PO/TBA

2020.5

(601678 SH) 15.444

103.9

2010 2 23 2017

64.65 11.05 15.33

GB/T19001 GB/T24001 GB/T23331 GB/T28001

GB/T22000

1500 m^3

6.9 m^3

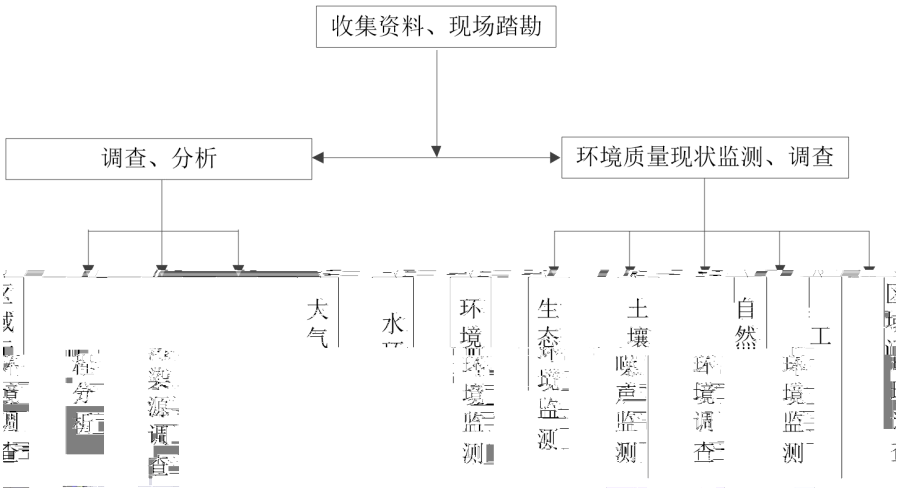
40% 60%

$Ca(OH)_2$

70%

$CaCl_2$

1


收集资料、现场踏勘
调查、分析
环境质量现状监测、调查
大气
水
环境监测
生态环境监测
土壤
噪声监测
自然
环境调查
工
环境监测

2019

1

1 2017 PM_{10} $PM_{2.5}$

GB3095-2012

2

GB3838-2002

2

1

2017

VOC_S

VOCs 100%

2

4 DB37/3416.4-2018

2

47.25m^3/a ..... 72m^3/a

119.25m^3/a

3

3

1,2-

GB/T14848-2017

7200d COD 350m

4

GB12348-2008 3

5 1# 2# 3# 4#

GB36600-2018 1

5# 6#

GB15618-2018 1

2020 05

1

1.1

1.1.1

2014.4.24

2018.12.29

2018.10.26

2017.6.27

2020.4.29

2018.12.29

2018.8.31

2012.2.29

2014.8.31

2018.10.26

2007.8.30

1.1.2

559 2009.8.12

591 2011.3.2 2013 12 7

682 2017.6.21

1.1.3

2011 35

2013 37

2015 17

2016 31

2016 65

2016 74

2018 22

2010 33

2016

81

2019

29

2015 10 2015 5

1.1.4

17

31

34

35

39

44

4

VOCs 2013 31

2018 9

< 2018 >

2019 4

< >

2019 28

2012 77

2012 98

< >

2013 104

< >

2015 4

< > 2015 162

< >

2015 163

2015 178

< >

2013 103

2013 104

2014

30

< > 2014 34

2014 48

< > 2014 177

2016 1686

2016 150

2017

121

2019 2019 16

2018 11

2019 53

1.1.5

2018.11.30

2018.11.30

2018.12.1

2018.1.23

2018.1.23

< > 2018.11.30

< > 2018.1.23

248 2011.12.27

2018.9.5

2015 58

2017 10

2017 15

2017 29

2019 150

2018-2020

2013-2020

2018-2020 2018 17

2018-2020

2018 166

2018-2020 2018 229

2019 29

2019 150

2019

66

2019 146

1.1.6

< >

2014 126

5 <

> 5 2016 162

< 2016-2020 >

2016 176

< >

2017 5

< >

2019 93

2016 141

2019 112

<

> 2019 132

<

> 2019 134

2013-2020

2018-2020 2018 19

2019 144

1.1.7

- HJ2.1-2016
- HJ2.2-2018
- HJ2.3-2018
- HJ610-2016
- HJ2.4-2009
- HJ19-2011
- HJ169-2018
- 2017 43
- HJ2000-2010
- HJ2015-2012
- HJ2025-2012
- GB18597-2001
- GB18218-2018
- GB/T50934-2013
- HJ819-2017
- HJ947-2018
- HJ884-2018
- HJ2026-2013
- DB37/T3535-2019

1.2

1.2.1

1.2.2

1.2.3

1.3

1.3.1

PVC

1.3-1

1.3-1

1.3-2

1.3-2

		VOCs
		VOCs
		pH COD SS
		TBHP/TBA
		L_{eq} A

1.3.2

1.3-3

1.3-3

	VOCS	VOCs
	pH CODMn	
	K+ Na+ Ca2+ Mg2+ CO32- HCO3- pH 1,2- 1,1 1- 1,1,2- 1,1- 1,2-	COD
	L10 L50 L90 Leq	Leq A
	pH 1,1- 1,2- 1,1- -1,2- -1,2- 1,2- 1 1 1 2- 1 1 2 2- 1 1 1- 1 1 2- 1 2 3- 1 2- 1 4- + 2- [a] [a] [b] [k] [a,h] [1 2 3-cd]	
		--

1.4

1.4.1

HJ2.2-2018

VOC_S =76.05% 10%

1.4.2

90% 47.25m^3/a 72m^3/a

119.25m^3/a

HJ2.3-2018 5.2

B B

1.4.3

1.4-1

1.4-1

1.4.4

3dB(A)

HJ2.4-2009

1.4.5

1.4-2

1.4-2

	458.4m^2		

1.4.5

Q 1

HJ169-2018

1.4-2

1.4-2

	VOC_S =76.05% 10%	
		B
	3dB(A)	

1.5

1.5.1

1.5-1

1.5-1

1		118.058520°E 37.379958°N 5km
2		500m 3000m
3		≤6km^2
4		200m
5		200m

1.5.2

1.5-2 1.5-1

1.5-2

				m	
	1		SW	490	2187
	2		SW	1380	823
	3		SW	1170	325
	4		SW	1340	600
	5		SW	1540	420
	6		W	1350	1017
	7		W	1950	286
	8		W	2060	800
	9		W	1960	400
	10		SW	1760	324
	11		SW	2260	460
	12		NE	2450	280
	13		NE	2720	420
	14		SW	2160	1000
	15		SW	2010	350
	16		SW	1830	350
	17		SW	1240	8000
	18		NW	2740	460
	19		NW	2350	358
	20		N	1500	803
	21		NW	2150	256
	22		N	1990	1310
	23		N	2000	800
	24		NE	2100	880
	25		NW	2300	450
	26		SW	1640	636
	27		SW	1810	621
	28		S	1620	291
	29		S	1080	595
	30		SE	1150	1000
	31		SE	1170	328
	32		SE	1460	144

1.6-2

1.6-2

	pH	COD_{Mn}	NH_3-N		
	6 9	15mg/L	2.0mg/L	2.0mg/L	0.2mg/L
	100mg/L	1.0mg/L	1.0mg/L	1.5mg/L	250mg/L
	250mg/L	1000mg/L	40000 /L		

3

GB/T14848-2017

1.6-3

1.6-3

	pH				
	6.5 8.5	3.0mg/L	0.5mg/L	450mg/L	1000mg/L
	250mg/L	250mg/L	0.002mg/L		
	3.0CFU/100mL				
	20mg/L	1.0mg/L	1.0mg/L		

4

GB3096-2008 3 1.6-4

1.6-4

3	65dB(A)	55dB(A)

5

GB36600-2018 1 1.6-5

1.6-5

mg/kg	60	65	5.7	18000	800	38
					1,1-	1,2-
mg/kg	900	2.8	0.9	37	9	5
	1,1-	-1,2-	-1,2-		1,2-	1,1,1,2-
mg/kg	66	596	54	616	5	10
	1,1,2,2-		1,1,1-	1,1,2-		1,2,3-
mg/kg	6.8	53	840	2.8	2.8	0.5
				1,2-	1,4-	
mg/kg	0.43	4	270	560	20	28
			+			
mg/kg	1290	1200	570	640	76	260
	2-	[a]	[a]	[b]	[k]	
mg/kg	2256	15	1.5	15	151	1293
	[a,h]	[1,2,3-cd]				
mg/kg	1.5	15	70	45000		

GB15618-2018 1 1.6-6

1.6-6

		mg/kg
		pH 7.5
1		0.6
2		3.4
3		25
4		170
5		250
6		100
7		190
8		300

1.6.2

1.6.2.1

3	65	55

1.6.2.4

GB18599-2001

GB18597-2001

2

2.1

2007 3 15 18

( ) 1968

1970

9

82.46 2300

PO/PG

GB/T 19001 GB/T 24001 GB/T 28001

2010 254.62 54.84 27.13

2.2

2.2.1

25 / 20 / 12

/ VCM

HCL 15 / 6 /

3 / 8 / 2 /

8 /

2 / 2000 /

2.2.2

2.2-3

2.2-3

25 / 32% 25 t/a 100%

мл0000t/a 100% мл0000t/a 100%

3 t/a

1

PO 6 t/a

2 t/a

2.0 /

2000 / 2000 /

			200t/h 0.89MPa 200 0.8MPa 129.18t/h
			2 2 1000m³/ 6 P-1001ABC 3 750m³/h P-1001D 1 288m³/h P-2001AB 2 1000m³/h 4000m³/h
			3
			2000Nm³/h 5000Nm³/h DN250 4435Nm³/min 892Nm³/h
4			
			5400m³

2.2.3

560778.319m²

3 1 1 1

PVC

2.2-1

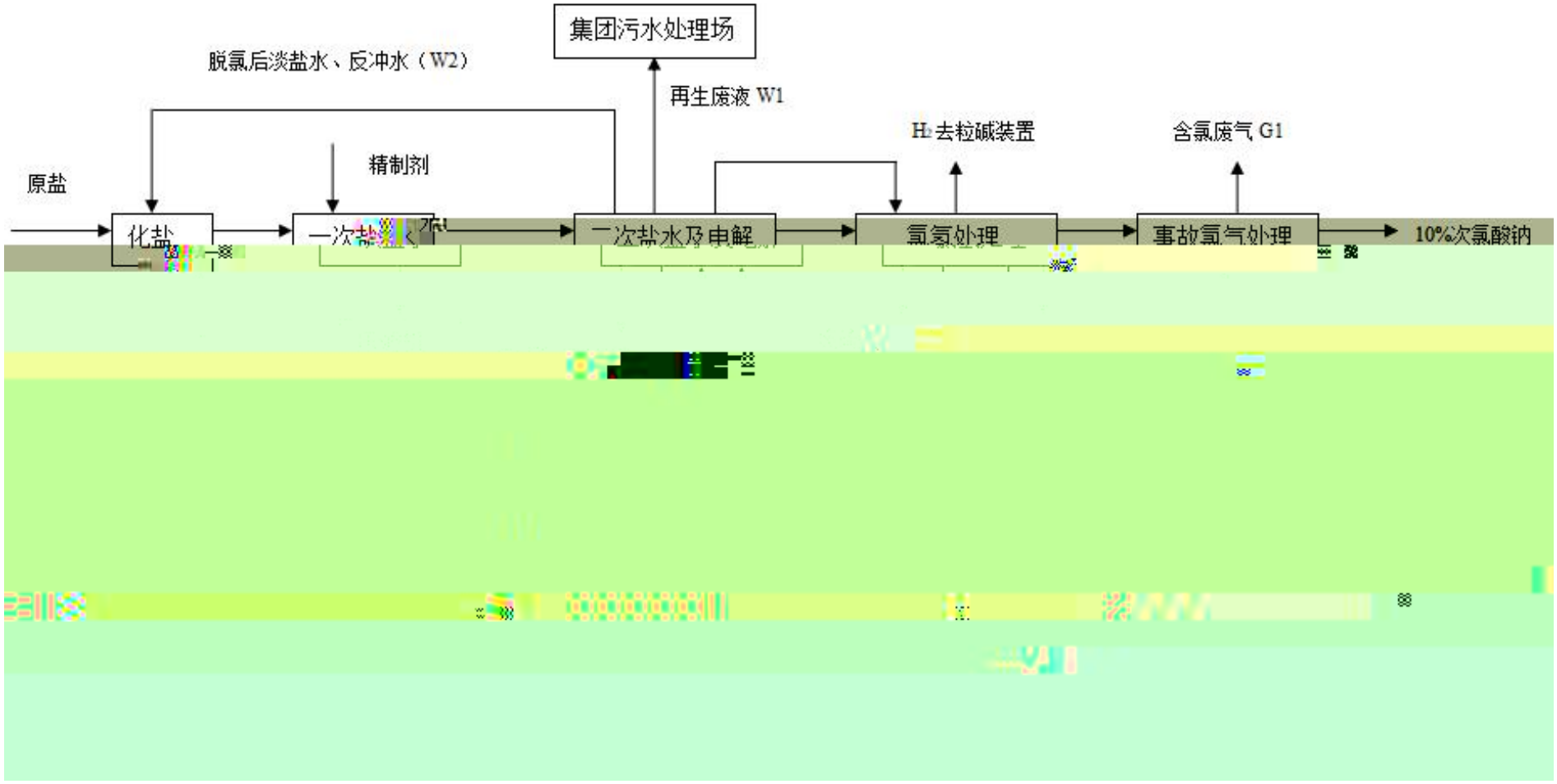
2.2.4

2.2-4

2.2-4

		t/a	
1	32%	247225	
2	50%	40000	
3		5809	
4	31%	20760	
5	75%	2402	
6		29851	
7		5585	
8		5908	
9		7700	
10		100000	
11		100000	
12		942500	
13		60000	
14		10000	
15	35%	5800	
16	35% 27.5%	10000	
17		20000	
18	POP	80000	
19		20000	
20		2000	

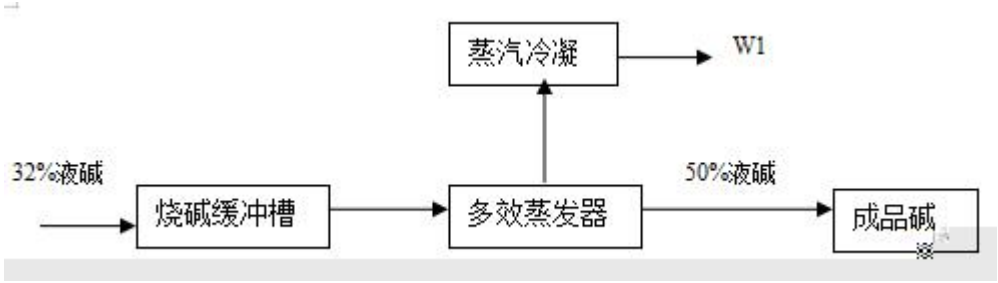
2.2.5


集团污水处理场
脱氯后淡盐水、反冲水（W2）
再生废液 W1
H2去粒碱装置
含氯废气 G1
原盐
精制剂
化盐
一次盐水及电解
氯氢处理
事故氯气处理
10%次氯酸钠

2

32%

50% 2.2-2

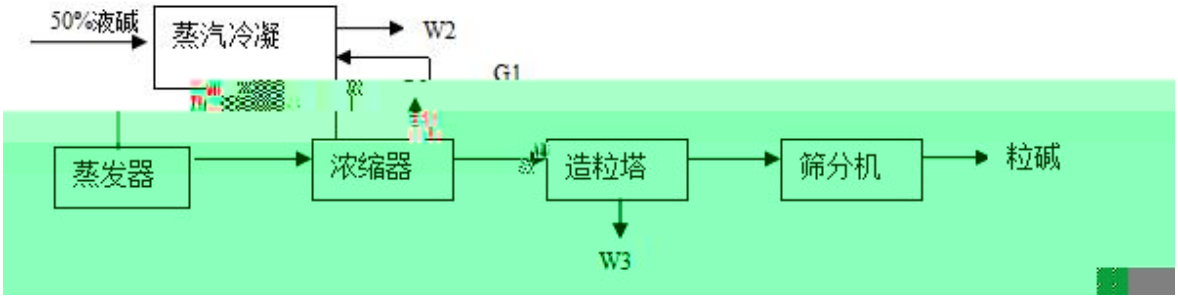


50%

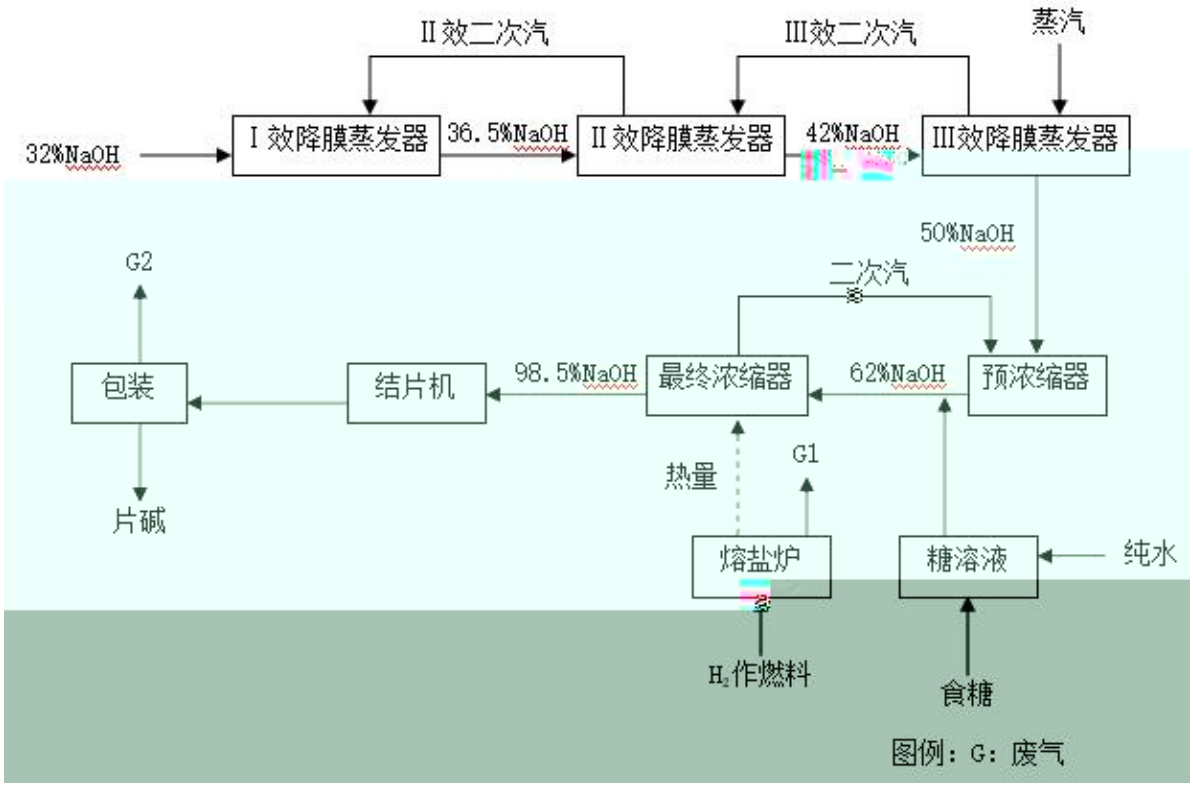
50% 97.5 97.8% 62%

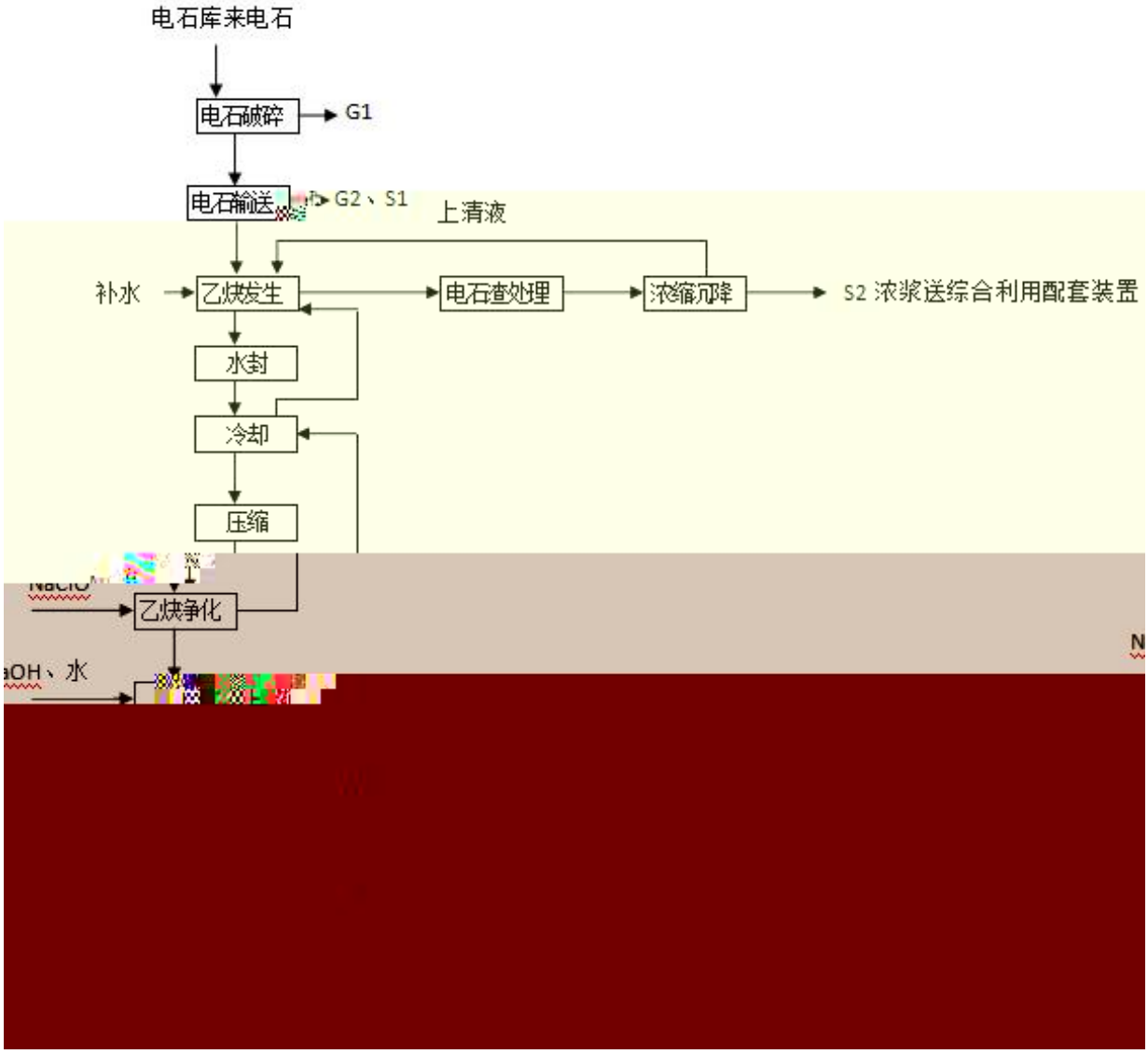
97.8%

2.2-3



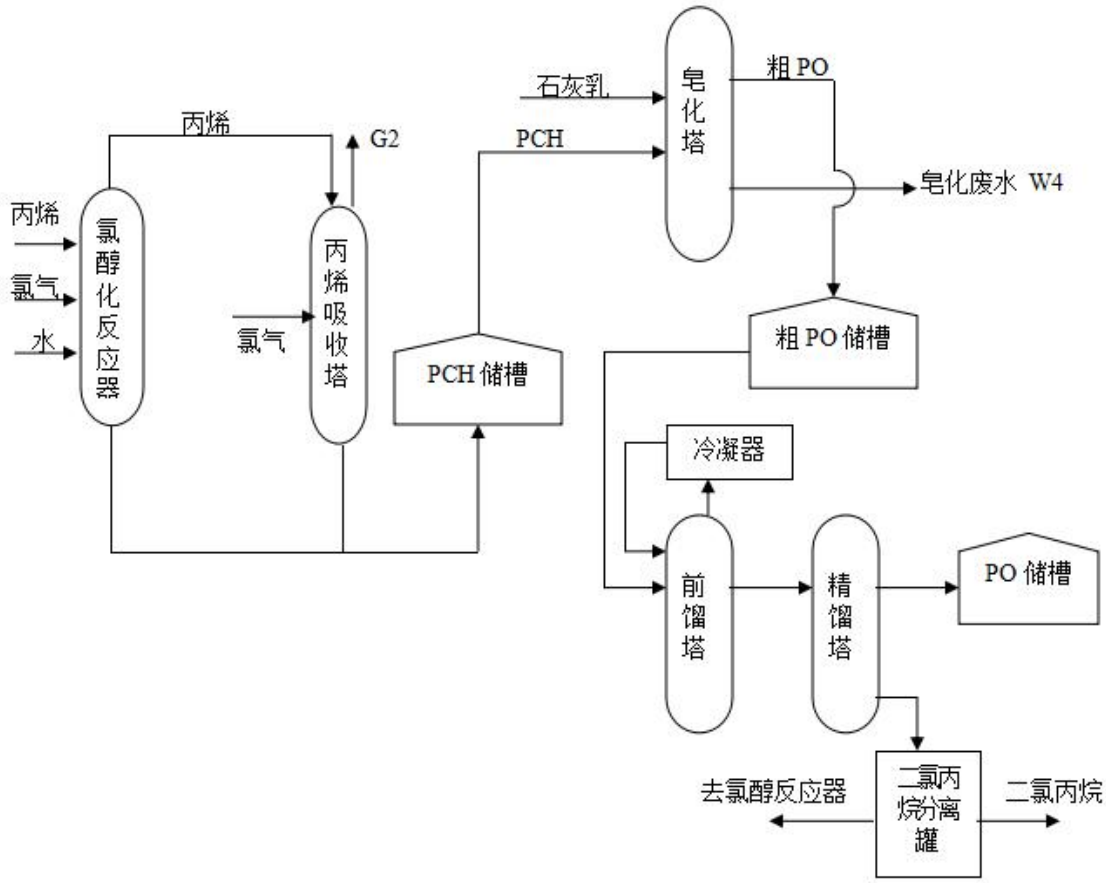
2.2-4


Ⅱ效二次汽
Ⅲ效二次汽
蒸汽
32%NaOH
Ⅰ效降膜蒸发器
36.5%NaOH
Ⅱ效降膜蒸发器
42%NaOH
Ⅲ效降膜蒸发器
50%NaOH
G2
二次汽
包装
结片机
98.5%NaOH
最终浓缩器
62%NaOH
预浓缩器
热量
G1
片碱
熔盐炉
糖溶液
纯水
H_2作燃料
食糖
图例：G：废气

