1

1.1

20 ' حى ضر W 3

21 ڏ Ḥ `E L Ḡ ṻ [2015]162

22 ˜ ṻ غ `E ҏ

Ḡ `E ҏ 2017 81

23 ˜ Ạ ڏ L L ˜ ƀ W

[2017]84

W 2021 65

21 [2021]100

22 “ ” 2023 [2023]38

23 Ạ 2021 № 2021 94

24 W`E 2023 W[2023]57

25 W`E ~ W[2023]73

26 W`E 2023 W[2023]77

27 W`E 2023 W[2023]66

28 W`E 2023 W[2023]65

29 [2020]56

30 [2020]44

1.1.3

1 (HJ2.1-2016)

2 ڈ ↕ HJ2.2-2018

3 ڈ ↕ ض HJ2.3-2018

4 ڈ ↕ ض HJ610-2016

5 ڈ ↕ HJ2.4-2021

6 ڈ ↕ ى HJ964-2018

7 ↕ HJ169-2018

8 ڈ ↕ . HJ/T89 2003

10 ۷ ڈ ۷ Ḡ ̀E ҏ ̀E ҏ 2017

43 ̃

11 ۷ ‰ ↕ HJ884-2018

12 ۷ L HJ992-2018

13 ̃ ΰ L ۸ L

HJ858.1-2017

14 ۷ . ج 2022

15 يج ۷ O 2021

16 . (GB/T 50934-2013)

1.1.4

1

2 2108-410721-04-01-327499

3 ΰ ̃ ̀Ẽ

ΐ ۷ r ‰

4 ۷ r ΰ ⅞ 2015-2025

5 ۷ r ΰ ⅞ 2015-2025 ڈ ҏ

ΐ ὶ ۷ r ΰ ⅞ 2015-2025 ڈ ̃Ḥ№

ҏ

6 ҽ ↓ ج B1

r B5 r ج أ ڗ ҏ أ

7 ɣ ʟ ̂ ̃

1.2

≠ غجذ								
		-1SP				-1LP	-1LP	
	ضر	-1SP			-1LP			
	حى	-1SP	-1LP		-1LP			
		-1SP						+2LP
	'	-1SP	-1LP					+1LP
		-1SP						
	ẗE ãâ	-1SP	-1LP	-1LP				
			-1LP	-1LP				+1LP

+2LP

			S	1220	2100		
			SW	1430	3150		
			SW	1550	220		
		˜	SW	2160	3500		
		˜	SW	2500	200		
		ą̈	SW	3350	50		
			WSW	1750	600		
			W	1920	800		
			WNW	1830	700		
			WNW	2310	1950		
		ǐ	NW	2690	1600		
2	ضر		ES	٧ ٥ 319		/	‰ ضر GB3838-2002
3	ضر			˜ 32.6km^2		/	‰ ضر

		CO	24 شخ	4	mg/m^3
			1 شخ	10	mg/m^3
			24 شخ	1000	^{3}
	ذ ↕ HJ2.2-2018 D		1 شخ	200	^{3}
		H_2S	1 شخ	10	^{3}
			1 شخ	3000	^{3}
			شخ	1000	^{3}
		.	1 شخ	50	^{3}
			شخ	15	^{3}
			1 شخ	300	^{3}
			شخ	100	

		.		mg/L
				mg/L
				mg/L
				mg/L
		(Ɛ́)		mg/L
				mg/L
		pH	/	/
			60	mg/kg
			65	mg/kg
		Ɛ́	5.7	mg/kg
			18000	mg/kg
			800	mg/kg
			38	mg/kg
			900	mg/kg
		ضم .	2.8	mg/kg
			0.9	mg/kg
			37	mg/kg
		1,1-	9	mg/kg
		1,2	5	mg/kg
		1,1-	66	mg/kg
	حى	-1,2-	596	mg/kg
	حى ضر	ٱ -1,2-	54	mg/kg
حى	‰		616	mg/kg
	GB36600-2018			
	ضر ٧			

			1200	mg/kg
		+	570	mg/kg
			640	mg/kg
			76	mg/kg
			260	mg/kg
		2-	2256	mg/kg
		[a]	15	mg/kg
		[a]	1.5	mg/kg
		[b]	15	mg/kg
		[k]	151	mg/kg
			1293	mg/kg
		[a,h]	1.5	mg/kg
		[1,2,3-cd]	15	mg/kg
			70	mg/kg
		.	135	mg/kg
			4500	mg/kg
		ثم	4×10^{-5}	/
	‰ GB15618-2018	pH	7.5	/
		Ɛ́	/	/
			25	mg/kg
			0.6	mg/kg
			100	mg/kg
			170	mg/kg
			3.4	mg/kg
			190	mg/kg
			250	mg/kg

		Ṿ ﻄﻠ W[2017]162ﾞ Ṿ| L .			mg/m^3	60
		L ‰ (GB37823-2019) ≢ Ṿ		¨Ḥ	mg/m^3	20
				¨Ḥ	mg/m^3	60
			TVOC	¨Ḥ	mg/m^3	100
			HCl	¨Ḥ	mg/m^3	30
			H_2S	¨Ḥ	mg/m^3	5
				¨Ḥ	mg/m^3	20
			SO_2	¨Ḥ	mg/m^3	200
			NOx	¨Ḥ	mg/m^3	200
			ﺜﻢ	¨Ḥ	$ng\text{-}TEQ/m^3$	0.1
		ﾞ Ṿ		¨Ḥ	mg/m^3	10
		ﻄﻠ ﾞ W`E Ḡ Ṿ		¨Ḥ	mg/m^3	10
			SO_2	¨Ḥ	mg/m^3	20
			NOx	[redacted]		

		BOD_5	mg/L	40
		SS	mg/L	100
			mg/L	35
			mg/L	50
			mg/L	2.0
		COD	mg/L	400
		BOD_5	mg/L	100
	ã ¸ ¼	SS	mg/L	180

Pi ǐ ض

10% ч 1.7-1 ∞

\J `E

%

lh ض

3

$D_{10\%}$ m		
₮		
₮		

ԁ ԁ ₮

P_{max}=25.06% $D_{10\%}$=1025m 5km 2.5km 2 DB41/756-2012

4 حى

ذ ↕ حى HJ964-2018 ˜

≠ ↕ A . . ا

غ └ ج └ I ≠ ⅞№

1.99hm^2 ضر \ فمم

. ٧ ṕ ضر ضر

لجـ

ذ ↕ حى HJ964-2018 ˜

حى

حى ⅞№ ш 1.7-4

1.7-4

⅞№	’	№ ’
№	↕ A . . ا غ └ ج └ I ≠ I	I
حى	لجـ . ṕ ٧	
ضر \	1.99hm^2	فمم

5 ƀ

ذ ˜ HJ2.4-2009 ↕ ذ

ƀ ⅞№ ا ↕ 1.7-5 خيشي

3 w ٧

1.7-5

٨ خي ضي w ٧	3
╟ U كل ≠ أ.	<3dB(A)

6

1.7.2

ضر ’

1.7-9

1.7-9

	2.5km
ضر	6.4km
ضر	$32.60km^2$
	1km
	1m
ضر ضر	5km $32.6km^2$

1.8

0

1 ↕

2 №

3 №

4

5

6

7 №

8 №

9 ⅞

10

ꞔ̈

Ḡ ἶ ἱ῀

№

1.9

`Ȅ ἶ

Ϻ r Ϻ ῤ \l ضر ضر

2019 L ضي

ΰ Ϻ 2 2108-410721-04-01-327499

	‰ ˜	№	
	1. ... 2. 2019 ... ‰ ˜ 2020 ‰ ˜ 3. ... VOCs ... 4. ‰ ˜ ...		

		1. ˪	1	
		2. VOCs VOCs	2 C2614	
		3.	3	
		4. VOCs VOCs VOCs	4 VOCs	
		5.	5 B	
		6.	6	
		7.	7	

		1.ضي 2.ضي 3.	1. ضي 2. ضي 3	
٧		4. 5. : 6. 7. 8.	4 5. U	

r ‰ ~		6. شجضر Ќ Ќ ∫ ˜ ⅞ حى ضر ‰ خي ΐ شجضر ΰ ˜ ⅞ ˜ ↓ ~ حى ضر غ Ќ O شجضر v Ќ ˜ ……	⅞ غ حى ŋ ٨ № ٧ ⋮ ذ حى	
٧	ضر شجـ ٧ ƀ ٧	1. ˜ Å ∓ U ∓ 2. ٧ ṗ ڤ 3. . ʒ . ⋮ U ŋ ≠ L 4. . . ΐ . . VOCs ≠ ṿ ٦ . 5. ٧ ‰ DB41/2089-2021 ΰ L مخ ṗ ٧ 3 ΰ ą ΰ لجـ ٧ ΐ / ↕ L 6. L VOCs ≠ L VOCs ٧ يجـ ΐ فمم 7. ٧ . L L غ ʒ شجـ ą ٧ ج ١ Ɗρ ڤ ... ج 8. ٧ `E 9. شجـ ٧ `I شجـ ~ لجـ غ . ΐ ’ ٧ . غ . فمم	1 ΐ 2. 3. ΐ 4. ≠ ṿ 5-9. شخ ΐ	
		1. ۞ ، ٧ 2. ، ٧ ¨ V ϖ V r Ḡ ∓ 3. ٧ . ٧ غ ʒ ٧ غ	U ٧ ΰ ... ٨ U	

		4. : 5. 6. 7. 8.	~	

1.10.1.2 “ ”

“ ” ‰ ~ 2023 1 ضي

№ ZH41072120001 “ ”

1.10-2

1.10-2

	1 . 2 3		

	4		

1.10.2 2012-2030

1

2

3

4

1.10.3 2015 2025

1.10.3.1

2015 2025 № 2015 2020 2021 2025

1.10.3.2

19.9 km²

0.97 km²

1

240 m 3.71 km²

2

13.03 km²

3

3.16 km²

1.10.3.3

1

2

№

. ४ . ∧ غ ، U ४

ۣ ۤ ۦ

. ﻓﺠ ̀Ẽ ̃ ŭ ŭ . ĭ ﺝ

. Ạ Ạ . Ḡ ﻟ ŭ ﻏﻤ

ĭ ﺝ Ḇ . h

ﻏﻤ h ŭ

ۦ ŭ ﺇ Æ ﻓﺠ ŧ ﺇ

№

145

282.3

2

1.10.3.5

15 m^3/d

20 m^3/d

2019 7 11

1.10-3

≢	‰ ˜			’	№
			ⱛ ïّ ↑ ⱛ ﻼ ﺠ ﻹ ⱛ ẅ ˜ ῷ ̎˜ : ˜ :	ⱛ r ῎Ḥ ̎ ⱛ̣ ⱛ̣ ﻼ ﺠ	̎
			: ﻌ ﺠ ̎ ≠ ˜ ⱛ	ïّ	/

ⱺ HCl
CO ﺸ ﺨ ⱺ
ﻐ ﺠ ﻓ ﺠ ΰ
:
ⱛ ̎ ⱛ ˜ №
ⱛ ﺸ ﺨ
ﻴ ﺠ ῤ ῷ ̎

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ῷ
ΰ

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1.10.5

ﻟﺠ ⅥⅠ ⅞ ΐ № 1.10-6

1.10-6

	⅞	'	

ⅴ ﻼ r ⅞ ﺿﺮﺣﻰ ≠ r ⅞ ,Ḡ ⅞
, ⅥⅠ № ⅥⅠ ﻼ r ⅞ └ ⅥⅠ
ﻣﺨ , ﻼ r ⅞ └ ⅥⅠ
ü̈ . ﺿﺮ ,ﺿﻲ ü̈ í̈ ێ ﺿﺮ ẅ
ⅥⅠ ą ẅ , ﺿﺮ; ⅥⅠ ü̈ h ⁄ ↕
. Ѐ K Ḩ i K

( )
ﺿﺮ

№

W 2017 31

№

1.10-7 2017 31

№

W`E Ą .

1.10.7 2020-2021

2020 61

2020-2021

№ 1.10-8 2020 61

1.10-8 2020 61

№	,	ṗ	

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Ḡ

2020-2021

2020 61

1.10.8 2023

2023 66 2023 2023

65 2023 2023 77

2023 66 2023

2023 65 2023

[2023]77

№

1.10-9 2023 65 66 77

	18.			
2023	19.		500m³	

20.

№

O

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O			,	
		6 ╠ ╗	RTO ̃	

26.

ℓ

Ϛ

طW 2023 66 2023 ⌈ ى Ḡ ٧ طW 2023

65 2023 Ḡ ٧ طW[2023]77 ṗ

ﺵﺥ

1.10.9 VOCs

ĭ ŭ Ƈ ' ₀ +RTO

+ خ ĭ Ũ ت Ɋ Ɋ +

' ₀ + Ɋ ĭ

₀ ' ₀ + + Ɋ .

٧ ŭ ƀ ٧ 2019 ŭ

ṗ ٧ ŭ

ƀ № 1.10-10 ٧ 2019 ŭ

1.10-11

1.10-10

	ṗ	ṗ	
	VOCs Ḡ‰ ~		
	٧ ضر ⌊ VOCs ⌊		
	VOCs ٨ ي خ		
	VOCs ٧ ṗ ĭ ŭ ٨		
₹	~ ٧ لجـ ~ ⅞ .		
	VOCs Ƈ .		
Ƶ	‰ ~ ڈ ٧ ṗ VOCs ' ' ₀ عجـ U		
	Ô ⅄ ⋮ ⌠ RTO Ƈ		
	~ ' U		
	VOCs ₹ Ɋ + Ɋ		
	⌊ ą VOCs Ƈ ٨ ₹		

		ǵ ' ٷ Ŀ Ƨ VOCs ٷ Ŵ ٯ ἵ VOCs ἵ Ƨ VOCs ݼ № ƀ ἳ ₒ ݣ O	ǚ ƀ	

1.10-11 2019

ῤ		ῤ	
r	، ط Ŀ ǵ . ⁞ ῃ ᴧ ↕ ⱬ ᴧ VOCs ƀ VOCs VOCs ض ῃ VOCs r ⁞ VOCs	VOCs ᴧ خي Ϻ ض ü ᴧ ٷ ǚ №	
ƀ	2019 6 ╠ ῃ . Ŀ ˊ ˧ ˩ . Ŀ ῃ VOCs 8 ╠ ῃ . Ŀ VOCs ǵ ḱ LDAR 12 ╠ Ϻ ῃ Ω	. VOCs Ƨ VOCs Ư ᴧ ἵ VOCs ἵ Ƨ VOCs ݼ № شخ ǚ ƀ	
	Ŀ VOCs ῃ ⌠ Ŀ ‰ GB31570-2015 ≢ ṿ . VOCs ῃ ⌠ . ‰ GB31571-2015 ≢ ṿ ἳ VOCs ῃ ⌠ Ϻ ط W`E ῃ ü ƀ ṿ طW 2017 162	ἳ VOCs ⌠ Ϻ ü ƀ ṿ طW 2017 162	
Ͱ	. Ϻ . Ŀ ῷ نه № ἵ ˩ ǚ Ẳ ٷ ' Ŀ . ض ἵ VOCs ᴧ ǚ عج ᾰ . VOCs ῃ . ˩ Ư ᴧ ǵ ' . ῃ ‰ GB31572-2015 5 Ŀ '	ῷ ˩ . ƀ Ƨ ' عج Ư RTO Ƨ ' Ư ₽ + ₽	

№

ꟻ LDAR

ḱ ƀ ǐ o

ᏸ O

r

	ضر ٨ ٩ (2)		٨ ٨ ٧ ٱ مخ 45m ٧ 30m . 20m 25m ٧ (1 ٱ) 2 ٱ مخ 50m ٧
	ضر ٨ تمج (3)		ٱ مخ 50m ٧

ضر ٨ `E ٱ ضر

ضر ٧ 5.60 km ضر ٨ تمج 5.14 km

ٱ غ ضر غج ٧

ضر ذ

1.10.11

. `E ƀ

٧ r ٧ ٱ

№ A ‰ ضٍ ~ №

‰ ~

. ~ № № 1.10-13 ٧

1.10-13

.	A		
L	ٱ o ک O ŋ	٧ ج ŋ	
ٱ	1. 2019 : غ ٬Ḥ 2. ... ~ 3. ... ٧ 4. ... ⅞	2019 L غ ٬Ḥ ... ~ ⅞ ٧ ٱ ⅞ ~	
	. . ŋ ـ VOCs	r ŋ . ـ .	

