

CUA 600
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MVR
1.6-DDA 12- A
5100 11- CUA 4800 12-
ADA 80080 2- 1.6-DDA 3080

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www.cnhu.com

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cyyhsehb@cnhu.com

0536-5128832

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2.7		30
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3.2		34
3.3		74
3.4		74
3.5		74
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3.7		220
3.8		

5.4		309
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5.6		331
5.7		332
5.		

11.7		426
11.8		426
11.9		426
11.10		427

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2017 4

[2018]102

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2024-2035

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[2018]102

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10) 573 2010.6.1

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12) 2030 2021 23

13) “ ” 2021 33

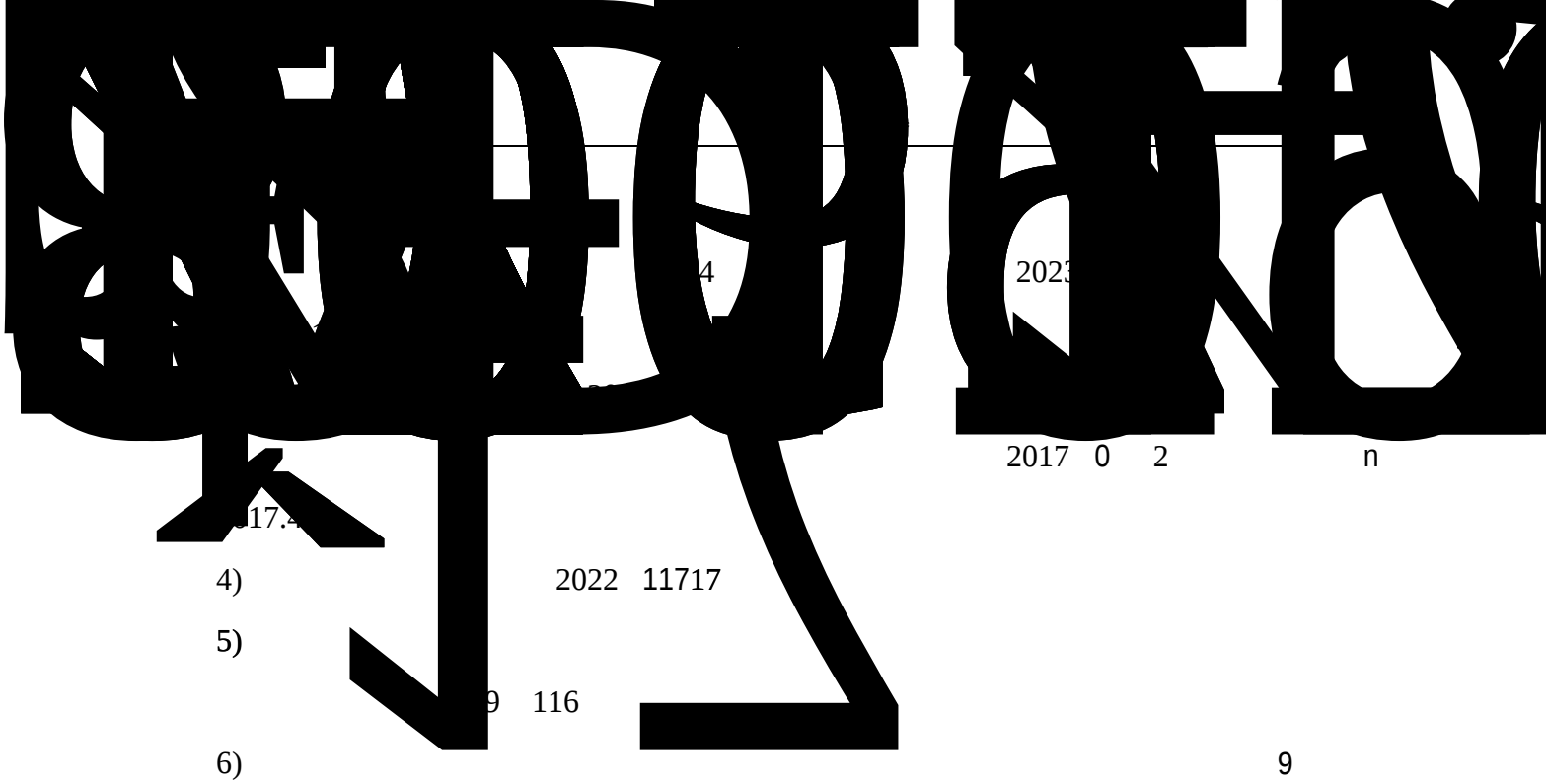
14)

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- 25) [2018]266
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- 32) [2019]92
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17)				2016
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- 11) “ ”
- 2021 15
- 12) 2024
- (2026 25)
- 13) 2026 2026-03-27
- 14)
- 2025 2

2.1.7

2001

(2003)

2001

2012

2019

2.1.8

HJ2.1-2016

HJ2.2-2018

HJ2.3-2018

HJ 2.4-2021 HJ 2.4-2009

HJ610-2016

HJ 19-2022 HJ 19-2011

HJ 964-2018

HJ169-2018

2017 43

GB 34330-2025

GB 5085.7-2019

2.1.9

HJ884-2018

2.1.10

HJ 819-2017

HJ 947-2018

HJ

1250-2022

HJ 1209-2021

HJ 1205—2021

2.1.11

HJ 942-2018

HJ 944-2018

HJ 853-2017

HJ 1200-2021

HJ 1038-2019

2.1.12

HJ 1178—2021

2021 74

2021 74

HJ 1259—2022

HJ1093-2020

GB/T50483-2019

HJ 2042-2014

HJ 2035-2013

HJ 2034-2013

HJ 2015-2012

HJ 2000-2010

2.1.13

(1)

(2)

(3)

2.2

2.2.1

1

2

3

2.2.2

2.3-2

2.3-2

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2.3.2

2.3-3

2.3-3

2.4

2.4.1

1

2.4-1

2

GB3838-2002 IV

2.4-2

1	pH		6~9	GB3838-2002
2		mg/L	3	
3		mg/L	10	
4		mg/L	30	
5		mg/L	6	
6		mg/L	1.5	
7		mg/L	0.3	
8		mg/L	1.0	
9		mg/L	2.0	
10		mg/L	1.5	
11		mg/L	0.02	
12		mg/L	0.1	
13		mg/L	0.001	
14		mg/L	0.005	
15		mg/L	0.05	
16		mg/L	0.05	
17		mg/L	0.2	

18		mg/L	0.01	
19		mg/L	0.5	
20		mg/L	0.3	
21		mg/L	0.5	
22		/L	20000	

3

GB/T14848-2017

2.4-3

I

II

IV

	65	55	GB3096-2008	3
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5

GB36600-2018

2.4-5

mg/kg

2.4.2

1

1#RTO

NO_x

DB37/2376-2019

1

*** VOCs

6

DB37/ 2801.6-2018

1

2

TVOC

GB

37824—2019

2

GB14554-93 VOCs

6

DB37/ 2801.6-2018

DA010

DB 37/ 3161—2018

VOCs

6

DB37/ 2801.6-2018

RTO

NO_x

DB37/2376-2019

1

VOCs

6

DB37/ 2801.6-2018

1

2

DB 37/ 3161—2018

GB37822-2019

GB 31571-2015

2024

2.4-6

			mg/m ³	kg/h	
1#RTO DA001	30m		8	0.3 90%	6 DB37/2801.6—2018
		****	****	/	
		****	****	/	
			50	/	
			50	/	
			50	/	
			50	/	
		HCN	1.9	/	
			0.1ngTEQ/m ³	/	
		VOCs*	60	3 90%	
			100	1.4	GB16297-1996
		TVOC*	80	/	GB 37824—2019
			40	/	
		*	10	/	(DB37/2376 2019)
			50	/	
		*	100	/	
RTO DA002	25	*	3	0.1	DB 37/ 3161—2018
		*	20	1.0	
		*	800	/	
			50	/	6 DB37/2801.6-2018
			20	/	
			50		
			5	0.3	
			50	/	
		*	60	3.0 90%	
		*	100		DB37/2376-2019
		*	10	/	
DA006	15	*	2000		GB14554-93
		*	60	3 90%	6 DB37/2801.6-2018

DA010	15	*	20	1.0	DB 37/ 3161—2018
		*	800	/	
		*	3	0.1	
		*	60	3 90%	6 DB37/2801.6-2018
DA007	30	*	15000		GB14554-93
		*	60	3 90%	6 DB37/2801.6-2018
*					

2.4-7

mg/m³

VOCs*

2

0.1

6

K

2

W

2

0.2

DB37/2801.6-2018

3

0.2

*

1.0

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*

0.03

DB 37/

*

J

3161—2018

2

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1.0

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0.02

r

GB16297-1996

2

1.2

12

0.1

0.05

GB31573-2015

5

*

1.0

31571-2015

2024

GB

				GB 31571-2015 2024	
* — /					

2.5

2.5.1

1

- (HJ2.2-2018)

= — ×100%

P — i %

C — i 1h mg/m³

C — i mg/m³

2.5-1 2.5-2

2.5-1

	Pmax≥10%
	1%≤Pmax<10%
	Pmax<1%

2.5-2



HJ2.2-2018 “5.4

” D10% 2.5km

5km

2

1“ ”

3

HJ610 2016

“ ”

4

HJ2.4-2021

GB3096 3

2.5-5

2.5.2

“ ”

2.5-1 2.5-2

2.5-6

2.6

2.6-1 2.6-1 2.6-2

2.6-1

2.7

GB3095-2026

IV

GB3838-2002 IV

3

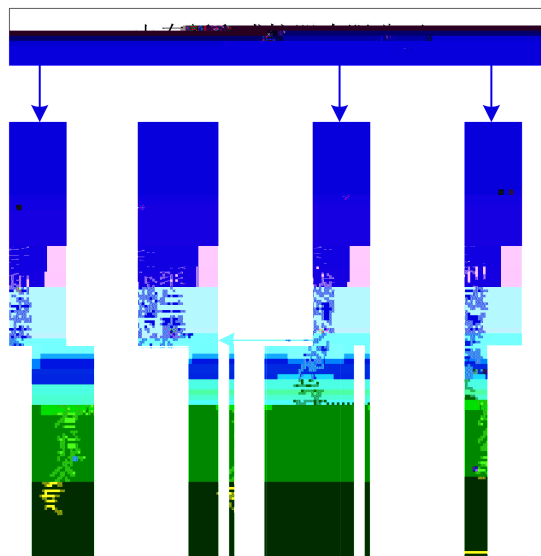
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3.1-3