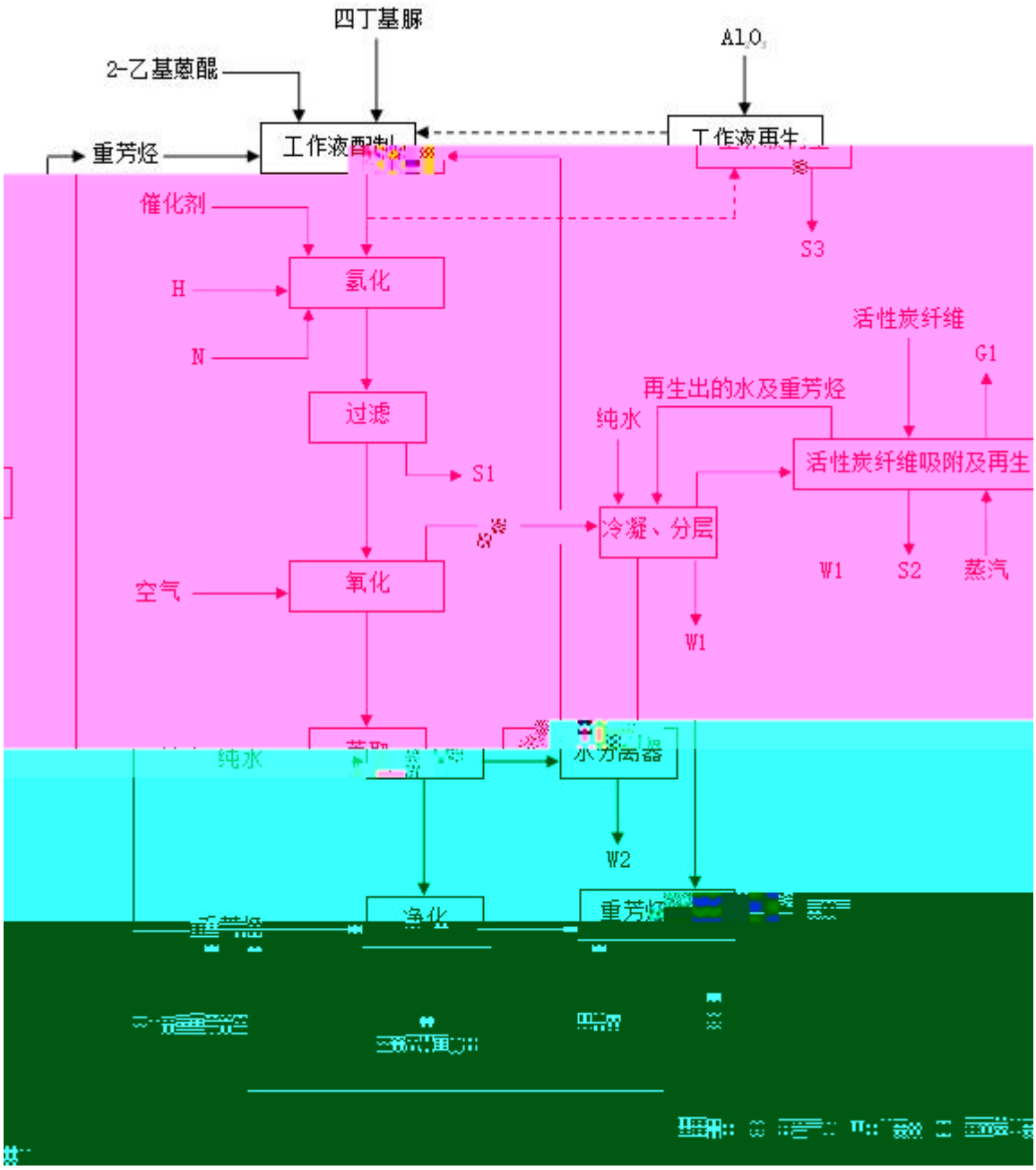

电石库来电石
电石破碎
G1
电石输送
G2、S1
上清液
补水
乙炔发生
电石渣处理
浓缩沉降
S2 浓浆送综合利用配套装置
水封
冷却
压缩
乙炔净化

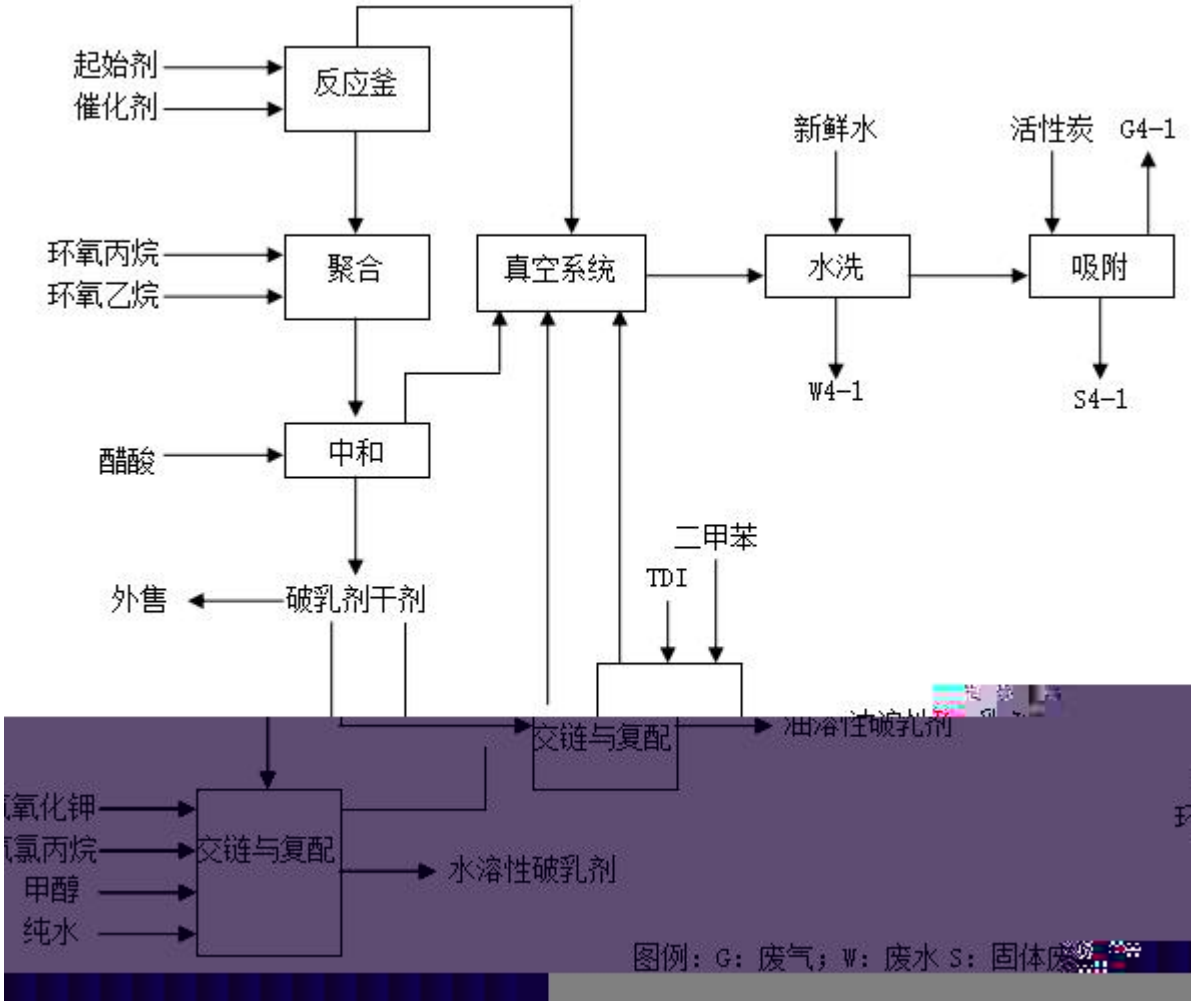
$Ca(OH)_2$

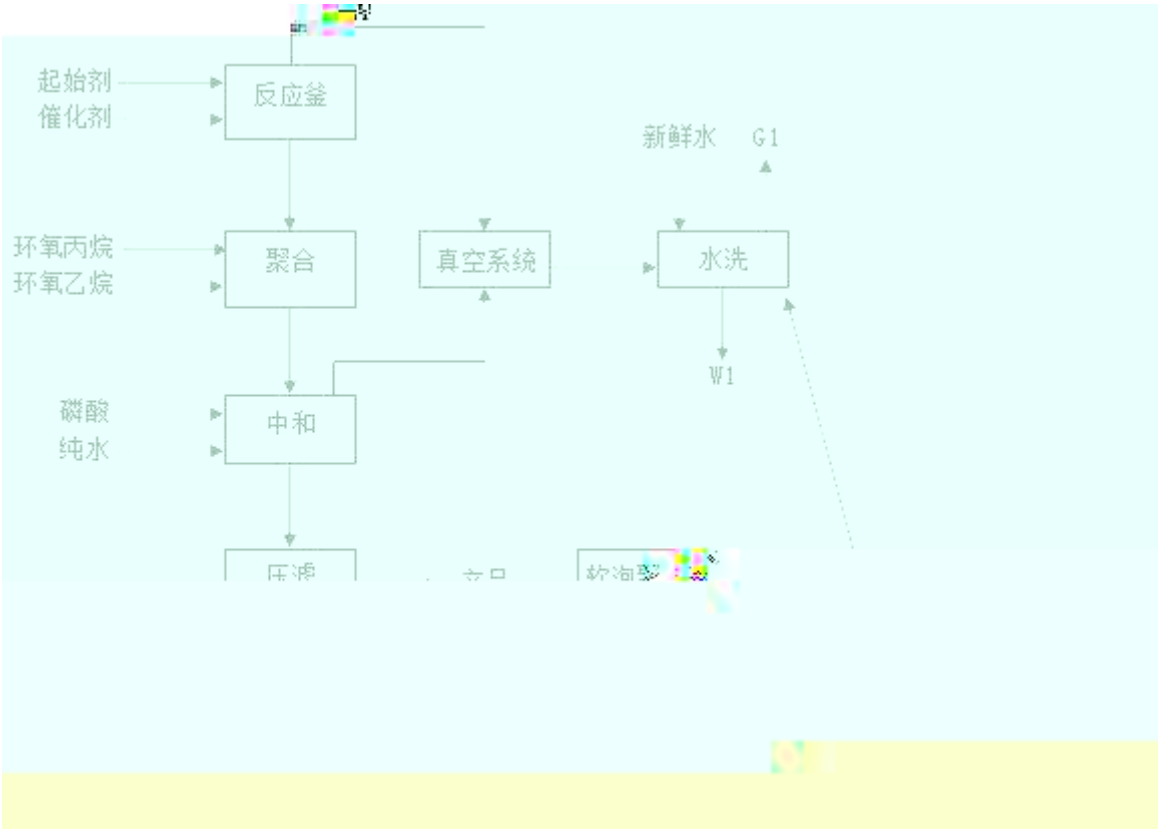
2.2-6

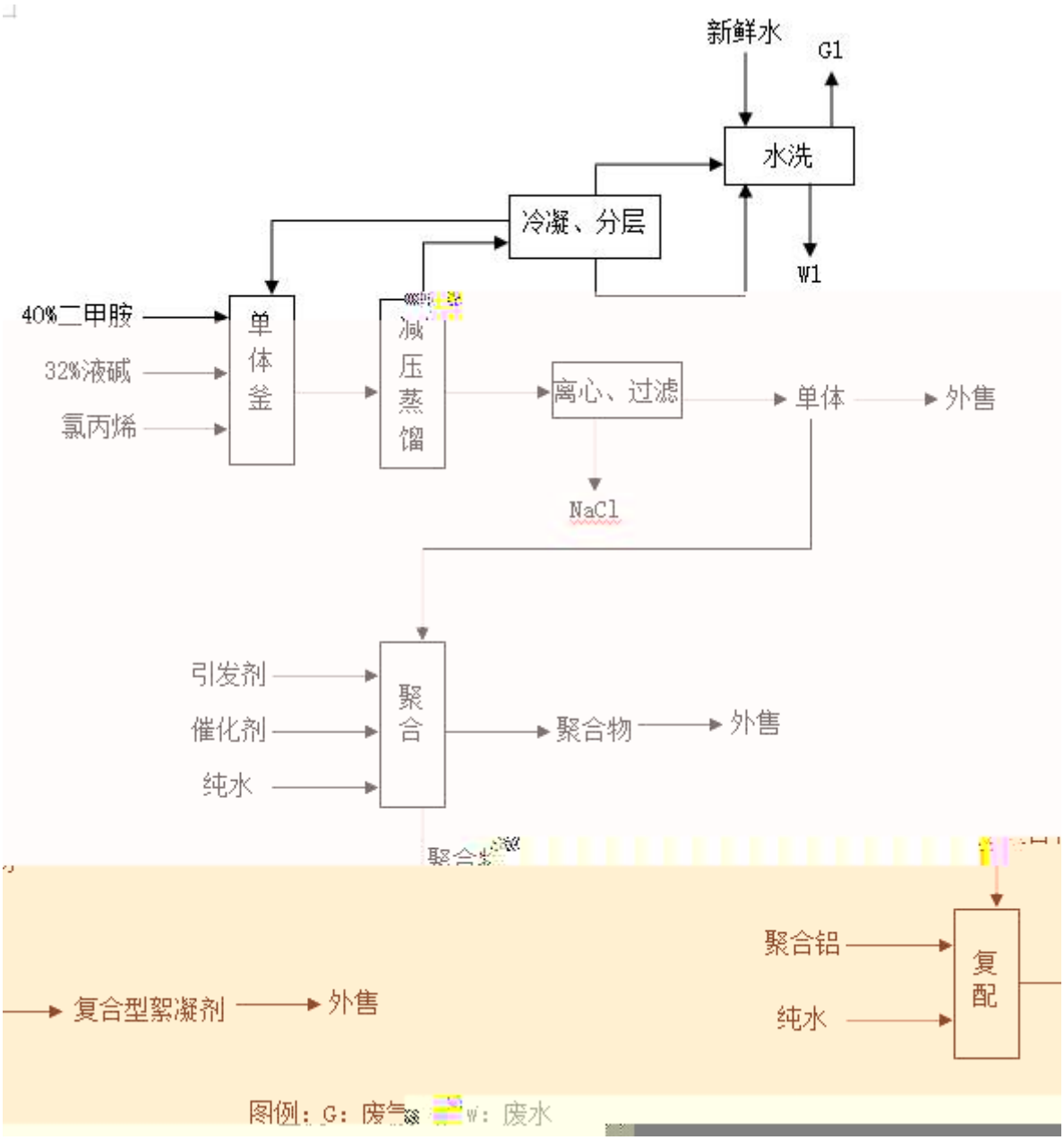


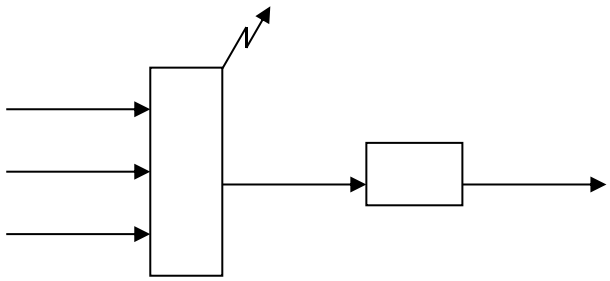
2.2-7


四丁基脲
2-乙基蒽醌
Al_2O_3
重芳烃
工作液配制
工作液再生
催化剂
S3
氢化
H
N
活性炭纤维
G1
再生出的水及重芳烃
过滤
纯水
S1
活性炭纤维吸附及再生
冷凝、分层
空气
氧化
W1
S2
蒸汽
W1
纯水
水分离器
W2
净化
重芳烃


起始剂
催化剂
反应釜
新鲜水
活性炭
G4-1
环氧丙烷
环氧乙烷
聚合
真空系统
水洗
吸附
W4-1
S4-1
醋酸
中和
二甲苯
TDI
外售
破乳剂干剂
交链与复配
氧化钾
氯丙烷
甲醇
纯水
交链与复配
水溶性破乳剂
图例：G：废气；W：废水 S：固体废


起始剂
催化剂
反应釜
新鲜水
G1
环氧丙烷
环氧乙烷
聚合
真空系统
水洗
W1
磷酸
纯水
中和


新鲜水
G1
水洗
冷凝、分层
W1
40%二甲胺
32%液碱
氯丙烯
单体釜
减压蒸馏
离心、过滤
单体
外售
NaCl
引发剂
催化剂
纯水
聚合
聚合物
外售
聚合铝
纯水
复配
复合型絮凝剂
外售
图例：G：废气
W：废水



2.2-2 2.2-5

2.2-5

	Cl_2
	HCl

-

SO_2 NOx

PO C2-C3

25 /

12 / HCL

6 /

2 /

8 /

2 /

2000 /

2.2.7.1

1500 m^3/a

DN500

1

5706.66m^3/h

5271.86m^3/h

2

12000m^3/a a

0.3m^3/h

3

150 4828m^3/a h

YÑ,P

2 2

[illegible]	[illegible]	359[illegible]m^3/a	[illegible]8[illegible]4m^3/a
[illegible]	8[illegible]m^3/a	8[illegible]m^3/a	[illegible]2400m^3/a

			kcal/h				
					2		
	7 12		180		120 kcal/h 2		
	-5 5		150		108 kcal/h 2		F22
	5		65		100 kcal/h 2		
	-15		120		110 kcal/h 100 kcal/h 1		F22
	-15		65		100 kcal/h 2		

2.2.7.5

10 kW h

2.2.7.6

2000Nm^3/h

5000Nm^3/h DN250

4435Nm^3/min 892Nm^3/h

2.2.8

2.2.8.1

PVC

2.2.8.2

2.2-6

2.2-6

			m^3
32%		3	3000
50%		3	3000
15%		2	3000
		2	287
		4	79
		2	1000
	PO	2	1000
		2	196
35%		3	1200
35%		1	400
50%		1	400
50%		1	400
		1	103
		1	103
		2	120
		1	20
		1	40
		1	40
		1	100
		1	50
		4	500
		2	300
		5	45
		8	60
		1	50
		1	35
		2	20
		1	20
		1	20
		2	20

2.2.10

2.2.10.1

1

2.2-7

2.2-7

		kg/h	t/a	m	m
(m /h)					
		0.714	5.712		
14435	SO_2	-	-	38	0.9
	NOx	1.331	10.648		
		0.0552	0.4416		
	SO_2	-	-		
	NOx	0.87	6.96		
10522	VOCs	0.427	3.416	42	1.1
		-	-		
		-	-		
40147		0.386	3.088	40	1.0
41852		0.3918			

		41622		0.367	2.936		15	1.0	
		307		0.0016	0.0128		25	0.35	
		16741		-	-		30	1.0	
				-	-				
				-	-				
			VOCs	0.0658	0.5264				
		48027		0.502	4.016		15	0.9	
		25974		0.247	1.976		15	0.7	
		70672		0.662	5.296		15	1.0	
		92		0.0005	0.004		24	0.08	
				0.0002	0.0016				
			VOCs	-	-				
				0.0001	0.0008				
				0.0001	0.0008				
		130		0.0005	0.004		22	0.1	
			VOCs	0.0001	0.0008				
				0.00001	0.00008				
				0.0023	0.0184				
		2965		0.0138	0.1104		25	1.1	
			SO_2	-	-				

			NOx	0.388	3.104				
		96		-	-		15	0.2	
				-	-				
			VOCs	0.0026	0.0208				
				0.0089	0.0712				
		111		0.0008	0.0064		15	0.25	
				0.656	5.248				
			VOCs	0.0028	0.0224				
				-	-				
				-	-				
				0.0011	0.0088				
		241	VOCs	0.00003	0.00024		20	0.5	
				-	-				
				-	-				
				-	-				
		389	VOCs	0.0005	0.004		20	0.5	
				0.0004	0.0032				
				-	-				
				-	-				

2.2-7 2.2-8

2.2-8

		t/a
1		30.88
2	NOx	20.712
3	VOCs	3.99
4		0.0168
5		0.0016
6		0.00088
7		0.0192
8		0.0712
9		0.0064
10		5.248
11		0.0088
12		0.0032

2

2.2-9

2.2-9

1	VOCs	t/a	73.21
2		t/a	3.05
3		t/a	0.4
4	HCl	t/a	1.09
5		t/a	0.035
6		t/a	1.64
7		t/a	1.13
8		t/a	0.41
9		t/a	0.84

GB16297-1996 2 VOCs

6 DB37/2801.6-2018

3

2.2.10.2

1

2.2-10

		15.2	COD SS	-	15.2	
		33.85	COD	-	33.85	
		142.6	COD		0	
		609.41				

2.2.10.3

1

2.2-11

2.2-11

t/a

8640 $CaCO_3$ $Mg(OH)_2$ NaCl

1 $1m^3/a$

0.017

$CaCl_2$ 40% SS 1%

2 CaO 17000 $Ca(OH)_2$ 8% H2O 50%

$Mg(OH)_2$ 1%

134 CaO $CaCO_3$

2.4 Fe

9623.31

3

40 8 Al_2O_3

			914.89		HW11	
			45.2		HW45	
			300		HW50	
			17.7		HW11	
			2068.42		HW11	
			3.5		HW08	
			6 3		HW49	
4			14		HW06	
			1 3		HW06	
			30		HW08	
			0.2			
			240			
5			33.68	-	-	
6			105	-	-	
7			6		HW49	
8			660t 20t			

2.2.10.4

2.2-12

2.2-29

1	25 /		7	80		70
			8	95		75
			2	95		75
			3	95		75
2	12 / HCL		6	95		75
			4	75		60
			3	85		70
			6	90		70
			4	85		70
			6	80		70
			1	100		80
			26	75		60
			21	75		60
			4	105		80
3	10 /		6	75		60
			1	90		80
			6	75		60
4			2	95		65
			2	95		65
			14	80		70
5			6	75		60
			1	90		80
			6	75		60
6	PO		6	70		60
			3	85		70

			2	84		75
7			2	80		60
			5	90		75
			2	80		60
8			6	85		65

2019 8 26 8 27

2.2-13

2.2-13

	2018 8 26 dB A		2018 8 27 dB A	
1#	67.5	64.0	67.2	64.7
2#	65.3	59.6	64.0	59.9
3#	68.3	56.6	68.1	59.6
4#	63.5	60.5	63.4	61.6
5#	73.6	55.6	73.0	57.5
6#	62.0	51.5	61.9	48.4
7#	60.3	53.5	59.9	53.5
8#	59.9	54.8	59.0	54.0
9#	66.5	56.5	66.4	56.1
10#	60.2	57.2	61.3	56.6
11#	48.1	46.2	46.6	44.7

2.2-13

GB12348-2008 3

2.2.10.5

2.2-14

2.2-14

1				t/a	30.88
2			NOx	t/a	20.712
3			VOC_S	t/a	3.99
4				t/a	0.0168

5				t/a	0.0016
6				t/a	0.00088
7				t/a	0.0192
8				t/a	0.0712
9				t/a	0.0064
10				t/a	5.248
11				t/a	0.0088
12				t/a	0.0032
13			VOCs	t/a	73.21
14				t/a	3.05
15				t/a	0.4
16			HCl	t/a	1.09
17				t/a	0.035
18				t/a	1.64
19				t/a	1.13
20				t/a	0.41
21				t/a	0.84
22				m^3/a	4875280
23			COD	t/a	292.52
24				t/a	39
25				t/a	3928.49
26				t/a	35804.67

2.3

2.3.1

40% 60%

$CaCl_2$

2019

2.3.2

2.3.2.

