

1

1

2

2

1

2

3

RTO

RTO

RTO

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2013 81

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4. A F W G - B A M C A C V N A

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6

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Èx D#0 - •

6.2.2

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-f L\$ï

1

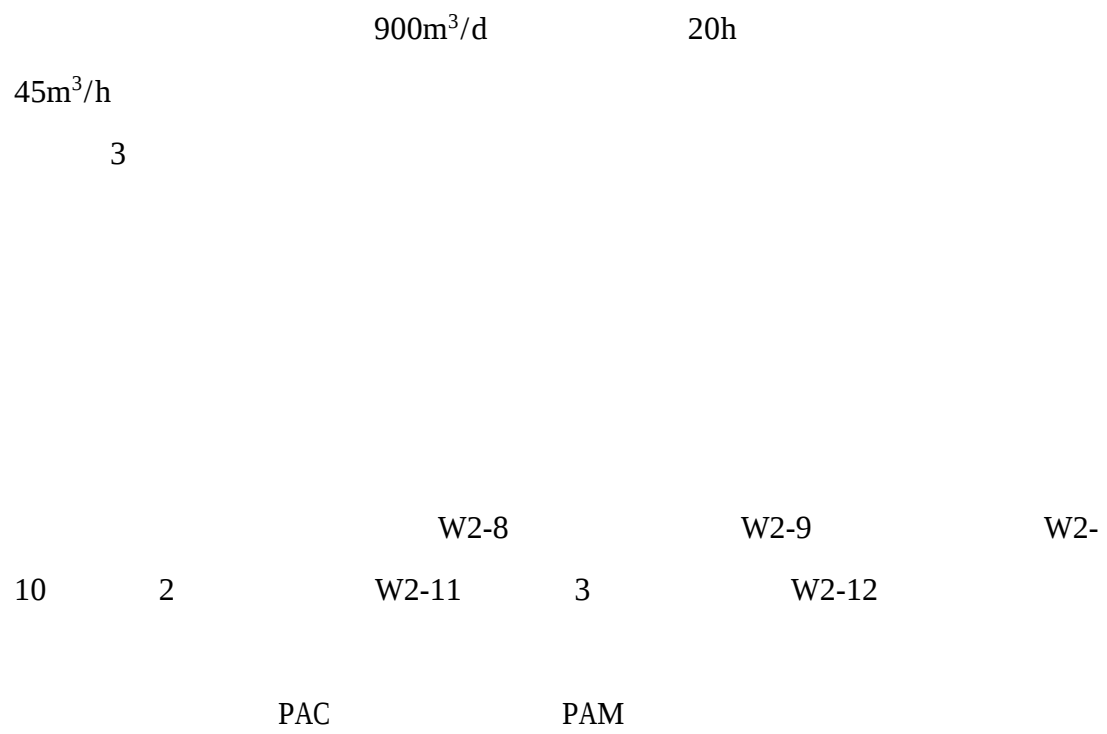
• #â\$

~ x Å#ø W232 W2

W2-3

W3-1

Pd ï Èd Q #0



6.2.2-1

6.2.2-1



					%		
						“	+
					50-90	+pH	”
						90%	
						“	+
			+	+	COD30-70	+	”
	COD	SS			60-80		60%
						COD	
						30%	
						“	+
pH	COD				/		
SS			+		COD25-50		
					40-60		

1

2

3

4

5

6

7

8

9

GB/T50934-20

			C30	P8 C15 200mm
			10mm	
			10 ⁻⁷ cm/s	6.0m 1.0
		1	250mm	P8
		2		
		3	1.0mm	
		4	1.5mm	
			2%	1%
			1.0 10 ⁻⁷ cm/s	6.0m
			1.0 10 ⁻⁷ cm/s	1.5m

1

GB610-2016

1

1

1

K ⁺	Na ⁺	Ca ²⁺	Mg ²⁺	CO ₃ ²⁻	HCO ₃ ³⁻	Cl ⁻	SO ₄ ²⁻	pH
			N				N	

2

1

2

HJ/T164

a

b

c

3

1

2

1

2

3



1

2

3

4

5

6

7

i ´ »