1. VOCs ٧ غ ٧ . ٱ ٱ / ٱ / ٱ ... ŋ

2. VOCs ١ ٬Ḥ ƀ ١ ٬Ḥ ƀ VOCs

3. VOCs

№

	غ كج VOCs 4. VOCs 5. ʐ ﻬ r كج ⅴ		
ḱ	VOCs ǖ └ ‰ GB37822 2019 ˜ ḱ ƀ ˉ ﺿﻲ 1000 LDAR ˜ ˉ ﺿﻲ 1000 LDAR ˜	Ư ˉ ˎ LDAR ƀ	

1 ŋ ˜
ˈ o ꞓ ꞓ
90% ⅴ

2 ﺿﻲ ˜
h ﺿﺮ ﺿﻲ ʼ Ḡ
˜ Ձ Ư ĩ h ﺿﺮ ҏ

№

	2 / ৭ / 3 4 ŋ ʒ Ỳ ɒ +Ỳ ɐ 5 ỉ 「.	o +RTO + ɔ	

1. / Ũ Ɔ VOCs
ሃ VOCs
2 ሃ ৭ ṗ ė ʒ
o
ṗ

№

	CEMS 3	ضر	

№

. ـ . ƀ ⋮ № A

1.10.12

. ٨ خي ٧ ١/ ضر

ضر 2019 ̏Ḥ

يج ̃

ᾰ̈ عجه r ⅞ 2012-2030

٧ r ȕ ⅞ 2015 2025 ȉ ȋ ⅞ ̃Ḥ№ ɚ

لج ٧ ≠ شخ ̃ ȉ ‰

٧ № ٧ r ٧ “ ٢ ”

‰ ˜ ٢ ǁ ⅞ ₮ ‰ ˜ ٢ ṗ ǁ

⅞ ȉ ⅞ ‰ ˜ ⅞

ɰ ̃

٧ ẀE ٩ ̃ . B̠ قمم

W 2017 31 ̃ ̃ ȉ Ʉ ضر ٧ ٨ 2020-2021 ٦

طه ـ 2023 Ḡ ٦ طهW

2023 66 2023 ٢ حى Ḡ ٦ طهW 2023 65

2023 Ḡ ٦ طهW[2023]77 ٧ ȕ

ƀ ٧ 2019 ȕ

ضر Ḡ ⅞ يج ضر №

ῷ شخ ╠ ≢ ṿ

U ˜ ᾰ̈ ٨ نه

̃ ŋ U № ̃ ⌠ B r №

№ ̃ ⅞ ٨ خي ̃ ⅞

№ ̃

№

1.11

Ч ’ 1.11-1

1.11-1 t/a

~	O	COD		SO_2	NOx	VOC_S
1	Ч ﻓﻬﻢ `E~	0.027	0.003	/	/	/
2	. `E~	0.48	0.05			

№

ج ’ 2.1-2

2.1-1

	ṗ
O	↓ ج B1 r B5 r ج ّأ
ضر	٧
ضر ١	50
	12000 ¨Ḥ
	ّ̈ 2021 7 16 ضي ˜ 41072120200200m
˜	2022 8 26 ّ̈ ˜ ˜ 91410721MA40PHP062001P

ۏ ئۈ 1800t/a ۏ ئۈ 600t/a

№

2 ۇ ۋ 600 /

		8×11m
		8×3m
	Ќ	8×5m
	Ű	8×4m
		2 1000m^3
Ḡ		5×16m
		7×20m
		65×50m
	٧	5×10m
	RTO	1
	٧	1

2.2.2

2.2-2

2.2-2

~	O	/ ~	~ /
	ۏ ۏ 3 1800t/a		
1 3,3-			
1		2m^{3}S304	3
2		0.5m^{3}S304	3
3	CO Ⅱ	5m^{3}S304	3
4		0.5m^{3}S304	3
5		0.8m^{3}S304	6
6	L	V=5m^3	3
7	٨		

16	№	2m^3 S304	6
17	Ǔ	5m^3 S304	3
18	¨	5m^3 S304	3
19	1ˆ ˜	200L S304	3
20	2ˆ ˜	0.55m^3 S304	3
21	3ˆ ˜	0.5m^3 S304	3
22	4ˆ ˜	0.5m^3 S304	3
23	Ũ		

№

12	' ۶	V=5m³	6
13	.	V=8m³	6
14	,,,	V=5m³	9
15		V=5m³	3
16	Ŭ	V=5m³	3
	Ė	V=5m³	6
18		V=5m³	3

№

4	՝ ০ ݣ	S30408 ﺗﻢ HO=2336	1
5	Ṗ ݣ	S30408 ﺗﻢ HO=2600	1
6	՝ ০ ݣ	ᠰ S30408 F=14.3m^2	1
7	՝ ০ ݣ	ᠰ S30408 F=2.8m^2	1
8	՝ ᠯ ݣ	ᠰ Q345R L=2105 F=5.51m^2	1
9		Q245R HO=3249 ῃ V=10m^3	1
10	ῗ ‖	S30408 ﺗﻢ HO=3335	1
11		S30408 ﺗﻢ HO=2985	1
12	ݼ	S30408 ﺗﻢ HO=2733	1
13		Q235-C 2384×1584×1984	1
14	ῗ ‖	Q345R ﺗﻢ HO=2783	1
15	ᠰ ╞ ‖	Q345R ﺗﻢ HO=3035	1
16	ᠰ U ‖	Q345R ﺗﻢ	

№

		3.2MPaG	
25	ĩ	Q=24.5m^3/h H=65m	2
26	ﷺ	Q=1.3~1.6m^3/h H=55m	2
27	Ũ ল	Q=520L/h P=0.32 0.6MPaG	2
28		Q=3m^3/h H=40m	1
1	.		2
2	.		

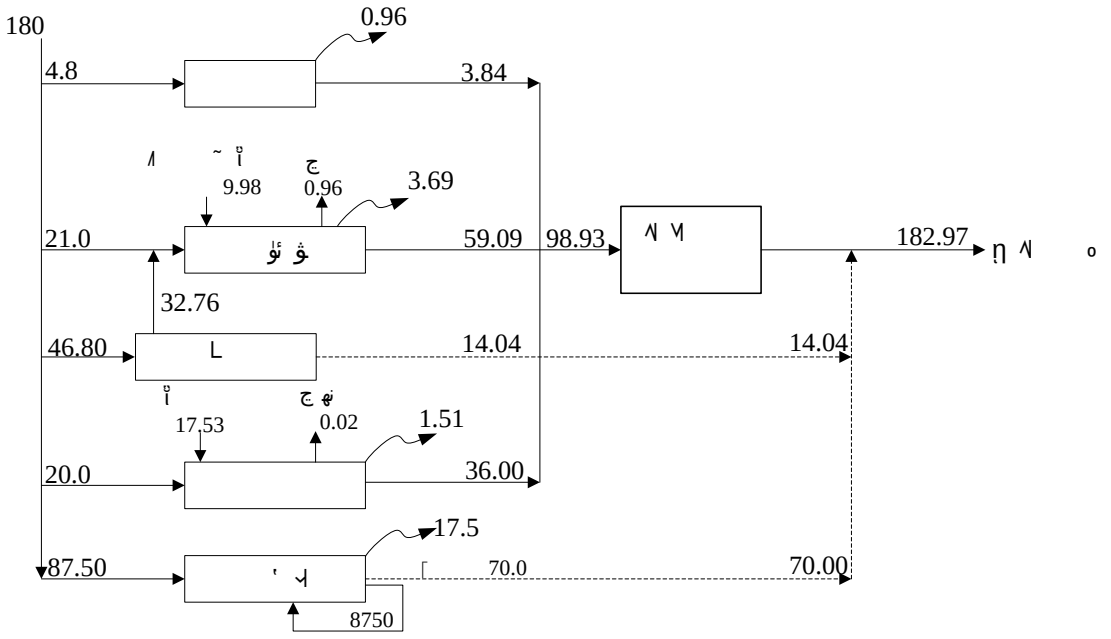
№

	3.5*6	50	2	نهـ	304
	3.5*6	50	1	نهـ	
	3.5*6	50	1	نهـ	ضد
	3.5*6	50	1	نهـ	304
	3.5*6	50	1	نهـ	304
	3.5*6	50	3	نهـ	304

7		767 غمم	54		
1700t/a					
1			863.2	ш	∕
2	CO		914.4	ш	∕
3	r	/	42		Ỳ. ㅋ
3000t/a					
1		/	1243.2	ш È˜	∕
2	—		4388.1		∕
ضم أ					
1		/	468	L	∕

2.2.5

يح 2.2-1



2.2-1 m^3/d

2.3

ج أّ ا

2.3.1

3,3-

3,3-

1 3,3-

3,3- 4

CO

0.5MPa 60~70 3~5h

CO

88~90% 87~88%

$$CO + CH_3ONa + CH_3CN \xrightarrow[CH_3CN+C_2H_5OH]{} CNCH{=}CHONa + CH_3OH$$

40

-20 10

4h 3,3-

$$CNCH{=}CHONa + HCl + 2CH_3CH_2OH \longrightarrow CH_3CH_2OCH(OCH_2CH_3)CH_2CN + NaCl + H_2O$$

3,3-

HCl

№

ġ 3,3-

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b ~

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U ۷ ۷ ۷

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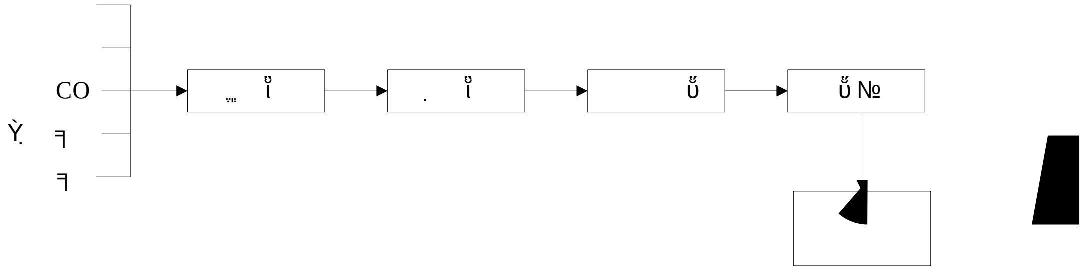
3.3- └ U ~ Ũ U ~ ۏ ۋ ۏ ۋ

3,3- ﻉ ﻉ 2.3-1

№



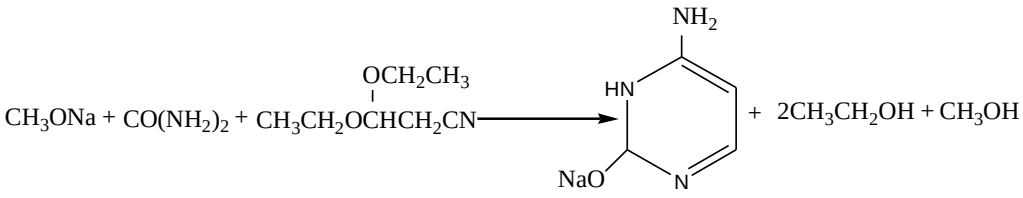
2.3-1 3,3-

2

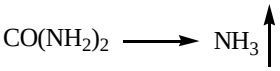
3,3-

2h 3,3-

96~97%



3,3-



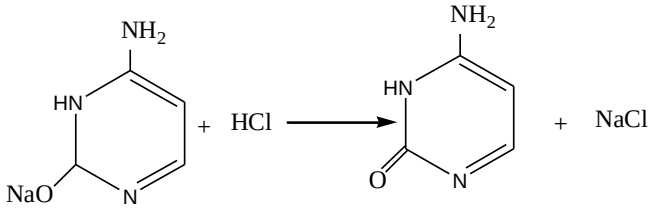
105

90

30min 1h

pH 7

№



ژ ئۈ ژ ئۈ .

. ّ HCl ّ U ~ ₽ ₽ + ₽

U ~ Ỳ.

№

ژ ئۈ ج ∫ № ٬P ١ ' 20 ضي ژ ئۈ

١ U ~ Ỳ. .

ّ № ~ ˇ №

U ~ Ỳ. . U ~ ّ

ح ' ١ ٬P № ∫ NaCl ' o ' o ~

٨ ٧ ١ U ~ Ỳ.

... غ № ∫ ج NaCl ~ ٧ ... U

№ ∫ ھ NaCl غ

عج ھ U ∫ ◖ ج NaCl ت 0.5% ف

o ١ غ U ~ Ỳ. .