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3.2.1

3.2-1

3.2.3

3.2.3

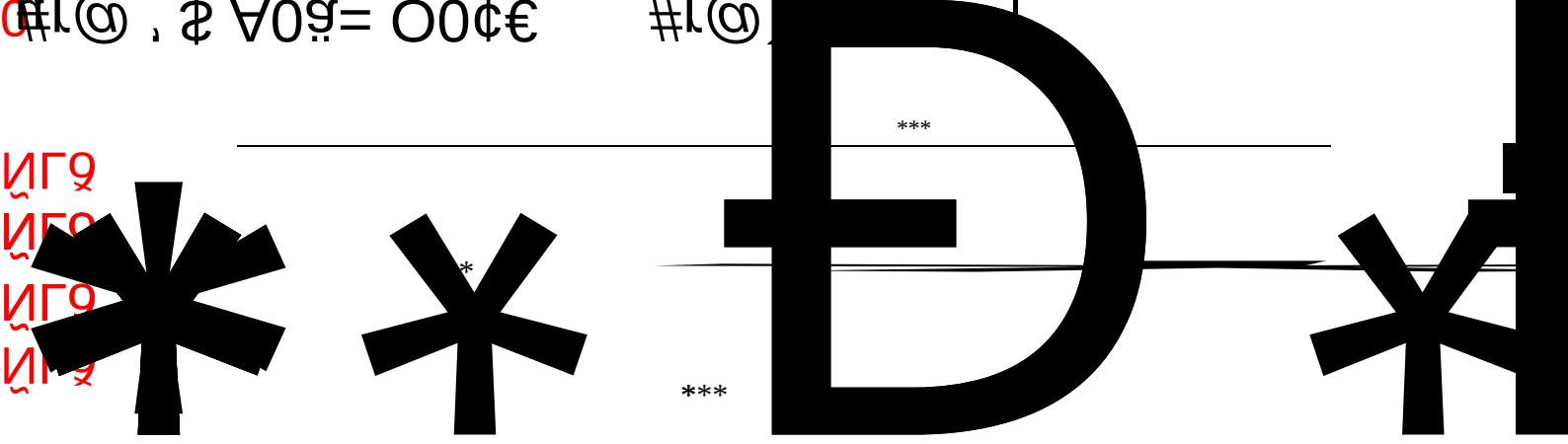
1

3.2.1-3

DN500

DN800

DN500



È

4

3.2.3.2

3.2.3-4

3.2.3-4

t/a

3.2.3-7

t/a

3.2.3-1

	600	3 1	1410Nm³/h	100	

10

3.2.3.3

35KV 3 110KV 35KV

3.2.3.4

1 (-15/-10)

6 1150.2kW(100 kcal/h)

2 546kW(45 kcal/h) 2

120 /h 2 3 2 1

2 (7/12)

5 1887.4kW(161.3 kcal/h)

2 1600kW(137 kcal/h) 1

300 /h 2 3 2 1

3

50 /h 1 -25 10 /h

1 -50

1 (-15/-10)

2 90

2 (7/12)

3 160 2 1 2 260

3.2.3.5

100Nm³/min 1 45Nm³/min

2 600 Nm³/h

1 2100Nm³/h

3×3000Nm³/h 2×6600Nm³/h 3×800m³/h

3.2.4**3.2.4.1**

3.2.4-1

3.2.4-2

		m	m	m ³ /h	
P1-1 DA005	2#RTO	30	1.0	30000	40
P1-2 DA002		30	0.8	17000	110
P1-3 DA004		25	1.3	5000	25
P4-1 DA001	1#RTO	30	1.2	60000	110
P4-2 DA006		15	1.0	50000	20
DA001		50	1.5	82000	130
DA002	RTO	25	1.4	55000	100
DA003		25	0.1	1500	25
DA004		50	1.7	71000	130
DA005		25	0.35	4000	30
DA006		25	0.35	4000	30
DA007		30	1.7	50000	30
DA008		25	0.35	3000	
DA009		25	0.9	19176	90
DA010		15	1.1	15000	

3.2.4.2

3.2.4.2.1

pH

5400m³

3.2.4.2.2

RO

5000m³/d

“

”

10000m³/d

5000m³/d

A/O

MBR

5000m³/d

2244m³/d

2756m³/d

***+

3.2.4-3

94% 94% 93% 97%

3.2.4-1

3.2.4-4

2025.8.23

2025.8.24

mg/L	6.53×10 ³	6.35×10 ³	6.54×10 ³	6.48×10 ³	6.42×10 ³	6.33×10 ³	6.26×10 ³	6.35×10 ³
mg/L	1.97×10 ³	1.90×10 ³	1.95×10 ³	1.85×10 ³	1.92×10 ³	1.85×10 ³	1.80×10 ³	1.90×10 ³
mg/L	180	159	167	184	185	181	175	182
mg/L								

µg/L	1.4L	1.4L	1.4L	1.4L	1.4L	1.4L	1.4L	1.4L	0.4mg/L
µg/L	46.6	48.5	44.3	42.8	44.3	43.3	41.2	43.2	0.2mg/L
mg/L	103	101	97.9	93.7	96.2	95	102	102	/
mg/L	348	384	369	374	365	325	384	397	2000mg/L
mg/L	1.49	1.44	1.58	1.53	1.6	1.66	1.53	1.49	100mg/L
mg/L	113	109	107	111	117	105	113	119	400mg/L
mg/L	17	20	15	18	16	13	17	23	500mg/L
	9	9	9	9	9	9	9	9	500mg/L
mg/L	4.32×10^3	4.40×10^3	4.37×10^3	4.26×10^3	4.45×10^3	4.47×10^3	4.29×10^3	4.34×10^3	6000mg/L
mg/L	12.3	11.8	13.6	15.2	11.6	13.9	15.1	12.2	120mg/L
mg/L	3.02	3.11	3.06	2.98	3.06	3.09	3.15	3.01	20mg/L
µg/L	414	497	432	428	381	483	422	428	1mg/L
mg/L	0.92	0.89	0.85	0.81	0.78	0.81	0.84	0.79	1mg/L

2025.01~2025.12

3.2.4-6

mg/L

	0.4
0.58~0.82	1.5
	0.5
	/
	0.1
0.0597~0.0604	1.0
	0.4
	0.4
	1
	0.2

GB 31571-2015 2024

3.2.4-8

3.2.4-8

		m³/a	COD	t/a		^b t/a
2025	^c	175399	66.899	2.066	COD	0.26
		289147.19	578.29 ^a	28.91 ^a		0.43
^a						COD2000mg/L
	100mg/L					
^b		COD30mg/L				

3.2.4.3

3.2.4.3.1 1#RTO

1#RTO 6 m³/h “SCR ” 30m 1.2m SCR

230-240 RTO

1#RTO 2024 6

1#RTO

25

85% 1#RTO VOCs

3.2.4-11 1#RTO

			m ³ /h	mg/m ³	mg/m ³	kg/h	%	%	mg/Nm ³	kg/h	
2025/12/5	1#RTO (DA001)		43999	<3	/	/	<0.37	19.31	50	/	
2025/12/5			43999	4.6	/	0.201	20.4	19.31	10	/	
2025/12/5			43999	75	/	3.31	20.4	19.31	100	/	
2025/8/11			35194	0.125	/	4.43] 10 ⁻³	/	18.4	80	/	
2025/8/11			35194	0.125	/	4.43] 10 ⁻³	/	18.4	40	/	
2025/5/21			41746	27.3	/	1.14	/	19.38	100	1.4	
2025/4/8			41064	<0.37	/	/	/	18.4	50	/	
2025/7/25			/	0.0092	/	/	/	/	0.1ng-TEQ/m ³	/	
2025/8/11			35194	<2	/	/	/	18.4	50	/	
2025/8/11			35194	<0.09	/	/	/	18.4	1.9	/	
2025/4/28			41064	0.027	/	0.0011	/	18.4	8	0.3	

3.2.4-12

1#RTO

	3.2.4-12	1#RTO		
		mg/m ³	kg/h	m ³ /h
2025.01		0.414~1		19788~29789
2025.02		0.343~1.36		18127~39497
2025.03		0.585~3.31		36857~44946
2025.04		1.74~3.32		32158~44969
2025.05		1.74~3.14		36716~43576
2025.06		2.4~11.6		34433~42513
2025.07		2.44~10.4	0.483333	23463~36488
2025.08		2.89~39.7		30770~36703
2025.09		1.22~22.2		21760~36798
2025.10		0.0745~3.9		18054~36611
2025.11		0.355~11.1		14434~34084
2025.12		0.274~1.95		29783~35083
		2.88	0.118	36212
		60	3.0	/
				/

3.2.4-14

	m³/h	mg/m³	mg/m³	kg/h	%		mg/Nm³	kg/h
2025/6/5	9597	0.058	0.096	0.000557	13.75	10		1.6
2025/8/11	7485	1.58	/	0.0118	13.67	20		1
2025/8/11	58							

(DA002)

50Δ

κβμ

3.2.