1		kg/h	28	--
			30	720h
		m^2	458.4	--
			2100	--
1			1900	--

2.3.2.4

2.3-4

2.3-4

		t
1		72
2		14.4
3		15.12
4		0.144
5		0.34

2.3.2.4

2.3-5

2.3-5

		kg/h
1		28

2.3.2.5

2.3.2.5.1

1

2

2.3.2.5.2

PVC

2018

PO

2.3.2.6

2.3-6

2.3-6

			L m		m^3		t	m	
TBHP/TBA			1.0 1.6	1	1.15	0.8	0.96		
TBHP/TBA			1.3 3.4	1	4.07	0.8	3.38		
TBHP/			0.6 1.6	1	0.38	0.8	0.32		
TBHP/			0.6 1.6	1	0.38	0.8	0.32		
			0.6 1.6	1	0.76	0.8	0.55		
			0.9 1.6	1	6.32	0.8	3.23		
			1.5 3.4	1	16.21	0.8	12.64		
TBA			2.2 4.6	1	8.14	0.8	6.35		
			1.8 3.4	1	3.59	0.7	3.59		
			1.2 1.8	1	3.59	0.7	3.59		
			0.6 0.8	1	1.99	0.8	1.11		
			1.2 1.8	1	0.17	0.6	0.12		
			2.4 5.0	1	1.99	0.8	1.42		
			1.2 1.8	1	20.98	0.8	15.06		
			$15m^3$	1	12.00	0.8	13.68		

2.3.2.7

68 2.3-7

2.3-7

1	1	200 2100	1	
2	2	200 2100	1	
3	3	200 2100	1	
4	4	200 2100	1	
5	5	200 2100	1	
6	6	200 2100	1	
7	7	250 2400	1	
8	8	250 2400	1	
9	9	250 2400	1	
10	10	300 2700	1	
11	11	300 2700	1	
12		DN200 6	1	
13	TBHP	DN250 9	1	
14	TBHP	DN200 2.2	2	
15	TBHP/TBA	1000 1600	1	
16	TBHP/TBA	1300 3400	1	
17	TBHP/	600 1600	1	
18	TBHP/	600 1600	1	
19		1500 2400	1	
20		900 1600	1	
21		1500 3400	1	
22	TBA	2200 4600	1	
23		1800 3400	1	
24		1500 2400	1	
25	V-2203	DN250 2000	1	
26		DN250 1250	1	
27		DN250 1250	1	
28	V-2203	20m 0.06m^3/h	1	

29	V-2203	45m 1.45m^3/h	1	
30	V-2301	45m 1.45m^3/h	1	
31	V-2302	20m 0.06m^3/h	1	
32	TBHP/	650m 0.005m^3/h	6	
33		20m 0.05m^3/h	1	
34	TBA/TBHP	20m 0.07m^3/h	1	
35		530m 0.04m^3/h	1	
36	TBA	640m 0.25m^3/h	1	
37	TBA	35m 0.009m^3/h	1	
38	TBA	35m 0.014m^3/h	1	
39	TBA	650m 0.006m^3/h	5	
40		50m 5m^3/h	1	
41		V=2m^3	1	
42		1200 1800	1	
43		1200 1800	1	
44		600 800	1	
45		1200 1800	1	
46		2400 5000	1	
47		--	1	
48		--	1	
49		--	1	
50		--	1	
51		760m 0.3m^3/h	1	
52		120m 6.7m^3/h	1	
53		100m 0.35m^3/h	2	
54		40m 50m^3/h	1	

55		15m^3	1	
56			1	
57			1	

2.3.3

2.3.3.1

1

1

1.75m^3/d 52.5m^3

2 ----------

---------- 2.4m^3/d 72m^3

124.5m^3

2

1

90% 47.25m^3 ---------- 72m^3

119.25m^3

2

SH3015-2003

15mm 30mm

Q m^3

F

0.9

i mm

350m^2 30mm

0.9

94.5m^3 5400m^3

2.3-2 2.3-3

2.3.3.2

70kg/h TBHP

70kg/h 3.0MPa 260

1 240t/h 1 260t/h

2.3.3.3

2m^3/h -25

2.3.3.4

2.16 kW h

2.3.3.5

6 6

5 429Nm^3/min 420Nm^3/min

2950Nm^3/h 148Nm^3/h

140Nm^3/h

2.3.4

2.3.5

2.3.6

1

TBHP

1

2.3-10

2.3-10

				kg/h	t
G2-1		VOCs		7	5.04
		VOCs TBA		3	2.16
G2-2		VOCs		61	43.92
G2-3	TBHP			0.7	0.504
				0.3	0.216
		VOCs TBA		1	0.72
G2-4				20.5	14.76
		VOCs		7.5	5.4

2.3-11

2.3-11

1	VOCs	t	72.72	72.72
2		t	0.504	0.504
3		t	0.216	0.216
4		t	14.76	14.76

2

○

VOCs

VOCs VOCs 2015

104 .3 LDAR

$$VOCs\text{排放量} = N \times F_A \times WF_{TOC} \times \frac{WF_{VOCs}}{WF_{TOC}} \times t$$

TOC

$\frac{WF_{VOCs}}{WF_{TOC}}$ TOC VOCs 1

2.3-12

2.3-12

		TOC kg/ h	TOC	t h	VOCs t
	205	0.00403	80%	720	0.476
	226		100%	720	0.656
	10	0.0199	80%	720	0.115
	12		100%	720	0.172
	3	0.104	80%	720	0.179
	4		100%	720	0.299
	455	0.00183	80%	720	0.479
	916		100%	720	1.206
	4	0.0017	80%	720	0.0039
	4		100%	720	0.0049
	1	0.015	80%	720	0.00864
	4		100%	720	0.0432
					3.64264

LDAR

99% VOCs 0.036t

a.

VOCs

2015 104 .3

$$L_T = L_S + L_W$$

lb/a

lb/a

lb/a

i.

$$L_S = 365 K_E \left(\frac{\pi}{4} D_{\cdot}^2 \right) H_{VO} K_S W_{\cdot}$$

lb/a

ft

ft^3

lb/ft^3

ii.

$$L_W = \frac{5.614}{RT_{LA}} M_V P_{VA} Q K_N K_P K_B$$

lb/a

lb/lb-mol

psia

bbl/a

2.3-14

b.

VOCs

2015 104 .3

$$E_{装卸}=\frac{L_L \times V}{1000}$$

kg/m^3

$$L_L = C_0 \times S$$

kg/m^3

2.3-13

2.3-13

	kPa)			Btu/ft^2 day	m^3	m	/	pa	m	m	t/y	t	t/y	t/y
	101	36	12	1547	10.18	1.8			3.4	0.4	0.079	18	0.0113	0.09
	101	36	12	1235.7	2.49	1.2			1.8	1.2	0..0124	72	0.0466	0.059
	101	36	12	1232.53	7.9	1.6			3.4	2.5	0.03	14.4	0.0455	0.039

2.3-14

								N	
	P_T Pa	kg/m^3	g/mol			s	t/a	m^3/a	t/a
	4080	780	64			0.6	18	23	0.00867
	160000	560	58			0.6	72	94	0.035
	1023000	510	42			0.6	14.4	19	0.0069

2

1

TBA

TBHP TBA

6m

99% VOC_S(

TBA) 99.8% 2.3-15

2.3-15

			m^3/h	mg/m^3	kg/h	t	kg/h	mg/m^3
1		VOC_S	45000	20.14	0.202	0.145	3.0	60
			45000	0.7	0.0007	0.00504	/	50
			45000	0.7	0.0003	0.00216	/	50
			45000	0.91	0.0041	0.02952	/	1

2.3-19 VOC_S 6

1 VOCs

6 2

2

GB31571-2015

GB37822-2019

a

+

b

.

.

.

VOCs

VOCs

TBHP/TBA 104.4t/a

0.05057t/a

6 DB37/2801.6-2018 1 VOCs

VOCs

VOCs VOCs 1844

2.3-16

2.3-16

			t		t
1		VOC_S	3.64264	99%	0.036
2		VOC_S	0.23857	20%	0.191

3

2.3-17

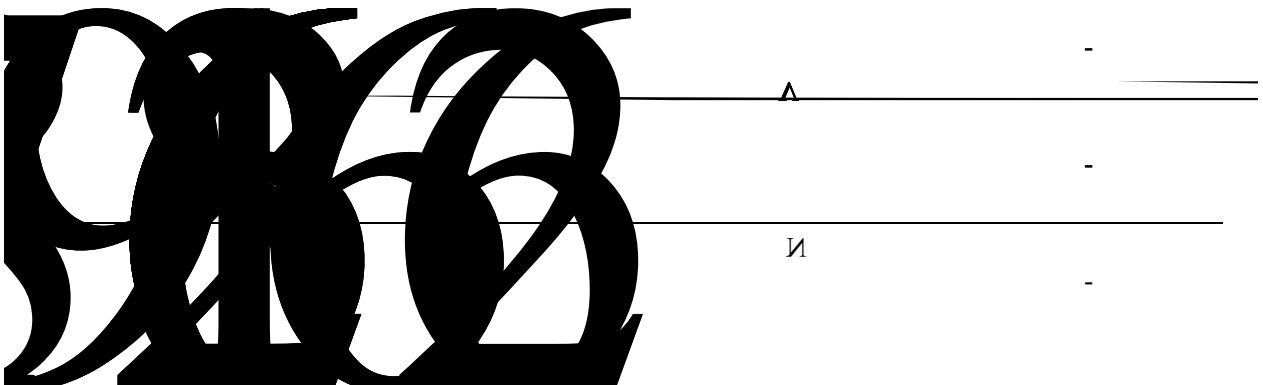
2.3-17

		kg/h	t	
	VOC_S	0.202	0.145	h=6m =1.5m
	VOC_S	--	0.227	--

2.3-18

2.3-18

			t/a
1			5.712
2		SO_2	-
3		NOx	10.648
4			0.4416
5		SO_2	-
6		NOx	6.96
7		VOCs	3.416
8			-
9			-
10			3.088
11			3.766
12			



2.3.9.3

90% 47.25m^3 ---------- 72m^3

119.25m^3

2.3-19

2.3-19

			m^3				m^3	
-			52.5	COD SS			47.25	
--			72	--			72	
			124.5	--	--	--	119.25	--

2.3-23 119.25m^3

COD 1500mg/L

450mg/L COD 0.0072t 0.00095t

2.3-20

2.3-20

		m^3/h	(mg/L,PH)		m^3/h	
		6.2	PH COD SS		6.2	
		2.26	COD SS		0	
		1.08	78%		0	
	H_2	1.2	COD		0	
		20	COD	PO	20	
		30	COD	PO	30	
		39.5	PH		0	
		11	PH		0	
		$45m^3/$	Na_2CO_3:10 30%		0	(7 8)
		13.85	PH COD		13.85	
PO		480	COD		480	
		2			2	
		6	COD		2	
		2.58	COD		2.58	
		4	COD		4	

		15.273	COD SS	-	15.265	
		33.95	COD	-	33.95	
		142.6	COD		0	
		609.583				

2.3.9.4

2.3-21 2.3-22

2.3-21

1 TBHP/TBA HW49

			45.2		HW45	
			300		HW50	
			17.7		HW11	
			2068.42		HW11	
			3.5		HW08	
			6 3		HW49	
4			14		HW06	
			1 3		HW06	
			30		HW08	
			0.2			
			240			
5			33.68	-	-	
6			105	-	-	
7			6		HW49	
8			660t 20t			
9	PO/TBA	TBHP/TBA	41.09	TBHP TBA	HW49	

2.3.9.5

2.3-23

2.3-23

dB A

1		75~80	11	70~75
2		75~80	1	70~75
3	TBHP	75~80	1	70~75

1	25 /	7	80	70
		8	95	75
		2	95	75
		3	95	75
		6	95	75
		4	75	60
		3	85	70
		6	90	70
2	12 / HCL	4	85	70
		6	80	70
		1	100	80
		26	75	60
		21	75	60
		4	105	80
3	10 /			

9	PO/TBA		11	80	60
10			1	80	60
11		TBHP	1	80	60
12		TBHP	1	80	60
13			4	90	70
14			4	90	70
15			7	90	70
16			1	90	70
17			11	90	70
18			1	80	60
19			1	80	60
20			1	80	60
21			1	80	60

			t/a	0.00216
			t/a	0.02952
		VOCs	t/a	0.227
			t/a	119.25
	COD		t/a	0.0072
			t/a	0.00095
			t/a	41.09

2.3-27

2.3-27

		t/a	30.88	0	0	30.88	0
	NOx	t/a	20.712	0	0	20.712	0
	VOCs	t/a	3.99	0	0.145	4.135	0.145
		t/a	0.0168	0	0	0.0168	0
		t/a	0.0016	0	0	0.0016	0
		t/a	0.00088	0	0	0.00088	0
		t/a	0.0192	0	0	0.0192	0
		t/a	0.0712	0	0	0.0712	0
		t/a	0.0064	0	0	0.0064	0
		t/a	5.248	0	0	5.248	0
		t/a	0.0088	0	0	0.0088	0
		t/a	0.0032	0	0	0.0032	0
	VOCs	t/a	73.21	0	0.227	73.437	0.227
		t/a	3.05	0	0	3.05	0
		t/a	0.4	0	0	0.4	0
	HCl	t/a	1.09	0	0	1.09	0
		t/a	0.035	0	0	0.035	0
		t/a	1.64	0	0	1.64	0
		t/a	1.13	0	0	1.13	0
		t/a	0.41	0	0	0.41	0

			t/a	0.84	0	0	0.84	0
			m^3/a	4875280	0	119.25	4875399.25	119.25
	COD		t/a	292.52	0	0.0072	2929.5272	0.0072
			t/a	39	0	0.00095	39.00095	0.00095
			t/a	3928.49	0	41.09	3876.19	41.09
			t/a	35804.67	0	0	93696.06	0

2.4

2.4.1

1

40% 60%

$CaCl_2$

2

1

2

3

4

1

2

3

4

5

6

7

8

2.4.2

2005

39

2.4.3

1

2

3

2

2.1

2007 3 15 18

( ) 1968

1970

9

82.46 2300

PO/PG

GB/T 19001 GB/T 24001 GB/T 28001

2010 254.62 54.84 27.13

2.2

2.2.1

25 / 20 / 12

/ VCM

HCL 15 / 6 /

3 / 8 / 2 /

8 /

2 / 2000 /

2.2.2

2.2-3

2.2-3

1		25 /	32% 25 t/a 100%
			мл0000t/a 100% мл0000t/a 100%
			3 t/a
			PO 6 t/a
			2 t/a
			2.0 /
			2000 / 2000 /
2			y o o p м мр с 2 п н
		t h	н н н

			o op м op м pa м pa м м
			н м м м м м
			мм у м м
			м
			м
3			
			мл kW h
			200t/h 0.89MPa 200 0.8MPa 129.18t/h
			2 2 1000m^3/ 6 P-1001ABC 3 750m^3/h P-1001D 1 288m^3/h P-2001AB 2 1000m^3/h 4000m^3/h
			3
			2000Nm^3/h 5000Nm^3/h DN250 4435Nm^3/min 892Nm^3/h
4			
			5400m^3

2.2.3

560778.319m^2

3 1 1 1

PVC

2.2-1

2.2.4

2.2-4

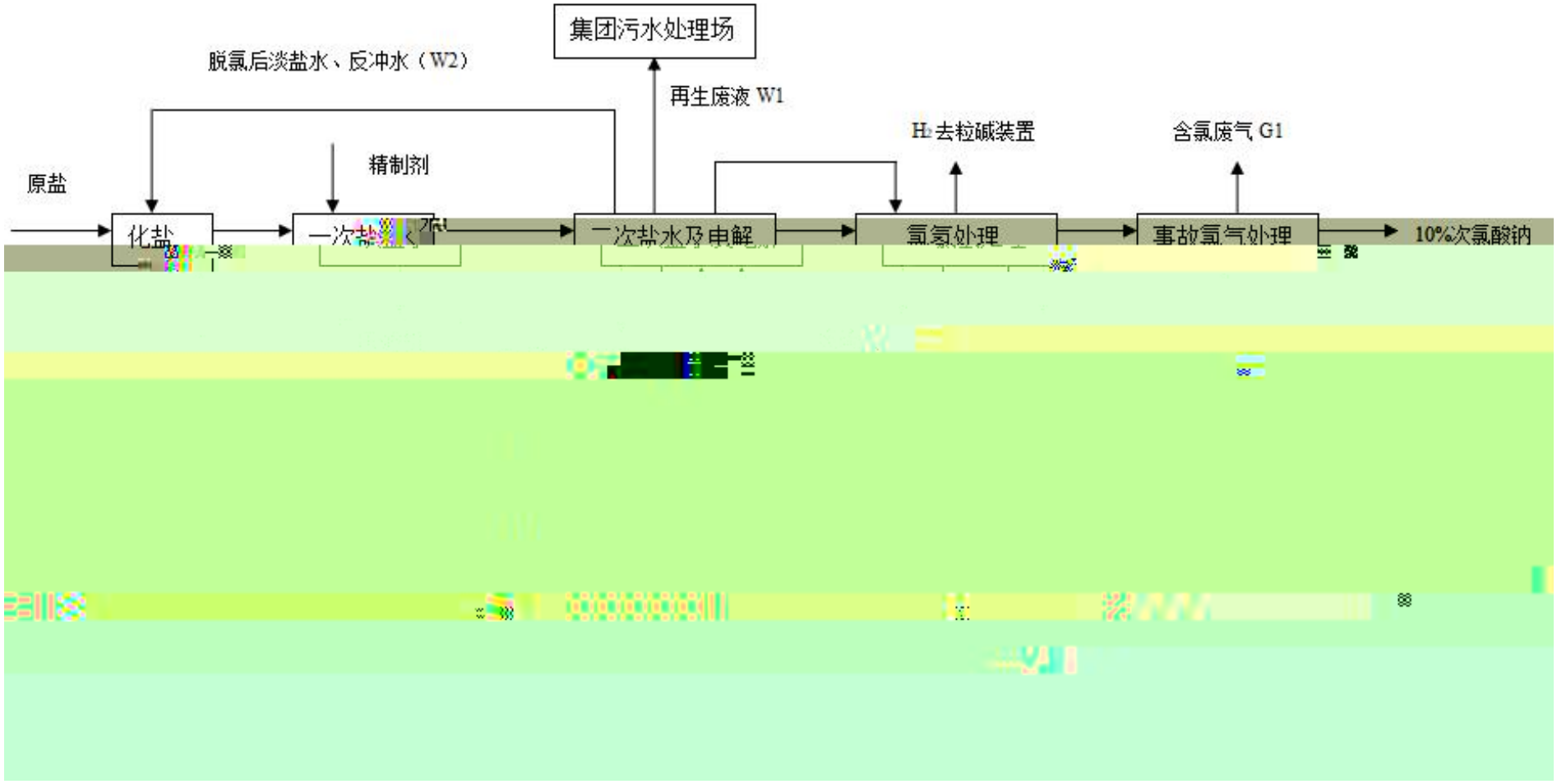
2.2-4

		t/a
1	32%	247225
2	50%	40000
3		5809
4	31%	20760
5	75%	2402
6		29851
7		5585
8		5908
9		7700
10		100000
11		100000
12		942500
13		60000
14		10000
15		

17		20000	
18	POP	80000	
19		20000	
20		2000	

2.2.5

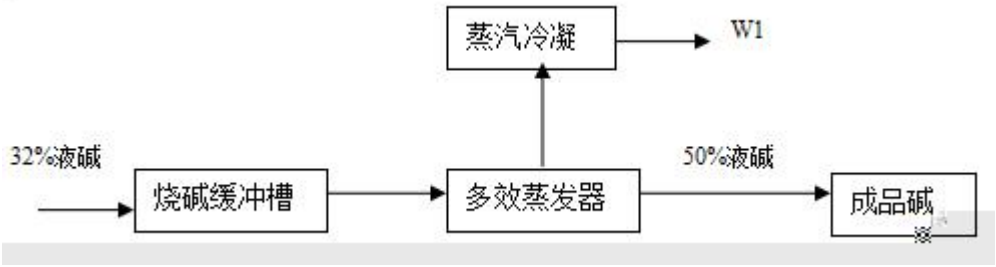
2.2-1


集团污水处理场
脱氯后淡盐水、反冲水（W2）
再生废液 W1
H2去粒碱装置
含氯废气 G1
原盐
精制剂
化盐
一次盐水及电解
氯氢处理
事故氯气处理
10%次氯酸钠