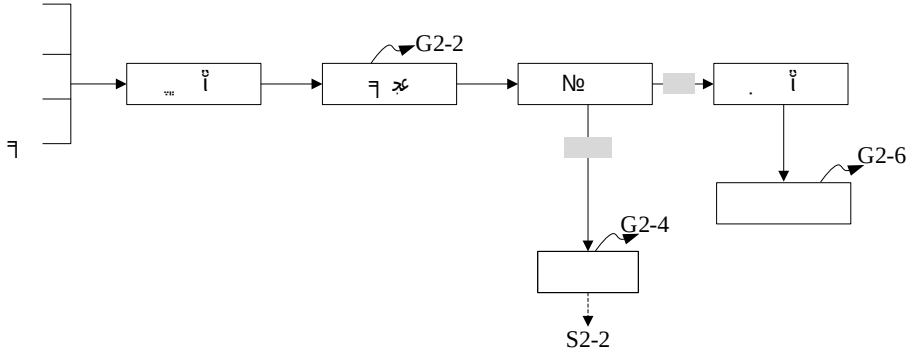
L ٧

№ ج ژ ئۈ ą ą ì ٧ U

٧ № U ج — 30

№

3 3-



2.3-2

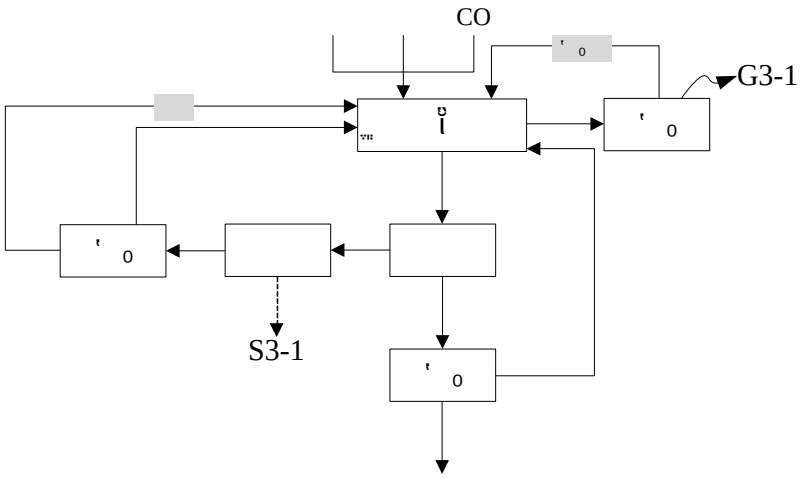
2.3.2

CO

50~60 5~6MPa

RTO 30m

35~45



2.3-3

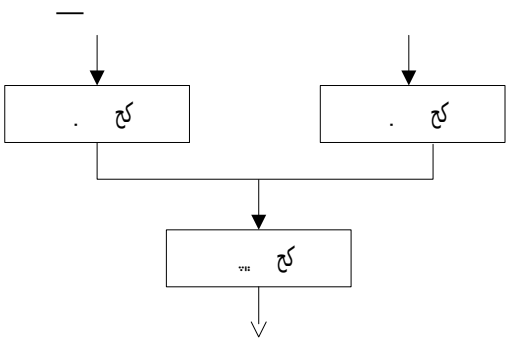
2.3.3

ئی

360 ~420

99.9%

№



2.3-4

2.4

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ї ў Ґ ' ї r 2.4-1

2.4-1

№

		3,3- o G1-2		
		3,3- o G1-3		
		3,3- G1-4		
		3,3- G1-5		
		3,3- o G1-6		
		3,3- NaCl G1-7		RTO + خ +30m DA001
		3,3- NaCl G1-8		
		ۇ ئۇ ٱ ۔ o G2-1		
		ۇ ئۇ ﻉ ﺠ o G2-2		
		ۇ ئۇ ﻉ ﺠ o G2-3		

№

		o G4-1		Ɒ Ɒ + Ɒ +RTO + ɮ +30m DA001

2.5-1

		~	غجـ	
ŋ ٨ RTO + خ +30m		DA001	NH_3 H_2S	2021 12 13 -14 `E~ ٧ `E~
			SO_2 NOx ĭ HCl ÿ	2021 11 23 `E ~ ٧ `E~
			ثم	2022 2 18 ٧ . `E~
600t/a ۏ ۇ	´ U +20m	DA002		2020 7 15 -16
1200t/a ۏ ۇ	´ U +20m SNCR + φ غجـ	DA003		2021 12 13 -14

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№

2.5-2

	/ ṗ (m)	m^3/h	O	mg/m^3			kg/h		
				مخ	٧ شخ	‰ ٧	مخ	٧ شخ	‰ ٧
				30.06~37.05	33.5	60	0.297~0.376	0.336	/
				18.54~19.9	19	20	0.183~0.202	0.192	/

DA001 (RTO ₹₀) 30/0.8 1.38×10^4~ 1.81×10^4

DA002 ژ ئو ´ o	20/0.3	3.84×10^{3}~3.93×10^{3}		7.2~8.7	8.0	10	2.83×10^{-2}~ 3.34×10^{-2}	3.10×10^{-2}	/
DA003 ژ ئو ´ o	20/0.3	3.18×10^{3}~3.28×10^{3}		5.8~6.7	6.35	10	0.019~0.022	0.021	/
				4.3~4.8	4.6				
DA004	35/1.5	1.94×10^{4}~2.39×10^{4}							

№

1 RTO ₹₀ DA001 SO_2 NOx

HCl NH_3 H_2S ثم L ‰

GB37823-2019 2 غ 3 ṿ ^{3} SO_2 ^{3}

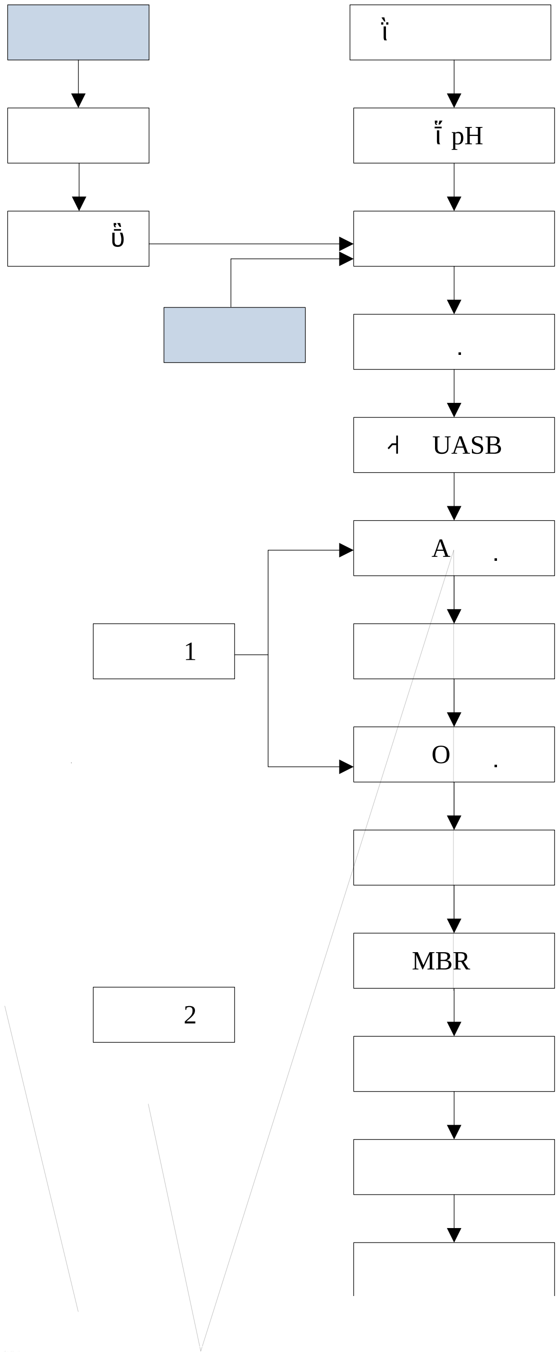
^{3} ^{3} ^{3} ^{3} H_2S

^{3} ثم -

2.5-3

ـّ	ﻏﺠ	ﻣﺨ mg/m^3	‰		,
			‰ ṿ	‰ O	
1		0.55 1.60	2.0	ﻄﻣW[2017]162ـّ	
2		₮	1.0	ﻄﻣW[2017]162ـّ	
3		₮	0.6	ﻄﻣW[2017]162ـّ	
4	.	₮ 0.16	0.2	L ‰ Gn7	

2.5-1



2.5-1

2021 12 8 ~12 9

2.5-4

2.5-4

	ₒ (mg/L)			‰		№
	2021.12.8	2021.12.9	شخ ۷	L ‰ DB41/756-2012 1	α̈ ﾍ	
	6.3	5.7	6.0	/	/	/
pH	7.7~7.8	7.8~7.9	7.7~7.9	6-9	6-9	
COD	55~66	54~62	58.5	220	400	
	0.228~0.26	0.22~0.252	0.241	35	59	
	0.63~0.69	0.61~0.64	0.65	2.0	5.0	
	1.48~1.67	1.50~1.75	1.6	50	70	
BOD_5	17.6~20.5	17.8~21.6	19.2	40	100	
	23~32	20~31	26	100	180	

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		¬	HW38	2.28	

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‰ GB12348-2008 3 ‰

2.5.5

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7.2-2˜ ₮ Ữ Ⅵ شخ مخ ἶ Ữ Ⅵ

r 1 300m^3 Δ غ 1 500m^3

L Ɏ ΰ ضي ᾶ

ƚ Ɓ كج Æ Ӣ Ʒ ΰ Ū

	t/a	0.0132	0.0432	
	m^3/a	29869.2	/	/
	t/a	0.6235	0.738	/

2.8

2.8-1

2.8-1

		1
	RTO	1 RTO + 40000m^3/h 5000m^3/h 13800~18100m^3/h
		2 1000m^3

2.8.1

2022 6 10 2022 4 2.8-2

2.8-2

	19859m

2	2 90
	RTO RTO + + U 30m 1 90m2
	1 300m³ Δ 1 500m³ 1 400m³

2.8.2

- - ' 2.8-3

2.8-3

		t/a	'
- -	- -	5000	

2.8.3

2.8-4

2.8-4

	'
20	
- -	
1 - -	

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2.8-6

~	O	~	~
1		6.3m³	2
2		6.3m³	3
3	.	10m³	10
4	ڠ	10m³	5
5	ڽ	6.3m³	2
6	1#		1
7	2#		1
8	3#		1
9	4#		1
10	5#		1
11	6#		1
12	7#		1
13	8#		1
14	Ũ		2
15	Ũ		1
16	- ṗ Ũ		1
17	Ũ		2
18	Ũ		1
19	४	5m³	5
20	४	1.5m³	2
21	४	3m³	2
22	ڽ	0.5m³	1
23	Ũ		2
24	Ũ		2
25	Ũ		2
26			1
27	T101 ڜ		

№

~	O	~	~
36	T106		1
37	T107		1
38	T108		1
39	‖ A		1
40	‖ B		1
41	T104		1
42	ABL		1
43	T101 №		1
44	T102 №		1
45	№№		1
46	Ũ		1
47	o Ũ		1
48	ABL	3m³	1
49			

№

~	O	~	~
73			4
74	Ũ ₮	ϛ	1
75		ϛ	8
76	- ṗ Ũ ₮	ϛ	1
77	Ũ ₮	ϛ	1
78			

№

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˜ 30 № ˜

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ﻋ Ս ˜ № ⌠ ﮬ

ج ǵ Ṗ ᐩ ʿ o ﻋ

№ ḯ ABL ŋ Ṗ

ﻋ ű №

⌠ ج

Ս ´

˜ 1# ⁞ ᐩ ᐩ ƺ 79kpa

Ᵽ ABL ḯ Ᵽ ḯ

1# № ʿ o Ս ˜ 2# ᐩ № ⌠

ǵ ᐩ ⌠ № ˜ 6# ᐩ

1# ˜ 3# ⁞ ᐩ ᐩ ƺ 3kpa Ᵽ

99% ŋ ﻋ . ḯ ḯ ű № Ᵽ ABL ǵ

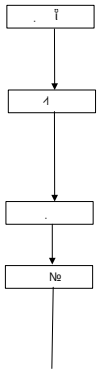
ŋ

3# ˜ 4# ṗ ⁞ ᐩ ᐩ ƺ 1kpa Ᵽ

№ - ŋ Ᵽ ABL

4# ˜ 5# ⁞ ᐩ ᐩ ƺ 0.5kpa

№



5 - -

2.8.6.2

ضي ّأ 2.8-2.8

2.8≻ƵZ

غجـ			غجـ		
	G_{1-1}				
	G_{1-2}	. ّأ			
	G_{1-3}	o			
	G_{1-4}	6#			
	G_{1-5}	7#		ш	`E
	G_{1-6}	1# o		˜	RTO +

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1 50 0.47998 02 re f4

№

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2.8.7.1

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2.8-8

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2.8.7.3

B1 r B5 r آّ ج ” 2019 10 22

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3.2-2

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r 1

8	ì	٧	/		50m²	50m²	8	
9	Ġ	٨	1	/	150	150	/	ч
10	2		2		172.71			

[redacted]

3.3-2

				81~82 =1
			74.08	
$HCOOC_2H_5$	$C_3H_6O_2$		-79 1637.3KJ/mol	53.4~54.4 =1 0.916~0.921 13.33KPa B1

3.3.3

ج ‰ ◖ ج . غ يجـ ‰ أ r

ج ‰ 3.3-3~ 3.3-11

3.3-3

	/

r

	at 365nm	/	/	≤ 0.5ppb
ώ	at 193nm	/	/	≥ 60%
	at 195nm	≥ 75%	/	≥ 80%
	at 200nm	≥ 95%	≥ 90%	≥ 95%
	at 210nm	/	≥ 94%	/
	at 220nm	/	≥ 96%	/
	at 240nm	/	≥ 98%	/
	230-350nm	≥ 98%	/	≥ 98%
	260-350nm	/	≥ 99%	/

at 193nm

ώ
ф

ↄ	≥ 30.0%

3.3-8

ↄ	
ↄ	
ↄ	

3.3-9

	ↄ	ↄ

3.3-11 HG/T3783-2021

HCl № %	20.0
№ Pb %	5
NTU	≤ 10

3.3.4

’ 3.3-12

3.3-12

		kg/	h/	/a			t/a
1		/	10h/	/	7200h	1	8000
2		/	10h/	/	7200h	1	5000
		9006	21.6	333	7200h	1	3000
		/		/	7200h	1	10000
		/		/	7200h	1	10000
		/		/	7200h	1	10000
		4566	11	657	7200h	1	3000
		6132	16	489	7824h	1	3000

3.4

3.4.1

3.4-1

3.4-1

2	r	/	0.2	0.6	

3

3.4-2

	O				

5	75-05-8	ï O ء ٨	№ C_2H_3N № (=1)0.79	41.05 (=1)1.42 r	⊤ غ

630-08-0 (=1)0.97 - ㄱ ㅈ LC_{50}1807ppm/4h

3.50MPa - - - - ㅌ ~ -

ض 0.0026g/100g . ㅊ LC_{50}2444ppm/4h

. ㅏ

15	۲ 420-04-2	№ CH_2N_2 № 42.04 1.282 775g/L	⊤	/	۸ ۷۱ ، r ، ۶ ۷ ۶

3.5

2019 ĩ Ḥ ȕ №

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3.5-1~ 3.5-6

3.5-1

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5	ک .		6
6	ک ...		6
7	ک ₹ ھ		6
8	ھ		6
9			3
10	ک		6
11			6
12	ک o ' ṗ		6
13	ک o '		6
14	ک		6
15			6
16	‖		6
17	خ		1
18	خ		