2025/11/10	(DA005)		
2025/4/28	(DA006)		
2025/8/22	(DA003)		
2025/5/21	DA004		1

GB/16297-1996 2 III
6 DI

6

3.2.4.3.4 2#RTO

2#RTO
”

1#RTO
2#RTO ĵ mIJ

	mg/m ³	<2	<2	<2
	m ³ /h	23336	21927	24037
	Kg/h	/	/	/
	%	17.5	18.1	16.5
		20	21	23
	%	4.4	4.3	4.4
	m/s	9.16	9.04	9.29
	m		30	
	m		1.0	
2#RTO				
	%			
DA005				

+ + “ +SNCR+ +
” 50m DA001

2025

DA001

85%

3.2.4-19**DA001**

	m ³ /h	mg/m ³	mg/m ³	kg/h	%	4mg/Nm ³	2mg/Nm ³	/	kg/h
2025/8/29	30758	<0.03			11.9				
2025/11/11	49181	0.0638							

	2025.07	0.001~0.32		10862~17564
	2025.08			
	2025.09	0~12.6		1291~22205
	2025.10	1.63~37.8		6170~23538
	2025.11	0.738~11.5		13363~24414
	2025.12	2.59~9.43		18420~26231
		3.7	0.076	19116
		60	3.0	

3.2.4-22 RTO DA002

			m ³ /h	mg/m ³	kg/h	%	%		kg/h	
2025/5/8	RTO (DA002)		17042	25	0.425	20.58	20.2	100mg/Nm ³	/	
2025/9/21			17718	0.195	0.00346		20.94	5mg/Nm ³	0.3	
2025/5/8			16567	0.0524	0.000868		/	3mg/Nm ³	0.1	
2025/9/21			17016	<0.09			21.06	20mg/Nm ³	/	
2025/4/25			14225	733			20.57	800	/	
2025/12/4			19512	3.9	0.0766	20.9	20.4	10mg/Nm ³	/	
2025/4/25			14225	0.119	0.00169		20.57	50mg/Nm ³	/	
2025/9/21			17033	1.88	0.0320		21.16	20mg/Nm ³	1	
2025/4/25			14225	6.3	0.0896		20.57	50mg/Nm ³	/	
2025/4/25			12854	<0.37				50mg/Nm ³	/	

RTO

DA002

DB37/2376-2019

1

6

DB37/2801.6-2018

1

2

DB37/3161—2018

3.2.4.3.7**DA003**

DA003

2025 DA003

85%

3.2.4-23

			m ³ /h	mg/m ³	kg/h	mg/Nm ³	
2025/2/19	DA003		63	1.75	1.13×10 ⁻⁴	8	
2025/11/6			145	19.0	2.76×10 ⁻³	20	

DA003

GB31573-2015

3.2.4.3.8**DA004**

50t/d

50t/d

5000Nm³/h

“SNCR+

+

+

+

+ +SCR ”

DA004

CH

2025

DA004

85%

3.2.4-24

DA004

HCl

CO

m³/h

2025.1 0.371~0.967

3.2.4.3.9**DA005****DA006**

2

2025 DA005/DA006

85%

3.2.4-26

3.2.4-28

DA009

	m ³ /h	mg/m ³	mg/m ³	kg/h	%	mg/Nm ³
2025/4/29	/	<1	/	1	/	1
2025/4/29	15335	1.5	1.4	0.0236	1.9	10
2025/4/29	15335	<3	/	/	1.9	50
2025/8/29	14776	74	90	1.1	6.5	100

RF

P4-2

RTO

“ + + ” 15m
“ + ” 30m

GB37822-2019

1500 HMI

2025 8 23 24

1 3

3.2.4-30

			1	2	3	4		
8037		2025-05-21	2.32	2.44	2.39	2.43	20	mg/m ³
8061		2025-05-21	2.04	1.92	2.06	2.67	20	mg/m ³
8063		2025-05-21	2.62	2.56	2.49	2.53	20	mg/m ³

3.2.4-31

			()	(kPa)	(%RH)	(m/s)	
2025.05.21		14:05	25.1	100.35	39.54	1.6	

3.2.4-32

		()	(KPa)	(m/s)			
2025 08 23	13:57	34.3	100.4	1.7		6	5
	15:01	35.1	100.3	1.4		6	4
	16:10	34.0	100.4	1.6		6	4
	17:14	32.7	100.5	2.0		6	5
2025 08 24	13:00	32.5	100.6	1.5		6	4
	14:05	32.9	100.6	1.4		6	5
	15:10	29.2	100.7	2.4		7	5
	16:13	27.6	100.8	2.2		7	6

3.2.4-33

VOCs

$\mu\text{g}/\text{m}^3$

mg/m^3

mg/m^3

mg/m^3

mg/m^3

mg/m^3

1#	344	1.08		0.12	0.003	12
2#	379	1.38		0.15	0.016	14
3#	389	1.27		0.16	0.019	15
4#	401	1.25	0.029	0.18	0.012	13
1#	313	0.98		0.13	0.005	12
2#	359	1.29	0.041	0.16	0.016	13
3#	345	1.28		0.18	0.018	13
4#	374	1.21	0.038	0.17	0.014	15

2025
8
2

3.2.4-36

7

2020 9

22000t/a 2024

11 11

2025 2 24

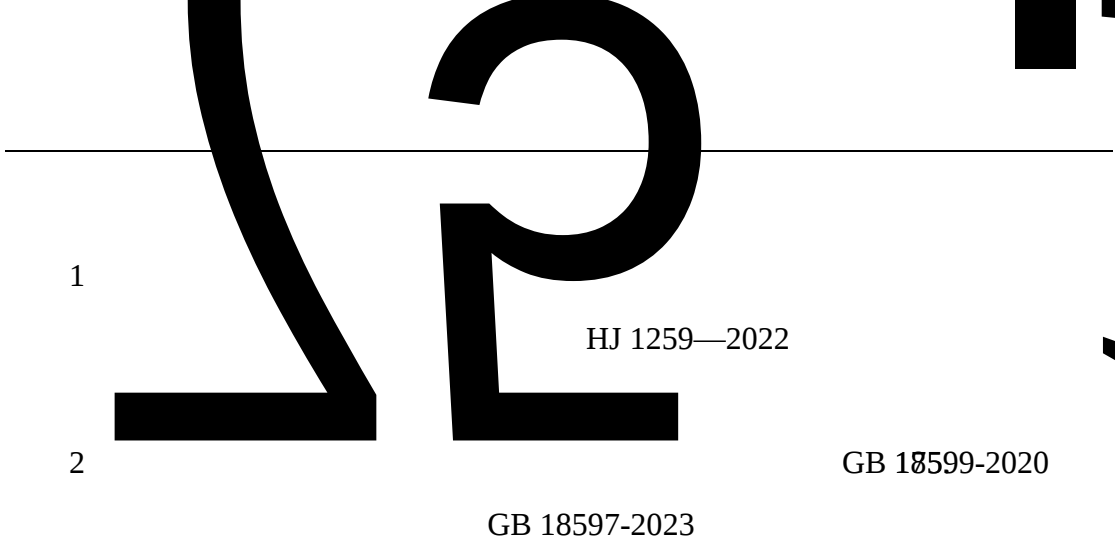
2025 3 4

22000t/a

13

2021.9.29-2026.9.28

3.2.4-38 2025



18

2028 2 19 10 / “ +

+ + + ”

GB/T5462-2015 T/ZGZS

0302-2023

“

20 ”

“ 2022 142 ”^ ^ 91370783MA3MBF

6YX8001Q 2023-11-24 2028-11-23

3 2024 1030.434 2025

25785.20155t/a 26375.37035 6955.58325

19419.7871 590.1688

440.2652

đ

GB12348-2008

3

3.2.4.6

2025

1/2

LDAR

3.2.4-40

3.2.4-40

	2025	t/a	t/a
	1.83025		12.501
	3.49907		55.01
	72.9777		109.29
VOCs	16.43124399		37.296
*	7.60838E-05		0.008
	0.8985168		/
	9.778		/
mg-TEQ/a	8.78566464		/
	0.296		/
	0.071818776		/
	0.023		/
*	0.000103648		0.05
*	0.011402856		0.119
*	0.00983088		0.0004
	0.0142		/
	0.00396		/
	0.0122		/
*	0.005513184		/
	0.4628		/
	0.03598		/
	0.91512		/
*	0.008951364		/
	0.00008064		/
	0.00040752		/
*	0.001011591		/
	0.00028656		/
	0.021096		/
	0.000038808		/
	0.02262708		/
	0.0097848		/
	/		3.275
	/		0.164
	/		0.097
	/		0.057

2025

/

t/a

0.016

t/a

	8.78566464mg-TEQ/a
	0.000038808
*	0.011402856
	0.0142

		t/a	2025	t/a	
	NO _x	42.629	20.2537		
	VOCs	38.4087	10.46664399		
	VOCs	17.100	8.701		
		243.83	11.963		
		12.19	0.386		
		14.63	0.847		

DA001 DA002 DA004 DA005 DA006

DA007 DA009 DA0010

DW001

3.2.5-2

		t/a	2025	t/a	
		12.1114	0.69103		
	SO ₂	47.84	2.70907		
	NO _x	83.252	52.724		
	VOCs	144.66	5.9646		
	VOC	62.64	62.612		
	COD	593.75	66.899		
		29.68	2.066		
		35.63	4.736		

3.2.5.3**3.2.5-3**

		5	
1.		2020 2021 2022 2023 2024 2025	

	2.		
		2020 2021 2022 2023 2024 2025	
	()		

3.2.6

3.3

3.4

3.5

3.5.1

3.5-1**m³/a**

3.5.2

3.5-2

t/a

3.5.3

3.6.4

1 ***

2 ***

3.6.5

44

300

24

7200

3.6.6

3.6.6-1

3.6.7

3.6.7.1

00887

3.1-2

3.6-1. NX

3.6.7.2

(1)

(2)

(3)

(4)

(5)

1

3.6-2

3.6.8

3.7

3.7.1

3.7.2

3.7.3

3.7.3-1 ***

3.7.3-2 ***

3.7.3-2 ***

3.7.3-3 ***

3.7.3-4 ***

3.7.4

3.7.5			

3.7.6			
	3.7.6-1		

3.7.7			
	3.7.6-1		

3.7.8			
3.7.8.1			
	3.7.8-1		

3.7.8.2			

3.7.8.3			

3.8.1-3



“ ”

2

80% 660 m³/a
528 m³/a

***m³/a

90% ***m³/a

90% 135m³/a

3.8.1-1 M³/A
3.8.2

35kV	PG	3#	2	35kV	SZ11
25000kVA			10kV	805	10kV
10kV	35kV	1	10kV		805
10kV	805	10kV	SC	B	13
0.4kV					
		UPS	DCS	SIS	

	10	2500kVA	805	1360
	kwh/a			
3.8.3				
		26389.59 t/a	76436 t/a	0.6MPa
		3.2MPa		

		3.8.3-1		T/A
3.8.4				
		274		137
		1	160	
		R134a		
3.8.5				
		300Nm³/h	300Nm³/h	
	+	7789Nm³/h	10000Nm³/h	
3.8.6				

3.9

3.9.1

3.9.1-1

3.9.2

3.9.2-1

3.9.2-2

3.9.3

3.10

HJ884-2018

3.10.1

pH
5400m³

3.10.2

3.10.2.1

3.10.2.2

1

RF



“

”

“

”

“

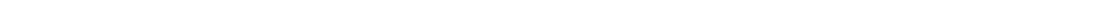
”

“ Ø

”

Q „D

]