10~50dB

3.3.3-1 Ä

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3.3.4-5

1

RO

2

3

1

GB18597-2001

440.87m²

440.87m²

575.93t/a

2.3t/d

30

69.1t

300t

7

8

GB12463

4

e: B

2

RO 168.13t/a

0.67t/d 7 4.7t

1

2

6.6.3-1

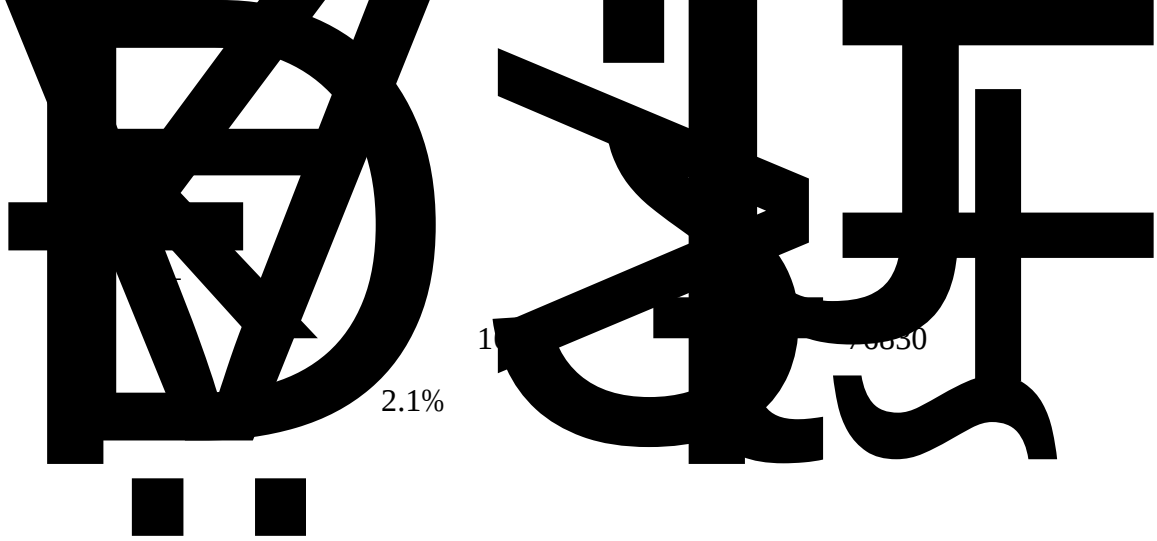
1		GB36600-2018 1 45 +pH	3 1	2 GB36600-2018
2			3 1	

2

1.23% 359890 4440 8.1-1 ()

		1 TNV 3# +1 18m P11	60
	1	1 18m P12	20
	2	1 18m P13	20
		1 +1 20m P14	20
	1/2/3	1 3 1 18m	50
	1/2/3	1 “ + ” +1 20m P16	15
		1 “ ” +1 18m P17	15
		1 + +1 15m P18	15
		1 20m P19	8
		1 20m P20	8
		1 20m P21	8
		1 20m P22	8
		+1 15m P23	15
		+1 15m P24	30
			120
		1 2 3	100
			1642

$$H_z = E_0/E_R \times 100\%$$



2.1%

1

78850

$$F_g = \frac{E_z}{E_s} \times 100\%$$

E_z —

E_s —

185

309125

0.6%

600

7 s \$)ß

Nó /n J) `

1

2

1

2

31

2013 81

1

2

3

4

5

6

1

2

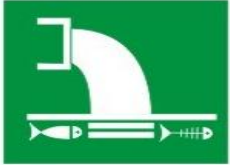
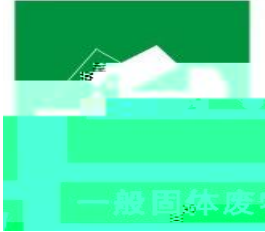
3

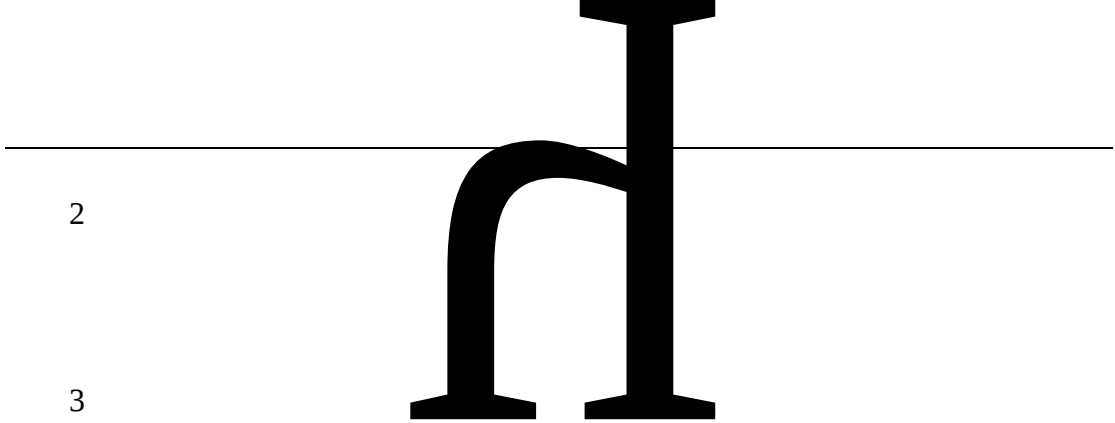
3

4

1

9.1-1

1	 污水排放口	 污水排放口	
2	 废气排放口	 废气排放口	
3	 噪声排放源	 噪声排放源	
4	 一般固体废物		
5			



2

3

4

5

8 9 + W x

d e x . 9 0 A2 0.5

13

14

15

2 3

1

2

3

4

5

6

1

2

3

“ ”