35 ర 1

8		$2m^3$	1
9	‖		1
10			1
11	₫		2
12	1#		1
13		$15m^3$	1
14		$15m^3$	1
15	ᵪ	$0.5m^3$	1
16		$2m^3$	1
17		$2m^3$	1
18	ᵪ	$0.5m^3$	1
19	₣ ‖	$2m^3$	3
20	ᐯ ᒉ	$30m^3$	2
21	2#		1
22		$15m^3$ 174.26 18 reW	

3	[illegible]	1.9m³	304	1
4	[illegible]	8m³	304	1
5		1.87m³	304	1
6			SS30408	1
7	[illegible]	2m³	304	1

3.5-5

	O		

14	' ↓ ק	F=30m^2	1

3.6

3.6.1

3.6.1.1

813.2m^3/d 33.9m^3/h ش 792.7m^3/d

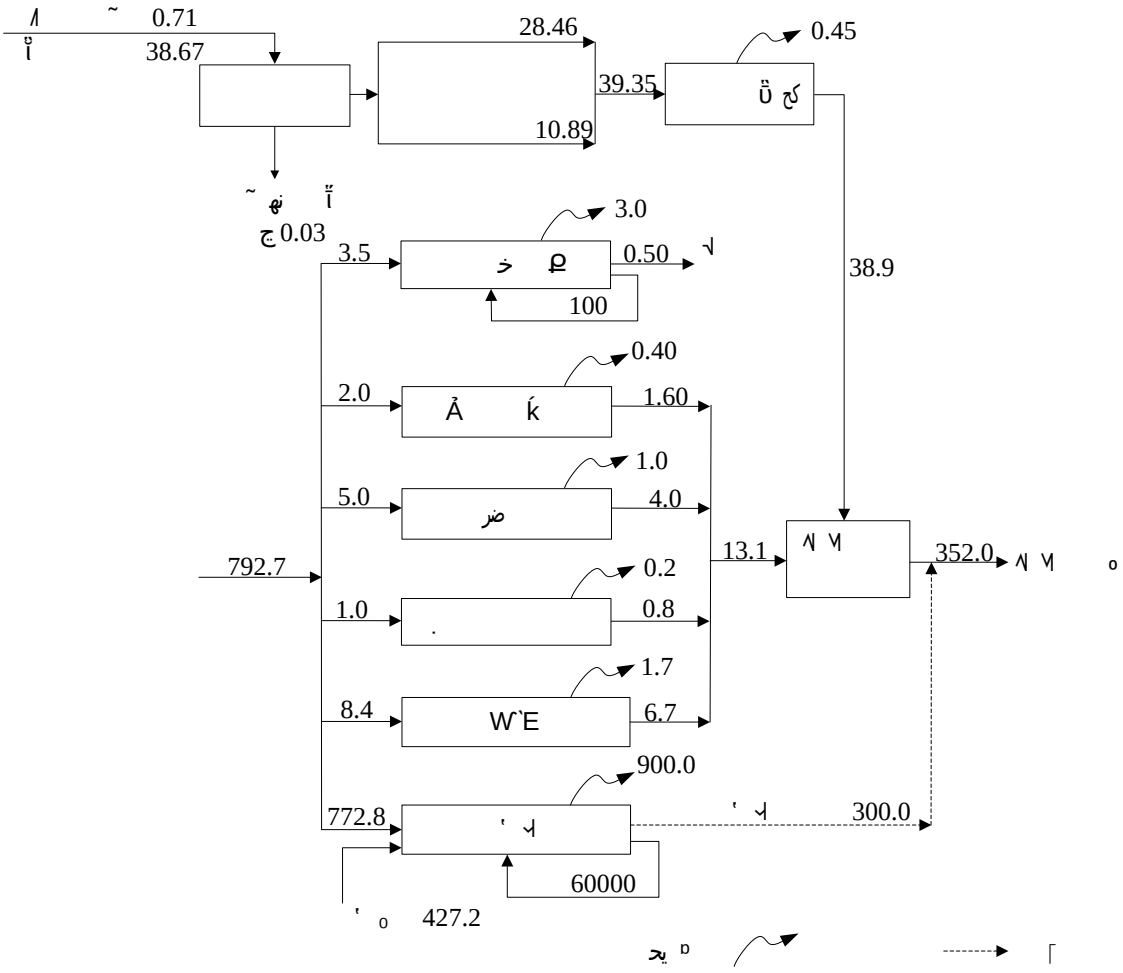
33.0m^3/h ι ш ι ι Z

80000t/h ╠ φ 1000t/h

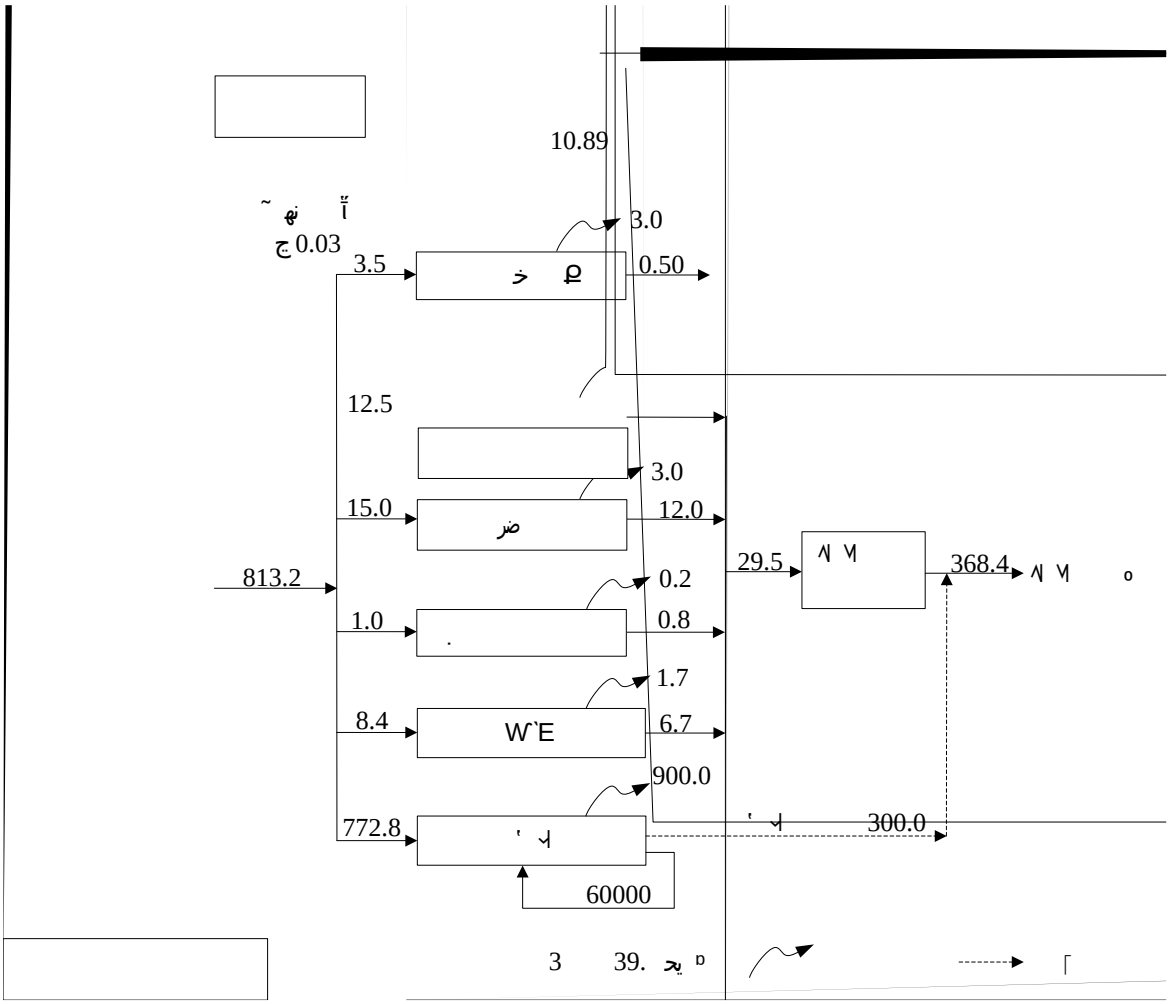
3.6.1.2

ш " 4 ˜ ' ↓ 2 ˜ 2500m^3/h 2 ˜

800m^3/h ' ↓ 6600m^3/h ₸


0.71
38.67
28.46
39.35
10.89
0.45
3.0
0.03
3.5
0.50
100
38.9
0.40
2.0
1.60
1.0
5.0
4.0
792.7
13.1
352.0
0.2
1.0
0.8
1.7
8.4
6.7
900.0
772.8
300.0
60000
427.2

3.6-1 m^3/d



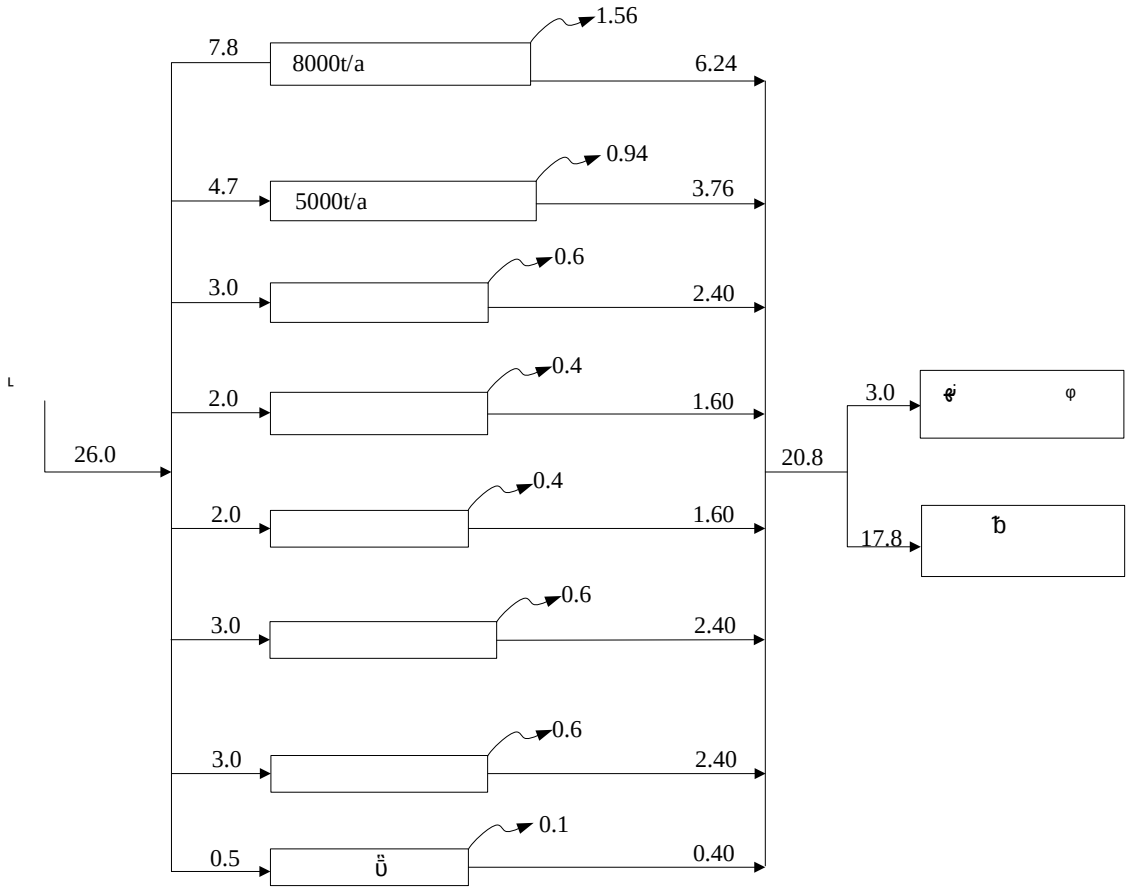
3.6-2 m^3/d

3.6.2

0.6MPa 25.848

625t/h 540t/h

85t/h 3.6-2



3.6-2 t/h

3.6.3

ш L ' ~ ' " L ' ╕ R410A ' ╕

"Ң ~ L - ' ' 315KW ~ L -

3.6.6

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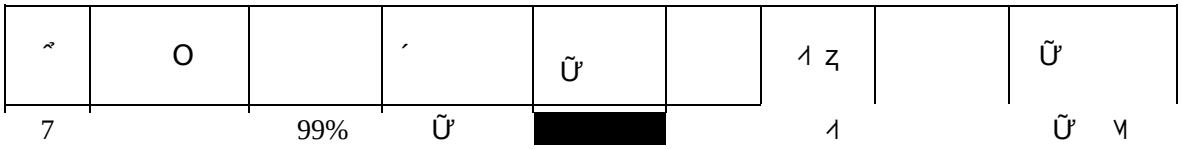
ج ٳ ◖ ج Ữ ’ 3.6-2

3.6-1

ˆ	O		´	Ữ		ᏺ ʐ		Ữ
1		≥ 99.8%	Ữ	16t		1.2MPA	r	ᏹ
2	—	≥ 98%	Ữ	$50m^3$		ᏺ	r	ᏹ
3	.	/	Ư	8t		ᏺ	ﻬ r	
4		≥ 93%	Ữ	$50m^3$		ᏺ	r	ᏹ
5		≥ 99.9	Ữ	$50m^3$		ᏺ	r	ᏹ
6		≥ 99.2%	25kg/	1t		ᏺ	ﻬ r	
7		≥ 98%	25kg/	5t		ᏺ	r	
8	.	≥ 95%	25kg/	1t		ᏺ	ﻬ r	
9	.	98%	25kg/	1t		ᏺ	ﻬ r	
10		≤ 10%	25kg/	10t		ᏺ	ﻬ r	
11		≥ 30%	Ữ	$50m^3$		ᏺ	r	ᏹ
12		≥ 99.9%	Ữ	$20m^3$		ᏺ	r	ᏹ
13	CO	≥ 97%		/	/	/	r	ᏺ ᏹ
14	r	28.5~31.0	150kg/	20t		ᏺ	r	
15		31%	Ữ	$100m^3$		ᏺ	r	ᏹ
16	◖	20%	Ữ	$100m^3$		ᏺ	r	ᏹ
17		≥ 99.5%	Ữ	$50m^3$		ᏺ	r	ᏹ
18	Ⲯ	≥ 70%	Ữ	$50m^3$		ᏺ	r	ᏹ

3.6-2

ˆ	O		´	Ữ		ᏺ ʐ		Ữ
1		≥ 99.9%	Ữ	$50m^3$		ᏺ	r	Ữ ᏹ
2		≥ 99.9%	Ữ	$50m^3$		ᏺ	r	Ữ ᏹ
3			Ữ	$50m^3$		ᏺ	r	Ữ ᏹ
4		≥ 34%	Ữ	$48m^3$		ᏺ	r	Ữ ᏹ
5		≥ 30%	Ữ	$20m^3$		ᏺ	r	ᏹ
6		95%	25kg/	100t		ᏺ	ﻬ r	


O
Ũ
Ũ
7
99%
Ũ
Ũ

		.	.	G7-2	HCl	
		Δ	0	G7-3		
		Δ	. 0	G7-4	HCl	
			0	G7-5		

SNCR + φ عجِ +

+ ₽ + ' +

RTO نھ G8 SO_2 NO_X ثم

`E

					۱ ۱
			S2-2		
			S2-3		
			S2-4		
			S2-5		
			S3-1		
		۵	S3-2		~ ۷
		۶	S6-1		
			S7-1	.	
		. №	S7-2	.	
		۶	S7-3		

1 ŋ ٨ G1~G7

ŋ ٨ ' ضيٳ ڃ ' ı́ r № ضي

ŋ ٨ ' 3.8-1

3.8-1

				9.402	37.6067
	G6-4	HCl	1000	0.966	0.9658
				43.598	43.5985
	G6-5	HCl	2000	1.616	3.2324
				106.815	213.6301
	G6-6		1000	21.799	21.7993
	G6-7 G6-8		5000	0.21	1.5

	3.5m	6m	57	نه	1

يجِ . ȅ يجِ .