附录A

VOCs

3

+ +

HJ 853-2017

$$E_i=0.003\times\sum_{j=1}^n\left(C_{ij}\times\frac{t_j}{t}\times t\right)$$

E_i —

kg/a

t_i — i

h/a 7200h

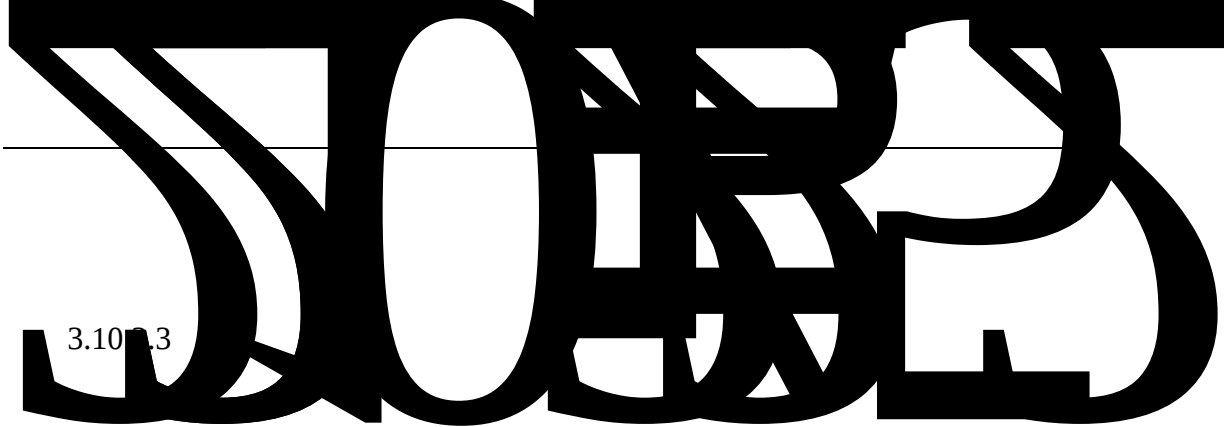
e_{TOC} ,

6/g

[illegible]

25	RTO
0.0320 kg/h	0.000868 kg/h
2244 m ³ /d	97576.98m ³ /a 325.26 m

3.10.3-1



3.10^{-1.3}

882

600t

1

3664

2000t

GB18957-2023

“ + ”

1

, " p À

3.10.4

85~95dB A

3.10.4-1

			/		/m			/dB(A)		
					X	Y	Z			
1		/			682490	4115020	0.5	85-90		00:00-24:00
2		/			683381	4115044	0.5	85-90		00:00-24:00
3		/			682571	4115578	0.5	85-90		00:00-24:00
4		/			683186	4115346	0.5	85-90		00:00-24:00
5		/			683186	4115346	0.5	85-90		00:00-24:00
6		/			682823	4114968	0.5	85-90		00:00-24:00
7		/	2	NX	683016	4114843	0.5	85-90		00:00-24:00

UTM

3.10.4-2

GB12348-2008

3

3.11

3.11.1

3.11.1-1

	1
2#	1
1#RTO	1
RTO	1
+	+

3.11.2-2

MG/L

2

***+

3.11.2-1

94% 94% 93% 97%

3.11.2-3

“ ”

DB37 4809-2025

GB18918-2002

A COD ≤ 30mg/L NH₃-N ≤ 1.5mg/L ≤ 0.3mg/L ≤
12mg/L 5 DB37
3416.5-2025

3.11.2-4

			COD	
	mg/L	≤	2000	100
	mg/L	≤	30	1.5
t/a		≤	26.12	1.31
	t/a	≤	0.39	0.02
13061.85 m				

3.11.4

1 *** ***

3.12.1-1

3.12.2

3.12.3

a

3.12.4

1

2

5m

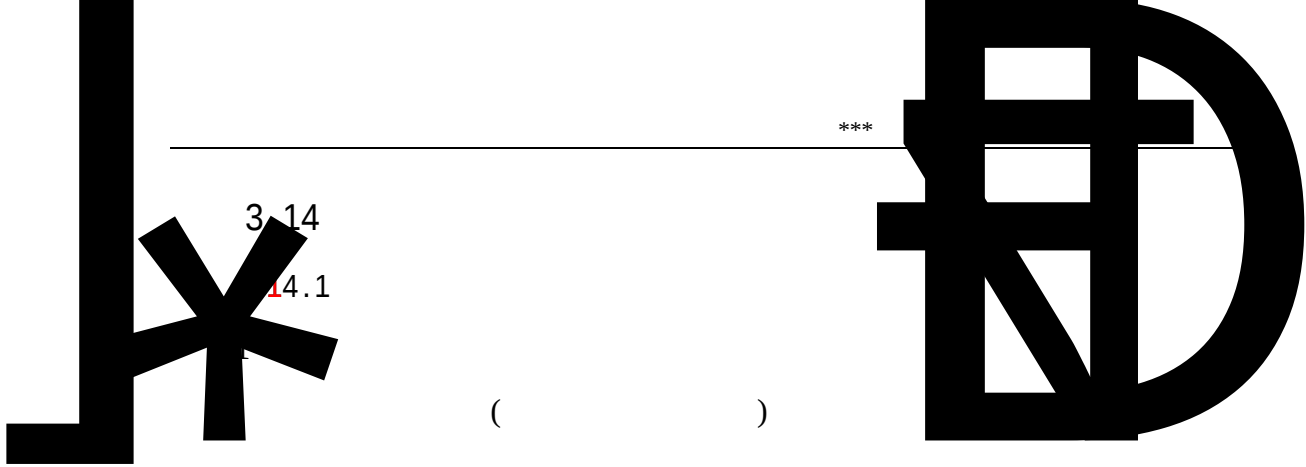
) (

3.13

3.13.1

3.13.3

2025 28



()

1998 11

W 253 D

“

“

”

1

*

DB37 4809-2025

GB18918-2002

A

COD

 $\leq 30\text{mg/L}$ $\text{NH}_3\text{-N} \leq 1.5\text{mg/L}$ $\leq 0.3\text{mg/L}$ $\leq 12\text{mg/L}$

5

DB37 3416.5-2025

2

1#RTO

1#RTO

“ SCR ”

DA001

3.15

“

”

1

1

2

3

2

3.15.2-1

3.15.3

1

2

3.15.4

3.15.5

1

2

3

/

3.15.6

3.15.7

1

1

2

3

4

5

6

2

1

2

3

4

5

3

4

1

2

“

”

3.15.8

1

2

3

3.15.9

1

2

3

HSE

HSE

v

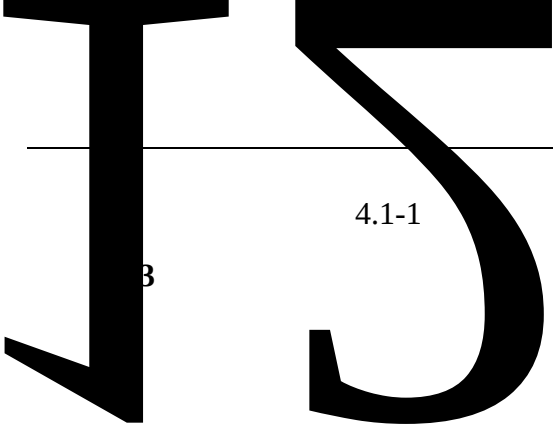
g !

HSE

HSE

“ ”

HSE



4.1-1

3

1

(QP)

(QW)

(QX)

(QY)

(1)

(QP)

310~522m

(2)

(QW)

10~25m

(3)

(QX)

10m

2

()

3

(1)

(2)

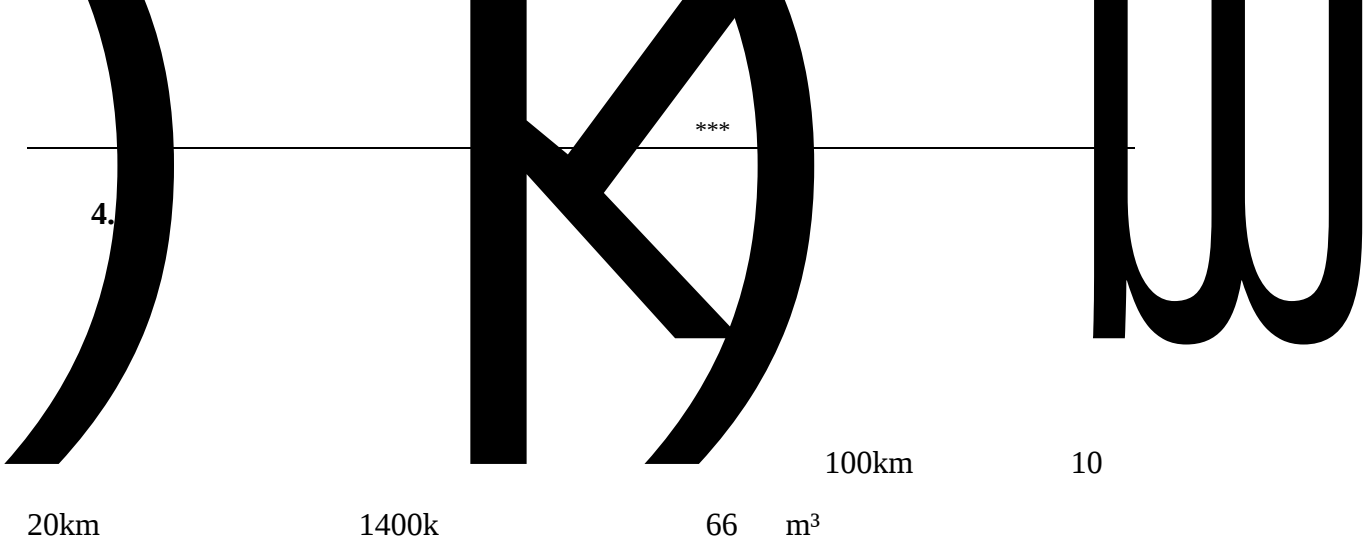
2

49

1

1237k

			253k
45km	1		2
	5+423		29.05km
2			
		5	
	3868	176.2	1
	4		
	157	12	
35.5	264.2		13.6/1000
	34	319.8	
12.3/1000			
		36	159.8
	8/1000		
		100	698.5
	4.7/1000		
3			
	20km		
4.1.5			
			12.15
	-17.2	40.7	64%
	2508.7h	20cm	536.5mm
	:	□ (ç A y	



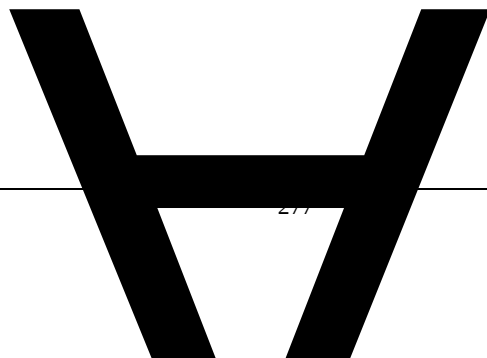
4.1-1

4.1-1

		km²		m		m³	
		753		16-28 8.4-9.5		29.59	
	-	103.6	285.3	22.6-35.2 0-3.5 16.8-29.9		7.467	17.367
	-	181.7		20.6-36.8 0-3.6 16.2-25.1		9.9	
	-	105	370	20.6-44.7 15.6-18.1		6.42	18.94
	-	130		20-46.2 8-9		7.74	
	-	135		15-38.5 0-9		4.83	
		1408.3				65.98	

(1)

3



4.2

4.2.1

4.2.2

1

2024

4.2-1

4.2-1a

GB3095-2012

4.2-1b

GB3095-2026

2024

SO₂ NO₂ CO

GB3095-2012

PM₁₀ PM_{2.5}

GB3095-2012

2024

SO₂ NO₂ CO

GB3095-2012

PM₁₀ PM_{2.5} O₃ NO₂ CO

PM₁₀ PM_{2.5} O₃ NO₂ CO

>

0.0

1

2.