5

32%

50% 2.2-2

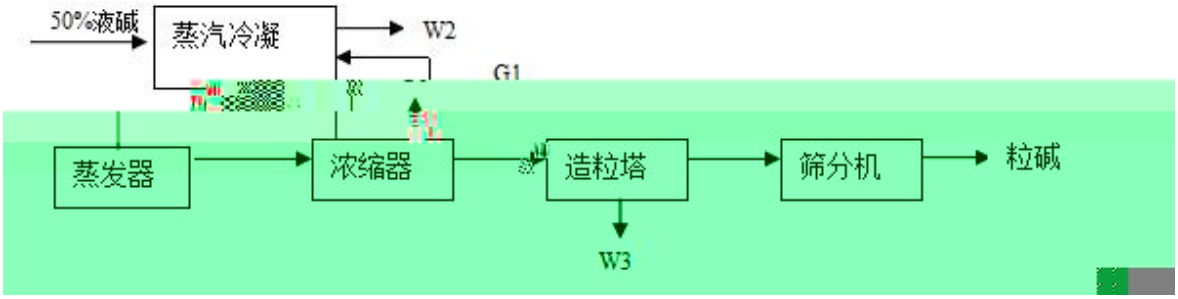


50%

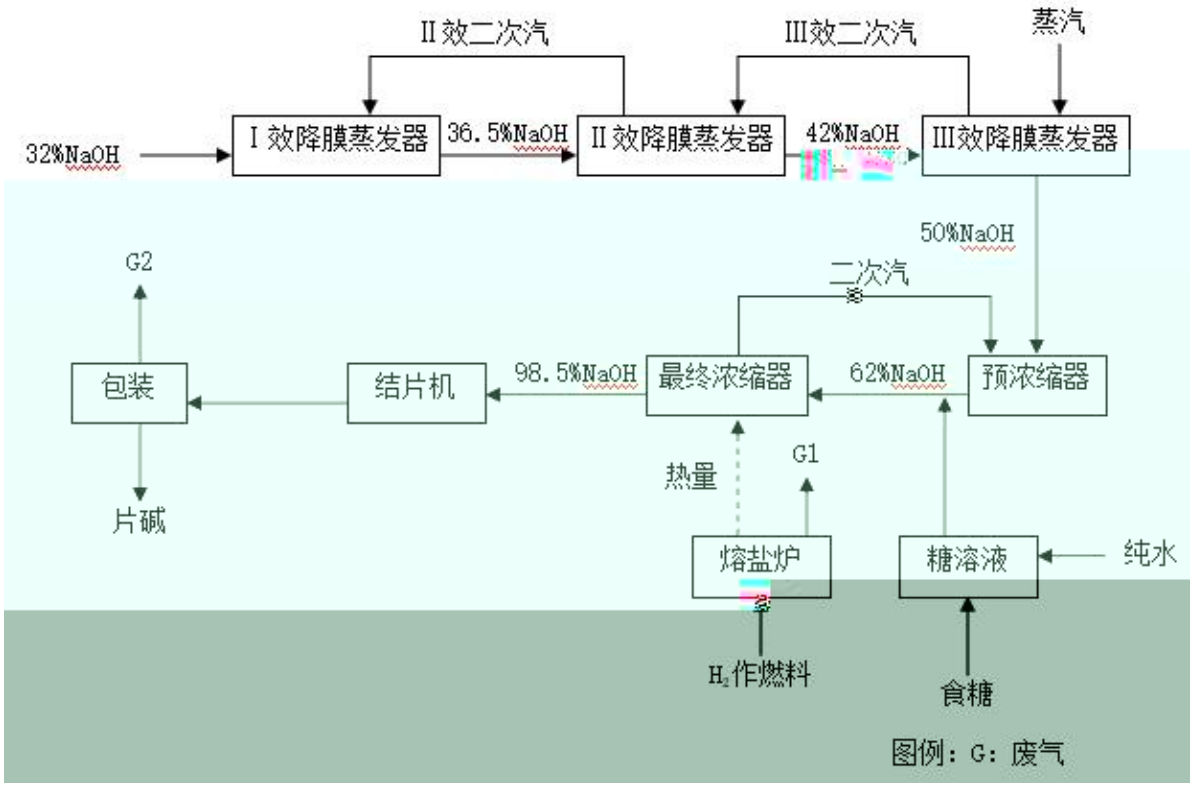
50% 97.5 97.8% 62%

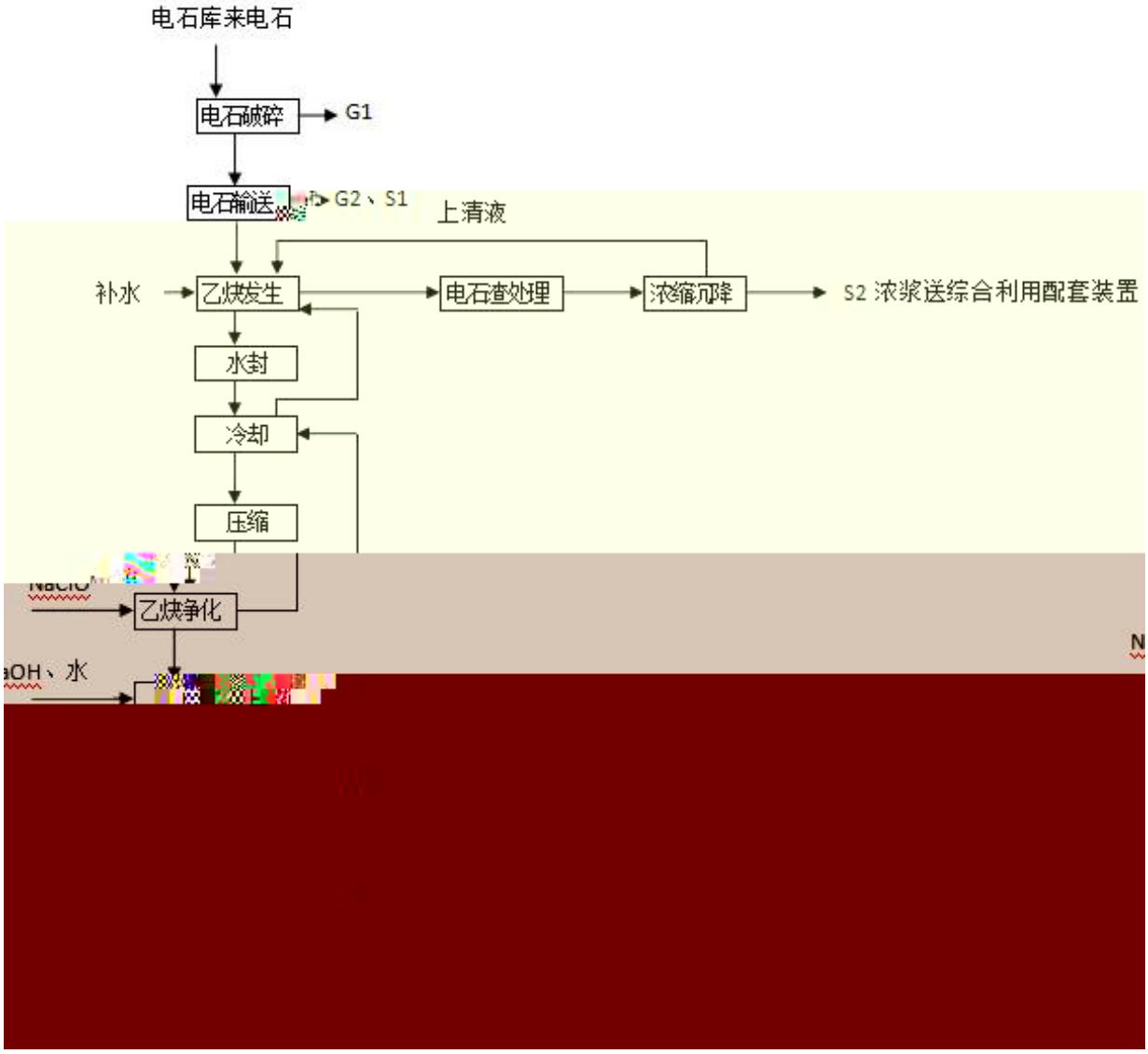
97.8%

2.2-3



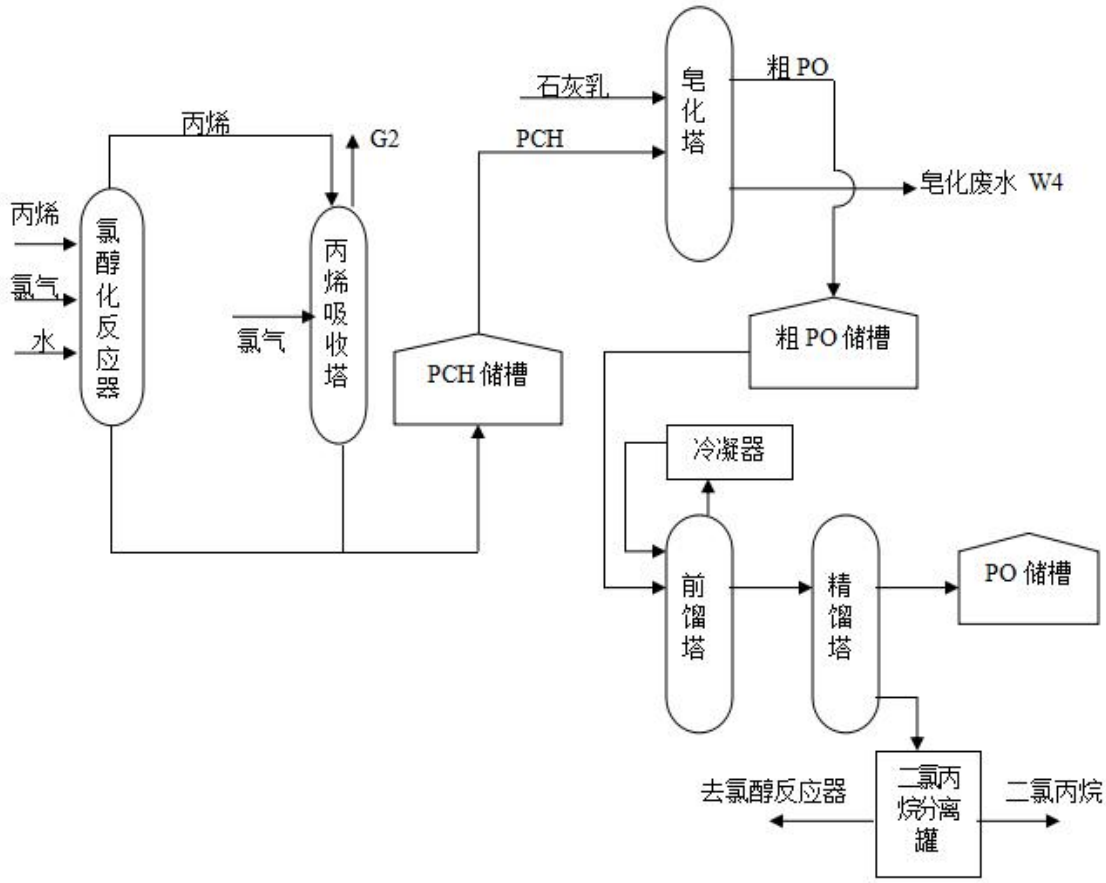
2.2-4


Ⅱ效二次汽
Ⅲ效二次汽
蒸汽
32%NaOH
Ⅰ效降膜蒸发器
36.5%NaOH
Ⅱ效降膜蒸发器
42%NaOH
Ⅲ效降膜蒸发器
50%NaOH
G2
二次汽
包装
结片机
98.5%NaOH
最终浓缩器
62%NaOH
预浓缩器
热量
G1
片碱
熔盐炉
糖溶液
纯水
H_2作燃料
食糖
图例：G：废气

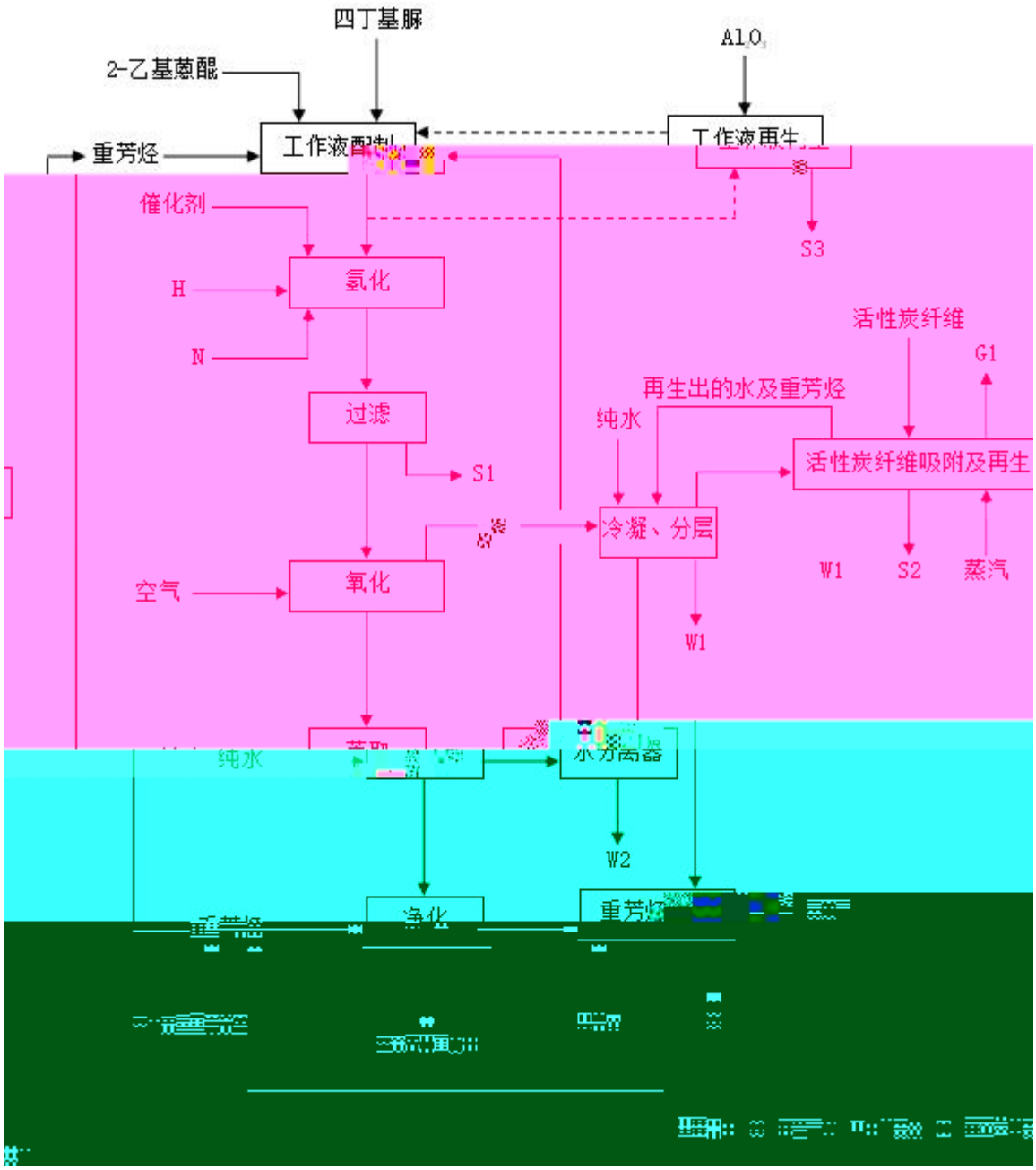

电石库来电石
电石破碎
G1
电石输送
G2、S1
上清液
补水
乙炔发生
电石渣处理
浓缩沉降
S2 浓浆送综合利用配套装置
水封
冷却
压缩
乙炔净化

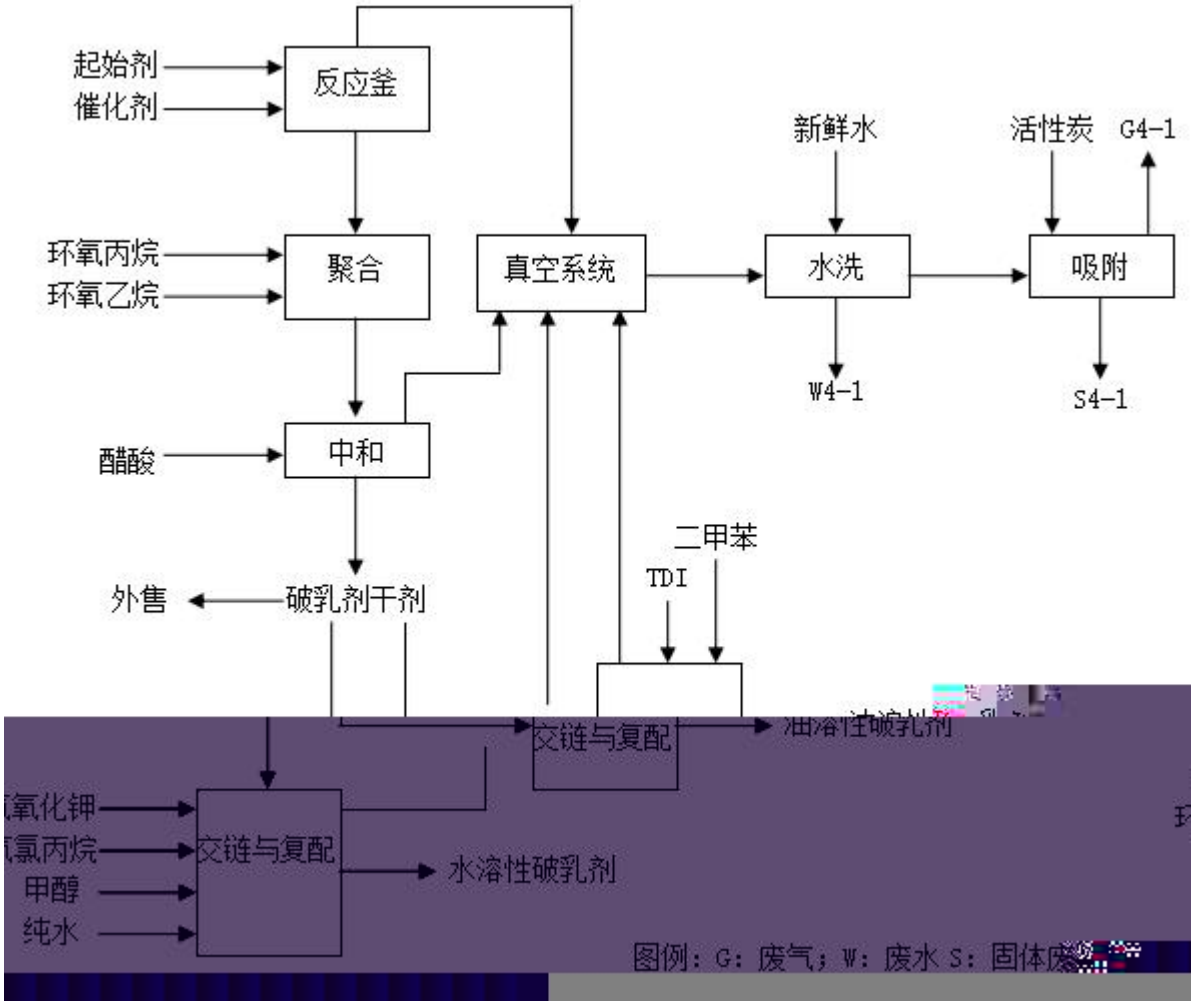
$Ca(OH)_2$

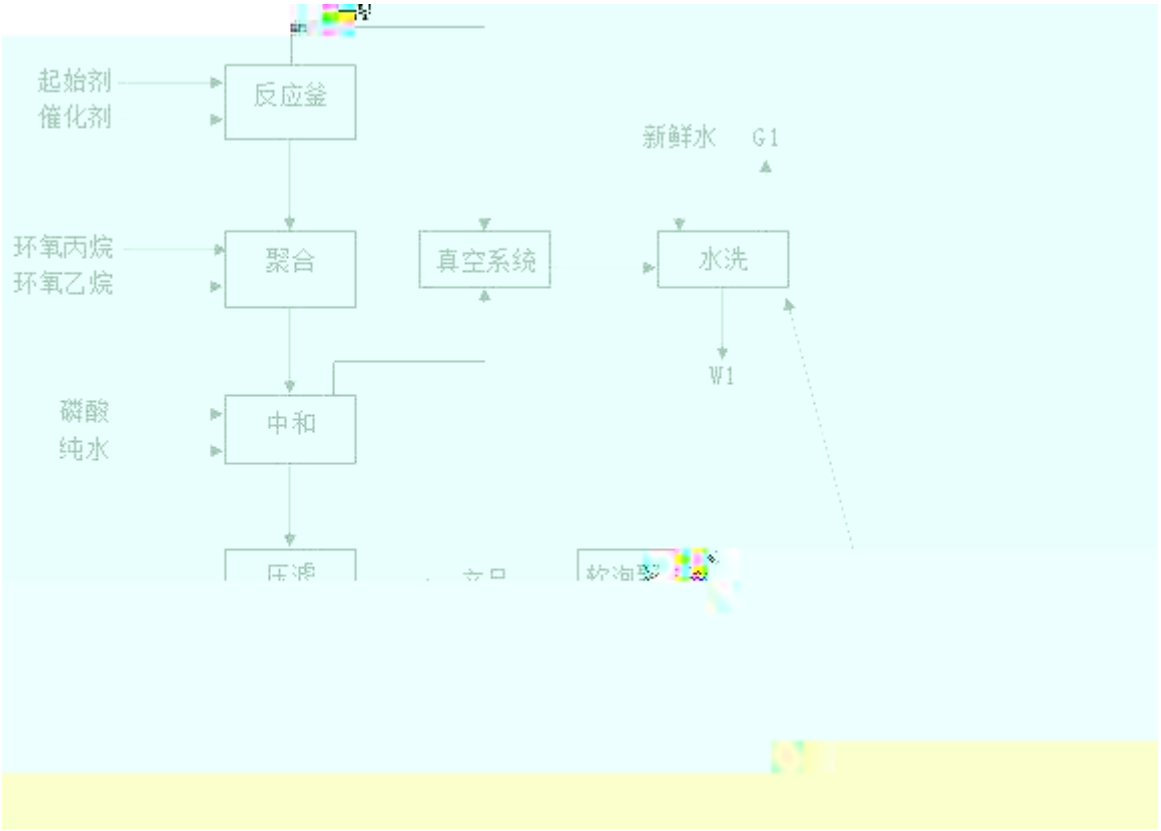
2.2-6

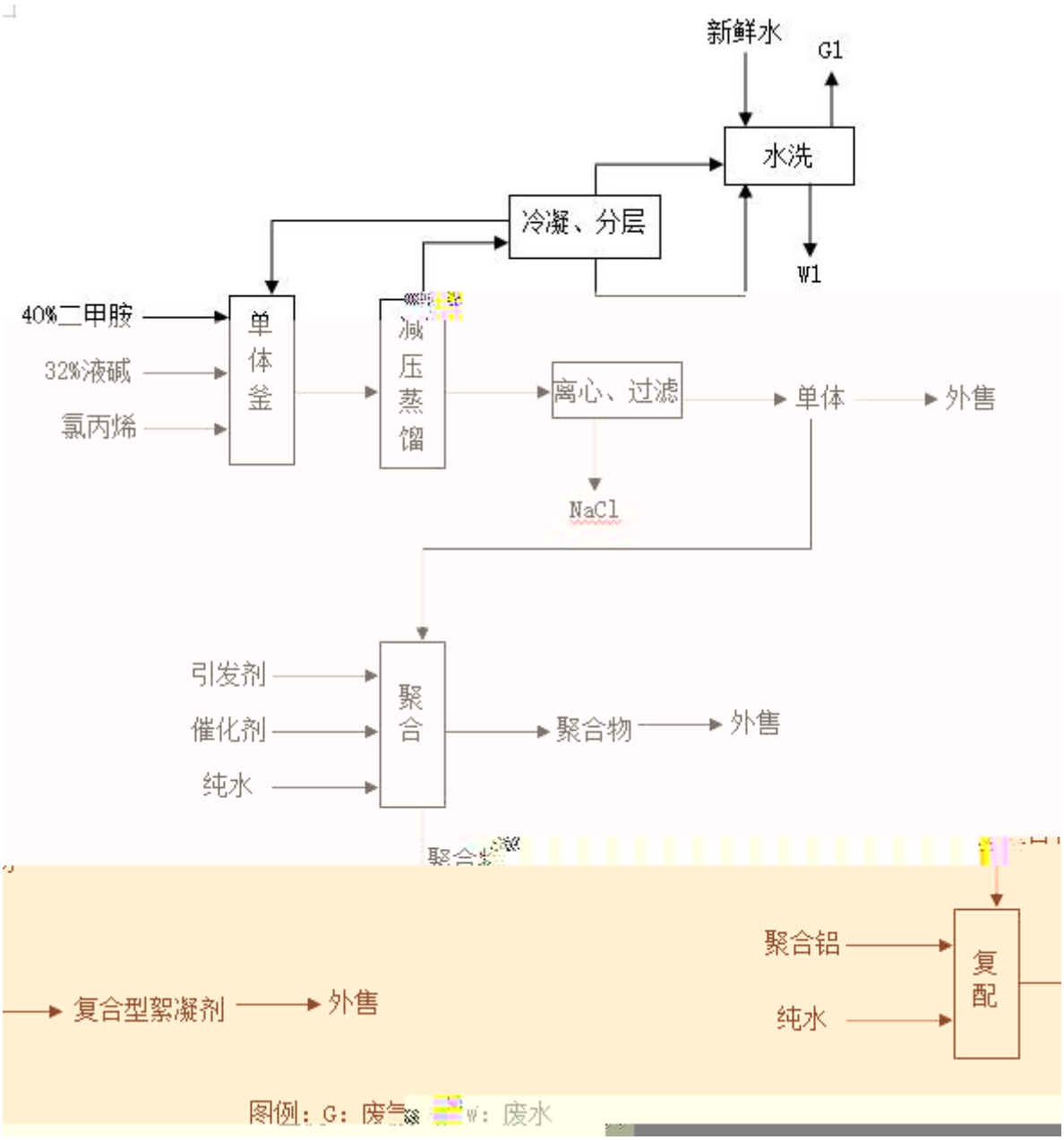


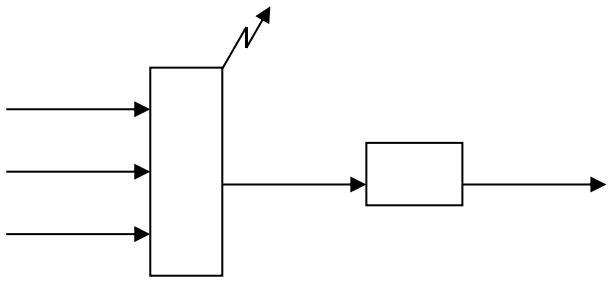
2.2-6


四丁基脲
2-乙基蒽醌
Al_2O_3
重芳烃
工作液配制
工作液再生
催化剂
S3
氢化
H
N
活性炭纤维
G1
再生出的水及重芳烃
过滤
纯水
S1
活性炭纤维吸附及再生
冷凝、分层
空气
氧化
W1
S2
蒸汽
W1
纯水
水分离器
W2
净化
重芳烃


起始剂
催化剂
反应釜
新鲜水
活性炭
G4-1
环氧丙烷
环氧乙烷
聚合
真空系统
水洗
吸附
W4-1
S4-1
醋酸
中和
二甲苯
TDI
外售
破乳剂干剂
交链与复配
氧化钾
氯丙烷
甲醇
纯水
交链与复配
水溶性破乳剂
图例：G：废气；W：废水 S：固体废


起始剂
催化剂
反应釜
新鲜水
G1
环氧丙烷
环氧乙烷
聚合
真空系统
水洗
W1
磷酸
纯水
中和


新鲜水
G1
水洗
冷凝、分层
W1
40%二甲胺
32%液碱
氯丙烯
单体釜
减压蒸馏
离心、过滤
单体
外售
NaCl
引发剂
催化剂
纯水
聚合
聚合物
外售
聚合铝
纯水
复配
复合型絮凝剂
外售
图例：G：废气
W：废水



2.2-2 2.2-5

2.2-5

	Cl_2
	HCl

-

SO_2 NOx

PO C2-C3

25 /

12 / HCL

6 /

2 /

8 /

2 /

2000 /

[redacted]

5706.66m³/h

5271.86m³/h

2

12000m³/a

0.3m³/h

3

150 4828m³/a

4

2 2

[illegible]	[illegible]	359[illegible]^3/a	86[illegible]4m^3/a
[illegible]	8[illegible]	8[illegible]m^3/a	[illegible]2400m^3/a

			kcal/h				
					2		
	7 12		180		120 kcal/h 2		
	-5 5		150		108 kcal/h 2		F22
	5		65		100 kcal/h 2		
	-15		120		110 kcal/h 100 kcal/h 1		F22
	-15		65		100 kcal/h 2		

2.2.7.5

10 kW h

2.2.7.6

2000Nm^3/h

5000Nm^3/h DN250

4435Nm^3/min 892Nm^3/h

2.2.8

2.2.8.1

PVC

2.2.8.2

2.2-6

2.2-6

			m^3
32%		3	3000
50%		3	3000
15%		2	3000
		2	287
		4	79
		2	1000
	PO	2	1000
		2	196
35%		3	1200
35%		1	400
50%		1	400
50%		1	400
		1	103
		1	103
		2	120
		1	20
		1	40
		1	40
		1	100
		1	50
		4	500
		2	300
		5	45
		8	60
		1	50
		1	35
		2	20
		1	20
		1	20
		2	20

2.2.10

2.2.10.1

1

2.2-7

2.2-7

		kg/h	t/a	m	m
(m /h)					
		0.714	5.712		
14435	SO_2	-	-	38	0.9
	NOx	1.331	10.648		
		0.0552	0.4416		
	SO_2	-	-		
	NOx	0.87	6.96		
10522	VOCs	0.427	3.416	42	1.1
		-	-		
		-	-		
40147		0.386	3.088	40	1.0
41852		0.3918			