ȅ نه غ Ữ ⁄ı ΐ ΰ ˥

ت ᑭ ΰ

نه ت ᑭ ȅ

$L_B=0.191\times M \quad P/ \quad 100910\text{-}P \quad ^{0.68}\times D^{1.73}\times H^{0.51}\times \quad T^{0.45}\times F_P\times C\times K_C$

L_B نه ت ᑭ kg/a

M Ữ ṗ №

P ضي r ⁄ı ʐ Pa

D m

H شخ m

T ṗ شخ

F_P غجِ ’ ΰ ṿ ضي 1~1.5 $F_P=1.3$

C غجِ ضي 0~9m r

$C=1-0.0123(D-9)^2$ 9m C=1

K_C غجِ ج ⁄ı K_C ΰ 0.65 ΐ r ΰ 1.0

ƀ

ƀ غ √ı

ṗ ⁄ı ʐ ⁄ı ʐ ṗ ⁄ı ₮ √ı ΰ r ₮

˜ ṗ غ r ₮ ʐ ₮

نه ƀ ȅ

$L_W=4.188\times10^{-7}\times M\times P\times K_N\times K_C$

L_W نه ƀ kg/m^3 ˜

K_N Ɐ غجِ ΰ ṿ Ɐ K

K_N=1　　K_N=11.467×$K^{-0.7026}$　K>220　K_N=0.26

3.8-3

Ũ	غ	m^3		Ա	kg/a	t/a	kg/h

3 ٦ G10

ضي ٦ ٦ U ضي ٨ ٧ ٦

٦ № ٦ ☪ ☐ ضي

☐ ∫ ٦ ☪ ☐ ٦

U ٧ ŋ ´ ڪ U ☐ ١

ضي ٦ غجـ .

↕ ٦ 0.072t/a

0.01kg/h ٦ ŋ ٧ ☐

U ~ RTO + خ U 1 30m

4 ٦ G11

S1-3 S1-4 S2-2

S2-2~S2-5 S3-1 ☐ ☐ S3-2

غجـ S6-1 S7-1 .

№ S7-2 غجـ S7-3 S10

S11 شخ ~ ٦ U

SNCR + φ غجـ + ' + ☐ + +SCR + U

1 35m ~ ٦ ٦ ☐ № 3.8-5

3.8-5

		t/a	№ ☐ ☪ t/a
	S1-3	65.0	41.6 7.80 15.6
	S1-4	52.0	28.6 10.4 13.0
	☐ S2-2	0.77	0.41 0.03 0.33
	S2-3~S2-5	3.25	2.26 0.99
	S3-1	33.4	4.0 25.0 2.4 2.0
	☐ S3-2	43.7	15.0 0.5 26.0 2.2
	غجـ S6-1	38.72	26.52 . 0.75

			1.58 ¨Ḥ 0.38 9.49
	S7-1	326.46	107.69 176.96 0.59 41.22
	. № S7-2	347.07	0.53 . 15.14 . 6.29 325.12
	ﻍ S7-3	95.86	71.34 24.52
	S10	20.0	6.92 13.08
È	ﺥ	231.67	. 22.69 . 2.29 55.66 1.03 150.0
	¨	1255.5	610.76 57.24 18.2 . 8.58 . 38.58 584.47 13.08 0.03 72.78 177.48 134.21

~ ﻝ ˇ 98.5% ’ 3.8-6

3.8-6

t/a

$NH_3$0.1kg/h H_2S0.05kg/h 100

VOCs

0.005kg/m^3

0.011kg/h

RTO 95%

30m

3.8.1.2

1 VOCs

√I VOCs ~ a¸ `E

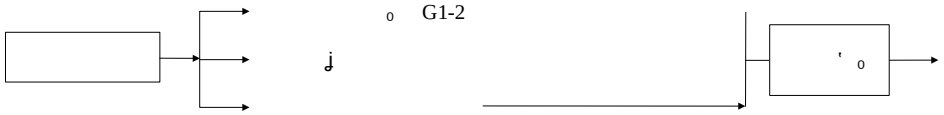
E ✓ √I VOCs

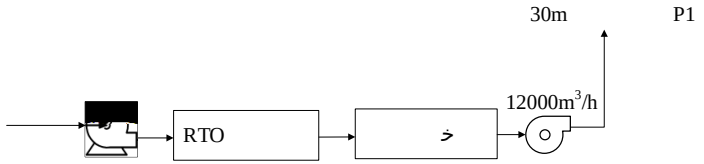
H_2S0.0026kg/h VOCs 0.0006kg/h $NH_3$0.036t/a H_2S0.0187t/a

VOCs 0.0043t/a

ɰ ⱱ 2019 ΰ [2019]84

ΰ VOCs Ȅ ҏ 2013 31 ΰ



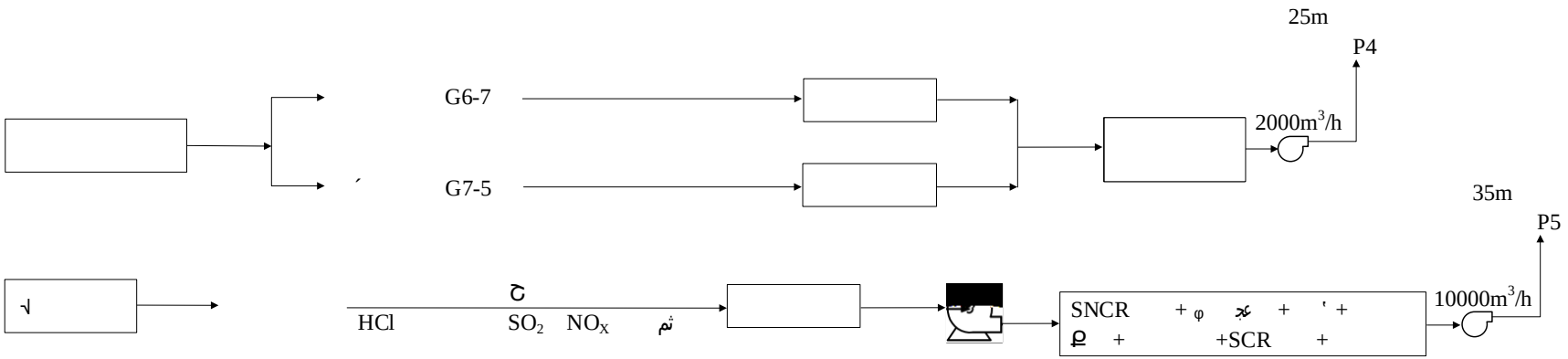


G13 NH_3 H_2S

o G1-1

25m

3.8-3



3.8-4

1 ܧ ἵ ’

ܧ ẚ Ữ ۷ ت ₽ ˨

r ἵ ΰ o №≢

Ս RTO + ݗ Ս 1 30m ἵ

’ 3.8-9

3.8-9

			h/a	kg/h	t/a	
[redacted]	o G1-2		7200	3.61	26.00	
				0.72	5.20	

o G1-3 -15 ' o

		H_2S		0.05	0.36	
				100	/	
				3.03	21.80	
			7200			

$SO_2$0.094kg/h NO_X0.59kg/h $NH_3$0.002kg/h H_2S0.001kg/h №≠

CO128.0mg/m^3 5.3mg/m^3 ì 0.01mg/m^3

G9-2			0.849	6.114	
	ì		0.032	0.227	

3.8-13

	kg/h	t/a			kg/h	mg/m^3	t/a
HCl	8.442	60.733					

5000m^3/h
U 1
25m
20%

U

3 Ö ï Ö . ï

o ï ,

Ö ï Ö .

o Ö ï Ö . , 3.8-14

3.8-14

		h/a	kg/h	t/a	
o G1-1		7200	0.217	1.56	
			4.66	33.54	
			0.54	3.90	
G6-1	HCl	7200	0.022	0.1577	
			0.728	5.2429	
G6-2	NH_3	4000	1.370	5.4794	
			14.25	57.0013	
G6-3	HCl	4000	0.964	3.8566	
	NH_3		0.452	1.8068	
			9.402	37.6067	25m
G6-4	HCl	1000	0.966	0.9658	
			43.598	43.5985	
G6-5	HCl	2000	1.616	3.2324	
			106.815	213.6301	
G6-6		1000	21.799	21.7993	
o G6-7		5000	0.736	3.6792	
			0.026	0.1314	
G7-1	HCl	6000	0.925	5.55	
			1.135	6.81	

G7-2	HCl	3000	0.127	0.38	
			0.04	0.12	
G7-3		1000	1.56	1.56	
G7-4	HCl	1000	3.81	3.81	
			0.18	0.18	
G7-5		1000	1.96	1.96	

64.7 78.4 108

85%~95% 3.8-15

3.8-15

		kg/h	t/a		kg/h	t/a
G1-1		0.217	1.56	/	0.217	1.56
		4.66	33.54	95%	0.233	1.677
		0.54	3.90	85%	0.081	0.585

G6-5		106.815	213.6301	85%	16.02	32.04
G6-6		21.799	21.7993	85%	3.27	3.27
G6-7		0.736	3.6792	85%	0.11	0.552
	1	0.026	0.1314	95%	0.0013	0.0066
G7-1	HCl	0.925	5.55	/	0.925	5.55
		1.135	6.81	90%	0.11	0.681
G7-2	HCl	0.127	0.38	/	0.127	0.38
		0.04	0.12	90%	0.004	0.012
G7-3		1.56	1.56	90%	0.156	0.156
G7-4	HCl	3.81	3.81	/	3.81	3.81

		30.402	60.7153	/	1.218	4.0220
ì		0.081	0.585	97.0%	0.081	0.5850
		29.60	57.3837	97.0%	0.888	1.7215

ز Ք U Ք U 1 25m

Ք ' 3.8-17

3.8-17

ۼ		kg/h	t/a	Ք ˇ	m^3/h	kg/h	mg/m^3	t/a
NH_3		0.020	0.0885	/		0.020	1.67	0.0885
HCl		0.084	0.1795	/		0.084	7.0	0.1795
		1.218	4.0220	80%	12000	0.244	20.3	0.8044
ì		0.081	0.5850	80%		0.016	1.35	0.117
		0.888	1.7215	80%		0.178	14.8	0.3443

˜ ' 0 + Ք + Ք U C ĭ C .

Ⴆ ۼ №≠ $NH_3$0.020kg/h HCl0.084kg/h

0.244kg/h ì 0

C020kg/h

´ 90% U ㄏ U 1 25m

Ơ ĩ ’ 3.8-18

3.8-18

	⁂	kg/h	t/a	ˇ	m^3/h	kg/h	mg/m^3	t/a
G6-7		0.25	1.51	95.0%	2000	0.0182	9.1	0.1097
´ G6-8		0.114	0.684					

№ ˆ Ơ ㄏ U

0.0182kg/h 9.1mg/m^3 0.1097t/a L

‰ GB37823-2019 2 ≠ ṿ Ⅵ

r 3 ĩ ˜

ṿ ₀ ṿ

≤ 10mg/m^3

5 ↙

Ꝑ № ĩ Ơ

ĩ . ↘ ˜ ↙ “ SNCR

+ φ ⁂ + ' + Ꝑ + +SCR + ” U 1

35m ˜ ↙ ↙ ĩ № 3.8-19

3.8-19

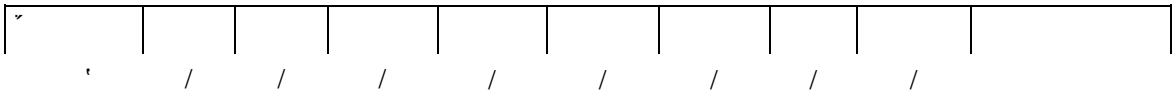
		t/a	№ ĩ Ơ t/a
	S1-3	65.0	41.6 7.80 15.6
	S1-4	52.0	28.6 10.4 13.0
	Ꝑ S2-2	0.77	0.41 0.03 0.33
	S2-3~S2-5	3.25	2.26 0.99
	S3-1	33.4	4.0 25.0 2.4 2.0
	Ŭ S3-2	43.7	15.0 0.5 26.0 2.2
	⁂ S6-1	38.72	26.52 . 0.75 1.58 ˝Ḥ 0.38 9.49

	S7-1	326.46	107.69 176.96 0.59 41.22
	. № S7-2	347.07	0.53 . 15.14 . 6.29 325.12
	S7-3	95.86	71.34 24.52
È	S10	20.0	6.92 13.08
		231.67	. 22.69 . 2.29 55.66 1.03 150.0
		1255.5	610.76 57.24 18.2 . 8.58 . 38.58 584.47 13.08 0.03 72.78 177.48 134.21

~ √ 98.5% ’ 3.8-20

3.8-20

t/a kg/h



ƀ ṿ W[2017]162 Ѵ L

o 3 3

≤ 60mg/m^3 W`E

Ḡ ˧ . .