1

4.2-13

4.2.5

4.3

“ ” ***

4.3.1

2

4.3-1

4.3-1

4.3-1

4.3.2

4.3.3

4.3.4

4.3-2

4.3.5

4.3 H " Ó



$$P_i = \frac{C_i}{C_{si}} P_i$$

P_i—— i

C_i—— i mg/L

C_{si}—— i mg/L

pH

$$P_{pH} = \frac{7.0 - pH}{7.0 - pH_{sd}} \quad pH \leq 7 \text{ 时}$$

$$P_{pH} = \frac{pH - 7.0}{pH_{su} - 7.0} \quad pH > 7 \text{ 时}$$

P_{pH}——pH

pH——pH

pH_{su}—— pH

pH_{sd}—— pH

2

GB/T14848-2017

4.4-5

		I	II		IV	V
1	pH()		6.5≤pH≤8.5		5.5≤pH 6.5 8.5 pH≤9	<5.5 >9.0
2	(mg/L)	≤1.0	≤2.0	≤3.0	≤10.0	>10.0
3	(mg/L)	≤0.02	≤0.10	≤0.50	≤1.50	>1.50
4	(mg/L)	≤2.0	≤5.0	≤20.0	≤30.0	>30.0
5	(mg/L)	≤0.01	≤0.10	≤1.00	≤4.80	>4.80
6	(mg/L)	≤0.001	≤0.001	≤0.002	≤0.01	>0.01
7	(mg/L)	≤50	≤150	≤250	≤350	>350
8	(mg/L)	≤50	≤150	≤250	≤350	>350
9	(mg/L)	≤150				

4000

13	µg/L	≤0.5	≤66	o
----	------	------	-----	---

4.4-7

pH

(GB/T14848-2017)

IV

Na-Cl

4.4.7

4

4.4-2

4.4-8

4.4-9

4.4-10

4.4-11

4.5

4.5.1

4.5-1

4.5.2

2025.8.23

4.5.3

GB12348-2008

A

4.5.4

4.5-1

4.5-1

4.5.5

1

GB12348-2008

3

65dB(A)

55dB(A)

2

= —

P—— dB(A)

Leq—— dB(A)

L_b—— dB(A)

3

4.5-2

4.5-2

4.5-2

GB12348-2008 3

4.6

4.6.1

(HJ964-2018)

2

3

2

4.6-1

4.6-1

4.6-1

4.6.2

4.6.3

4.6.4

GB36600-2018

HJ/T166-2004

4.6-2

4.6.5

4.6-3

4.6-4

4.6.6

$$= \frac{i}{oi}$$

S_i——C_i——i

mg/kg

C_{oi}——i

mg/kg

4.6.7

U+0%V
4.6-8
pH

4.6-7

mg/kg

4.6-8

5

5.1

5.1.1

5.1.2

TSP

4

350~450mg/min

5

VOCs

6

7

1

30

2

5.1-1

5.1-1

1	
2	
3	
4	
5	
6	(1) (2) (3) 4
	([2019]112)
1	7 (1) “ ” ((2019)23)

” “900-001- S70
”

2024 4 “SW72 ” “900-001-S72
”

HW49

1

2

3

4

5

6

5.1.2.5

5.1.2.5

n

5.1.2.6

5.2

5.2.1

5.2.2

5.2-1

20

2005

2024

5.2.3

5.2.4

1

5.2.5

1

2

5.2.6

1

100%

30%

PM₁₀ PM_{2.5}

-20%

2

3

6

D

2

4

5

5.3

5.3.1

“ ”

5.3.2

5.3.3

1

Å

	1.5	m ³ /d		1	m ³ /d	
0.5	m ³ /d	2011	2	2011	11	2012 7
			5			

2019

b₁ **BE**

γ

Ε 969



GB3838-2002

TN

12mg/L

2019-2021

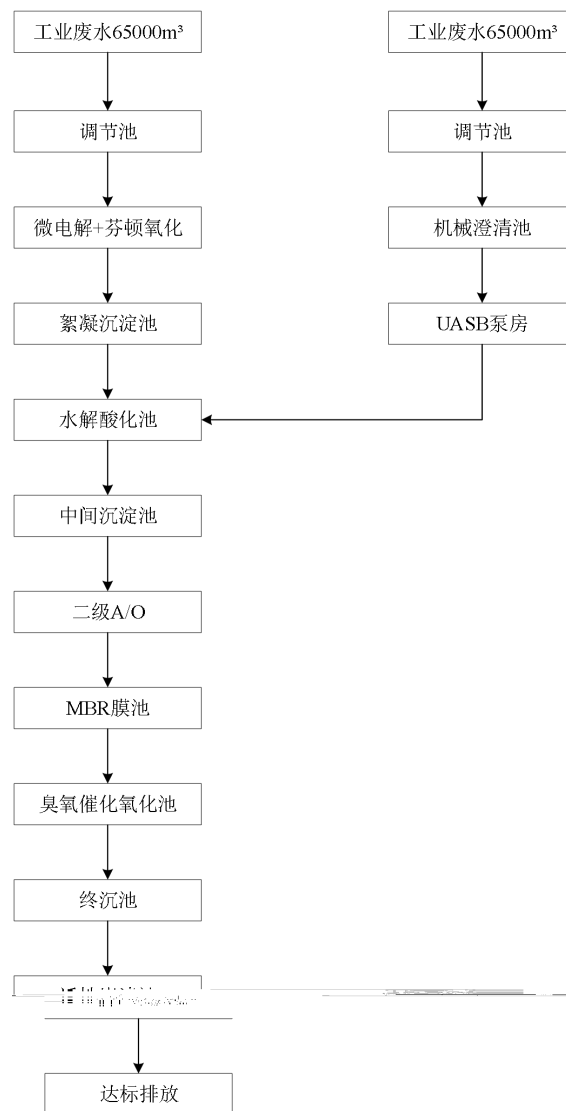
5

DB37/3416.5-2018

GB18918-2002

A

5.3-2



5.3-2

2

5.3-4

CODCr mg/l	BOD5 mg/l	SS mg/l	NH3-N mg/l	TN mg/l	TP mg/l	pH mg/l		TDS mg/l	mg/l
≤2000	≤400	≤500	≤100	≤120	≤20	6~9	500	≤6000	≤1.5

COD		
GB3838-2002	TN	12mg/L
2019-2021		
5	DB37/3416.5-2018	
GB18918-2002		A
5.3-5		
CODcr	BOD5	T
mg/l	mg/l	

1

8km

99.9%

GB18918-2002	A	COD≤30mg/L	NH3-N≤1.5mg/L
≤0.3mg/L	≤12mg/L		5
DB37 3416.5-2025			
pH	COD	TDS	

5.3.5

5.3.6

5.4

5.4.1

1

(HJ610-2016) A

“L 85”

2

5.4-1

5.4-1

“	”

“ ”

3

5.4-2

5.4-2

“ ”

4

- (HJ610-2016)

5.4-3

5.4-3

	(km ²)	
	≥20	
	6-20	
	≤6	

6-20km²

20km²

5.4.2

5.4.2.1

1

1

O

800m

2

EE

E

1

Ek

Ek

1700m

300

1000m

200-300m

600m

3

c4

(GB18306-2015)

0.15g

5.4.2.2

1

3

5

				200m
1				
		3-10m	31m	
	2-50g/L	50g/L	200m ,	p
			50g/L	80~100m
		1-2m		300-500m³/d
	8.00-24.50m			2.2-17.0m
	2.0-14.50m			
			1.80-4.50m	
				2-3
15.40-3.40m		1#-1.3m		
				22.00-72.50m
	4.9-16.5m			
	“ W “	I Đ		

500m

200-500m

500-1000m³/d

500m³/d

1-2g/L

3

500m

2g/L

Ca·Mg—Cl·HCO₃

50mg/L

98.5

2

3

5

5.4.4

5.4.4.1

“

”

“ ”

1

1

$M_b \geq 6.0m$ $K \leq 10^{-7}cm/s$ v

GB18598-2019

GB18597-2023

2

50

HJ 1209-2021 HJ

610-2016 2022

2

4

(GB/T14848-2017) IV

2

(HJ610-2016)

(HJ610-2016)

5.4-11

5.4-12

	() Mb $\geq$ 1.0m K $\leq$ 1 $\times$ 10 ⁻⁶ cm/s
	() 0.5m $\leq$ Mb $\leq$ 1.0m K $\leq$ 1 $\times$ 10 ⁻⁶ cm/s
	() Mb $\geq$ 1.0m 1 $\times$ 10 ⁻⁶ cm/s $\leq$ K $\leq$ 1 $\times$ 10 ⁻⁶ cm/s
	() “ ” “ ”

5.4-13

5.4-13

				Mb $\geq$ 6.0m
	-			K $\leq$ 1 $\times$ 10 ⁻⁷ cm/s
				GB18598
		-		Mb $\geq$ 1.5m

	-			K≤1×10 ⁻⁷ cm/s GB16889
	-			

GB/T50934-2013

5.4-14

3

Mb≥1.5m

K≤1×10⁻⁷cm/s

GB16889

Mb≥6.0m

K≤1×10⁻⁷cm/s

GB18598

GB18596-2023

GB18599-2020

5.4-18

5.4.4.3

HJ610—2016

1

(HJ610-2016)11.3

“

3

1 ”

5

3

(HJ610-2016)

JC1

JC3

(HJ610-2016)