		41622		0.367	2.936		15	1.0	
		307		0.0016	0.0128		25	0.35	
		16741		-	-		30	1.0	
				-	-				
				-	-				
			VOCs	0.0658	0.5264				
		48027		0.502	4.016		15	0.9	
		25974		0.247	1.976		15	0.7	
		70672		0.662	5.296		15	1.0	
		92		0.0005	0.004		24	0.08	
				0.0002	0.0016				
			VOCs	-	-				
				0.0001	0.0008				
				0.0001	0.0008				
		130		0.0005	0.004		22	0.1	
			VOCs	0.0001	0.0008				
				0.00001	0.00008				
				0.0023	0.0184				
		2965		0.0138	0.1104		25	1.1	
			SO_2	-	-				

			NOx	0.388	3.104				
		96		-	-		15	0.2	
				-	-				
			VOCs	0.0026	0.0208				
				0.0089	0.0712				
		111		0.0008	0.0064		15	0.25	
				0.656	5.248				
			VOCs	0.0028	0.0224				
				-	-				
				-	-				
				0.0011	0.0088				
		241	VOCs	0.00003	0.00024		20	0.5	
				-	-				
				-	-				
				-	-				
		389	VOCs	0.0005	0.004		20	0.5	
				0.0004	0.0032				
				-	-				
				-	-				

2.2-7 2.2-8

2.2-8

		t/a
1		30.88
2	NOx	20.712
3	VOCs	3.99
4		0.0168
5		0.0016
6		0.00088
7		0.0192
8		0.0712
9		0.0064
10		5.248
11		0.0088
12		0.0032

2

2.2-9

2.2-9

1	VOCs	t/a	73.21
2		t/a	3.05
3		t/a	0.4
4	HCl	t/a	1.09
5		t/a	0.035
6		t/a	1.64
7		t/a	1.13
8		t/a	0.41
9		t/a	0.84

GB16297-1996 2 VOCs

6 DB37/2801.6-2018

3

2.2.10.2

1

2.2-10

2.2-10

		m^3/h	(mg/L,PH)		m^3/h	
		6.2	PH COD SS		6.2	
		2.26	COD SS		0	
		1.08	78%		0	
	H_2	1.2	COD		0	
		20	COD	PO	20	
		30	COD	PO	30	
		39.5	PH		0	
		11	PH		0	
		$45m^3/$	Na_2CO_3:10 30%		0	(7 8)
		13.85	PH COD		13.85	
PO		480	COD		480	
		2			2	
		6	COD		2	
		2.58	COD		2.58	
		4	COD		4	

		15.2	COD SS	-	15.2	
		33.85	COD	-	33.85	
		142.6	COD		0	
		609.41				

2.2.10.3

1

2.2-11

2.2-11

			t/a			
1			8640	$CaCO_3$ $Mg(OH)_2$ NaCl		
			1m^3/a			
			0.017			
2			CaO 17000	$CaCl_2$ 40% SS 1% $Ca(OH)_2$ 8% H2O 50% $Mg(OH)_2$ 1%		
			134	CaO $CaCO_3$		
3			2.4	Fe		
			9623.31			
			40 8	Al_2O_3		
			526.48		HW45	

			914.89		HW11	
			45.2		HW45	
			300		HW50	
			17.7		HW11	
			2068.42		HW11	
			3.5		HW08	
			6 3		HW49	
4			14		HW06	
			1 3		HW06	
			30		HW08	
			0.2			
			240			
5			33.68	-	-	
6			105	-	-	
7			6		HW49	
8			660t 20t			

2.2.10.4

2.2-12

2.2-29

1	25 /		7	80		70
			8	95		75
			2	95		75
			3	95		75
2	12 / HCL		6	95		75
			4	75		60
			3	85		70
			6	90		70
			4	85		70
			6	80		70
			1	100		80
			26	75		60
			21	75		60
			4	105		80
3	10 /		6	75		60
			1	90		80
			6	75		60
4			2	95		65
			2	95		65
			14	80		70
5			6	75		60
			1	90		80
			6	75		60
6	PO		6	70		60
			3	85		70

			2	84		75
7			2	80		60
			5	90		75
			2	80		60
8			6	85		65

2019 8 26 8 27

2.2-13

2.2-13

	2018 8 26 dB A		2018 8 27 dB A	
1#	67.5	64.0	67.2	64.7
2#	65.3	59.6	64.0	59.9
3#	68.3	56.6	68.1	59.6
4#	63.5	60.5	63.4	61.6
5#	73.6	55.6	73.0	57.5
6#	62.0	51.5	61.9	48.4
7#	60.3	53.5	59.9	53.5
8#	59.9	54.8	59.0	54.0
9#	66.5	56.5	66.4	56.1
10#	60.2	57.2	61.3	56.6
11#	48.1	46.2	46.6	44.7

2.2-13

GB12348-2008 3

2.2.10.5

2.2-14

2.2-14

1				t/a	30.88
2			NOx	t/a	20.712
3			VOC_S	t/a	3.99
4				t/a	0.0168

5			t/a	0.0016
6			t/a	0.00088
7			t/a	0.0192
8			t/a	0.0712
9			t/a	0.0064
10			t/a	5.248
11			t/a	0.0088
12			t/a	0.0032
13		VOCs	t/a	73.21
14			t/a	3.05
15			t/a	0.4
16		HCl	t/a	1.09
17			t/a	0.035
18			t/a	1.64
19			t/a	1.13
20			t/a	0.

2.3.2

2.3.2.1

PO/TBA

TBHP

28kg/h

2100 25.3 1.2%

458.4m^2

720h

3

2.3.2.2

2.3-1

2.3-1

	TBHP	TBHP TBHP	
		TBHP/	
		70kg/h 1 240t/h 1 260t/h	

		2m³/h -25	
		2.16 kW h	
		148Nm³/h 140Nm³/h	
		4	
		6m	
			--
		TBHP/TBA	--
			--
		5400m³	--

2.3-2

2.3-2

1			136m³
			70kg/h 1 240t/h 1 260t/h
			2m³/h -25
			6 6 5 429Nm³/min 420Nm³/min 2950Nm³/h 148Nm³/h 140Nm³/h

2.3.2.3

2.3-3

2.3-3

1		kg/h	28	--
			30	720h
		m^2	458.4	--
			2100	--
1			1900	--

2.3.2.4

2.3-4

2.3-4

		t
1		72
2		14.4
3		15.12
4		0.144
5		0.34

2.3.2.4

2.3-5

2.3-5

		kg/h
1		28

2.3.2.5

2.3.2.5.1

1

2

2.3.2.5.2

PVC

2018

PO

2.3-1

2.3.2.6

2.3-6

2.3-6

	L	m		m^3				t	m
TBHP/TBA	1.0	1.6	1	1.15	40	0.1Mpa	0.8	0.96	
TBHP/TBA	1.3	3.4	1	4.07	40	0.1Mpa	0.8	3.38	

2.3.2.7

68 2.3-7

2.3-7

1	1	200 2100	316L	1	
2	2	200 2100	316L	1	
3	3	200 2100	316L	1	
4	4	200 2100	316L	1	
5	5	200 2100	316L	1	
6	6	200 2100	316L	1	
7	7	250 2400	316L	1	
8	8	250 2400	316L	1	
9	9	250 2400	316L	1	
10	10	300 2700	316L	1	
11	11	300 2700	316L	1	
12		DN200 6	316L	1	
13	TBHP	DN250 9	316L	1	
14	TBHP	DN200 2.2	316L	2	
15	TBHP/TBA	1000 1600	316L	1	
16	TBHP/TBA	1300 3400	316L	1	
17	TBHP/	600 1600	316L	1	
18	TBHP/	600 1600	316L	1	
19		1500 2400		1	
20		900 1600	316L	1	
21		1500 3400		1	
22	TBA	2200 4600	304	1	
23		1800 3400	316L	1	
24		1500 2400		1	
25	V-2203	DN250 2000	2205 S30408	1	
26		DN250 1250	2205 S30408	1	
27		DN250 1250	2205	1	

			S30408		
28	V-2203	20m 0.06m³/h		1	
29	V-2203	45m 1.45m³/h		1	
30	V-2301	45m 1.45m³/h		1	
31	V-2302	20m 0.06m³/h		1	
32	TBHP/	650m 0.005m³/h	2205 S30408	6	
33		20m 0.05m³/h		1	
34	TBA/TBHP	20m 0.07m³/h		1	
35		530m 0.04m³/h		1	
36	TBA	640m 0.25m³/h		1	
37	TBA	35m 0.009m³/h		1	
38	TBA	35m 0.014m³/h		1	
39	TBA	650m 0.006m³/h		5	
40		50m 5m³/h		1	
41		V=2m³	316L	1	
42		1200 1800	316L	1	
43		1200 1800	316L	1	
44		600 800	316L	1	
45		1200 1800	316L	1	
46		2400 5000		1	
47		--	316L	1	
48		--	304	1	
49		--	316L	1	
50		--	316L	1	
51		760m 0.3m³/h		1	
52		120m 6.7m³/h	316L	1	

53		100m 0.35m³/h	316L 20#	2	
54		40m 50m³/h	316L 20#	1	
55		15m³	20#	1	
56				1	
57				1	
				68	

2.3.3

2.3.3.1

1

1

1.75m³/d 52.5m³

2 ----------

---------- 2.4m³/d 72m³

124.5m³

2

1

90% 47.25m³ ---------- 72m³

119.25m³

2

SH3015-2003

15mm 30mm

Q m^3

F

0.9

i mm

350m^2 30mm

0.9

94.5m^3 5400m^3

2.3-2 2.3-3

2.3.3.2

70kg/h TBHP

70kg/h 3.0MPa 260

1 240t/h 1 260t/h

2.3.3.3

2m^3/h -25

2.3.3.4

2.16 kW h

2.3.3.5

6 6

5 429Nm^3/min 420Nm^3/min

2950Nm^3/h 148Nm^3/h

140Nm^3/h

2.3.4

TBHP

1

TBHP

TBA

$$3C_4H_{10} \quad 2O_2 \longrightarrow C_4H_{10}O_2 \quad 2C_4H_{10}O$$

$$C_4H_{10}O_2 \longrightarrow C_3H_6O \quad CH_4O$$

$$CH_4O \quad 2O_2 \longrightarrow CH_2O_2 \quad H_2O$$

5.0MPa

3.0MPa 137

TBA TBHP

TBA

2 TBHP

1 TBA (TBHP)

TBA TBHP

TBA TBHP

2 TBHP

TBA (TBHP) TBA TBHP

60% TBHP

TBHP TBA

3 TBHP

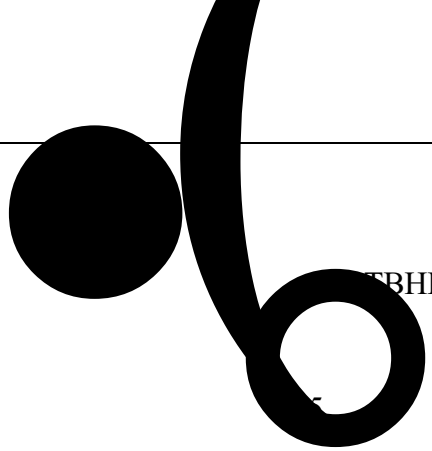
TBHP

TBHP TBHP/TBA TBHP

TBHP/

3

TBA PO



1 TBHP/ TBHP/TBA

TBHP/

2 TBHP TBHP

99% PO 85%

C_3H_6 $C_4H_{10}O_2$ C_3H_6O $C_4H_{10}O$

C_3H_6 H_2O C_3H_8O

C_3H_6O H_2O $C_3H_8O_2$

$C_3H_8O_2$ $C_4H_{10}O$ $C_7H_{16}O_2$ H_2O

$C_4H_{10}O$ CH_2O_2 $C_5H_{10}O_2$ H_2O

TBHP/

11

135

135

2#-6#

	G2-1			TBA	
	G2-2				
	G2-3	TBHP		TBA	
	G2-4			PO	
	W2-1			COD SS	
				--	
	S2-1		TBA TBHP	TBA TBHP	

2.3.5

2.3-9

2.3-5

2.3-9 PO/TBA

		kg/h		kg/h
1		100	TBHP TBA	57.07
2		20	G2-1	11
3		21	G2-2	61
4		0.17	G2-3TBHP	2
5	TBA	18	G2-4	28
6	--	--	TBHP	0.1
	--	159.17	--	159.17

2.3.6

1

TBHP

1

2.3-10

2.3-10

				kg/h	t
G2-1		VOC_S		7	5.04
		VOC_S TBA		3	2.16
G2-2		VOC_S		61	43.92
G2-3	TBHP			0.7	0.504
				0.3	0.216
		VOC_S TBA		1	0.72
G2-4				20.5	14.76
		VOC_S		7.5	5.4

2.3-11

2.3-11

1	VOC_S	t	72.72	72.72
2		t	0.504	0.504

$\frac{WF_{VOCs}}{WF_{TOC}}$ TOC VOCs 1

2.3-12

2.3-12

		TOC kg/ h	TOC	t h	VOCs t
	205	0.00403	80%	720	0.476
	226		100%	720	0.656
	10	0.0199	80%	720	0.115
	12		100%	720	0.172
	3	0.104	80%	720	0.179
	4		100%	720	0.299
	455	0.00183	80%	720	0.479
	916		100%	720	1.206
	4	0.0017	80%	720	0.0039
	4		100%	720	0.0049
	1	0.015	80%	720	0.00864
	4		100%	720	0.0432
					3.64264

LDAR

99% VOC_S 0.036t

a.

VOCs

2015 104 .3

$$L_T = L_S + L_W$$

lb/a

lb/a

lb/a

i.

$$L_S = 365 K_E \left(\frac{\pi}{4} D^2 \right) H_{VO} K_S W_V$$

lb/a

ft

ft^3

lb/ft^3

ii.

$$L_W = \frac{5.614}{RT_{LA}} M_V P_{VA} Q K_N K_P K_B$$

lb/a

lb/lb-mol

psia

bbl/a

2.3-14

b.

VOCs

2015 104 .3

$$E_{装卸}=\frac{L_L \times V}{1000}$$

kg/m^3

$$L_L = C_0 \times S$$

kg/m^3

2.3-13

2.3-13

	kPa)			Btu/ft^2 day	m^3	m	/	pa	pa	m	m	t/y	t	t/y	t/y
	101	36	12	1547	10.18	1.8		30kpa(G)		3.4	0.4	0.079	18	0.0113	0.09
	101	36	12	1235.7	2.49	1.2		1Mpa		1.8	1.2	0..0124	72	0.0466	0.059
	101	36	12	1232.53	7.9	1.6		1.1Mpa		3.4	2.5	0.03	14.4	0.0455	0.039

2.3-14

	P_T Pa	kg/m^3	g/mol			s	t/a	N m^3/a	t/a
	4080	780	64			0.6	18	23	0.00867
	160000	560	58			0.6	72	94	0.035
	1023000	510	42			0.6	14.4	19	0.0069

2

1

TBA

TBHP TBA

6m

99% VOC_S(

TBA) 99.8% 2.3-15

2.3-15

			m^3/h	mg/m^3	kg/h	t	kg/h	mg/m^3
1		VOC_S	45000	20.14	0.202	0.145	3.0	60
			45000	0.7	0.0007	0.00504	/	50
			45000	0.7	0.0003	0.00216	/	50
			45000	0.91	0.0041	0.02952	/	1

2.3-19 VOC_S 6

1 VOCs

6 2

2

GB31571-2015

GB37822-2019

a

+

b

.

.

.

VOCs

VOCs

TBHP/TBA 104.4t/a

0.05057t/a

6 DB37/2801.6-2018 1 VOCs

VOCs

VOCs VOCs 1844

2.3-16

2.3-16

			t		t
1		VOC_S	3.64264	99%	0.036
2		VOC_S	0.23857	20%	0.191

3

2.3-17

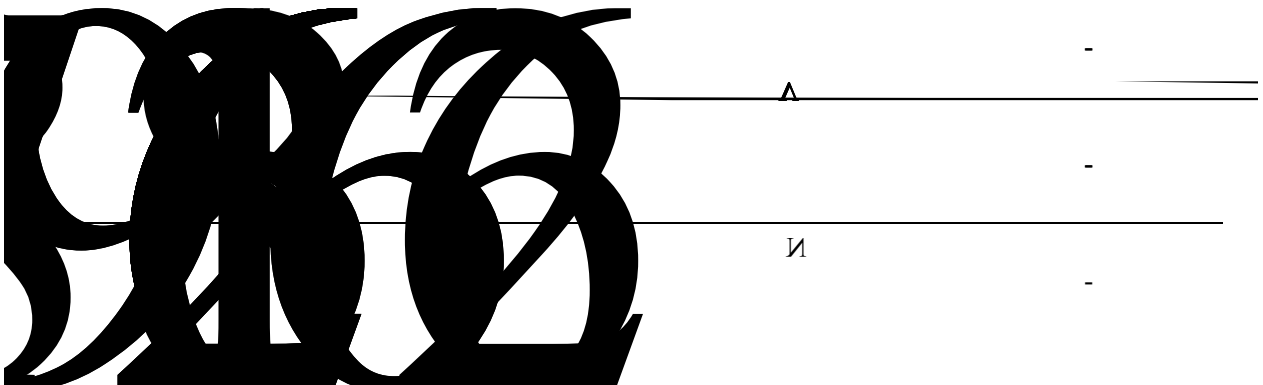
2.3-17

		kg/h	t	
	VOC_S	0.202	0.145	h=6m =1.5m
	VOC_S	--	0.227	--

2.3-18

2.3-18

			t/a
1			5.712
2		SO_2	-
3		NOx	10.648
4			0.4416
5		SO_2	-
6		NOx	6.96
7		VOCs	3.416
8			-
9			-
10			3.088
11			3.766
12			



2.3.9.3

90% 47.25m^3 ---------- 72m^3

119.25m^3

2.3-19

2.3-19

			m^3				m^3	
-			52.5	COD SS			47.25	
--			72	--			72	
			124.5	--	--	--	119.25	--

2.3-23 119.25m^3

COD 1500mg/L

450mg/L COD 0.0072t 0.00095t

2.3-20

2.3-20

		m^3/h	(mg/L,PH)		m^3/h	
		6.2	PH COD SS		6.2	
		2.26	COD SS		0	
		1.08	78%		0	
	H_2	1.2	COD		0	
		20	COD	PO	20	
		30	COD	PO	30	
		39.5	PH		0	
		11	PH		0	
		$45m^3/$	Na_2CO_3:10 30%		0	(7 8)
		13.85	PH COD		13.85	
PO		480	COD		480	
		2			2	
		6	COD		2	
		2.58	COD		2.58	
		4	COD		4	

		15.273	COD SS	-	15.265	
		33.95	COD	-	33.95	
		142.6	COD		0	
		609.583				

2.3.9.4

2.3-21 2.3-22

2.3-21

1	TBHP/TBA	HW49	900-047-49	41.09t			TBHP TBA	1		

2.3-22

			t/a			
1			8640	$CaCO_3$ $Mg(OH)_2$ NaCl		
			1m^3/a			
			0.017			
2			CaO 17000	$CaCl_2$ 40% SS 1% $Ca(OH)_2$ 8% H2O 50% $Mg(OH)_2$ 1%		
			134	CaO $CaCO_3$		
3			2.4	Fe		
			9623.31			
			40 8	Al_2O_3		
			526.48		HW45	
			914.89		HW11	

			45.2		HW45	
			300		HW50	
			17.7		HW11	
			2068.42		HW11	
			3.5		HW08	
			6 3		HW49	
4			14		HW06	
			1 3		HW06	
			30		HW08	
			0.2			
			240			
5			33.68	-	-	
6			105	-	-	
7			6		HW49	
8			660t 20t			
9	PO/TBA	TBHP/TBA	41.09	TBHP TBA	HW49	

2.3.9.5

2.3-23

2.3-23

		dB A			
1		75~80	11		70~75
2		75~80	1		70~75
3	TBHP	75~80	1		70~75
4	TBHP	75~80	1		70~75
5		85~90	4		65~70
6		85~90	4		65~70
7		85~90	7		65~70
8		85~90	1		65~70
9		85~90	11		65~70
10		75~80	1		70~75
11		75~80	1		70~75
12		75~80	1		70~75
13		75~80	1		70~75

1

2

3

4

2.3-24

2.3-24

1	25 /	7	80	70
		8	95	75
		2	95	75
		3	95	75
2	12 / HCL	6	95	75
		4	75	60
		3	85	70
		6	90	70
		4	85	70
		6	80	70
		1	100	80
		26	75	60
		21	75	60
		4	105	80
3	10 /	6	75	60
		1	90	80
		6	75	60
4		2	95	65
		2	95	65
		14	80	70
5		6	75	60
		1	90	80
		6	75	60
6	PO	6	70	60
		3	85	70
		2	84	75
7		2	80	60
		5	90	75
		2	80	60
8		6	85	65

9			11	80	60
10			1	80	60
11		TBHP	1	80	60
12		TBHP	1	80	60
13			4	90	70
14			4	90	70
15	PO/TBA		7	90	70
16			1	90	70
17			11	90	70
18			1	80	60
19			1	80	60
20			1	80	60
21			1	80	60

			t/a	0.84	0	0	0.84	0
			m^3/a	4875280	0	119.25	4875399.25	119.25
	COD		t/a	292.52	0	0.0072	2929.5272	0.0072
			t/a	39	0	0.00095	39.00095	0.00095
			t/a	3928.49	0	41.09	3876.19	41.09
			t/a	35804.67	0	0	93696.06	0

2.4

2.4.1

1

1

2

3

4

1

2

3

4

5

6

7

8

2.4.2

2005

39

2.4.3

1

2

3

3

3.1

3.1.1

527.86km^2 62.91%

3462hm^2

1872hm^2

3.1.3

4

6

1

33.705km 355

km^3 501.2

km^3 311 km^3 287 km^3

156.1 km^3 220 km^3 1997

19 km^3 2002 20 km^3 41.89 km^3

2

20.964km

6.693 km^3 23.5 km^3 0.397 km^3

1459 km^3 0.35 km^3

3

2km

4

1965

72.5 1241.3km^2

606.6km^2

5

23.5km 1/8000 20m^3/s 0.89km^2

50 3

140m

3.1-2

3.1.4

2016 6

2015 1054

1

100

2

100

3

100

4

5

100

14.9km 2.7km

20.1km, 5.6km,

4km

3.1-3

3.1.5

3.6g/L

300m

4m

300m

500 m^3 1400 m^3

1000 m^3

0.6 m^3/d

3 m^3/d 10 m^3/d 2.3 m^3/d

3.1.6

2.5m/s 5 28.5m/s

13.3 7 26.9

567mm 66.8% 66%

8 7 80% 77% 2325.7

1786.1mm

3.2

3.2.1

2005-2020 2005

2011 5

3.2-1

3.2.2

2011 10 9 [2011]65

2011 11 16

[2011]143

200m

6.02km^2

3.06km^2

2.96km^2

2019 144

3.2-2 3.2-3

3.3

1

2018 7

GB/T3095-2012

22 g/m^3 39 g/m^3

98 g/m^3 0.40 54 g/m^3

0.54 1.8mg/m^3 209 g/m^3

0.31

6.05 11.4%

2

2018 11 16 2

12.5% 5 31.3% 6 37.5%

3 18.8% 1.8

16.4 18.5 4.5

24 14

23 10

43.5%

14 60.9%

9 39.1%

13 56.5%

10 43.5%

3

2018 13

9

9 4

3 3

13 12

4

7 ( ) 825

48.2 63.0dB A 48.2dB A

51.2 52.8 53.4 53.7dB

A 55.9dB A

63.0dB A

42.8 54.7dB A

42.8 44.0 44.1 44.3dB A

45.7 47.6dB A

54.7dB A

4

4.1

4.1.1

VOCs 1.6-1

4.1.2

HJ2.2-2018 5.3

4.1.2.1

HJ2.2-2018 AERSCREEN

HJ2.2-2018 C 4.1-1

4.1-1

/	/		3km
/		40.7	20
/		-16.4	
			3km
	/m	90	SRTM DEM UTM 90m
			3km
	/m	--	
	/°	--	

4.1.2.2

- HJ2.2-2018

A

10%

$$P_i = \frac{C_i}{C_{0i}} \times 100\%$$

i %

1h

g/m^3

g/m^3

AERSCREEN

4.1-2

4.1-2

		g/m^3	m	m	g/m^3	
	VOCs	210.1	12	0	1200	17.50
		0.1483	12	0	3000	0.0049
		0.9592	12	0	800	0.1199
	VOCs	168.7	19	0	1200	14.06
	VOCs	912.7	19	50	1200	76.05

VOCs =76.05% 10%

4.1.3

D10% VOCs 50m

HJ2.2-2018 5.4

5km

4.1.4

2017

2017

4.1.5

4.1-3

4.1-3

	/m						
	X	Y					m
	-478	-490				SW	490
	-1285	1177				SW	1170
	-1676	516				SW	1540