ṿ ṿ 10mg/m^3 $SO_2$20mg/m^3 NO_X100mg/m^3

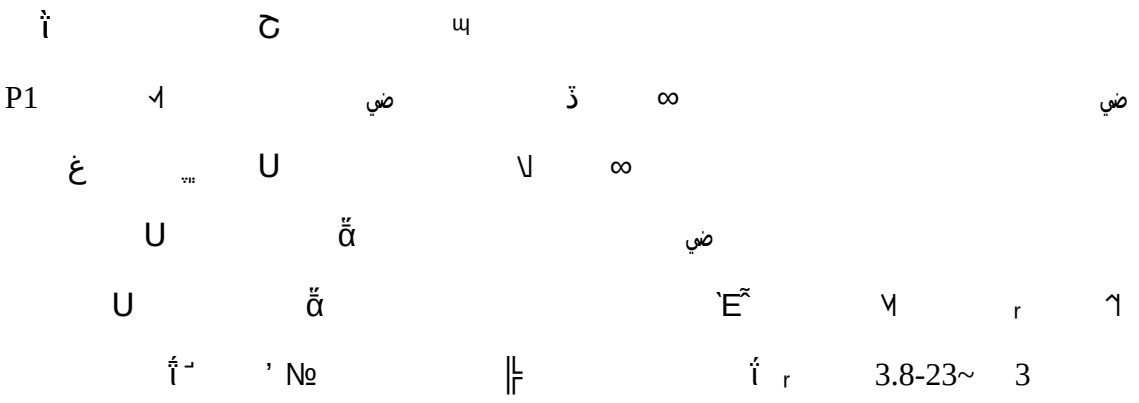
U ’ 3.8-22

3.8-22

,

O m^3/h

													₫ 80%		
ↂ P4	2000		182.0	0.364	2.194	9.1	0.0182	0.1097	25	20	0.2	ↂ	95%	20	/
			127.24	1.272	9.1614	25.4	0.254	1.8323					99.6%	60	/
			11.93	0.119	0.8586	2.4	0.024	0.1717				SNCR	99.6%	20	/
			3.79	0.038	0.2730	0.76	0.0076	0.0547				+ φ	99.6%	60	/
		.	1.79	0.018	0.1278	0.18	0.0018	0.0129				ↂ + ' +	90%	30	
ↂ P5	10000								35	65	0.8	₫ + +SCR +			



3.8-23	RTO	+	P1

3.8-25 P1

O	ά			m^3/h		O	’		‰			’
	m	m					mg/m^3	kg/h	mg/m^3	kg/h	‰O	
P1	30	1.2	50	34800	RTO+		0.86	0.03	10	/	˜ ẏ	
						SO_2	2.7	0.094	20	/	˜ W`E	
						NOx	22.6	0.786	50	/	˜ Ḡ ẏ	
						HCl	3.9	0.136	30	/	GB37823-2019 2 ≠ ẏ	
						NH_3	2.1	0.072	20	/		
						H_2S	0.03	0.001	5	/		
							15.5	0.5403	60	/		
							7.0	0.2451	20	/	˜W[2017]162	
						ï	0.29	0.0102	30	/		
							0.29	0.0102	60	/		
						CO	44.14	1.536	/	/	/	

3.8-26 P5

O	ő				'	‰	
		m^3/h		O			'

m m

					+SCR +	NOx	12.9	0.1962	50	ẖ W`E ˜ Ḡ ˜ v	
						HCl	0.12	0.0019	30		
							16.7	0.2541	60	GB37823-2019 2 ≠ v	

3.8.2

3.8.2.1

1 W1

pH COD BOD_5 SS NH_3-N 28.46m^3/d

pH2~3 COD87800mg/L $BOD_5$26100mg/L SS100mg/L 160mg/L

275mg/L

2 W2

pH COD BOD_5 SS NH_3-N 10.89m^3/d

pH7~8 COD75000mg/L $BOD_5$24800mg/L SS100mg/L 80mg/L 250mg/L

3 W3

2 / 8

12.5m^3 12.5m^3/d

600m^3/a 0.8 10.0m^3/d

480m^3/a 1.6m^3/d

COD3000mg/L $BOD_5$500mg/L SS160mg/L 30mg/L 75mg/L

4 W4

1.0 1.5L/m^2· 1.5L/m^2·

15.0m^3/ 5.0m^3/d 1500m^3/a 20%

12.0m^3/d 4.0m^3/d 1200m^3/a

COD500mg/L

SS200mg/L

5 W5

RTO +

%

3.8-28

					h
		O	t/a	t/a	
	150	HCl	7.21	22.69	
		NH_3	17.77	HCl2.29	
			55.66	55.66	
			1.03	1.03	
				150	

HCl NH_3

ㅓㅓ ㅇ ~

ŋ ㅓ ĭ 3.8-29

3.8-29

ㅓ mg/L pH

(m^3/d

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ΰ ἳ └ ﲘ ἳ ΐ r

№ Ữ ὢ ΰ 2t/h

3.8-30

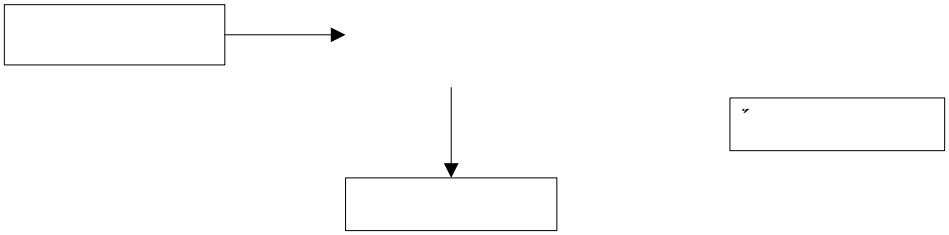
3.8-30

O		Մ ج kg/t	t/a
W1-1		3.3	42.9
		6.6	85.8
		20.34	264.42
		0.78	10.14
		654.87	8513.31
W1-2		0.96	12.48
		2.83	36.79
		8.85	115.05
		0.26	3.38
		250.77	3260.01
ᵛᴵᴵ		4.26	55.38
		9.43	122.59
		29.19	379.47
		1.04	13.52
		905.64	11773.32

Շ

№≢ ΰ U

6 û!ÜÂù 2t/h₩9A* n99 ET O EMC O 10.56 Tf 1 0 0 1 348B EMC O /Artifact BMC 73.8243Sact BMC 7.22 6590583 0.48 0.43



3.8-5

Ъ 3.8-6

3.8-6 t/a/Span <</MCID 24

3.8-31

	(m^3/d	۱ mg/L pH						
		pH	COD	BOD_5	SS			
Ü	38.9	/	4800	4200	/	80	1000	/

.	₹	68.4	237.4	89.4	34.9	10.7	117.2	1

ج ´ ح U 1

15m ح 2.1t/a ƀ ج غ

2 ' o S9

№ Ơ №≠ ' o -15 ' o U

“ RTO + خ ” U 1 15m ǐ

“ ɸ + ' o + ɸ ” U 1 25m

Ơ غ “ ' o + ɸ

+ ɸ ” U 1 25m ' o

شخ ' o 320.0t/a ي ٧

O 2021 ' o ٧ ٧ ≠ HW06

ㅋ ǐ Ơ ㅋ 900-402-06 ƀ ㅋ ǔ ㅋ ㅋ

ǐ ą U ㅋ ' o شخ № غ ج №≠ '

o ƀ ا غ

3 Ỳ ㅋ S10

ǐ شخ ƀ ٧ ~ ٧

“ SNCR + φ غ + ' + ɸ + +SCR

+ ” U 1 35m Ỳ

. ㅋ 5.0t/a ي ٧ O 2021 ' o

٧ ٧ ≠ HW50 Ỳ ㅋ 772-007-50

Ỳ ㅋ U ح U ٧

٧ ٧ ŋ

4 S11

№ ǐ “ ɸ + ' o +

ɸ ” U 1 25m

√ U SNCR

3.8-34

√ O √ ≠ √ t/a

	S6-1	HW11	900-013-11	38.72			1 /	T	
	S7-1	HW11	900-013-11	326.46			1	T	
	S7-2	HW11	900-013-11	347.07			1	T	
	S7-3	HW11	900-013-11						

3.8.3.2

1 150m² 1

50m²

GB18599-2020

GB18597-2023

GB18597-2023

1

1m 10⁻⁷cm/s 2mm

10⁻¹⁰cm/s

2

2

r

‰

GB18597-2023 ‰

4

GB15562.2

W

.

2013 2

GB18597 A GB13392

‰

2

3.8-35

3.9

1 ' ≠ '

RTO+ 0

70%

2

3 + +

3.10

’ 3.10-1

3.10-1 “ ”

		㇔		丩 ⋮	
		Nm^3/a	29520	/	29520
	SO_2	t/a	1.1096	0	1.1096
	NO_X	t/a	21.9147	16.2616	6.961
		t/a	38.194	37.7243	0.4697
		t/a	606.9654	603.3677	3.5977

3.11

3.11.1

ษี 2014 179

=0.0211t/a

2 ~ L

٨ ٧ ٥ ~ ä ٨

U ~ ä ٨ U COD NH_3-N TP ضر

ـ ضخ ضخ A تهج 5 j

COD5.3248t/a 0.0754t/a 0.0196t/a

0.5357t/a SO_2

7

غ ا ٧ ّ ∫

غ ا ا . ّ U └ ّ ... U №

ŭ ∫ ج . 100% . 97%

... 94% ا . غ ج شخ

ŋ ̂

3.12.3

1 . . ˜ . . Ḥ . .

⋮

2 └ ŭ № └ DCS غ ̂ └ كج PLC

غ └ ́

شخ ˜ . └ └

ă ï ì w ضي CRT ضي غ ا

ا └ ضيw غ №

ŭ غ └ ا └ └

˜ . ∓ Ḡ ضي .

□ ﴾ غ 2

3 ا └ ضي └ ṗ DCS

└ غ ƀ ̂ ă ̂ ضي ضر غ └

ا ضر Ḥ ̂ ~ └ DCS PLC

4 ا └ ï ă Ḡ

. ’ ا ≠ ج

5 Å غ ŋ └ Ḡ ï 2

ŋ

ڽْ غْجِ قمم . ٧ غ جٍ

ٓٓ ؑ

٣٧

3.12.5

Ơ Ơ ĩ Ơ

. Ơ ۷ ĩ ì Ơ

' o U Ũ ت ₫ ۷ r ĩ

ŭ o RTO + خ U 1 30m

₫ + ' o + ₫ U 1 25m

Ơ ĩ Ơ . ' o + + ₫ Ṕ U

1 25m Ơ + ﮎ U 1 25m

Ơ ĩ .

₫ خ ~ ۷ “ SNCR + φ

عج + ' + ₫ + +SCR + ” U 1 35m

ﭖ U شخ

Å ḱ

ضر ǁ خ .

' ۷ ì ŭ U ' o ì

 ~ ۸ ۷ . +UASB+A/O+MBR+

U ' ۷ ~ ۸ ۷ o ~

ă ₋₋ ۸ ~ ﭖ

U ŋ ۸ o ă ₋₋ ۸ ĩ ۷

ضر ‰ . ₋₋ L ‰ DB41/756-2012

ﻫ

ﻫ № ﻫ

. ĭ Ỳ ╕

150m^2 1 50m^2

75-85dB A

GB12348-2008 3 ‰

3.12.7

3.12.8

3.12.9

3.12.10

4

4.1

2019

30200

2101-410726-04-01-903569

4.2

2022-2035

4.3 “ ”

2023

[2023]38

‰ ỵ

8 . ╠ ’

¨ Ü ė 2 ˜ ¨

ỵ 15778.59 Ư ‰ ¨

5.3

7 32 pH

K^+ Na^+

Ca^{2+} Mg^{2+} CO_3^{2-} HCO_3^- Cl^- SO_4^{2-} ‰ GB/T 14848-2017

‰ 3 32

‰ GB/T 14848-2017 ‰

5.4

4

5.5

‰ GB 3096-2008 3 ‰

5.6

pH 6~9

‰ GB 36600-2018 1 45 pH

. ‰ 9

‰ GB 15618-2018 1 ‰

6

6.1

6.1.1

6.1.1.1

6

ŋ ٨ RTO + خ +30m		DA001	NH_3 H_2S SO_2 NOx HCl ثم
600t/a غ ئ	´ U +20m	DA002	
1200t/a غ ئ	´ U +20m	DA003	
ĩ	SNCR + φ عج + ' + ₽ + +SCR + +35m لھ	DA004	SO_2 NO_X HCl CO NMHC ثم

6.2

6.2.1

6

7

6.2.2

COD SS 40

2 40 60L/d· 2 60

4 6m^3

6.2.3

كل ۺ كل ἰ

1 كل

كل ४ ḱ ą

2 ᵥᵢᵢ

ᵥᵢᵢ ۺ 22 00 Ս كل

ƀ

3 ᵥᵢᵢ ضرﻼﺸﻴ

كل ضي ⅥI

4 كل

ۺ ⁞ كل

5 ⁞ كل

₮ غ

˜ ضر ⁞ كل كل L

ﻼﺸﻴ كل ‰ GB12523-2011 غج

غج ư̈ Ս كل ẗ

6.2.4

1 Ս كل ἷ

2 ﻼﺸﻴ Ữ ضر غ ضمԱL

حی ŋ

3 ⅥI جي عمه ŋ ƀ غ ˉ ⅥI

4 ﻼﺸﻴ ضر

فصي ἰ ί ≠ ṿ ४ عج جي عمه

ẗ ἶ غ ẗ

غج ४ ﻼﺸﻴ ư̈ ضر ⁞

6.3

6.3.1

6.3.1.1

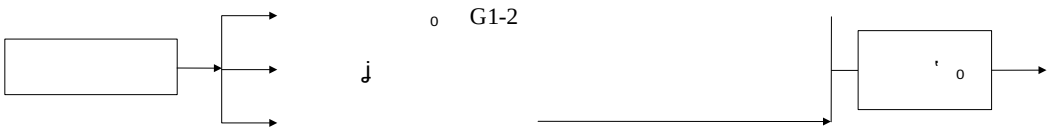
1

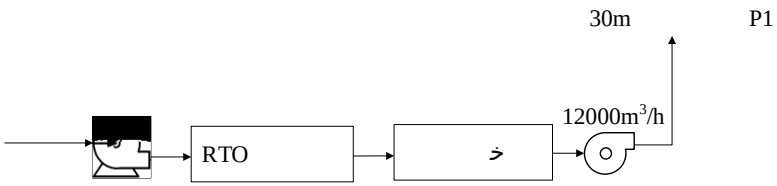
2 VOCs

6.3-1

	ɣ		30% 90%
' o	ɣ ƀ ˜ ﭵ	r ჟ	˝ 80% 98%
№	ɣ №	└ غ	˝ 90% 99%
Ỳ .		Ỳ ╕ ז ث	▯ ą Ỳ ╕ ᷉ Ỳ . 80 99% Ỳ . ˝ 85% 99%
ʐ	; ;		80 95% ˝ 85% 99%