5.4-21

5.4-15

2

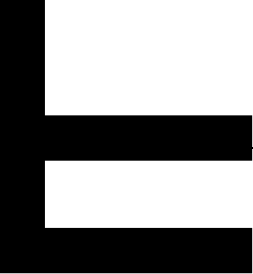
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HJ164-2020

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5.4.5

5.5

5.5.1

5.5-1

CO

5.5-1

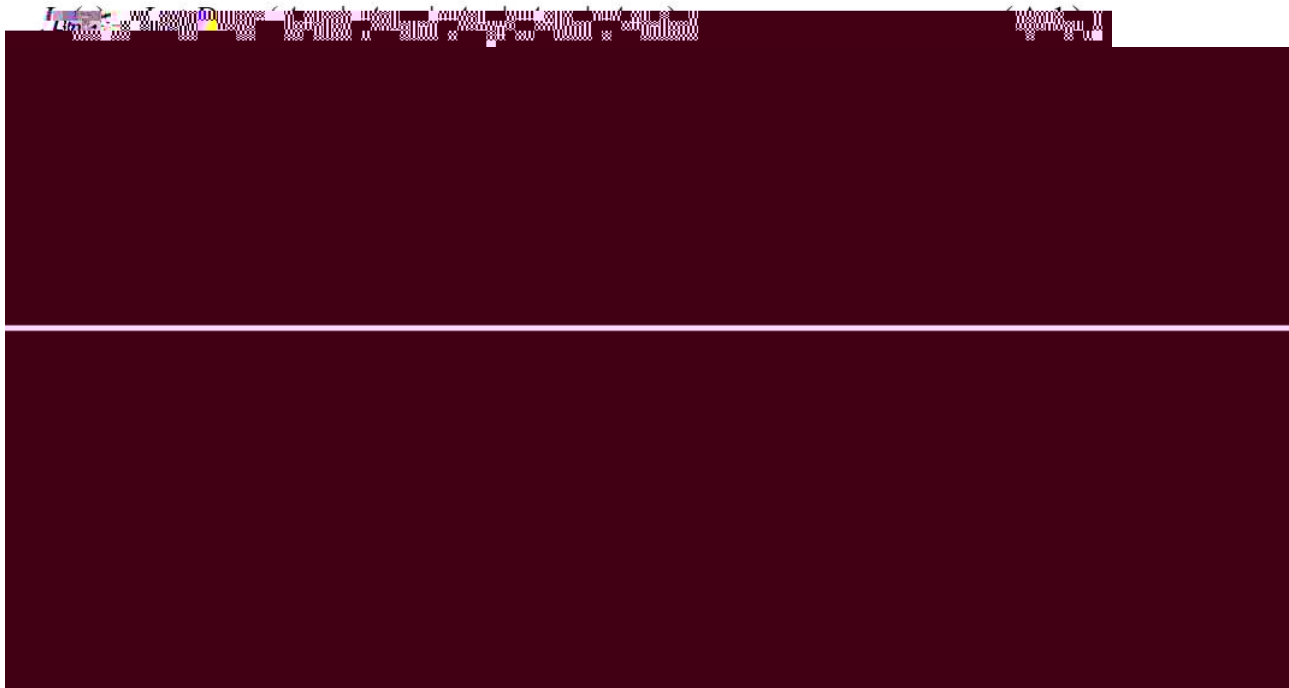
5.5-2



5.5.2
(HJ2.4-2021) A
(1)

A.1

A.2



B.1

A

L L

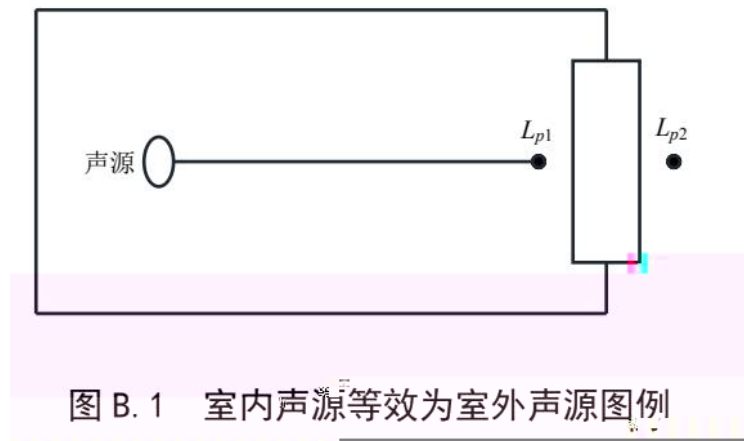
B.1

$$L_{p2}=L_{p1}-(TL+6) \tag{B.1}$$

L A dB

L A dB

TL A dB



B.2

A



L A dB

Lw A dB

Q Q=1

Q=2 Q=4

Q=8

R R=Sα/(1-α) S m² α

r m

B.3

i

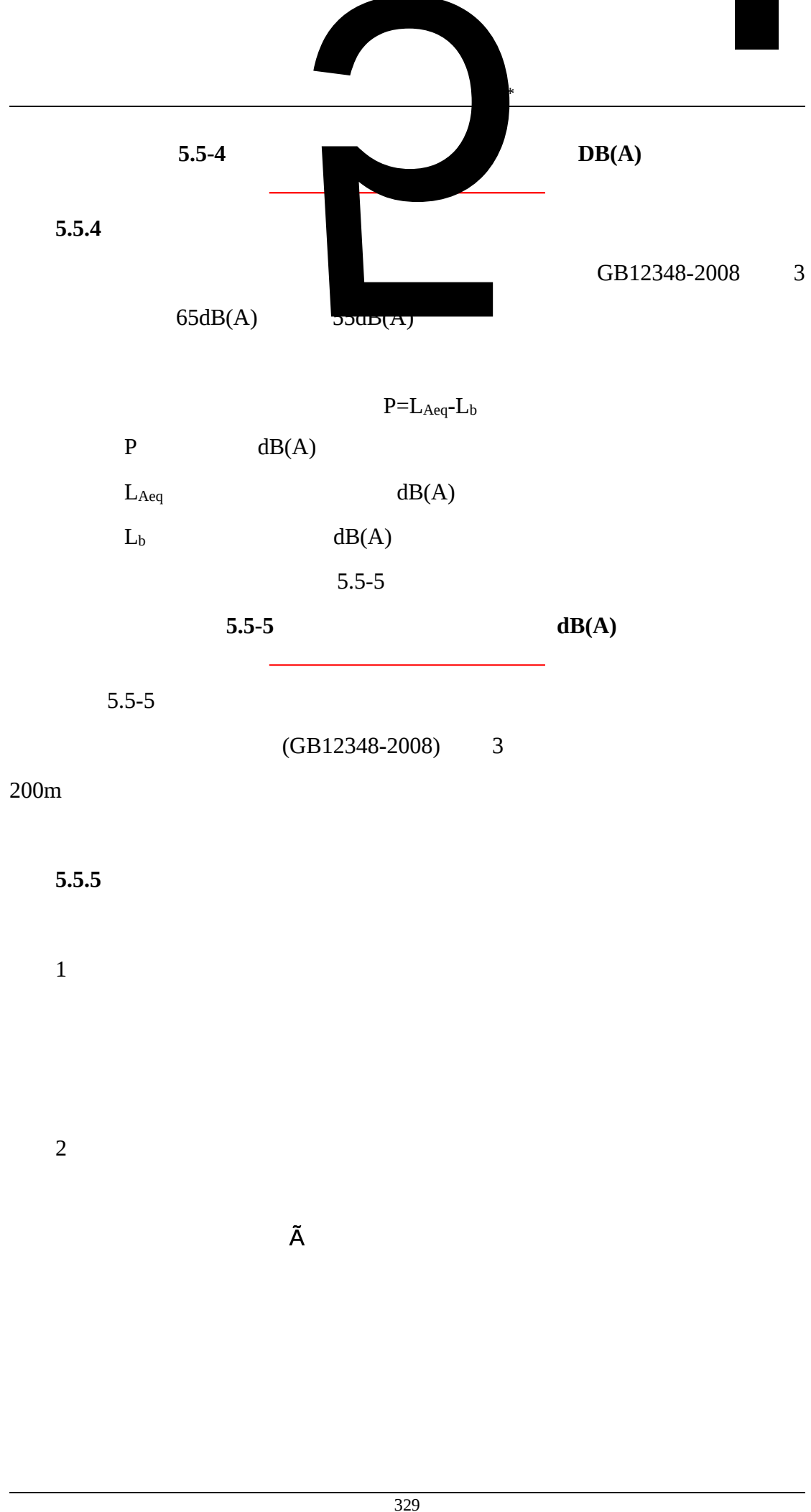
$$L_{pli}(T) = 10 \lg \left(\sum_{ij}^N 10^{0.1 L_{pij}} \right) \quad (\text{B.3})$$

L (T)——

$$L_{\text{eqg}} = 10 \lg \left[\frac{1}{T} \left(\sum_{i=1}^N t_i 10^{0.1 L_{Ai}} + \sum_{j=1}^M t_j 10^{0.1 L_{Aj}} \right) \right] \quad (\text{B.6})$$
$$L_{\text{eq}} = 10 \lg \left(10^{0.1 L_{\text{eqg}}} + 10^{0.1 L_{\text{eqb}}} \right) \quad (3)$$

5.5-3

328



5.5-6

4

5.5.6

5.5-7

5.2.7

GB12348-2008 3

Q

5.6

5.6.1

5.6.2

5.6.3

5.6.4

K

5.7.3

5.7.4

5.7.5

5.7.6

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GB36600-2018

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GB36600-2018

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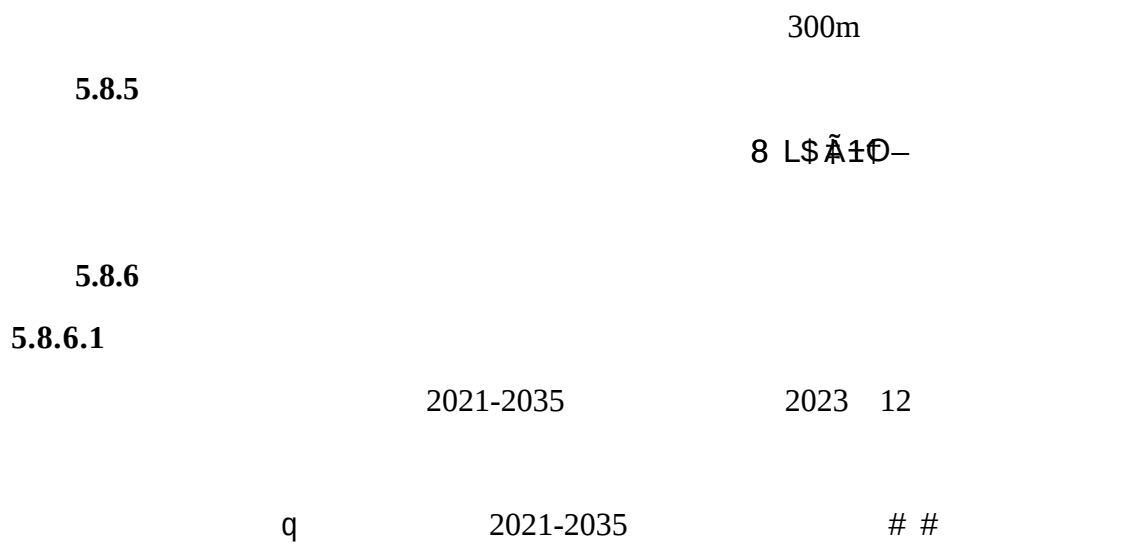
pH

1

5.8.