1.5-1

4.2

4.2.1

2017 7 ,

PM_{10} 110 g/m^3 GB3095-2012

0.57 $PM_{2.5}$ 64 g/m^3 0.83 SO_2

32 g/m^3 NO_2 40 g/m^3

,

2017 PM_{10} 4.93 $PM_{2.5}$ 9.2%

GB3095-2012

4.2.2

W 2017

1 4.2-1

4.2-1

SO_2	g/m^3		32	60	53.3%	
		98% 357 350	86	150	57.3%	
NO_2	g/m^3		42	40	105.0%	
		98% 358 351	86	80	107.5%	

PM_{10}	g/m^3		108	70	154.3%	
		95% 351 334	235	150	156.7%	
$PM_{2.5}$	g/m^3		71	35	202.9%	
		95% 349 332	165	75	220.0%	
CO	mg/m^3	95% 357 340	3	4	75.0%	
O_3	g/m^3	90% 8h 356 321	187	160	116.9%	

2017 SO_2 CO

24h GB3095-2012

NO_2 PM_{10} $PM_{2.5}$ O_3 24h 8h

4.2.3

1 3

4.2.3.1

1

HJ2.2-2018 2

4.2-1 4.2-1

4.2-1

1#		WSW	/	
2#		W	NW 780m	

2

VOC_S

3

4.2-2

4.2-2

1		GBZ/T160.58-2004	-	0.3mg/m³

2				0.022mg/m^3
3		HJ 683-2014		0.47mg/m^3
4	VOCs	HJ 644-2013	- / -	0.3-1.0 g/m^3

4

2020 5 14 -20 7d 2:00 8:00 14:00 20:00

60min

5

4.2-3 4.2-4

4.2-3

		( )	(hPa)	(m/s)		
2020.5.14	02:00	13.9	1009	1.3	SE	
	08:00	16.4	1009	1.0	SE	
	14:00	21.2	1009	0.9	SE	
	20:00	18.1	1009	0.9	SE	
2020.5.15	02:00	14.3	1007	0.9	NE	
	08:00	17.6	1007	0.7	NE	
	14:00	24.0	1007	0.5	NE	
	20:00	18.7	1007	0.7	NE	
2020.5.16	02:00	15.7	1002	0.7	SW	
	08:00	22.3	1002	0.5	SW	
	14:00	29.8	1002	0.4	SW	
	20:00	24.4	1002	0.6	SW	
2020.5.17	02:00	10.3	1007	0.9	NE	
	08:00	16.9	1007	0.8	NE	
	14:00	25.1	1007	0.8	NE	
	20:00	19.6	1007	0.7	NE	
2020.5.18	02:00	8.2	1006	1.2	NW	
	08:00	11.9	1006	1.0	NW	
	14:00	20.3	1006	0.9	NW	
	20:00	16.7	1006	0.9	NW	
2020.5.19	02:00	11.4	1005	1.1	NW	
	08:00	16.8	1005	1.0	NW	

	14:00	24.5	1005	0.7	NW	
	20:00	21.4	1005	0.8	NW	
2020.5.20	02:00	13.9	1007	1.0	S	
	08:00	19.6	1007	1.0	S	
	14:00	28.4	1007	0.8	S	
	20:00	25.1	1007	0.9	S	

4.2-4

		1#				2#			
		mg/m³	mg/m³	g/m³	VOCs g/m³	mg/m³	mg/m³	g/m³	VOCs g/m³
2020.5.14	02:00	ND	ND	ND	18.3	ND	ND	ND	15.6
	08:00	ND	ND	ND	86.3	ND	ND	ND	72.1
	14:00	ND	ND	ND	96.7	ND	ND	ND	106
	20:00	ND	ND	ND	115	ND	ND	ND	56.6
2020.5.15	02:00	ND	ND	ND	7.9	ND	ND	ND	20.6
	08:00	ND	ND	ND	52.7	ND	ND	ND	100
	14:00	ND	ND	ND	52.6	ND	ND	ND	130
	20:00	ND	ND	ND	93.4	ND	ND	ND	89.8
2020.5.16	02:00	ND	ND	ND	43.2	ND	ND	ND	10.1
	08:00	ND	ND	ND	76.6	ND	ND	ND	88.3
	14:00	ND	ND	ND	47.3	ND	ND	ND	64.0
	20:00	ND	ND	ND	53.1	ND	ND	ND	74.5
2020.5.17	02:00	ND	ND	ND	6.0	ND	ND	ND	4.2
	08:00	ND	ND	ND	26.7	ND	ND	ND	60.5
	14:00	ND	ND	ND	45.6	ND	ND	ND	55.9
	20:00	ND	ND	ND	40.6	ND	ND	ND	67.8
2020.5.18	02:00	ND	ND	ND	16.2	ND	ND	ND	15.7
	08:00	ND	ND	ND	75.0	ND	ND	ND	90.2

	14:00	ND	ND	ND	78.4	ND	ND	ND	58.2
	20:00	ND	ND	ND	64.8	ND	ND	ND	75.2
2020.5.19	02:00	ND	ND	ND	14.2	ND	ND	ND	19.2
	08:00	ND	ND	ND	84.0	ND	ND	ND	87.9
	14:00	ND	ND	ND	56.0	ND	ND	ND	88.0
	20:00	ND	ND	ND	34.8	ND	ND	ND	50.2
2020.5.20	02:00	ND	ND	ND	14.0	ND	ND	ND	35.3
	08:00	ND	ND	ND	44.7	ND	ND	ND	103
	14:00	ND	ND	ND	37.6	ND	ND	ND	108
	20:00	ND	ND	ND	79.4	ND	ND	ND	193

4.2.3.2

1

= —

mg/m^3

mg/m^3

1 1

2

VOCs HJ2.2-2018

D 4.2-5

4.2-5

			1h	8h
1		g/m^3	3000	--
2		g/m^3	800	--
3	VOCs	g/m^3	1200 8 2	600

3

4.2-6

4.2-6

						%
1#			28	0 0.011	0	0
			28	0 0.235	0	0
	VOCs		28	0.005 0.0958	0	0
2#			28	0 0.011	0	0
			28	0 0.235	0	0
	VOCs		28	0.0035 0.1608	0	0

4.2-6 VOCs

4.3

4.3-1 4.3-2

4.3-3

4.3-4 4.3-5 4.3-6

4.3-1

													/ kg/h
		X	Y										
		m	m	m	m		m/s	h			/ kg/h	/ cal/s	
1		30	-5	5	13.35	700	20	720		VOCs	100.8	5.12×10^6	0.202
2		30	-5	5	13.35	700	20	720			0.297	5.12×10^6	0.0007
3		30	-5	5	13.35	700	20	720			0.693	5.12×10^6	0.0003

4.3-2

										VOCs
	X	Y								
	m	m	m	m	m	°	m	h		kg/h
	-10	17	9	31	10	0	5	720		0.0138
	-18	-7	10	14	10	0	4	720		0.073

4.3-3

										VOCs
	X	Y								
	m	m	m	m	m	°	m	h		kg/h
	-82	40	9	37.85	27.22	0	8	8000		1.54

VOCs

4.3-4

	X	Y								kg/h
	m	m	m	m	m	m^3/h	K	h		
1	-164	-188	9	15	0.65	18974	283.15	8000		0.197
2	-164	-181	9	15	0.9	28213	283.95	8000		0.274
3	62	25	9	22	0.1	153.33	318.15	8000	VOCs	0.004
4										

4.4

4.4.1

VOCs

4.4.2

5km

10%

4.4.3

2017 2017 1

4.4.4

5km

0.5m/s

72h 20 35%

3km AERMOD

EIAProA-2018 Ver 2.6

4.4.5

4.4.5.1

AERMOD

2017

118°E 37°35 N 7.8km

50km

USGS NCEP/NCAR

MM5

40° 110.0° 50 50 81km 81km

43 43 27km 27km

2017 08 20

3000m 19

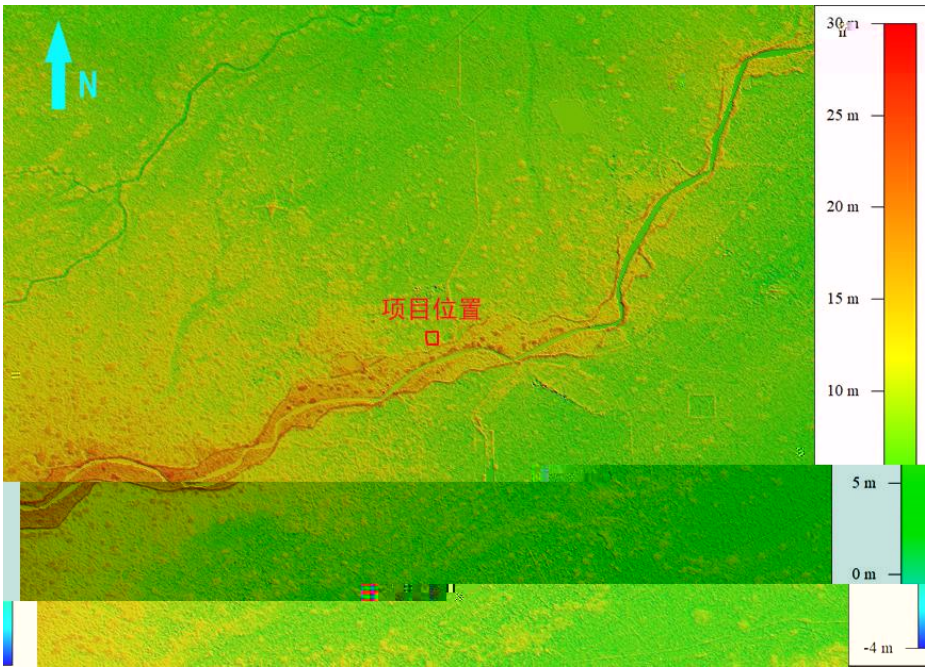
50km

4.4.5.3

SRTM DEM

UTM 90m

DEM



4.4-1 1:240000

4.4.5.4

1

AERSURFACE

4.4-8

				BOWEN	
	0-360	12 1 2	0.6	1.5	0.01
	0-360	3 4 5	0.14	0.3	0.03
	0-360	6 7 8	0.2	0.5	0.2
	0-360	9 10 11	0.18	0.7	0.05

4.4.6

AERMOD

SO_2 NO_X

4.4.7

1h

4.4-9

	-			
			1h	
	- +			

4.4.8

4.4.8.1

4.4-10

4.4-10

				g/m³	%	
			180	11	.94	
Cs			2006	10	.90	
			170 21	1	.82	
		1	17010215	104.12	8.68	

4.4.8.2

- 4.4-11

4.4-11

			g/m³	%
VOCs	1	17062907	0.3	0.02
	1	17062907	0.11	0.01
	1	17061107	0.09	0.01
	1	17080407	18.75	1.56

4.4-13 VOCs

				g/m³	%	
VOCs		1	17081206	61.409	5.12	
		1	17080407	41.057	3.42	
		1	17031918	44.426	3.7	
		1	17081307	336.878	28.07	

4.4.8.5

50m 366

4.4-14

4.4-14

				g/m³	g/m³	
1	VOCs	17041607	24 198	73.19	2000	

VOCs 6

DB37/2801.6-2018 3

4.4.9

PM_{10} $PM_{2.5}$

VOCs

4.4.10

4.4.10.1

4.4-15 4.4-16

4.4-15

		VOCs	t/a	0.145
			t/a	0.00504

			t/a	0.00216
		VOCs	t/a	0145
		VOCs	t/a	0.145
			t/a	0.00504
			t/a	0.00216

4.4-16

						t/a
					mg/m^3	
1		VOCs	--	6 DB37/2801.6-2018	2.0	0.227

4.4-17

		t/a
1	VOCs	0.372

4.4.10.2

4.4-18

4.4-18

				kg/h	h		
1			VOCs	9.07	4	1	

4.5

4.5-1 4.5-2

4.5-1

	VOCs		6 DB37/2801.6-2018

4.5-2

	VOCs	1 /	6 DB37/2801.6-2018 3

4.5.2

4.5-3

4.5-3

	VOCs		HJ2.2-2018 D

4.6

4.6.1

2017

VOCs

VOCs 8.68%

100%

4.6.2

PM_{10} $PM_{2.5}$

VOCs

4.6.3

VOCs 6

DB37/2801.6-2018 3 VOCs

4.6.4

VOCs 0.372t/a VOCs

36.28t/a

=50km 5 50km =5km

SO_2 +NO 2000t/a 500~2000t/a 500t/a

$PM_{2.5}$

VOCs $PM_{2.5}$

D

2017

AERMOD ADMS AUSTAL2000 EDMS/AEDT CALPUFF

50km 5 50km =5km

$PM_{2.5}$

VOC_S $PM_{2.5}$

100% 100%

10% 10%

30% 30%

1h

4 h 100% 100%

-20% -20%

VOCs

VOCs 1

m

SO_2: t/a NO_x: t/a

47.25m^3/a 72m^3/a 119.25m^3/a

HJ2.3-2018 5.2

B B

HJ2.3-2018

B

500m 3000m

B

5.2

5.2.1

2018 5.2-1

	pH			COD_{Mn}	BOD_5						COD_{Cr}	TN	TP
		mS/m	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
2018.01	7.73	3040	10	5.3	3	0.63	0.08	0.003	0.00002	0.00017		8.93	
2018.02	7.84	4350	12.5	5	3.3	0.46	0.09	0.002	0.00002	0.00005	35	7.28	0.75
2018.03	7.75	3765	10.9	5	2.1	0.72	0.15	0.002	0.00002	0.001	30	8.88	0.8
2018.04	7.91	3065	8.3	5.9	2.7	0.3	0.08	0.0031	0.00002	0.00005	37	11.8	0.7
2018.05	7.75	2870	8.5	7.4	3.4	1.08	0.09	0.0031	0.00002	0.001	4L	5.02	0.21
2018.06	7.52	2810	5.6	8.1	3	0.28	0.06	0.003	0.00002	0.038	4L	4.02	0.11
2018.07	7.62	498	7.9	8.9	2.1	0.49	0.05	0.0024	0.00002	0.00004	35	3.58	0.12
2018.08	6.65	650	6.9	9.2	2.7	0.66	0.02	0.0026	0.00002	0.00400	38	3.3	0.21
2018.09	7.73	616	6.4	7.9	2.9	0.51	0.02	0.0026	0.00002	0.00040	36	4.0	0.15
2018.10	8.17	927	10.2	8.2	3.0	0.22	0.02	0.003	0.00002	0.00004	36	4.1	0.16
2018.11	8.35	2565	7.80	9.0	2.8	0.33	0.06	0.003	0.00002	0.00004	38	5.3	0.15
2018.12	7.52	1570	7.60	9.9	2.2	0.24	0.07	0.0022	0.00002	0.00700	36	6.27	0.25
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	LAS mg/L	mg/L	mg/L	%	mg/L
2018.01	0.0109	0.01865	1	0.0054	0.002	0.00003	0.002	0.002	0.025	0.0025	3.68	3.68	0.261
2018.02	0.0066	0.049	<										

2018

GB3838-2002

5.2-3

5.2-3

1	pH		GB/T6920-1986	/
2	COD_{Mn}		GB/T11892-1989	0.5mg/L
3			HJ535-2009	0.025mg/L
4			HJ636-2012	0.05mg/L
5			GB11893-89	0.01mg/L
6			GB/T11901-1989	4mg/L
7			HJ637-2012	0.01mg/L
8			GB/T16489-1996	0.005mg/L
9			GB7484-87	0.05mg/L
10			GB/T11896-1989	10mg/L
11			GB/T11899-1989	10mg/L
12			HJ/T51-1999	10mg/L
13			HJ755-2015	20MPN/L

5

5.2-4 5.2-5

5.2-4

				m	m	m/s	m^3/s
1# 500m	2018.04.25		17.0	38.0	1.4	0.36	19.15
			18.1				
	2018.04.26		18.6				
			19.0				
2# 500m	2018.04.25		17.2	36.0	1.7	0.50	30.60
			17.7				
	2018.04.26		18.1				
			19.0				
3# 3000m	2018.04.25		16.3	36.0	1.6	0.53	30.53
			18.0				
	2018.04.26		18.5				
			18.6				

5.2-5

				1#	2#	3#
1	pH	2018.4.25		6.58	6.82	6.64
				6.73	6.79	6.75
		2018.4.26		6.63	6.81	6.59
				6.71	6.76	6.67
2	COD_{Mn} mg/L	2018.4.25		8.4	8.1	7.5
				8.5	8.0	7.4
		2018.4.26		8.3	9.2	8.5
				8.1	9.0	8.4
3	mg/L	2018.4.25		3.72	3.15	2.74
				3.52	2.64	2.80
		2018.4.26		3.07	1.87	2.57
				3.03	1.99	2.22
4	mg/L	2018.4.25		6.36	7.74	8.11
				6.17	7.87	8.69
		2018.4.26		5.52	7.90	9.12
				5.75	6.97	9.14
5	mg/L	2018.4.25		0.34	0.50	0.53
				0.33	0.52	0.52
		2018.4.26		0.36	0.52	0.48
				0.32	0.50	0.49
6	mg/L	2018.4.25		13	15	13
				13	10	15
		2018.4.26		15	13	16
				14	11	14
7	mg/L	2018.4.25		0.01	0.01	0.01
				0.01	0.01	0.01
		2018.4.26		0.01	0.01	0.01
				0.01	0.01	0.01
8	mg/L	2018.4.25		0.005	0.005	0.005
				0.005	0.005	0.005
		2018.4.26		0.005	0.005	0.005
				0.005	0.005	0.005

9	mg/L	2018.4.25		1.48	1.16	1.02
				1.48	1.20	1.06
		2018.4.26		1.42	1.16	1.06
				1.36	1.16	1.06
10	mg/L	2018.4.25		653	$1.86\ 10^3$	$1.94\ 10^3$
				650	$1.86\ 10^3$	$1.94\ 10^3$
		2018.4.26		705	$2.05\ 10^3$	$2.29\ 10^3$
				708	$2.02\ 10^3$	$2.28\ 10^3$
11	mg/L	2018.4.25		569	555	543
				548	568	544
		2018.4.26		519	571	556
				587	570	552
12		2018.4.25		$2.10\ 10^3$	$4.18\ 10^3$	$4.23\ 10^3$
				$2.13\ 10^3$	$4.14\ 10^3$	$4.14\ 10^3$
		2018.4.26		$2.14\ 10^3$	$4.36\ 10^3$	$4.32\ 10^3$
				$2.17\ 10^3$	$4.31\ 10^3$	$4.38\ 10^3$
13		2018.4.25		$9.2\ 10^3$	$5.4\ 10^3$	$9.2\ 10^3$
				$9.2\ 10^3$	$3.5\ 10^3$	$5.4\ 10^3$
		2018.4.26		$5.4\ 10^4$	$2.4\ 10^4$	$1.6\ 10^4$
				$3.5\ 10^4$	$2.4\ 10^4$	$1.6\ 10^4$

1

1.6-2

2

= —

pH

mg/L

mg/L

$$= \frac{7.0 -}{7.0 -} \qquad (\qquad 7.0)$$

$$= \frac{-7.0}{-7.0} \qquad (\qquad 7.0)$$

3

5.2-6

5.2-6

		1#	2#	3#
1	pH	0.27 0.42	0.18 0.24	0.25 0.41
2	COD_{Mn}	0.54 0.57	0.53 0.61	0.49 0.57
3		1.52 1.86	0.94 1.58	1.11 1.4
4		2.76 3.18	3.49 3.95	4.06 4.57
5		1.6 1.8	2.5 2.6	2.4 2.65
6		0.13 0.15	0.1 0.15	0.13 0.16
7		0.91 0.99	0.77 0.8	0.68 0.71
8		2.6 2.83	7.44 8.2	7.76 9.16
9		2.08 2.35	2.22 2.28	2.17 2.22
10		2.1 2.17	4.14 4.36	4.14 4.38
11		0.23 1.35	0.09 0.6	0.14 0.4

5.2-6

GB3838-2002

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4 DB37/3416.4-2018 2

6 m^2

2001 $800m^3/h$ 2012

2005 $1100m^3/h$ 2008

$1100m^3/h$

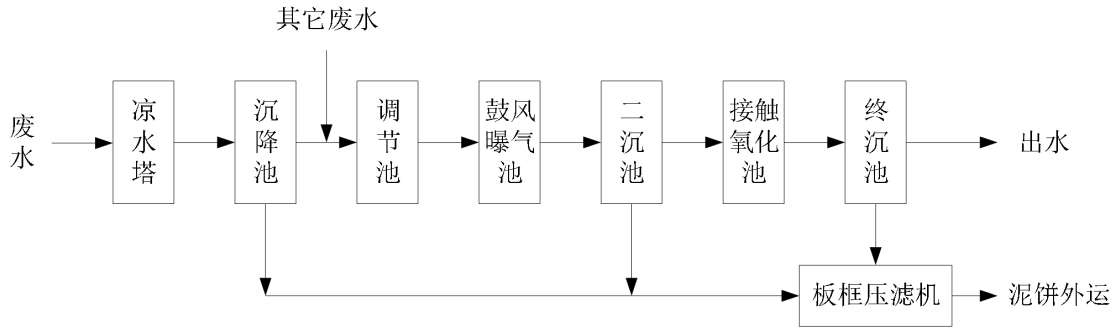
+

COD 1500mg/L 450mg/m^3 pH 13

48000mg/L 4

DB37/3416.4-2018 2

5.3-1



$1460m^3/h$ $1440m^3/h$

$0.16m^3/h$

2018 1 -2018 6

5.3-1

5.3-1 2018 1 -6

	COD_{Cr}				NH_3-N			
	mg/L	mg/L			mg/L	mg/L		
2018 1	32.3~36.4	33.61	30	100%	0.49~5.83	2.58	30	100%
2018 2	27.9~58.9	36.61	31	100%	0.98~2.85	1.72	31	100%
2018 3	27.3~40.2	32.27	31	100%	0.34~1.11	0.62	31	100%
2018 4	27.8~47.6	33.86	30	100%	0.34~0.79	0.59	30	100%
2018 5	29.2~51	38.35	31	100%	0.36~1.54	0.66	31	100%
2018 6	28.9~47.3	37.34	30	100%	0.41~0.88	0.60	30	100%
DB37/675-2007	60				8			

5.3-1

4 DB37/3416.4-2018 2

119.25m^3 COD 0.0072t

0.054t COD 0.00024t

0.0000063t

5.4-1

5.4-1

1					
				3	
2		pH			
				3	
3		COD			

				3	
4					
				3	
5		BOD_5		3	
6		SS		3	

5.4-2

5.4-2

1		pH		3	
2		COD		3	
3	500m			3	
4	1000m	BOD_5		3	
5	3000m	SS		3	

4 DB37/3416.4-2018 2

5.5.2

5.5-1

5.5-1

1		COD SS					+	DW001		

2		--								

5.5-2

5.5-2

t

1 DW001 118 02 13.46 37 23 38.71 119.25 118°0 59.84 37°35

5.5-5

5.5-5

1	DW001						AE325MN	3		
2		pH					PHS-3C	3		
3		COD					LFS-2002	3		
4							HQ-NH_3-N	3		
5		BOD_5						3		
6		SS						3		

		LJI	
		! .	