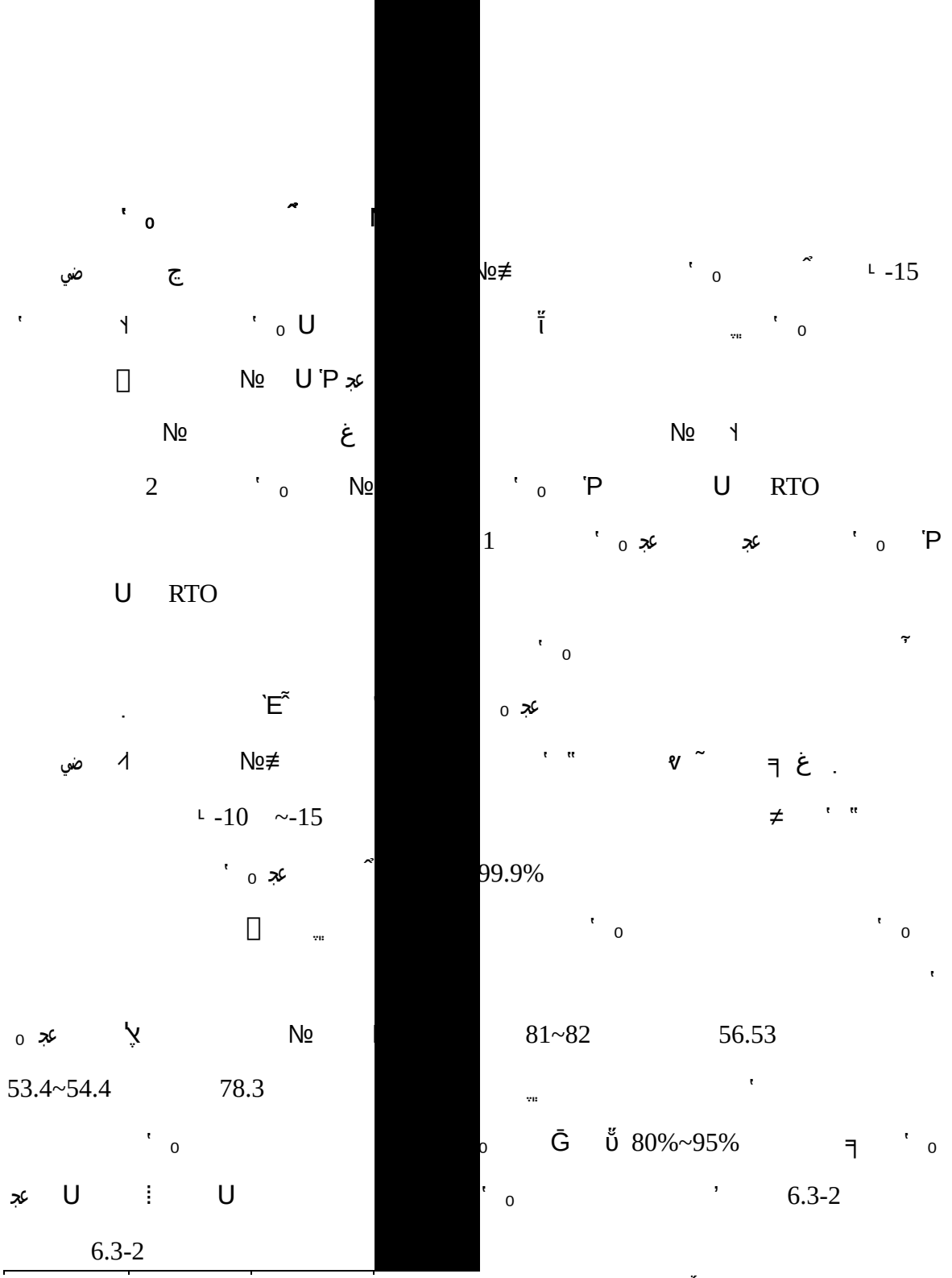
ɣ
r Ձ Ḃ ⌈ .





G13 NH_3 H_2S

6.3-1



kg/h t/a % kg/h t/a

	G3-1~ G3-2		9.18	66.1	-15	80%	1.836	13.22
Ũ	Ũ G9-1		0.586	4.219		80%	0.1172	0.844
			0.032	0.227		80%	0.0064	0.045
	G10		0.010	0.072			0.010	0.072
	G12		0.011	0.078	/	/	0.011	0.0078
		NH_3	0.1	0.72			0.1	0.72
		H_2S	0.05	0.36			0.05	0.36
			100	/			100	/
			3.03	21.80		95%	0.1515	1.09

-15

≈ RTO 2019 ц RTO

ᴸ r ᾱ شخ

RTO

RTO RTO

≠ 40000m^3/h ₀ 0-50 ↑

ᴸ ╠ RTO 10m^3/d

˜ RTO Ṗ Ṗ

6.3-3 RTO+

˜	O		ᛚ	شم
	r ǐ			
1	.	1		
2		1		
3	№	1		
4	ك	1		DN1000
5		1		DN600
6	خ	1		
7	خ	1		
8	G-L ك	1		
9		1		‰
10	r	1		300*150*150
11	ك	1		‰
12	شج	1		‰
	↑			
1	ك	1		100 ۱
2		1	≈	48000m^3/h ⲗ 2000pa ʍ 45kw
3	ǐ O	1	≈	4400m^3/h ⲗ 4500pa ʍ 11w
4		1	≈	1000m^3/h ⲗ ʐ 10Kpa ʍ 11kw
5		1	≈	57000m^3/h ⲗ 2500pa ʍ 75kw

6	خ	4	~	80m^3/h 25m w 15kw
7		1		
8	PLC ∟	1		

أً كج ∟ ضي ~ أً. ╠

CD

E

BC

DE A CD EA

B DE AB C

EA BC D ;

RTO

NH_3 RTO NOx

30%

30%

RTO

RTO

RTO RTO

98.2% RTO

99.1%

‰ GB37823-2019 2

[2017]162 SO_2 NO_X

‰ GB37823-2019 3

2020.5.12

VOCs

RTO

RTO $40000m^3/d$

RTO

$13800m^3/h$ $18100m^3/h$ $5000m^3/h$ $12000m^3/h$

RTO $30800m^3/h$ $35100m^3/h$

RTO

“ RTO + ”

98.2%

98%

“ RTO + ”

6.3-4

6.3-4

kg/h t/a m^3/h

	H_2S	0.05	0.36				0.001	0.2	0.0072

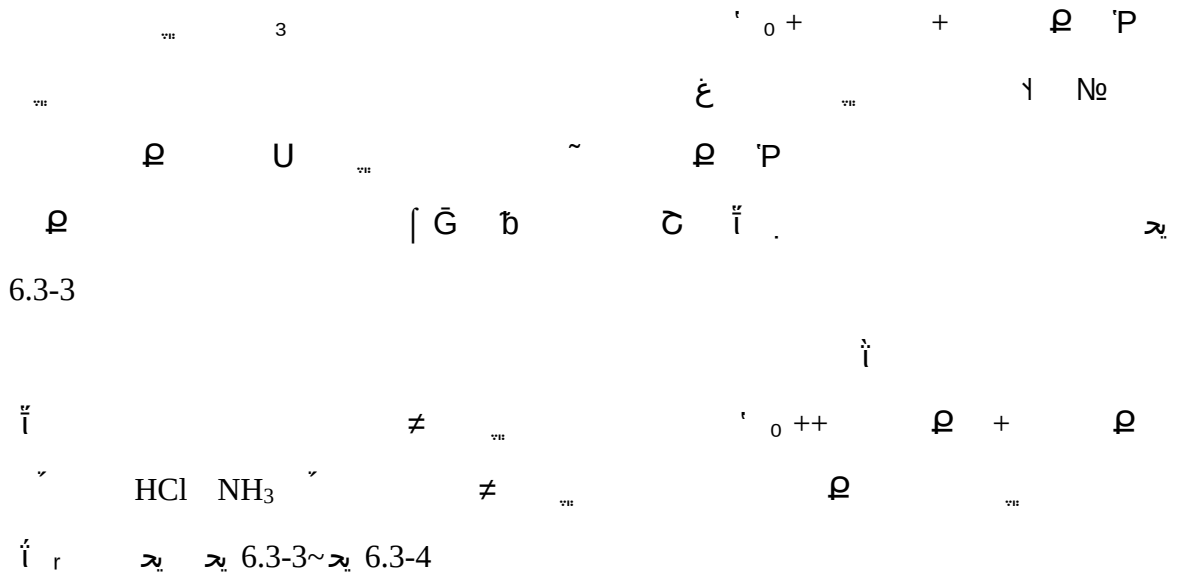
Ƈ ц RTO 12000m^3/h

NH_3 . NO_X ≠ ’ NH_3

U ″Ḥ ŋ . NO_X ⇁ NO_Xˇ 30% H_2S U ″Ḥ ŋ

. SO_2 SO

6.3-3

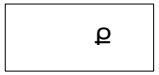


HCl NH_3

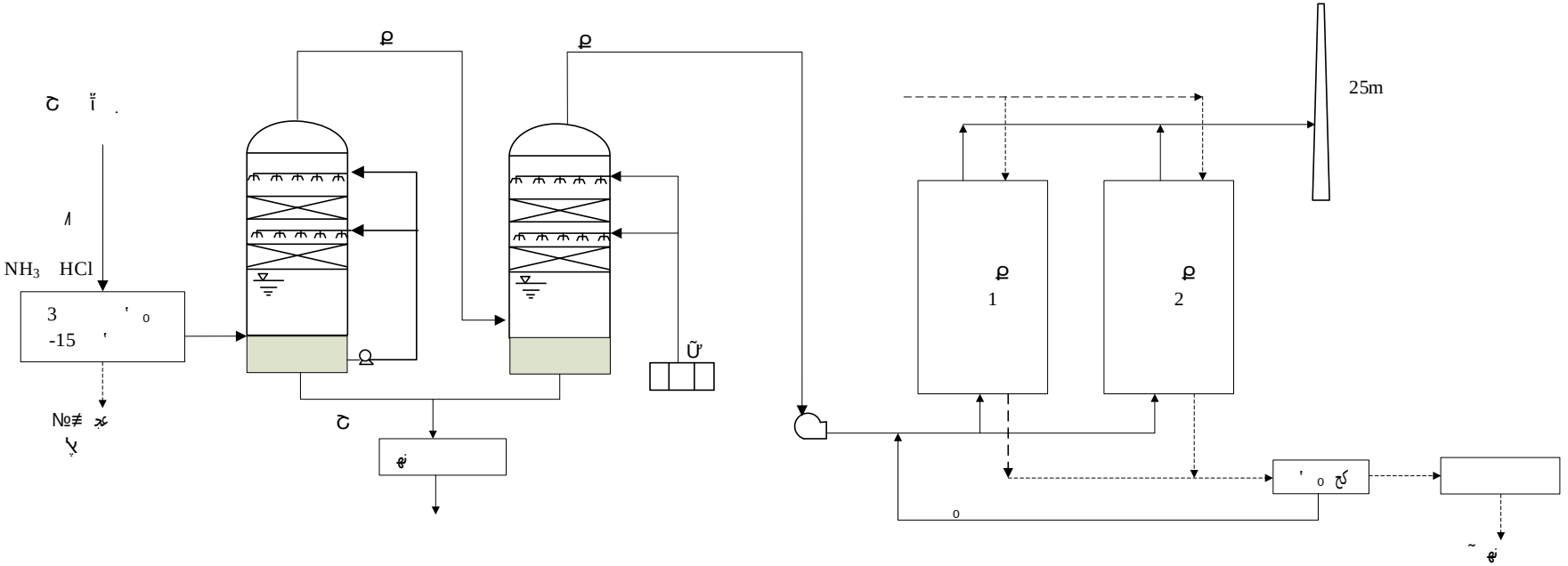
6.3-3~ 6.3-4

0 G1-1

25m



6.3-3



6.3-4

ˈ ₀ ˆ ضِ ╠ ṗ № □ ⋯

ˈ ₀ ˈ ₀ Ↄ ĭ .

ˈ ₀ ﻉ ﻟ № №≠ 64.7

78.3 81~82 56.53 ⋯ ˈ ₀

ˈ ₀ ˈ ₀ Ḡ ŭ 85%~95% ╕ ˈ ₀ ﻉ U ⋮ U

ˈ ₀ ŭ 85% ˈ ₀ ŭ 90% ˈ ₀ ŭ 95%

ˈ ₀ U ’ 6.3-5

6.3-5 ˈ ₀ % §

	HCl	0.925	5.55	/	0

G7-1

6.3-6

غبر		kg/h	t/a	ـ ₽	kg/h	t/a
NH_3		2.039	8.8462	99.0%	0.020	0.0885
HCl		8.43	17.9525	99.0%	0.084	0.1795
		30.402	60.7153	/	1.218	4.0220
ὶ		0.081	0.585	97.0%	0.081	0.5850
		29.60	57.3837	97.0%	0.888	1.7215

₽ Ῥ ˜ №

₽ Ḡ ˜ ₽ Ῥ ضِ

U ₽ ⌡ Ḡ ₽ ╠

ˈ ₀ + ₽ NH_3 HCl

╠ U ˈ ₀ ₿ ₽

≠ ₽ Ƶ ₽ ضِ

ṗ ⌈ ₹ U ⌡ ɇ Å ₽

PLC ⌐ ∟ ɇ U

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VOCs ’ ’ ΐ́ ₽

₽ HJ2026-2013 ₽

⌈ . 90% ₽ Ῥ

₽ ╕⌐ ₽ ⌐ ₽ ṿ 80% ΐ̈

₽ ╕ Ḡ ₽ ’ 6.3-7

6.3-7

ﻏﺠ		kg/h	t/a	ϱ ˝	m^3/h	kg/h	mg/m^3	t/a
NH_3		0.020	0.0885	/	12000	0.020	1.67	0.0885
HCl		0.084	0.1795	/		0.084	7.0	0.1795
		1.218	4.0220	80%		0.244	20.3	0.8044
ἰ		0.081	0.5850	80%		0.016	1.35	0.117
		0.888	1.7215	80%		0.178	14.8	0.3443

Ↄ ἵ . U ٳ ﻏﺠ №≢

$NH_3$1.67mg/m^3 HCl7.0mg/m^3 20.3mg/m^3 ἰ 1.35mg/m^3 14.8mg/m^3 ἰ NH_3

' 0 عجِ ˜ ⌠ 90%

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U ꝑ ⌠ Ḡ ꝑ ╠ '

0 U

╠ U ' 0 ƀ ꝑ

≠ ꝑ ʐ ꝑ ضي

ﻁW[2017]162 ≤ 60mg/m^3

≥ 90% ≤ 20mg/m^3

3 -15 3

+25m 50 20

6.3.1.4

6.3-9

6.3-9

6.3.1.5

Ø № ĭ Ơ

ĭ . ~

“ SNCR + φ + ' + Ø + +SCR + ”