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ААААА
ААААА
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5.8.6

5.8.6.1

2021-2035

2023 12

q 2021-2035 # #

67

49

18

5.8.1

5.8.2

5.8.6.2

1.0~1.5%

5.8.7.1.2

5.8.7.1.3

5.8.7.1.4

500m

500m

5.8.7.1.5

5.8.7.2

5.8.7.2.1

5.8.7.2.2

5.8.7.2.3

5.8.7.2.5

5.8.7.3

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5.8.8

5.8.8.1

1

2

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5.8.8.2

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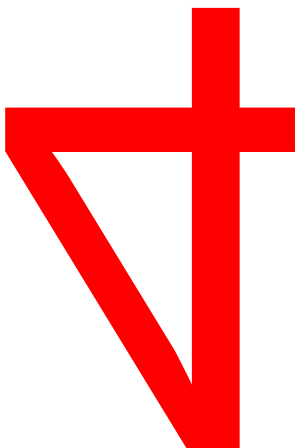
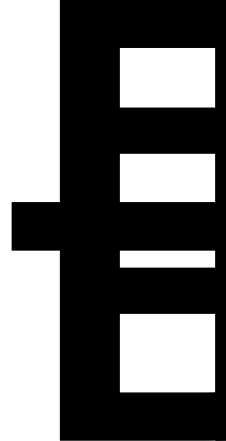
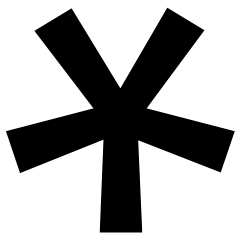
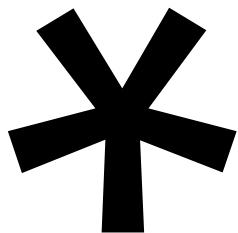
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5.8.8.3

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5.8-3

5.9

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			[2021]98			2021.9.30			
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11								775	
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14									
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✓

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(PFCs)

(N₂O)

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L. α

Q

[2021]5 5.9-2

5.9-2 [2021]5

	[2021]5		
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5.9.3

5.9.4

5.9.5

5.9.6

5.9.6.1

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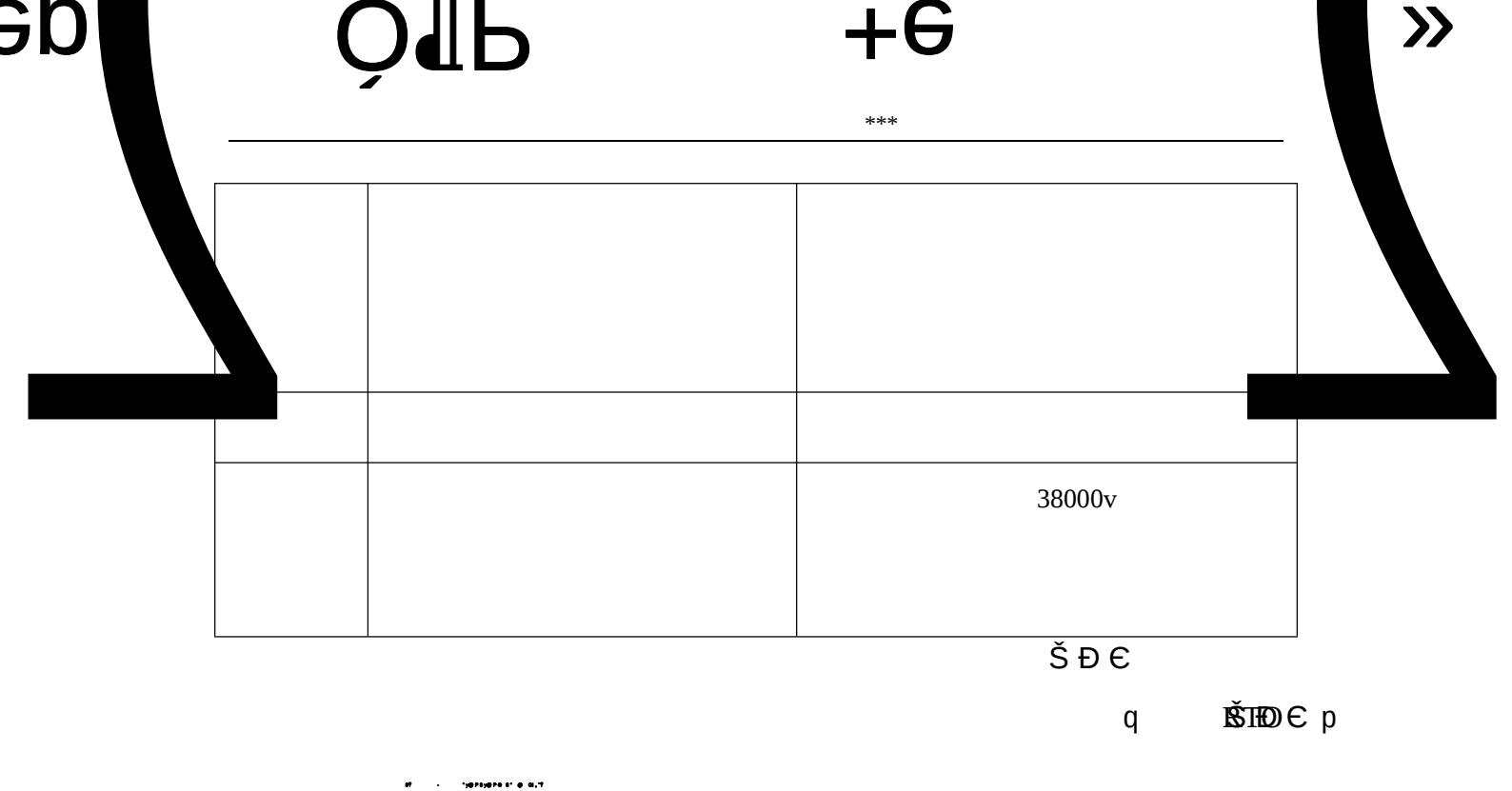
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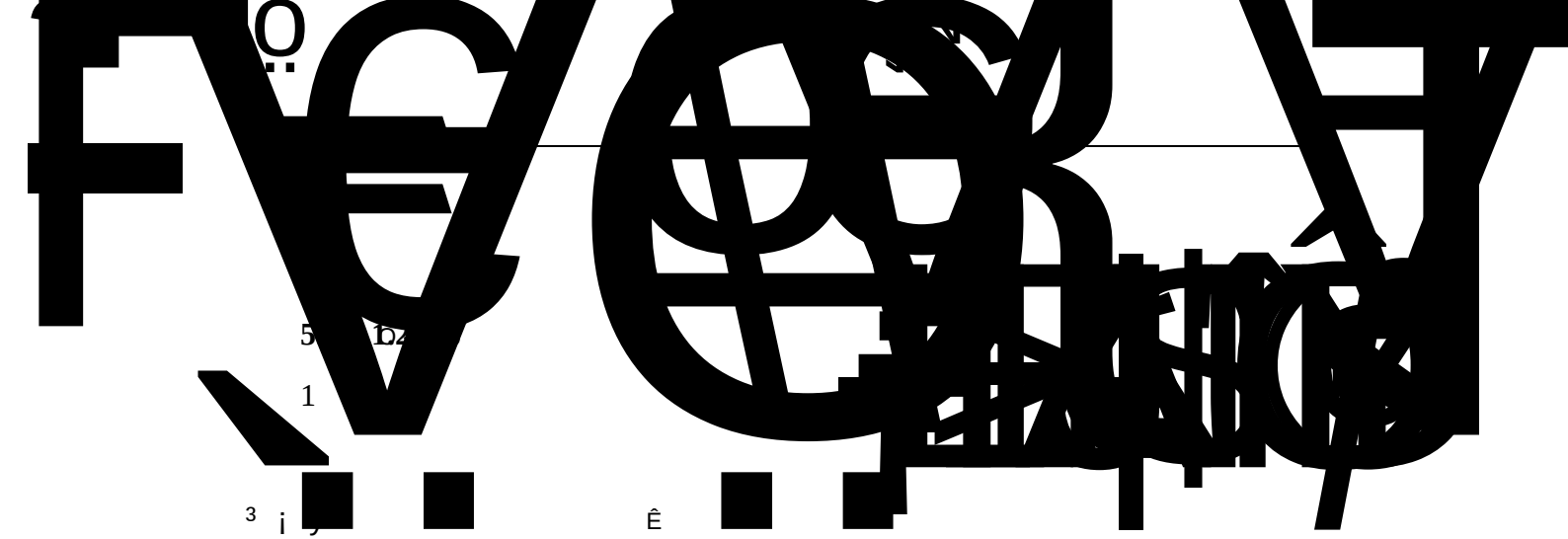
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5.9.7



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6

HJ169-2018

6.1

6.1.1

6.1.2

6.1-2

6.1.3

6.1.3.1

2023 8 25

[-

Q3-M2-E2 + - Q3-M2-E3] 2023 9 7

370703-2023-134-H

2023 8 25

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Q3-M2-E2 + - Q3-M2-E3] 2023 9 7

370703-2023-135-H

6.1.3.2

	HSE		HSE						
			6.1-3						
			6.1-4						
			<			>		2019	
17								GB30077—2023	
			6.1.3.3						
			HSE			PID			
						LEL		VOCs	
			6.1-5						
			6.1.3.4						
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			6.1.3.5						
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((2022)8

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6.1.6

2019 101

6.1-6

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6		2023 9 7 370703-2023-134-H 370703-2023-135-H
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6.2

6.3

6.4

6.5

6.6

6.7

([2015]4)