LJI /h5ay

o

			к ŭкl·		к ҮЭк[	
		/h5	/h50.00024t лфллллфрп0.0000063t		/h5рлҮЭк[млҮЭк[	
					к ŭкl·	к ҮЭк[
		Yºкă Y		Yºкă Y	Yºкă Y	
					LJI /h5 .h5р {{	

6

6.1

6.1.1

HJ610-2016

HJ610 A

6.1-1

6.1-1

a

a

6.1-1

6.1-2

6.1-2

6.1.2

HJ610-2016

6.1-3

	km^2	
	20	
	6 20	
	6	

6.1-3 $6km^2$

6.2

6.2.1

6.2.1.1

1

6

6.2-1 6.2-1

6.2-1

		m		
1#		800	S	
2#		770	NW	
3#		1360	NW	
4#		1330	S	
5#		1720	NW	
6#		2720	N	

2

K^+ Na^+ Ca^{2+} Mg^{2+} CO_3^{2-} HCO_3^- pH

1,2- 1,1 1- 1,1,2-

1,1- 1,2-

3

2019

8 28 11 25

4

6.2-2

6.2-2

1	pH	GB/T5750.4-2006		--
2		GB/T5750.4-2006		1.0mg/L
3		GB/T5750.4-2006		10mg/L
4		GB/T5750.7-2006		0.05mg/L
5		GB/T5750.5-2006		0.02mg/L
6		GB/T5750.5-2006		0.001mg/L
7		HJ84-2016		0.007mg/L
8				0.006mg/L

9				0.018mg/L
10				0.004mg/L
11		HJ700-2014		0.00009mg/L
12				0.00005mg/L
13	K^+	HJ776-2015		0.05mg/L
14	Na^+			0.12mg/L
15	Ca^{2+}			0.02mg/L
16	Mg^{2+}			0.003mg/L
17				0.004mg/L
18				0.01mg/L
19				0.006mg/L
20				0.004mg/L
21		HJ694-2014		0.00004mg/L
22				0.0003mg/L
23	CO_3^{2-} HCO_3^-	DZ/T0064.49-1993		5mg/L
24		GB/T5750.5-2006	N,N-	0.005mg/L
25	1,1-	HJ810-2016	/ -	1.3 g/L
26	-1,2-			0.6 g/L
27	-1,2-			0.5 g/L
28	1,2-			0.5 g/L
29	1,1,1-			0.8 g/L
30				0.8 g/L
31	1,2-			0.8 g/L
32				0.8 g/L
33	1,1,2-			0.9 g/L
34				0.8 g/L
35		GB/T5750.4-2006		0.100mg/L
36		HJ503-2009		0.0003mg/L
37		GB/T5750.5-2006	-	0.002mg/L
38		GB/T5750.6-2006		0.004mg/L
39		GB/T5750.12-2006		1CFU/mL
40		GB/T5750.12-2006		2MPN/100 mL

6.2-3 6.2-4

6.2-3

		1#	2#	3#	4#	5#	6#
1	m	12.0	20.2	9.5	16.0	20.0	9.5
2	m	6.0	5.0	5.5	6.0	8.0	4.0
3		14.6	14.8	14.4	--	--	--
4							

6.2-4

			1#	2#	3#
1	pH	--	7.76	7.65	7.68
2		mg/L	1.03 10^3	575	453
3		mg/L	1.77 10^3	2.88 10^3	1.47 10^3
4		mg/L	0.192	0.494	0.523
5		mg/L	537	425	251
6		mg/L	123	529	253
7		mg/L	12.4	52.4	0.139
8	CO_3^{2-}	mg/L	ND	ND	ND
9	HCO_3^-	mg/L	662	1102	739
10		mg/L	0.027	0.800	ND
11		mg/L	0.10	0.24	0.07
12		mg/L	ND	ND	ND
13		mg/L	ND	ND	ND
14		mg/L	ND	ND	ND
15		mg/L	ND	ND	ND
16		mg/L	2.30	1.06	1.63
17		mg/L	ND	ND	ND
18		MPN/100mL	ND	14	ND
19		CFU/mL	18	130	2700
20		mg/L	ND	ND	ND
21		mg/L	ND	0.0005	0.0007
22		mg/L	ND	ND	ND
23		mg/L	ND	ND	ND
24		mg/L	0.04	0.01	0.03

25		mg/L	0.603	0.303	0.435
26		mg/L	ND	0.029	0.204
27		mg/L	ND	ND	ND
28	K^+	mg/L	2.87	24.7	1.02
29	Na^+	mg/L	214	756	365
30	Ca^{2+}	mg/L	161	81.5	77.9
31	Mg^{2+}	mg/L	156	108	68.8
32	1,1-	g/L	ND	ND	ND
33	-1,2-	g/L	ND	ND	ND
34	-1,2-	g/L	ND	ND	ND
35	1,1,1-	g/L	ND	ND	ND
36		g/L	ND	ND	ND
37	1,2-	g/L	ND	ND	ND
38		g/L	ND	ND	ND
39	1,1,2-	g/L	ND	ND	ND
40		g/L	ND	ND	ND

6.2.1.2

pH

1,1- 1,2-

1

GB/T14848-2017 1.6-3

2

3

6.2-5

6.2-5

		1#	2#	3#
1	pH	0.51	0.43	0.45
2		—	—	—
3		—	—	—

4		0.19	0.49	0.52
5		___	___	___
6		0.49	___	___
7		0.62	___	0.01
8		0.03	0.80	0.00
9		0.20	0.48	0.14
10		0.77	0.35	0.54
11		0.33	___	0.33
12		0.18	___	____
13		0.02	0.05	0.07
14		0.13	0.03	0.10
15		___	___	___
16		0.00	0.03	0.20
17		0.00	0.00	0.00

6.2-5 3

GB/T14848-2017

6.3

6.3.1

6.3.1.1

9 10

4 5

6.3.1.2

100kt/a HCl 2006

6

1

0.50 2.60m 0.86m 7.04 9.55m 8.83m 0.50 2.60

0.86m

2 - -

0.40 1.70m 0.75m 7.20 8.91m 8.36m

0.90 2.50m 1.44m

3 -

0.30 2.30m

1.29m 5.57 8.30m 7.07m 1.40 4.0m 2.64m

4-1 -

0.30

2.10m 1.07m 4.35 6.09m 5.33m 3.50 5.40m

4.32m

4 -

-

0.40 3.30m 2.10m 3.05

7.28m 4.49m 2.10 6.20m 5.21m

5 - -

0.60 3.30m 1.42m 1.30 3.75m 2.99m

5.50 8.20m 6.71m

6 -

-

0.70 3.40m 2.22m -0.25 2.00m 0.89m

7.60 9.80m 8.81m

7 -

0.60 4.80m 2.27m -2.41 0.01m -1.22m

9.00 12.50m 10.91m

8 - -

0.40 2.50m

1.50m -3.71 0.39m -2.62m 10.10 13.50m 12.31m

9 -

0.30 3.10m 1.46m

-5.92-2.40m -3.66m 11.80 15.7m 13.34m

10 -

0.60 4.70m 2.74m -10.62 4.75m -6.24m

14.10 20.40m 15.93m

11 -

0.10 5.70m 3.38m -11.75 5.53m -9.73m 15.30

20.50m 19.42m

12 -

0.40 19.90m

1.64m -11.81 10.34m -11.12m 19.90 21.60m 20.77m

13

1.50 3.40m 2.86m

-14.46 12.90m -14.14m 22.10 24.10m 23.86m

14

6.3m

6.3-1 6.3-2

6.3.2

1/7500 9.00-11.00m

60 250m 20g/L

250m

49.82-67.75m 1-2g/L

4.0-4kg/L

2m

6.3-3

6.3.3

1

0.40 1.70m

0.75m 0.90 2.50m 1.44m 7.20 8.91m 8.36m

2

k=4.43 10^{-6} 1.46 10^{-5}cm/s k=1.00 10^{-5}cm/s

400m

$6km^2$

$$(\quad , \quad , \quad) = \frac{\quad /}{4\pi \sqrt{\quad\quad}} \quad -\left[\frac{(\quad - \quad)^2}{4} + \frac{\quad^2}{4}\right]$$

COD

$\sim$

$\alpha \times$

6.5.2

GB/T50934-2013

GB/T50934-2013

COD

6.5-1

6.5-1

6.5-1

		15cm	15cm 5mm 7mm	6.0m 1.0 10^{-7}cm/s
		15cm	15cm 5mm 7mm	

6.5.3

5

6.5-2 6.5-2

6.5-2

1	1	37.377°N 118.056°E	15m	PVC PVC	

2	2	37.377°N 118.06°E			
3	1	37.379°N 118.063°E			
4	2	37.383°N 118.057°E			
5	3	37.383°N 118.063°E			

6.5-3

6.5-3

pH 1,2- 1,1,1- 1,1,2- 1,1- 1,2-	1 /	1 /

7

7.1

HJ2.4-2009 5.2

GB3096 3

HJ2.4-2009 6.1

200m 3

200m

7.2

7.2.1

7.2.1.1

11 7.2-1 7.2-1

7.2-1

1#	1m	
2#	1m	
3#	1m	
4#	1m	
5#	1m	
6#	1m	
7#	1m	
8#	1m	
9#	1m	
10#	1m	
11#		

7.2.1.2

2019 8 26 8 27

7.2.1.3

7.2-2

7.2-2a 2019 8 26

	dB A				dB A			
	10	50	90	eq	10	50	90	eq
1#	71.4	65.2	63.2	67.5	64.4	63.8	63.2	64.0
2#	68.8	62.8	58.6	65.3	61.0	58.6	58.0	59.6
3#	70.8	68.2	59.4	68.3	59.2	49.0	46.8	56.6
4#	67.6	58.8	52.8	63.5	61.2	55.0	54.	60.5
5#	74.6	73.2	72.2	73.6	56.0	52.6	52.0	55.6
6#	65.0	58.2	54.2	62.0	52.0	47.0	46.2	51.5
7#	63.8	54.4	52.0	60.3	53.6	52.4	51.8	53.5
8#	62.8	57.4	51.8	59.9	55.4	53.6	52.6	54.8
9#	70.2	64.4	58.6	66.5	60.8	51.8	49.2	56.5
10#	63.4	56.8	52.4	60.2	60.2	55.6	51.6	57.2
11#				48.1				46.2
/20min								
1#	44		10	178	36		2	126
2#	40		6	165	32		0	88
3#	50		8	182	28		4	80
4#	35		2	174	34		2	82
5#	12		0	45	8		0	24
6#	10		2	41	6		0	28
7#	13		4	34	8		2	25
8#	36		8	154	17		4	45
9#	42		10	152	21		2	52
10#	30		2	140	24		0	58

7.2-2b 2019 8 27

	dB A				dB A			
	10	50	90	eq	10	50	90	eq
1#	71.0	65.0	63.0	67.2	65.2	64.4	64.0	64.7
2#	66.4	62.8	58.8	64.0	61.4	59.0	58.4	59.9
3#	70.6	67.8	58.8	68.1	61.8	50.4	46.6	59.6
4#	67.6	58.6	52.4	63.4	62.4	52.4	51.6	61.6
5#	74.0	72.8	71.8	73.0	59.6	52.4	51.6	57.5
6#	64.6	57.6	54.0	61.9	50.0	47.4	46.4	48.4
7#	63.4	53.8	51.2	59.9	54.0	52.4	51.8	53.5
8#	62.2	56.8	51.4	59.0	55.6	53.8	53.6	54.0
9#	70.2	64.4	58.2	66.4	60.4	51.4	49	56.1
10#	64.6	59.4	53.6	61.3	59.8	54.4	51.6	56.6
11#				46.6				44.7

/20min

1#	46	6	186	35	2	105
2#	42	8	170	30	2	78
3#	53	4	177	32	4	86
4#	38	0	168	38	0	96
5#	16	2	44	7	2	26
6#	12	10	38	0	4	18
7#	14	0	48	6	8	22
8#	34	4	148	15	6	46
9#	45	4	123	24	0	51
10#	28	4	157	18	4	56

7.2.2

7.2.2.1

dB A

A dB A

dB A

7.2.2.2

GB12348-2008

3 A 65dB A 55dB A

7.2.2.3

7.2-3

	dB A				dB A			
2019 8 26								
1#	67.5	65	2.5		64.0	55	9	
2#	65.3	65	0.3		59.6	55	4.6	
3#	68.3	65	3.3		56.6	55	1.6	
4#	63.5	65	-1.5		60.5	55	5.5	
5#	73.6	65	8.6		55.6	55	0.6	
6#	62.0	65	-3		51.5	55	-3.5	
7#	60.3	65	-4.7		53.5	55	-1.5	
8#	59.9	65	-5.1		54.8	55	-0.2	
9#	66.5	65	1.5		56.5	55	1.5	
10#	60.2	65	-4.8		57.2	55	2.2	
11#	48.1	65	-16.9		46.2	55	-8.8	
2019 8 27								
1#	67.2	65	2.2		64.7	55	9.7	
2#	64.0	65	-1		59.9	55	4.9	
3#	68.1	65	3.1		59.6	55	4.6	
4#	63.4	65	-1.6		61.6	55	6.6	
5#	73.0	65	8		57.5	55	2.5	
6#	61.9	65	-3.1		48.4	55	-6.6	
7#	59.9	65	-5.1		53.5	55	-1.5	
8#	59.0	65	-6		54.0	55	-1	
9#	66.4	65	1.4		56.1	55	1.1	
10#	61.3	65	-3.7		56.6	55	1.6	
11#	46.6	65	-18.4		44.7	55	-10.3	

7.2-3

1# 2# 3# 5# 9# 1# 2# 3# 4# 5# 9# 10#

GB12348-2008

1# 2# 3# 5# 9# 1# 2# 3# 4# 5# 9# 10#

7.3

7.3.1

7.3-1

7.3-1

		1m dB A	m			
1		70~75	445	285	215	443
2		70~75	440	300	218	438
3	TBHP	70~75	432	302	220	426
4	TBHP	70~75	428	305	225	423
5		65~70	438	302	227	426
6		65~70	443	290	222	438
7		65~70	440	278	225	450
8		65~70	428	292	237	416
9		65~70	444	283	221	445
10		70~75	445	300	220	428
11		70~75	443	290	222	438
12		70~75	405	285	260	443
13		70~75	420	275	240	453

7.3.2

7.3.2.1

HJ2.4-2009

1

A A

( ) = – – 1

( ) = ($_0$) – 2

= + + + + 3

( ) ( ) A dB

($_0$) ($_0$) A dB

( ) A dB

dB

4π ( )

( )

$$= \quad _2(\ ) + 10\lg \qquad 5$$

3

( ) j Ö

$$(\quad) = 10\lg\left[\frac{1}{-}\left(\sum_{=1} \ 10^{0.1} \quad + \sum_{=1} \ 10^{0.1} \quad \right)\right] \qquad 6$$

s

s

s

4

7

$$= 10\lg(10^{0.1} \quad + 10^{0.1} \quad) \qquad 7$$

$_0$/3<r< $_0$ $_0$/3<r_0< $_0$ =15lg r/r_0

2

3

$$= \lg \frac{- \ _0}{100}$$

a

4

7.3.3

7.3-2

7.3-2

	dB A			dB A		
	32.09	--	32.09	32.09	--	32.09
	35.51	73.6	73.6	35.51	57.5	57.5
	37.72	68.3	68.3	37.72	64.7	64.7
	32.03	66.4	66.4	32.03	57.2	57.2

7.3-2

GB12348-2008 3

7.4

1

2

3

4

π TBHP/TBA

I Wнлнрпнлмн

уфмпм

TBHP/TBA HW49	TBHP/TBA 41.09t	

м

TBHP/TBA

н

уфнпм

TBHP/TBA		HW49	900-047-49		3.59m^3	3m^2		3.59t		1

1

2 15cm 5mm

7mm

3

GB15562.2-1995

6

3

GB/T50934-2013

GB18597 HJ2025

HJ2025-2012

- TBHP/TBA

HJ964-2018

1

HJ964 A.1

2

458.3m^2

3

9.1-1

9.1-2

9.1-2

									--
								--	--
-									

9.1.2

HJ964-2018

7.2.2 9.1-3

9.1-3

		a	
		b	
			5km
			1km
			2km
			0.2km
			1km
			0.05km
a b			

9.1-3 200m

1 2

9.2-1 9.2-1

9.2-1

1#				0~0.5m 0.5~1.5m 1.5~3m	
2#				0~0.2m	
3#				0~0.5m 0.5~1.5m 1.5~3m	
4#		PO/TBA		0~0.5m 0.5~1.5m 1.5~3m	
5#		0.2km		0~0.2m	
6#		0.2km		0~0.2m	

9.2.1.2

1~4# pH

1,1- 1,2- 1,1- -1,2-

-1,2- 1,2- 1,1,1,2- 1,1,2,2-

1,1,1- 1,1,2- 1,2,3-

1,2- 1,4- +

2- [a] [a] [b] [k]

[a,h] [1,2,3-cd]

5# 6# pH

9.2.1.3

2019 8 27

2020 5 14

9.2.1.4

9.2-2

9.2-2

1	pH	NY/T1377-2007		--

2		HJ680-2013	/	0.01mg/kg
3				0.002mg/kg
4		GB/T17141-1997		0.01mg/kg
5				0.1mg/kg
6		LY/T1243-1999		0.5cmol( )/kg
7		HJ736-2015	/ -	0.0030mg/kg
8		HJ834-2017	-	0.09mg/kg
9				0.01mg/kg
10	2			0.06mg/kg
11	[a]			0.1mg/kg
12	[a]			0.1mg/kg
13	[b]			0.2mg/kg
14	[k]			0.1mg/kg
15				0.1mg/kg
16	[a,h]			0.1mg/kg
17	[1,2,3 cd]			0.1mg/kg
18				0.09mg/kg
19		HJ642-2013	/ -	0.0015mg/kg
20				0.0021mg/kg
21	1,1			0.0016mg/kg
22	1,2			0.0013mg/kg
23	1,1			0.0008mg/kg
24	1,2			0.0009mg/kg
25	1,2			0.0009mg/kg
26				0.0026mg/kg
27	1,2			0.0019mg/kg
28	1,1,1,2			0.0010mg/kg
29	1,1,2,2			0.0010mg/kg
30				0.0008mg/kg
31	1,1,1			0.0011mg/kg
32	1,1,2			0.0014mg/kg
33				0.0009mg/kg
34	1,2,3			0.0010mg/kg

35				0.0015mg/kg
36				0.0016mg/kg
37				0.0011mg/kg
38	1,2			0.0010mg/kg
39	1,4			0.0012mg/kg
40				0.0012mg/kg
41				0.0016mg/kg
42				0.0020mg/kg
43	- + -			0.0036mg/kg
44	-			0.0013mg/kg
45		METHOD 3060A	ALKALINE DIGESTION FOR HEXAVALENT CHROMIUM	0.4mg/kg
46		HJ 491-2019		1mg/kg
47				3mg/kg

9.2-3

9.2-3a 1# 2# 3#

			1#			2#	3#		
			0~50cm	50~150cm	150~300cm	0~20cm	0~50cm	50~150cm	150~300cm
1		mg/kg	0.015	0.021	0.014	0.007	0.027	0.024	0.020
2		mg/kg	9.77	8.72	8.32	6.07	10.5	10.4	9.26
3		mg/kg	17.1	17.3	14.9	15.5	19.3	20.1	17.8
4		mg/kg	0.11	0.12	0.11	0.08	0.15	0.13	0.12
5		mg/kg	ND	ND	ND	ND	ND	ND	ND
6		mg/kg	ND	ND	ND	ND	ND	ND	ND
7		mg/kg	ND	ND	ND	ND	ND	ND	ND
8	1,1	mg/kg	ND	ND	ND	ND	ND	ND	ND
9	1,2	mg/kg	ND	ND	ND	ND	ND	ND	ND
10	1,1	mg/kg	ND	ND	ND	ND	ND	ND	ND
11	1,2	mg/kg	ND	ND	ND	ND	ND	ND	ND

12	1,2	mg/kg	ND	ND	ND	ND	ND	ND	ND
13		mg/kg	ND	ND	ND	ND	ND	ND	ND
14	1,2	mg/kg	ND	ND	ND	ND	ND	ND	ND
15	1,1,1,2	mg/kg	ND	ND	ND	ND	ND	ND	ND
16	1,1,2,2	mg/kg	ND	ND	ND	ND	ND	ND	ND
17		mg/kg	ND	ND	ND	ND	ND	ND	ND
18	1,1,1	mg/kg	ND	ND	ND	ND	ND	ND	ND
19	1,1,2	mg/kg	ND	ND	ND	ND	ND	ND	ND
20		mg/kg	ND	ND	ND	ND	ND	ND	ND
21	1,2,3	mg/kg	ND	ND	ND	ND	ND	ND	ND
22		mg/kg	ND	ND	ND	ND	ND	ND	ND
23		mg/kg	ND	ND	ND	ND	ND	ND	ND
24		mg/kg	ND	ND	ND	ND	ND	ND	ND
25	1,2	mg/kg	ND	ND	ND	ND	ND	ND	ND
26	1,4	mg/kg	ND	ND	ND	ND	ND	ND	ND
27		mg/kg	ND	ND	ND	ND	ND	ND	ND
28		mg/kg	ND	ND	ND	ND	ND	ND	ND
29		mg/kg	ND	ND	ND	ND	ND	ND	ND
30	+	mg/kg	ND	ND	ND	ND	ND	ND	ND
31		mg/kg	ND	ND	ND	ND	ND	ND	ND
32		mg/kg	ND	ND	ND	ND	ND	ND	ND
33		mg/kg	ND	ND	ND	ND	ND	ND	ND
34	2	mg/kg	ND	ND	ND	ND	ND	ND	ND
35	[a]	mg/kg	ND	ND					

38	[k]	mg/kg	ND	ND	ND	ND	ND	ND	ND
39		mg/kg	ND	ND	ND	ND	ND	ND	ND
40	[a,h]	mg/kg	ND	ND	ND	ND	ND	ND	ND
41	[1,2,3 cd]	mg/kg	ND	ND	ND	ND	ND	ND	ND
42		mg/kg	ND	ND	ND	ND	ND	ND	ND
43		mg/kg	ND	ND	ND	ND	ND	ND	ND
44		mg/kg	27	25	22	17	29	28	27
45		mg/kg	21	21	16	13	23	22	21

9.2-3b 4# 5# 6#

			4#			5#	6#
			0~50cm	50~150cm	150~300cm	0~20cm	0~20cm
1		mg/kg	0.161	0.0809	0.211	0.119	0.0975
2		mg/kg	14.4	17.2	12	6.5	9.1
3		mg/kg	33	34	30	28	34
4		mg/kg	28.7	23.4	14	13.8	4.0
5		mg/kg	ND	ND	ND	/	/
6		mg/kg	ND	ND	ND	/	/
7		mg/kg	ND	ND	ND	/	/
8	1,1	mg/kg	ND	ND	ND	/	/
9	1,2	mg/kg	ND	ND	ND	/	/
10	1,1	mg/kg	ND	ND	ND	/	/
11	1,2	mg/kg	ND	ND	ND	/	/
12	1,2	mg/kg	ND	ND	ND	/	/
13		mg/kg	ND	ND	ND	/	/
14	1,2	mg/kg	ND	ND	ND	/	/
15	1,1,1,2	mg/kg	ND	ND	ND	/	/

16	1,1,2,2	mg/kg	ND	ND	ND	/	/
17		mg/kg	ND	ND	ND	/	/
18	1,1,1	mg/kg	ND	ND	ND	/	/
19	1,1,2	mg/kg	ND	ND	ND	/	/
20		mg/kg	ND	ND	ND	/	/
21	1 kg /						

46		mg/kg					
47		mg/kg	/	/	/	41	49
48		mg/kg	/	/	/	94	87

1.6-5 1.6-6

—

0

9.2.2.4

9.2-4

9.2-4

	0~50cm	0.0004	0.16	0.021	0.002	0.03	0.0012	/	/
1#	50~150cm	0.0006	0.15	0.022	0.002	0.028	0.0012	/	/
	150~300cm	0.0004	0.14	0.019	0.002	0.024	0.0009	/	/
2#	0~20cm	0.0002	0.10	0.019	0.001	0.019	0.0007	/	/
	0~50cm	0.0007	0.18	0.024	0.002	0.032	0.0013	/	/
3#	50~150cm	0.0006	0.17	0.025					

6#	0~20cm	0.028	0.364	0.2	6.67	0.013	0.20	0.313	0.29

9.2-4 1# 2# 3# 4#

GB36600-2018 1

5# 6#

GB15618-2018 1

3.1

9.3-1 3.2-1 9.3-3

944464.62hm^2

2011 10 31

123343.75hm^2 7742.43hm^2 15289.27hm^2

172942.95hm^2 60984.5hm^2 35617.36hm^2

6978.27hm^2 16131.6hm^2 10241.22hm^2 41990.56hm^2

9.3-1

9.3-1a

			15:58
	118.06665°		37.37815°
	0-20cm		

		<20
	cmol/kg	6.5
	(mv)	391.6
	(mm/min)	0.092
	(kg/m^3)	1.41
	(%)	50.2

9.3-1b

				11:32
		118.06151°		37.38304°
		0-20cm		
		<20		
	cmol/kg	7.2		
	(mv)	401.3		
	(mm/min)	0.113		
	(kg/m^3)	1.44		
	(%)	47.2		

200m

VOCs

HJ964-2018

GB36600-2018

4500mg/kg

		~		
		~		
		~		

6.5.2

9.5.3

9.5-2

1		pH 1,1- 1,2- 1,1- -1,2- -1,2- 1,1,1,2- 1,1,2,2- 1,1,1- 1,1,2-	1 /	GB36600-2018
2				

1# 2# 3# 4#

GB36600-2018 1

5# 6#

GB15618-2018 1

1# 2# 3# 4#

GB36600-2018 1 5#

6#

GB15618-2018 1

			:
		458.3 m^2	

		a b c d				
		9.3-1				C
			1	2	0~0.2m	
			3	--	0~0.5m 0.5~1.5m 1.5~3m	
		1~4# pH 1,1- 1,2- 1,1- -1,2- -1,2- 1,2- 1 1 1 2- 1,1,2,2- 1,1,1- 1,1,2- 1,2,3- 1,2- 1,4- + 2- [a] [a] [b] [k] [a,h] [1,2,3-cd] 5# 6# pH				
		GB 15618 GB 36600 D.1 D.2				
		E F				
		a b c a b				
		2	9.5-2		1 /1	
1 2						

10

10.1

25 /

20 / 12 / VCM

HCL 15 /

6 / 3 /

8 / 2 / 8 /

2 / 2000 /

2 2 -

(

)

(1)

(2) (GB50016-2006)

(3) 16 140

5kg 8kg 35kg 3kg 8kg CO_2

(4)

(5)

(6)

)

)

)

5400m³

10.

10.