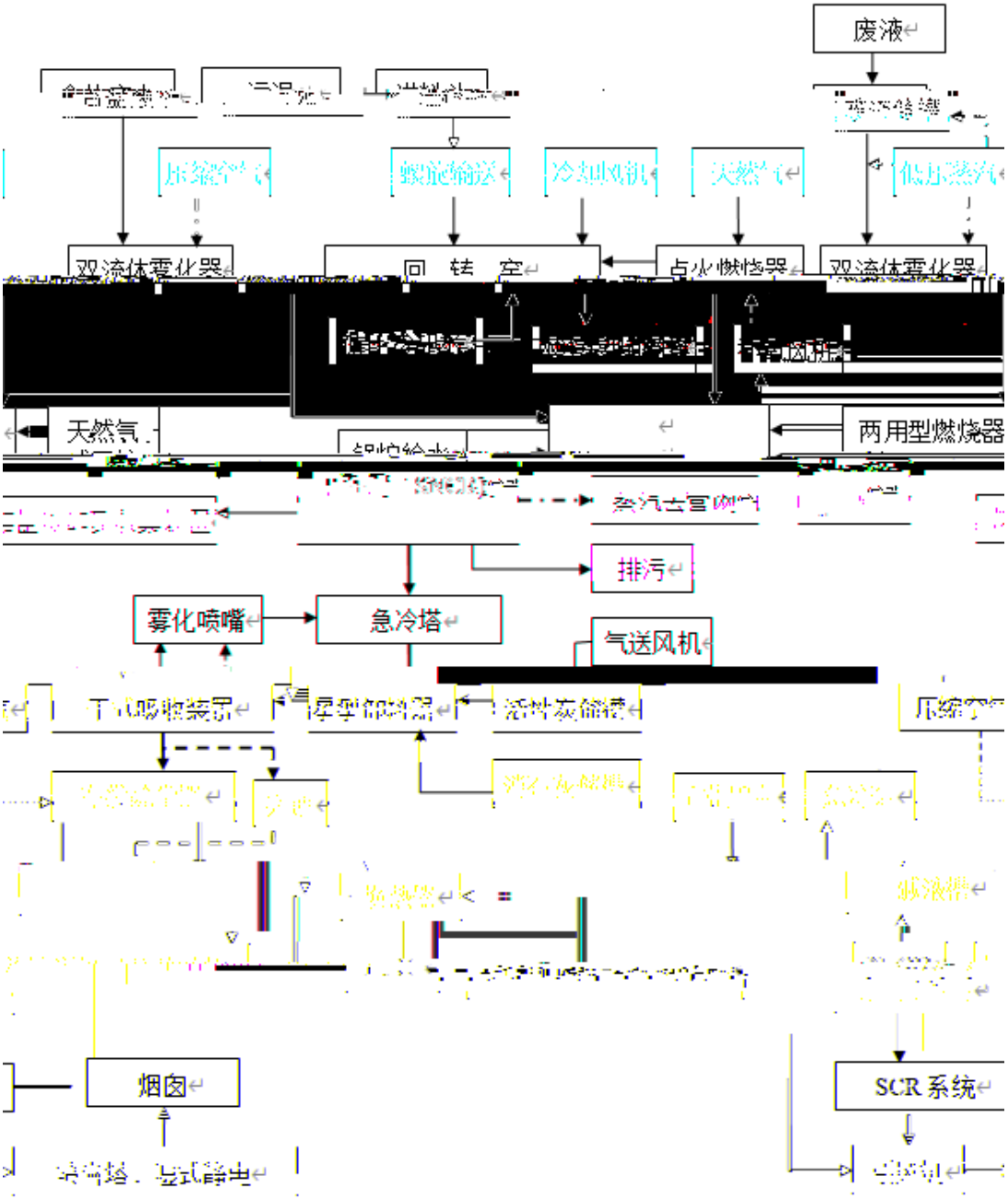
U 1 35m

6.2.1.5.1 ĭ

L ĭ 6.3-10

6.3-10

˜		ă
1	ẓ	0.5t/h
2	ṿ	4500kcal/kg ṿ شخ
3		1
4	فمم	+
5		≥ 850
6		≥ 1100
7	ṗ Ả	2s
8	₹₀ Ơ	6~10%
9	₹₀	500
10	' U	200
11	'	1s
12	⁞	5%
13		≥ 99.9%
14	˜	≥ 99.99%



6.3-7

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⌠ Ḡ ضي 2s

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⌠ ﻫ ˫ ضي U ʌ Ω

90° ọ ضي

w ᷓ̈

a ~ ضي ṗ ᷉Ḥ№ ⁗ U

ك ⁗ ᵣ ⁗ ᷉Ḥ№ ʏ

b ṗ ᷓ́ ﻍ ‖ Ɗₚw

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c ₹₀ Å

1 SNCR

SNCR ... 850 ... NOx

... SNCR ...

2

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pH pH

pH pH

FRP FRP

pH

pH pH

8

OM

SO_2

CO NOx HCl CO_2

4

φ '

كج

عجٍ ˜ ⌂ ₮ U ⌂ ₮

⌂ ₮ ą ˆ № 20% U فمي φ ᠰ

' ᠰ كج ᠰ U

6.2.1.5.2 ɒ

ɠ 6.3-11~ 6.3-12

6.3-11

˜	O	ą ĭ №	t/h	
1	ᠰ `E	№´ Շ .	3	1
2	ᠰ ᠰ	ΰ كج №´ Շ .	1	1
3	`E	ΰ كج №´ Շ ╕ .	2	1
4	`E	ΰ كج №´ Յ .	1	1
5	`E	ΰ كج №´ Շ BDO	2	1
6	ᠰ `E	№´ DMF DMAC .	3	1
7	`E	ΰ كج	4	1
8				

6.2.1.5.3

“SNCR + + + + +SCR + ”

1 35m

1636.63t/a

1255.5t/a 2892.13t/a

0.5t/h 7200h 0.40t/h

6.3-13

6.3-13

		t/a	t/a
	S1-3	65.0	41.6 7.80 15.6
	S1-4	52.0	28.6 10.4 13.0
	S2-2	0.77	0.41 0.03 0.33
	S2-3~S2-5	3.25	2.26 0.99
	S3-1	33.4	4.0 25.0 2.4 2.0
	S3-2	43.7	15.0 0.5 26.0 2.2
	S6-1	38.72	26.52 0.75 1.58 0.38 9.49
	S7-1	326.46	107.69 176.96 0.59 41.22
	S7-2	347.07	0.53 15.14 6.29 325.12
	S7-3	95.86	71.34 24.52
	S10	20.0	6.92 13.08
		231.67	22.69 2.29 55.66 1.03 150.0
		1255.5	610.76 57.24 18.2 8.58 38.58 584.47 13.08 0.03 72.78 177.48 134.21

≤ 20mg/m^3 NO_X ≤ 200mg/m^3 SO_2 NO_X

‰ GB37823-2019 3

SO_2 ≤ 200mg/m^3 NO_X ≤ 200mg/m^3

≤ 0.1ng-TEQ/m^3

[2017]162 3

3 ≤ 60mg/m^3

10mg/m^3 SO_2

20mg/m^3 NO_X100mg/m^3

20

6.3.1.6

VOCs

2

VOCs ‰

GB37822-2019 6 [2019]84

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نھ r ضي

ضي ۷ غ ۱ L ᒧ ᒣ

ت ᗡ Ũ r ضي o ~ RTO

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ضي ᒣ

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6 /h U RTO RTO ᗡ

Ḡ ضي RTO ’

ۿ Ũ ڜ ۱ نھ Ḥ غ كج ' o كج

-15 ' o عجـ عجـ غ ŋ ’ h h

ṗ ̃Ḥ ą ṗ Ḡ ṗ r ۱ h ت ᗡ ₹ RTO

VOCen-US

					~ RTO +
					~ RTO
					~ RTO
					~ RTO ~ RTO
					~ RTO
					RTO + +
					VOCs VOCs O h VOCs 3
					VOCs RTO RTO
					VOCs

6.3-20 VOCs

VOCs

100mm VOCs

L	
	VOCs 󰀀 VOCs ü̈ ḱ Ả ḱ U 󰀀 ˜ ą Ả ı̋ Ả ŭ̋ ı̀
	ƀ غج VOCs №
	␦ GB/T16758 GB/T16758 AQ/T 4274-2016 L ŭ̋ ض o VOCs L 0.3m/s ̃ ı́ r ̃
	ض Ꮭ Ꮭ ṿ 500mol/mol ̃ ḱ ü̈ L ‰ GB37822-2019 8

VOCs ˜
VOCs L

	c ١ ẓ ١ ١ ỉ ١ ẓ ١ ẓ ĭ ١ í □ ١ d ẓ ỉ ١ ẓ ١ ẓ ĭ í □ e í □ ĭ ١ f ġ g ~ ٧ ~ ﻍ ~ ضر ĭ Ḡ ١ ﻍ h VOC$_s$ ~ VOC$_s$ i Ŭ ỉ
ḱ	1 ⌠ ĭ ḱ ṵ 5d ṗ ḱ 2 ↓ ~ ḱ ḱ Ả ḱ ḱ ṵ 15d ṗ ḱ a Ả ḱ b ١ ḱ ضي ŋ
	~ ﻙ ḱ Ŭ ḱ ḱ U ﻙ ~ Ḡ 3
ỉ	1 ضي ġ ŋ ~ ١ r ~ VOC$_s$ 2 o o ↓ a Ḥ b ضي ~ ╠ ~ 3 VOC$_s$ ġ ṵ r Ŭ ↓ a ضي Ŭ № b ﻍ Ŭ c Ŭ ~ VOC$_s$ d ﻙ ﻍ ج

6.3.2

6.3.2.1

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№ ġ ⌠ ' o ٨ ٧

خ №ƀ ◖ ج № ~ ﻫ ỉ

Ả ḱ ضر . ĭ ٨ ٧

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ǐ en-US

6.3-23

	(m^3/d				
		pH	COD		
W1	28.46	2~3	87800	2	
W2	10.89	7~8	75000	248	
Å ǩ W3	10.0	/	3000	500	
ضر W4	12.0	/	500	/	
. W6	0.8	/	1000	200	2
W7	[redacted]	6~9	300	200	250

30 45

6.3-24

	(m^3/d	ヽ mg/L pH						
		pH	COD	BOD_5	SS			
ŭ	38.9	/	4800	4200	/	80	1000	/
Å ḱ W3	10.0	/	3000	500	160	3		

6.3-26

~	O		t/a	₩	₩	
S8	Ơ ơ	Ơ	2.1	₩	266002-62	Ъ ج ج

S12

6.3-27

√ O √ ≠ √ t/a № № Ⴑ

6.3.3.2

150m^2

50m^2

50m^2

RTO

‰ GB18597-2023

‰

HJ1276-2022 ‰

√ ṗ √ ἶ ί ἳ ڿ

6.3.3.3

√ ἶ ݜ

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ΰ √ ί r √ ﻬ ,

6.3-28

6.3-28

ⁿ	ݜ O		√ ≢	√	√ t/a	\l ض		ʐ t	Ա
		√ № Ⅵ	HW50	772-007-50	5.0				
1	√					20m²		50	1

HJ2025-2012

6.3.3.5

([2005]

9) JT617 JT618

GB18597 A

GB13392

6.3.3.6

1

0.23t/h 0.5t/h 0.43t/h 0.2t/h 0.5t/h

2

6.3.4

75~85dB(A)

15 20dB(A)

15dB(A)

‰ GB12348-2008 3 65dB A 55dB A ‰

‰ GB12348-2008 3 65dB A 55dB A ‰

10

6.3.5

3

6.3.5.1

1

1

2

3 GB50160-2008

GB50351-2005

GB/T 50934-2013

4

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30cm 0.02

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6

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1 № Ⅵ

ضر Ⅵ غ ү ῞Ḥ ΐ ضي

ضر № № Ⅵ Ⅵ ⅞№ Ⅵ غ Ⅵ Ⅵ

Ⅵ Ⅵ №≢

1 Ⅵ

Ⅵ ضر Ⅵ

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Ⅵ Ⅵ ضر ضر غ

Ⅵ ΰ ضر o ضر

2 Ⅵ

Ⅵ Ⅵ ῤ ضر

U ΰ غ ΐ Ⅵ کج

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r ضر Ữ Ⅵ ضر ΐ مخ

3 Ⅵ

Ⅵ ضر U ΰ غ

Ⅵ ضر Ⅵ ضر

غ Ⅵ r ضر Ữ

Ⅵ

№ Ⅵ ᾰ 6.3-29 № Ⅵ يحـ يحـ 6.3-11

6.3-29

	ү ῞Ḥ O	Ⅵ ΐ	№ Ⅵ	
1	r Ⅵ			
1.1	E	Ⅵ ضر	Ⅵ	
1.2	4	Ⅵ ضر	Ⅵ	

ـ	ٰ ̎Ḥ O	Ϻ ٱ̎	№Ϻ	
2	Ữ Ϻ			
2.1		ضرṗ	Ϻ	պ
2.2		ضرṗ	Ϻ	պ
2.3	Ữ Ϻ	̃	Ϻ	պ
		Ữ ⌠ ضر ٱ̎	Ϻ	պ
2.4	ڇ Ϻ ̃	Ϻ ̃ Ϻ ṗ ضر	Ϻ	պ
2.5		Ϻ ضر	Ϻ	պ
3	`E Ϻ			
3.1	W`E Ϻ	. └ ٱ́		

6.3-11

6.3.5.3

. GB/T50934-2013

		/l 200mm ض C30 P8
5	٦	1m /l حى $^{-7}$cm/s 2mm /l 2mm /l ì $^{-10}$cm/s

6.3.5.4

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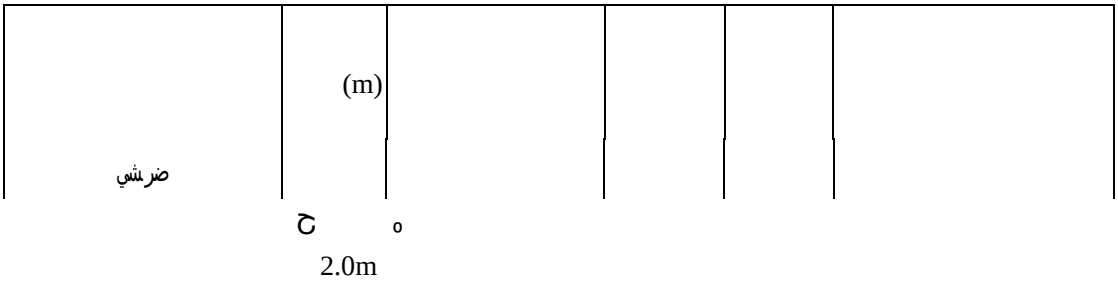

6.3.6.3

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6.4-1

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