2007

48

(HJ169-2018)

6.8

(DB37/T3599—2019)

HJ589—2021

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7.3.2.1

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70mm

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GB5085.1-7 HJ/T298

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(2)

HJ2025-2012 B

(3)

7.3.2.2

HW06 HW08 HW11 HW49

7.3.2.3

7.4

7.5

7.5.1

7.5-1

7.5-1

7.5.2

7.5-2

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9.2.3

RTO

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-- () GB15562.2

DB37/T3535-2019

HJ 1405—2024

DB37/T2643-2014



2

GB15562.1-1995

HJ 1405—2024

GB15562.2-1995

			
		480mm ×300 mm	HJ 1297
			

3

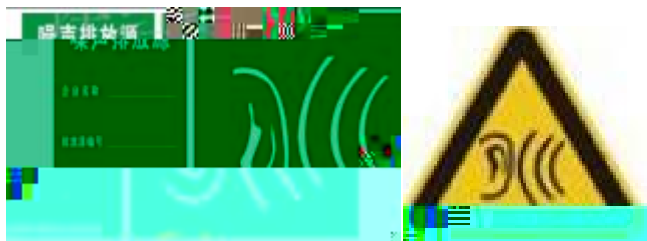


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GB15562.2-1995



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2

1

50m

≥50m

600mm

300mm

2m

2

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2

GB15562.1

[2003]95

9.2.4

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a

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b

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4 1 /

5 1 /

b

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a

1 1 /

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b

1 /

4

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5

9.2.5

1

2019

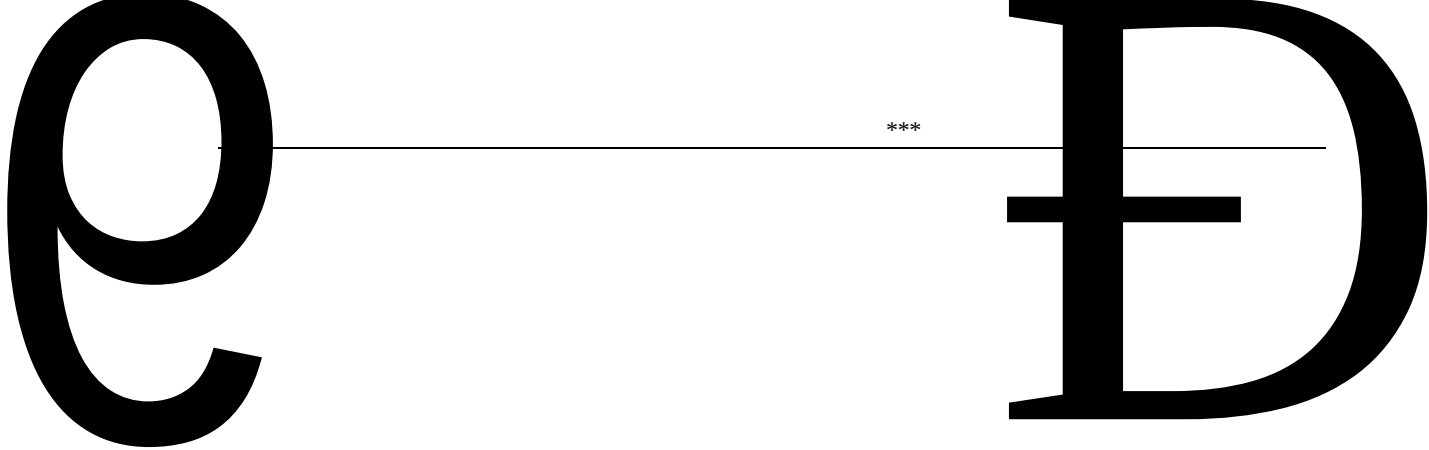
—

2

50m				≥50m
2				DB37/T3535—2019
1				4
		2		
D=2AB/(A+B)	A	B		
2				90mm
3				
4				
		2m ²	≥1.2m	1.2m
				100mm×2mm
				≤10mm
				10mm×20mm
		≥4mm		
		≥3kN/m ²		1.2m 1.3m
3				
	2022	12		

9.3.5

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VOCs

DB37/2801.6—2018

6

VOCs



VOCs

GB31571—2015

2024

f

g

2000μmol/mol

500μmol/mol

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3

30d

a

b

10

5d

c

15d

1

3

GB31571—2015

2024

VOCs

TOC

10%

5.3.5

c

5.3.6

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[2020]10

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2020 3

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2021 11 26

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10.1

M7320

(2024) “ ”

(2025)

“ ” ((2023)34)

“ ” (2025) (2025 8

26)

10.2

10.2.1

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2016 9 19

[2016]115

2017 12

“ [2017]29 ”

117.2km²

97.9

19.3

(

)

2023 12

2024 5 23

“ [2024]1 ” 2024-2035

70.61

“ ”

66.67

3.18

0.76

2

2018 6 26

(2018 102)

26.49km²

[2018]185

2020 4 28

[2020]119

26.49

71.53

3

2024-2035

“ ”

2024-2035

10.2-1

10.2-2

M7320

“ ”

70.61

“ ”

66.67

3.18

0.76

1

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20

m³/d

8

m³/d

6

m³/d

6

m³/d

12

m³/d

12

m³/d

32

m³/d

12

m³/d

20

m³/d

1

15

m³/d

15

m³/d

0.5

m³/d

1

m³/d

1.0

m³/d

2.5

m³/d

1.0

m³/d

3.0

m³/d

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m³/d

2.0

m³/d)

(

8.0

m³/d

12.0

m³/d)

(

1.5

m³/d

3.0

m³/d)

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 80MVA 2 110KV 2
 110KV 1-2 / 110KV
 110kV 220KV
 220KV
 4
 3 ()
 4 ()
 4 ()
 1 1 (75t/h)
 5
 LNG
 6 ()
) 3
 ()

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 “ ”
 (2021 15) 2022 “ ”
 ” (2023 4) ”

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“ ”

2024				2024			
	SO ₂	NO ₂	CO			PM ₁₀	PM _{2.5}
			GB3095-2012				
GB3095-2012		2024					SO ₂
NO ₂	CO						
GB3095-2026				PM ₁₀	PM _{2.5}		
					GB3095-2026		
2							
	“			“	”		
2025					(		)
35%			V				
		2035				40%	
V							
				pH	COD		
	IV						
	GB3838-2002	IV					
3							
	“			“	”		
	“		”				

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2020

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2026 25

ZH37070320004

10.2-3

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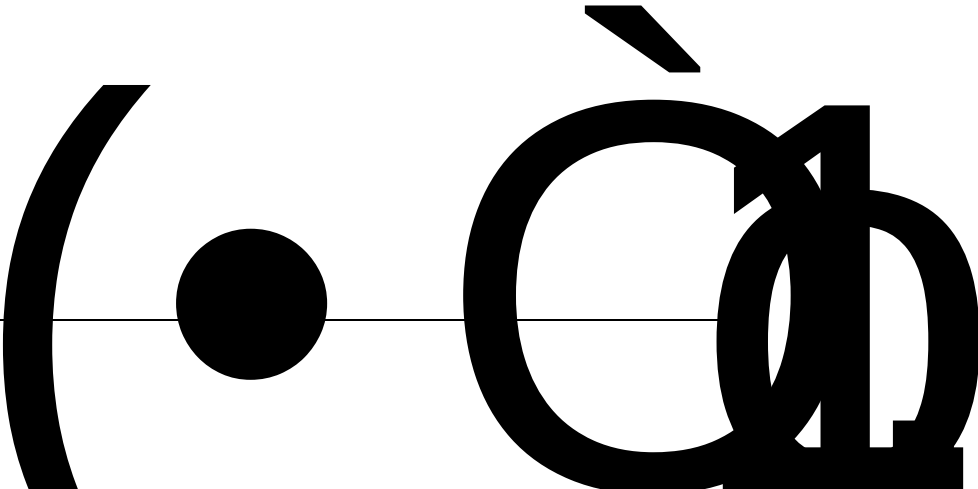
2.

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4. H x • Ĩ .á\$ZÊ × Ê\$Y@ÑĐ p



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VOCs

LDAR

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10.2-4

$$\ddot{u} = \frac{1}{\rho} \frac{\partial^2 u}{\partial x^2},$$

1.1

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2.28

2.29

“ ”

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10.2.3

2021-2035

2021-2035

2023 193

M7320 7

1

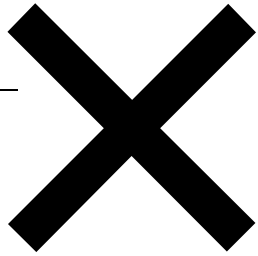
LDAR

GB31570

GB31571

GB31572





GB/T50934

185

GB/T50934

GB18597

GB18598

GB18599

GB18484

50

(GB18484)

10.3-3

2021 30

2021—2025

”		
“ ”		
2025		
2021—2025		
20211415 2025 10%		
”1—3“ 2025“ ” 2025 300“ ”		

10.3.4

2019 146

“ ”

2013—2020

2018—2020

VOCs

10.3-4**2019 146**

1.	VOCs	VOCs	VOCs VOCs	VOCs	
2.	VOCs	VOCs	VOCs	VOCs	
3.	VOCs	VOCs	VOCs	VOCs	
4.	“	”	100	VOCs	
5.				1#RTO	
6.				1#RTO	

10.3.5**2020 30****10.3-5****2020 30**

VOCs		
VOCs	LDAR	LDAR

10.3.6

“ ”

“ ”

[2022]255

“ ”

[2023]34

“ ”

2025

10.3-6

10.3-6

“ ”

2025

15				
16				
17				
18				
19				
20				

10.3.7

2018 59

2016 31

2016 37



2017		

10.3.8

2016 24

2015 17

2015 31

“ ”

10.3-8

2016 24

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2017		
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17

10.3-9

2022 17

	2015-6	2016-3	2017-3	2018-3

	“ ”		
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10.3.10

2023 7 6

2023 1015

10.3-10

2023 1015

10.3.1 :

11		

2025

28

2025 28

10.3-12

2025 28

1



[2019]49

10.3-13

10.3-13

[2019

	VOCs VOCs VOCs		
	() 2025 20% 30%		
	() VOCs VOCs 2024 VOCs	VOCs	
	() 2025 80% () VOCs		

10.3.14

2025 14

10.3-15

2025 14

&n ≤ o

10.4

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11.1

2017 4

11.2

2024-2035

“ ”

[2018]102

(2021-2035) “

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11.6

11.10



11.10-1

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