201

0.2-1

10.2-1

10.2-1

					/ t	/ t	
1			99.9%		1.064	72	
2			99.9%		13.65	/	
3	TBHP				2.76	/	
4			99.6%		3.23	15.12	
5					0.051	/	
6			99%		0.004	/	
7					0.072	/	

	2.1				
	LD50 800mg/kg LC501900mg/kg				
		UN	1969	CAS NO.	75-28-5
	21012		O52		
	15 15				
	: /				

10.2-3

					tert-butyl alcohol trimethyl carbinol		
	$C_4H_{10}O$		74.12		470		11
	25.3		82.8		5.33kPa/24.5		
	=1	0.79		(kJ/mol)	2630.5		
	=1	2.55			-		
(vol%)	2.3-8.0%						
	3.2						
	LD_{50} 3500mg/kg( ) LC_{50}						
				UN	1120	CAS NO.	75-65-0
	32066				O52		

	( )

10.2-4

	C_3H_6 CH_3CHCH_2		
	42.08		602.88kPa/0 -108
	-191.2 -47.7		
	(=1)0.5 (=1)1.48		
	15% 30 35 40% 20 260mg/L 4 35% 20		
	( ) 21018		
	4( )		
		( )	

10.2-5

	1 2-		1,2-epoxypropane propylene oxide

	C_3H_6O CH_3CHOCH_2		58.08		-		-37
	-104.4		33.9		75.86kPa/25		
	=1	0.83		(kJ/mol)	-		
	=1	2.0			-		
(vol%)	2.1-37%						
	7( )						
	LD_{50}1140mg/kg( ) 1245mg/kg( ) LC_{50}4127mg/m^3 4 ( )						
			UN	1280	CAS NO.	75-56-9	
	31032						
	15 15						
	( )						

10.2-6

	2-				2-methyl propionic acid		
	$C_4H_8O_2$		88.11		481		55
	-47		154.5		0.13kPa(14.7)		
	=1	0.95		(kJ/mol)	2165.3		
	=1	3.04			336		
(vol%)	2.0-9.2%						

	3.2				
	LD_{50} 400-800 mg/kg( ) LC_{50}				
		UN	2529	CAS NO.	79-31-2
	33592		O53		-
	( )				

10.2-7

					methyl alcohol		
	CH_4O		32.04		385		11
	-97.8		64.8		13.33kPa(21.2)		
	=1	0.79		(kJ/mol)	727.0		
	=1	1.11			240		
(vol%)	5.5% 44.0%						
	3.2						
	LD_{50} 5628 mg/kg( ) 15800 mg/kg( ) LC_{50} 83776mg/m^3 4 ( )						
				UN	1230	CAS NO.	67-56-1
	32058						7

	( )
	1
	( )

10.2-8

					acetone		
	C_3H_6O		58.08		465		-20
	-94.6		56.5		53.32kPa(39.5)		
	=1	0.80		(kJ/mol)	1788.7		
	=1	2.00			235.5		
(vol%)	2.5% 13.0%						
	3.2						
	LD_{50} 5800 mg/kg( ) 20000 mg/kg( ) LC_{50})						
				UN	249	CAS NO.	67-64-1
	31025						7

	( )

10.2.2

1.5-2 1.5-1

10.3

10.3.1 P

1 Q

HJ169 B

$$Q = \frac{q_1}{Q_1} + \frac{q_2}{Q_2} + \cdots \frac{q_n}{Q_n}$$

1 2 t

1 2 t

1

1 1 1 10 2 10 100 3 100

10.3-1

10.3-1 Q

		CAS	/t	Q_n/t	Q
1		75-28-5	1.064	10	0.1064
2		75-56-9	0.051	10	0.0051
3		115-07-1	3.5	10	0.323
4		67-56-1	0.004	10	0.0004
5		67-64-1	0.072	10	0.0072
					0.4421

TBHP GB30000.18 1 2 3 GB30000.28
1 Q

10.3-1 1

10.3.2

10.3-2

10.3-2

	+			
				a
a				

10.3-1 10.3-2

10.4

10.4.1

2015

2015 80

10.4-1

10.4-1

CAS			
75-28-5			1

1

/ 2

75-56-9

10.4-3

			/		
			/		

10.5

HJ169-2018 A

10.5.1

10.6.2.2

GB50483-2009 =

- -

= $_1$+ $_2$+ max- 3

$_1$+ $_2$+ max m^3

1 m^3

2

3 m^3

m^3

3

m^3

10.6-1

10.6-1

1		2m³ =2m³	2	4 0.8 24.37m³ =24.37m³	24.37
2		GB50160-2008 2018 8.4.3 150L/s 3h =3 3600 150 10^{-3}=1620m³	1620	6.0L/ min m² 13.72m² 4h $_2$=4 60 13.72 6.0 10^{-3}=19.76m³	19.76
3		P=3 t=3h q=57.58L/s hm² =0.95 0.08ha =57.58 0.95 0.08 3 3600 10^{-3}=47.26m³	47.26	P=3 t=3h q=57.58L/s hm² =0.95 0.009ha =57.58 0.95 0.009 3 3600 10^{-3}=5.3m³	5.3
4		=0	0		0
5		= $_1$+ $_2$+ - $_3$	1669.26	= $_1$+ $_2$+ - $_3$	49.43

10.7-1 1718.69m^3

5400m^3

10.6.3

1

2 GB/T50934-2013

6.0m 1.0 10^{-7}cm/s

3 5

10.6.4

10.6-3

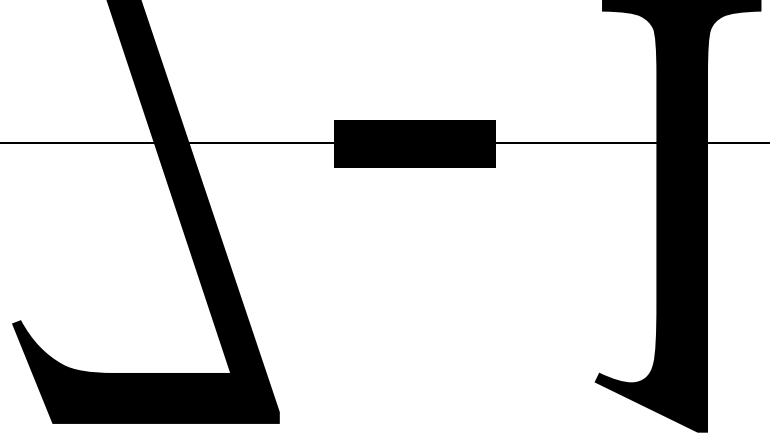
10.6-3

1		300m	VOCs	15min/	
2		200m		1h/	

10.6-4

10.6-4

	4	3M	6
	2		
	2m^3		2
	1		



10.7

10.7-1

PO/TBA TBHP	

		/t	1.064	0.051	3.5	0.072	0.004
			500m		0	5km	____
			200m				
					F1	F2	F3
					S1	S2	S3
					G1	G2	G3
					D1	D2	D3
		Q	Q 1	1 Q 10		10 Q 100	Q 100
		M	M1	M2		M3	M4
		P	P1	P2		P3	P4
			E1	E2		E3	
			E1	E2		E3	
			E1	E2		E3	
		+					
					/		
			SLAB	AFTOX			
				-1		m	
				-2		m	
			--		--h		
				__d			
				--d			

10

10.1

25 /

20 / 12 / VCM

HCL 15 /

6 / 3 /

8 / 2 / 8 /

2 / 2000 /

2 2 -

(

)

(1)

(2) (GB50016-2006)

(3) 16 140

5kg 8kg 35kg 3kg 8kg CO_2

(4)

(5)

(6)

(7)

(8)

(9) 5400m^3

10.2

10.2.1

2015

10.2-1

10.2-1

					/ t	/ t	
1			99.9%		1.064	72	
2			99.9%		13.65	/	
3	TBHP				2.76	/	
4			99.6%		3.23	15.12	
5					0.051	/	
6			99%		0.004	/	
7					0.072	/	

MSDS 10.2-2 10.2-8

10.2-2

	2-				Isobutane 2-Methylpropane		
	C_4H_{10}		58.12		460		-82.8
	-159.64		-11.8		160.09kPa/0		
	=1	0.56		(kJ/mol)	2856.6		
	=1	2.01			135		
(vol%)	1.8-8.5%						
	2.1						

	LD50 800mg/kg LC501900mg/kg				
		UN	1969	CAS NO.	75-28-5
	21012		O52		
	15 15				
	: /				

10.2-3

					tert-butyl alcohol trimethyl carbinol		
	$C_4H_{10}O$		74.12		470		11
	25.3		82.8		5.33kPa/24.5		
	=1	0.79		(kJ/mol)	2630.5		
	=1	2.55			-		
(vol%)	2.3-8.0%						
	3.2						
	LD_{50} 3500mg/kg( ) LC_{50}						
				UN	1120	CAS NO.	75-65-0
	32066				O52		

	( )

10.2-4

	C_3H_6 CH_3CHCH_2		
	42.08		602.88kPa/0 -108
	-191.2 -47.7		
	(=1)0.5 (=1)1.48		
	15% 30 35 40% 20 260mg/L 4 35% 20		
	( ) 21018		
	4( )		
		( )	

10.2-5

1 2-

1,2-epoxypropane propyle

CH_3CHOCH_2

-104.4 33.9 75.86kPa/25

=1 0.83 (kJ/mol) -

=1 2.0 -

(vol%) 2.1-37%

7( )

LD_{50}1140mg/kg( )

1245mg/kg(

	3.2				
	LD_{50} 400-800 mg/kg( ) LC_{50}				
		UN	2529	CAS NO.	79-31-2
	33592		O53		-
	( )				

10.2-7

					methyl alcohol		
	CH_4O		32.04		385		11
	-97.8		64.8		13.33kPa(21.2)		
	=1	0.79		(kJ/mol)	727.0		
	=1	1.11			240		
(vol%)	5.5% 44.0%						
	3.2						
	LD_{50} 5628 mg/kg( ) 15800 mg/kg( ) LC_{50} 83776mg/m^3 4 ( )						
				UN	1230	CAS NO.	67-56-1
	32058						7

	( )

10.2.2

1.5-2 1.5-1

10.3

10.3.1 P

1 Q

HJ169 B

$$Q = \frac{q_1}{Q_1} + \frac{q_2}{Q_2} + \cdots \frac{q_n}{Q_n}$$

1 2 t

1 2 t

1

1 1 1 10 2 10 100 3 100

10.3-1

10.3-1 Q

		CAS	/t	Q_n/t	Q
1		75-28-5	1.064	10	0.1064
2		75-56-9	0.051	10	0.0051
3		115-07-1	3.5	10	0.323
4		67-56-1	0.004	10	0.0004
5		67-64-1	0.072	10	0.0072
					0.4421

TBHP GB30000.18 1 2 3 GB30000.28
1 Q

10.3-1 1

10.3.2

10.3-2

10.3-2

	+			
				a
a				

10.3-1 10.3-2

10.4

10.4.1

2015

2015 80

10.4-1

10.4-1

CAS			
75-28-5			1
75-56-9			1
		/	2

		/	2
			1B
			2
		-	3
115-07-1			1
67-56-1		,	2
		-	3
		-	3
		-	3
		-	1
67-64-1		,	2
		/	2
		-	3

10.4.2

10.4-2

10.4-2

1			
2			
3			
4			
5			

10.4.3

/

10.4-3

10.4-3

			/		
			/		

10.5

HJ169-2018 A

10.5.1

10.5.2

10.5.3

10.6

10.6.1

1

GB/T50493-2019

2 DCS

3

E101

FV102

TBHP

TBA

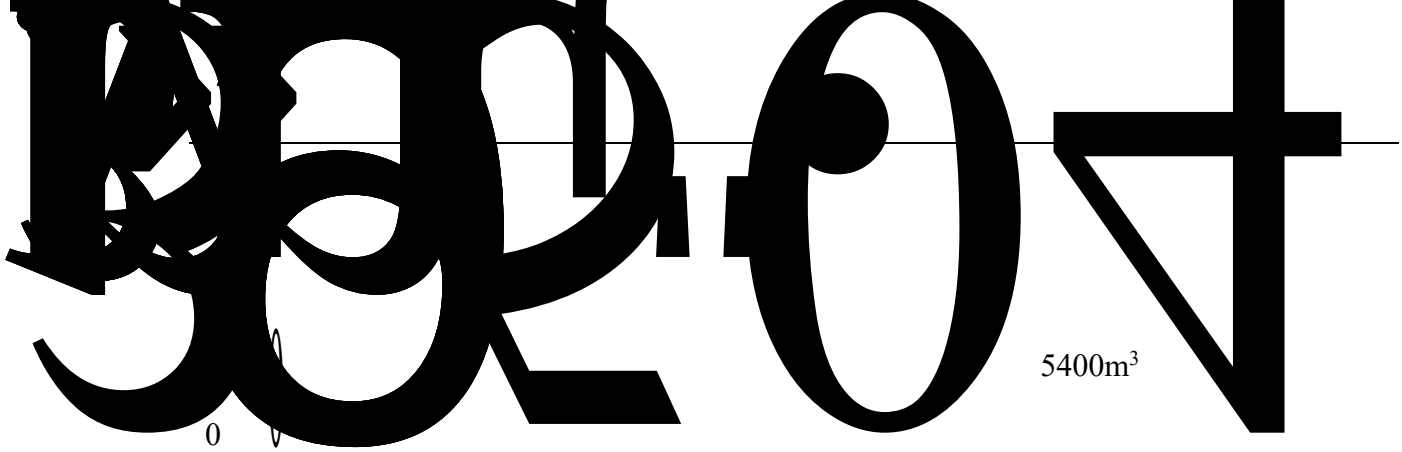
TBHP

4

10.6.2

10.6.2.1

1m


5400m3

10.6-1

1		2m³ =2m³	2	4 0.8 24.37m³ =24.37m³	24.37
2		GB50160-2008 2018 8.4.3 150L/s 3h =3 3600 150 10^{-3}=1620m³	1620	6.0L/ min m² 13.72m² 4h $_2$=4 60 13.72 6.0 10^{-3}=19.76m³	19.76
3		P=3 t=3h q=57.58L/s hm² =0.95 0.08ha =57.58 0.95 0.08 3 3600 10^{-3}=47.26m³	47.26	P=3 t=3h q=57.58L/s hm² =0.95 0.009ha =57.58 0.95 0.009 3 3600 10^{-3}=5.3m³	5.3
4		=0	0		0
5		= $_1$+ $_2$+ - $_3$	1669.26	= $_1$+ $_2$+ - $_3$	49.43

10.7-1 1718.69m^3

5400m^3

10.6.3

1

2 GB/T50934-2013

6.0m 1.0 10^{-7}cm/s

3 5

10.6.4

10.6-3

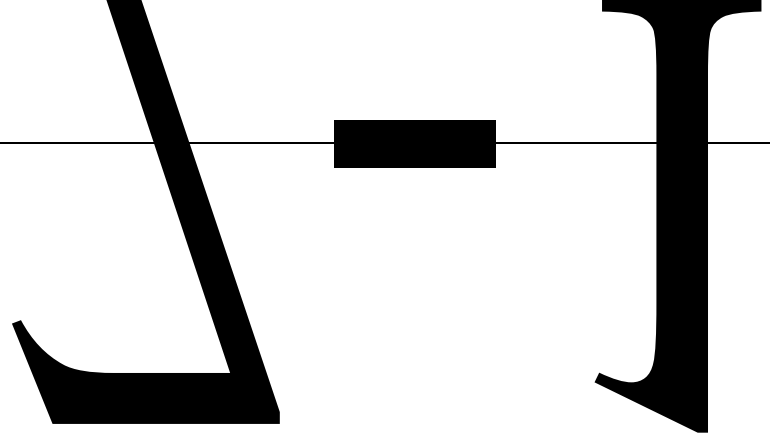
10.6-3

1		300m	VOCs	15min/	
2		200m		1h/	

10.6-4

10.6-4

	4	3M	6
	2		
	2m^3		2
	1		



10.7

10.7-1

PO/TBA TBHP	

		/t	1.064	0.051	3.5	0.072	0.004
			500m		0	5km	____
			200m				
					F1	F2	F3
					S1	S2	S3
					G1	G2	G3
					D1	D2	D3
		Q	Q 1	1 Q 10		10 Q 100	Q 100
		M	M1	M2		M3	M4
		P	P1	P2		P3	P4
			E1	E2		E3	
			E1	E2		E3	
			E1	E2		E3	
		+					
					/		
			SLAB	AFTOX			
				-1		m	
				-2		m	
			--		--h		
				__d			
				--d			

11

11.1

TBHP

2018 TBHP

3

11.2

11.2.1

1

2

3

248

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2012 179 2019 112

11.2-1

11.2-1

8	

9	
10	
11	
13	
14	1 2 3 4
1	7 1 2019 23
2	
5	

HJ/T393-2007

1

2

2.5

1.5 1.8

3

4

a

b

c

d

5

10

6

15cm

7

a

b

c

d

e

8

9

a

b

c

d

e

f

10

2000 /100cm^2

11

12

13

20

11.2.2

1 COD

2

2500 3000mg/L

11.2.3

1

2

3

11.2.4

200m

1

12 24cm

1 3cm

2

3

11.3

мн

12.1

мнфмпм

12.1-1

		±h/{			мн	мфр
		/h5 {{			мфр	лфн
	¢.Itк¢.!				лфу	мфр
					м	
					мрфо	офн

мнфмпм офн

12.2

¢.!

¢.It ¢.!

cY

c

м ±h/ă

12.3

мнфофм

с Yн

нллм уллYокЌ нлмн

нллр млллYокЌ нллу

ммллYокЌ /h5ЖмоллYЭк[LJI мо

п 5.откопмсфппнлму

ά Ь έ

мл

рфр /h5 ά

έ ώнлмфв лм

нлмт

/h5

к

мнфофн

12.3-1

		LJI	/h5 YЭк[	YЭк[	YЭк[	YЭк[	YЭк[
м		ммфру	молл	ммфр	нспрн	лфр	
		ффнл	пнф	млфл	мсооп	лфу	
		нлфс	стфл	нл	оуфн	п	п
н		ффнл	пнф	млфл	мсооп	лфу	

		у⌽рл	ннн	ф⌽л	мрпуп	л⌽с	
	⁘	т⌽сл	пу⌽н	р	р⌽н	π	π
о		у⌽рл	ннн	ф⌽л	мрпуп	л⌽с	
		т⌽рл	рр	у⌽р	мнррс	л⌽р	
	⁘	мм⌽т	тр⌽н	р⌽р	му⌽ф	π	π
⁘		ор⌽н	фр⌽у	нф⌽н	рн⌽р	π	π
5.откопмс⌽п⎍нлму		с⎍ф	сл	у	π	р	м

0.05mg/L 0.005mg/L

п 5.откопмс⌽п⎍нлму

мн⌽о⌽о

12.3-2

\ 12.3-2

		/
1		0.4
2		1.2
3		0.8
4		2.4

12.3-2 2.4 /

286.2

§ § 6

1

2

2013 2

3

GB18597-2001 A

GB13392-2005

4

12.5

мнфрфм

GB12348-2008 3

мнфрфн

1

2

3

4

2100

13.2-1

13.2-1

1			12
2			1.5
3			1
4			0.8
5			10
6			25.3

25.3 1.2%

13.2-2

13.2-2

1		
2		
3		
4		

14

14.1

2017 15 2020 2015 17%

4.2

155.2 13.2 111.4 104.0 2015

11.7% 13.4% 27.0% 27.0% 153.7

2015 20.0%

14.2

119.25m^3

COD

0.372t

2019 132

2

2 0.744t/a

14.3

HJ853-2017

14.3-1

14.3-1

			t/a	mg/m^3
		VOC_S	0.145	60
		VOC_S	0.227	2.0
			119.25	--
	COD		0.00024	50
			0.0000063	10

15

15.1

15.1.1

8 2

15.1.2

15.1.3

1

2

3

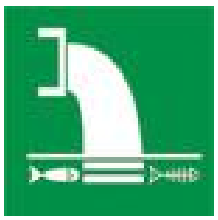
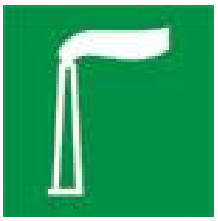
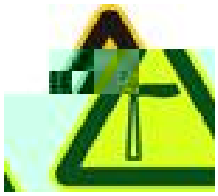
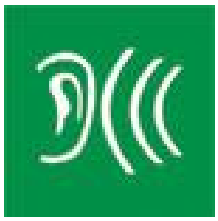
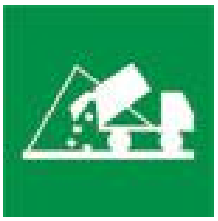
15562.1-1995

GB15562.2-1995

DB37/T2463-2014

DB37/T3535-2019

15.1-1

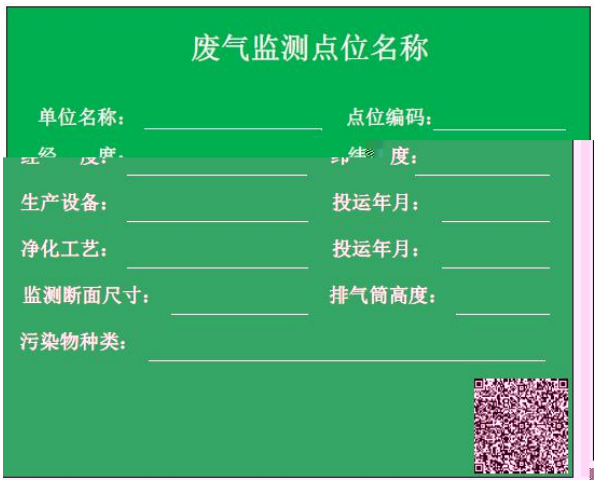
			
			

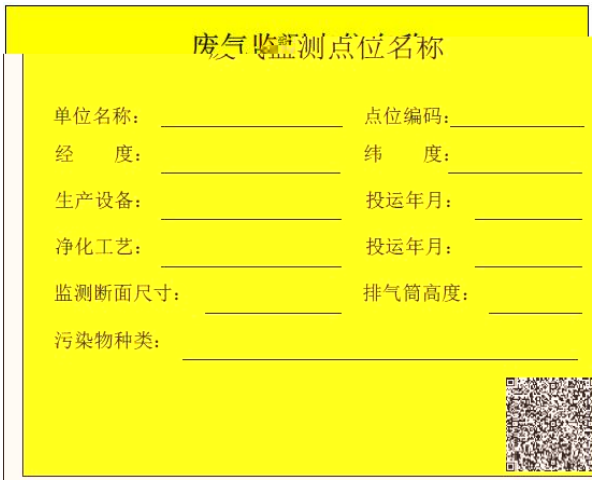
15.1-1

-- 15.1-1

15.1-1

15.1-2





15.1-2

15.1-2

16

16.1

PO/TBA

M7320

2019

16.2

16.2.1

6.02km^2

2019 144

16.2.3

2011 11 16 2011 143

16.2-1

16.2-1

1

/

2016-2020

22.92km^2 10.86km^2

2.9km

16.2-1

2

2019 6

GB/T3095 2012

19 g/m^3 39 g/m^3

92 g/m^3 0.31 53 g/m^3

0.51 1.7 mg/m^3 204 g/m^3

0.29

24 14

2019 15

11

11

7 ( ) 731

46.9 60.4 46.9

53.4 53.5 53.7 54.4

55.4 60.4

3

2.16 kW h

2654.64kg 136m^3 11.65kg 1.68 kg

2160.48kg 10.66 m^3 4264kg 5600m^3 2240kg

11330.77kg/a

4

PO/TBA

2019

16.3

16.3.1

2013 37

16.3-1

16.3-1

	2017 10 20 10	

16.3.2

< >

2017 121 16.3-2

16.3-2

1	VOC_S		
2	LDAR		
3			
4			

16.3.3 2015 259

2015 259 16.3-3

16.3-3 2015 259

2015 259		
1.		

2.

3.

2

VOCs VOCs		
VOCs 5.2 kPa 2.8kPa VOCs		

16.3.7

2016 31 16.3-8

16.3-5

16.3.8

16.3-9

16.3-9

LDAR 2000 LDAR	LDAR	

16.3.9 2016 150

2016 1

16.3.10 2016 1686

2016 1686 16.3-11

16.3-11 2016 1686

16.3.11 2017 331

6 <

> 2017 331 16.3-12

16.3-12 2017 331

1	VOCs	
2	LDAR	

2017 331

16.3.12

2018 22

16.3-13

16.3-13 2018 22

	2018 22		
	2020		

2018 22

2018 17

16.3.13

2018-2020

16.3-16

16.3-16

1.

1500 m^3

6.9 m^3

40% 60%

$Ca(OH)_2$

70%

$CaCl_2$

17.1.2

17.1.2.1

2019

17.1.2.2

6.02km^2

2019 144

17.1.3

1

TBA

TBHP

TBA 6m

VOCs 6

1 VOCs

6

DB37/2801.6-2018 2

2

3

TBHP/TBA

4

80

90dB A

17.1.4

COD 0.372t/a

2019 132

2

2 0.744t/a

17.1.5

17.1.5.1

2017

VOCs

VOCs 100%

17.1.5.2

4 DB37/3416.4-2018 2

17.1.5.3

3

1,2

GB/T14848-2017

7200d COD 350m

17.1.5.4

GB12348-2008 3

17.1.5.5

- TBHP/TBA

17.1.6

17.2

17.2.1

17.2-1

17.2-1

	TBHP	VOC_S	
		COD SS	
		--	

17.2.2

1 ISO14000

2

3

4