4

1

1

2

3

5%

4

10% 20% 30%

10% 15% 20%

5

9.5-1

9.5-2

	1		/	-		18m			
		SO ₂				P12			
		NO _x							
			/	-		18m			
		SO ₂				P13			
		NO _x							
			+PVC			18m			
						P14			
	1		+PVC 1			18m			
	2		+PVC 1						
	3		+PVC 1						
		1			+		18m	P16	
2									
3									
							18m		
					P17				
				“ + ”		15m			
						P18			
			/			20m			
						P19			
		NO _x							
						20m			
						P20			
		NO _x							
			/			20m			

						P21		
		NOx						
						/		20m
								NOx
					15m			
					/	P23		
		NH3				15m		
		H2S				P24		

pH
 COD
 SS
 TN
 Zn
 LAS

9.5-2

		m ³ /h		/			mg/m ³	kg/h	t/a	mg/m ₃	kg/h		
		10000	P1	H:20m Φ:0.5m		+ 95% 1 97%	0.055	0.00055	0.0011	120	5.9	GB16297-1996	
		12000	P2	H:20m Φ:0.6m		PVC 98% 99%	1.03	0.012	0.049	120	5.9	GB16297-1996	
		18000	P3	H:18m Φ:0.7m		98% 1 “ ” 90%	4.9	0.088	0.353	120	14.2	GB16297-1996	
		8500		H:18m Φ:0.5m		+ 98% “TNV” 98%	3.9	0.033	0.133	120	14.2	GB16297-1996	
						/	5.94	0.0505	0.202	20	/		
					SO ₂		8.24	0.07	0.28	200	/		
					NO _x		19.4	0.165	0.66	50	/		

[illegible]

11000	H:18m 99.5m δ	98% ” m"δ .	SO ₂	/	NOx	0.29	0.047	0.187	240	3.47	GB16297- 1996
			NOx	+							
			98%	1	“TNV	15.2	0.17	0.669	120	14.2	
			98%			2.95	0.0325	0.13	30	/	
			SO ₂	/		4.32	0.0475	0.19	200	/	
			NOx			10	0.11	0.44	50	/	

2

>

0iv

Φ :0.3m	SO ₂	16.67	0.116	0.464	50	/
	NO _x	38.97	0.27	1.085	50	/

“ ”

1

HJ820

2

1

1

2

1

2

GB14554 GB16297 HJ/T55

HJ971-2018

HJ1086-2020

			P1		
			P2		
			P3		
			P4		
			P5		
			P6		
			P7		
				SO ₂	
				NO _x	
			P8		
				SO ₂	
				NO _x	
			P9		
				SO ₂	
				NO _x	
			P10		
				SO ₂	
				NO _x	
			P11		
				SO ₂	
				NO _x	
		1	P12		
				SO ₂	
				NO _x	
		2	P13		
				SO ₂	
				NO _x	

P14

1/2/3

P15

1/2/3

P16

P17

P18

P19

NO_x

P20

1

HJ/T 353 HJ/T 354 HJ/T 355 HJ/T 356

2

GB/T 16157 HJ/T 397 HJ 732

HJ/T 55

HJ 493 HJ 494 HJ 495 HJ/T 91

3

HJ819

HJ819

HJ819

1

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3

4

5

76830

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3

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2022 7 22

6

[2015]34

7

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5

GB36600-2018

GB36600-

2018

10.4.1

10.4.1.1

1

2

CO₂

1

1

1 20m

1 20m

18m

98%

90%

1 TNV

1 18m

98% “ TNV ”

98%

1

2m³/h

2

540m³/d

18h

540m³/h

3

240m³/d

16h

15m³/h

4

5

1

45m³/h

+

+

+

GB8978-1996

GB12348-2008

4

GB12348-2008

3

D2

E2

2

“ ”

“ ”

“ ” 10.8-1

	“ ” 1 2m³/h “ + + ”	GB8978- 1996

			2 30m³/h “ + + ” 3 15m³/h “ + +pH ” 4 “ +pH + 45m³/h + + ” +A/O+ GB8978-1996 4	
			+1 20m P1 +1 6 1	GB16297-1996 2
			PVC +1 20m 1 P2	
			1 “ ” +1 18m P3	
			+ 1# +1 18m 1 TNV P4	
			+1 18m P5 +1	
			1 “ + ” +1 18m P6	
			1 “ ”	
			RTO P7	
			+ RTO	
			+1 27m P7	

				1	TNV			
	2#	+1	18m		P8			
				1	20m	P9	“	
SO ₂	NO _x							”
							“	
				1	20m			2020
SO ₂	NO _x	P10						
							”	
				1	TNV			
	3#	+1						

P20

1

20m

P21

1

20m

P22

+1

15m

P23

$$\text{NH}_3$$
$$\text{H}_2\text{S}$$

+1

15m

GB14554.

93

GB12348-

2008

3

/

RC

440.87m²